Stock Code.: 6598

Applied BioCode Corporation

2022

Annual Report

The contents of this annual report and the Company's information can be found on the following websites
Market Observation Post System: http://newmops.twse.com.tw
The Company's website: http://www.apbiocode.com/tw

Printed on May 24, 2023

I. The Company's spokesperson, deputy spokesperson, litigation and non-litigation agents in Taiwan.

(I) Spokesperson:

Name:	Winston Z. Ho	Position:	President
TEL:	+886-2-8791-6833	Email:	who@apbiocode.com

(II) Deputy Spokesperson:

Name:	Yu-Lin Chen	Position:	Vice President of Taiwan's sub-subsidiary
TEL:	+886-2-8791-6833	Email:	ychen@apbiocode.com

(III) Litigation and non-litigation agents:

Name:	Winston Z. Ho	Position:	President
TEL:	+886-2-8791-6833	Email:	who@apbiocode.com

II. Address and Telephone Number of Head Office, Branch and Plant

(1) The Company

Name: Applied BioCode Corporation
Address: Grand Pavilion, Hibiscus Way, 802 West Bay Road, P.O. Box 31119, KY1-1205, Cayman Islands
Website: www.ApBioCode.com TEL: +886-2-8791-6833

(2) Subsidiary

1. Name of US subsidiary: Applied BioCode, Inc. (ABC-US)
   Address: 12130 Mora Drive, Unit 2, Santa Fe Springs, CA 90670, USA
   Website: www.ApBioCode.com TEL: +1-562-777-9800
2. Taiwan's subsidiary: Applied BioCode Corporation (ABC-TW)
   Address: 6F, No. 1, Lane 28, Xingzhong Road, Neihu District, Taipei
   Website: www.ApBioCode.com/tw TEL: +886-2-8791-6833

III. Name, Address, Website, and Contact Number of the Stock Agency:
Name: Stock Agency Department of SinoPac Securities
Address: 3F, No. 17, Bo'ai Road, Zhongzheng District, Taipei
Website: www.sinotrade.com.tw
TEL: +886-2-2381-6288
Website: www.sinotrade.com.tw

IV. Names of CPAs and the Name, Address, Website, and Contact Number of the Accounting Firm for the Latest Financial Statements:
Names of CPAs: Wendy Liang and Alan Chien
Name of the Accounting Firm: PwC Taiwan
Address: 27F, No. 333, Section 1, Keelung Road, Xinyi District, Taipei
TEL: +886-2-2729-6666
Website: http://www.pwc.tw/

V. Name of Exchange for Trading in Overseas Listed Securities and Information Inquiry for the Securities: Not applicable

VI. The Company's website: http://www.apbiocode.com/tw

VII. List of the Board of Directors

Position	Name	Nationality or Place of Registration	Major Work Experience (Education)
Chairman	George J. Lee	Taiwan / USA	Ph.D. in Chemistry, New York State University Master, Department of Agricultural Chemistry, National Taiwan University R&D Manager, Syntex USA Inc Chairman, Epitomics
Director	Winston Z. Ho	Taiwan / USA	Ph.D. of Physical chemistry and Master of Biochemistry, Arizona State University, U.S. Post-doctoral researcher, Columbia University, New York, U.S. - high-speed optics Researcher, optical center of University of Arizona, U.S. - non-linear optics Bachelor of Chemistry, National Chung Hsing University Maxwell Sensors Incorporation Founder / CEO Director of smart optical system and sensor Director, Biomedical Sciences, Physical Optics Corp. US-NIH Grant review committee
Director	Benjamin Jen	Taiwan	Master in Science and Technology Management, Massachusetts Institute of Technology Director, Strategy and Investment / Director, Marketing, Quanta Computer
Corporate Director	Maxwell Sensors, Inc.	United States	-
Director (Proxy of Corporate Director)	Wen-Chin Hung	Taiwan	Master of MIT Sloan Fellows Director, Unique Business News CEO, Unique Financial Research and Development Foundation
Independent director	Wen-Jing Tsai	Taiwan	Master in Accounting, National Chengchi University Bachelor in Accounting, National Taiwan University Manager, Deloitte Taiwan CEO, the Tax Committee, Taipei CPA Association Deputy Chairman, the National Federation of CPA Associations of the R.O.C.
Independent director	Ben Liu	Taiwan	Ph.D. in Law, National Chengchi University Institute of Finance, National Taiwan University Department of Law, National Taiwan University Lawyer, Perkins Coie Lawyer, Yongyun International Law Firm Lawyer, Lee and Li
Independent director	Jack Hsiao	Taiwan	Deputy Chief Operating Officer, Show Chwan Health Care System Co-host, Telecare, Department of Health, Executive Yuan OmniHealth Group (US/TW) CEO

Applied BioCode Corporation

Index

I. Letter to Shareholders

Dear Shareholders:

First of all, I would like to express my gratitude to all shareholders for your usual support. It has enabled the Company to operate smoothly and grow. In 2022, the world has entered the post-epidemic era after leaving behind the COVID-19 pandemic. The demand for various COVID-19 test panels has declined worldwide, resulting in a decrease in revenue by 5-15% among major testing manufacturers. However, our Group still achieved a 22% growth in revenue and set a new record high.

On May 26, 2022, the Group signed a US$12 million Singulation process technology license agreement with IDexx, a major pet diagnostic company. In addition to obtaining sufficient working capital, the Group has also been able to establish closer cooperation with IDexx and has once again demonstrated that the Group's technology platform is recognized worldwide.

(1) 2022 operating result

The Group's 2022 operating revenue was NT$390,302 thousand, increased by NT$70,340 thousand compared to the revenue of NT$319,962 thousand in 2021, representing a 22% growth rate. Among these, the barcoded magnetic beads increased by 29%, optical instruments by 37%, GPP test panels by 47% and RPP test panels by 106%. However, the COVID-19 test panels decreased by 75% due to the testing demand declining.

The Group's operating loss in 2022, not including non-operating income and expenditure, was NT$192,604 thousand, increased by NT$27,661 thousand compared to the loss of NT$164,943 disclosed in the 2021 financial report. It was primarily attributed to the increase in gross profit of NT$44,803 thousand and the operating expense of NT$72,464 thousand in 2021 incurred in planning the sales and marketing of the current products and recruitment of personnel for future development projects.

In terms of current profit and loss, the net loss for 2022 amounted to NT$184,733 thousand, an increase of NT$19,534 thousand or 12% from NT$165,199 thousand in 2021, mainly due to the increase in operating expense in 2022.

(2) Financial analysis for 2022

As of 2022, the Group's debt to assets ratio was 32.7% (NT$396,383 thousand/NT$1,212,449 thousand), long-term capital to property, plant and equipment (NT$129,407 thousand) ratio was 869.21%, shareholders' equity was NT$816,066 thousand, loss per share was NT$(2.26). The total cash in the Group's books was NT$831,322 thousand.

(3) 2023 outlook:

1. In addition to the assistance from the Baylor Scott & White for composition of a validation and test protocol for fungal analyte-specific reagents (ASR), we also have a validation plan proposed by John Hopkins University. Upon completion, the protocol will be transferred in parallel to laboratories in hospitals with demands. Meanwhile, the Group will also launch a fungal test kit, Fungal RUO, to improve the utilization of automated diagnostic system MDx3000 in hospital laboratories and to create additional revenue from multiple reagents.

2. In addition to fungal panels, the Group has also been dedicated in a feasibility study of a

first-of-its-kind STI+AMR test, a sexually transmitted disease combined with antimicrobial resistance test, since 2023. We are expected to commercialize the product in a RUO model in 2023. The Group also plans to expand the B2C network in the future to provide a commercial model of domestic sampling and shipping of samples to a laboratory after sampling.

3. In 2023, the Group not only expanded the sales team for the test panels, but also sought opportunities to collaborate with international companies to develop a hybrid marketing strategy, which will help increase the market share of our molecular testing products.

(3) Impact from external competitive environment, regulatory environment and overall business environment

1. Impact from the external competitive environment

The seven major IVD manufacturers in the world are Roche, Abbott, Siemens, Hologic, Danaher/Cepheid, Qiagen and BioMerieux. These manufacturers have high market shares in medical diagnostic assays but lack innovative technology, especially in multiplex testing. Multiplex testing is the mainstream trend of the current market. Global manufacturers that lack this type of technology risk losing in the future's highly competitive diagnostic market. As such, these manufacturers are catching up by acquiring companies with multiple diagnostic technologies. For example, BioMerieux acquired Biofire in 2014 and the procurement of Cepheid by Danaher in 2016 (up to 4 tests). Roche acquired GenMark and DiaSorin acquired Luminex in 2021. This illustrates the emphasis of global major pharmaceutical companies on multiplex testing. Presently, except for Luminex and BioMerieux, none of the seven major manufacturers have technology platforms and products for multiplex detection (more than 4 labels). The Company is currently a technology leader in terms of high throughput, number of detection targets and high automation. Based on the above advantages, we will prioritize the sales to large hospitals and laboratories, while also closely keeping an eye on the countermeasures of competitors and latecomers that are being divided in the market in order to quickly adjust our marketing strategies, ensuring that the development target of our businesses can be achieved.

2. Impact from the regulatory environment

Given that the Group's in-vitro diagnostic products and most of the final products developed by our licensed customers require a review by the competent authorities (FDA in each country), the decision to enter the market is determined by the FDA. For this reason, products with FDA clearance will significantly reduce external competition. As a result, the Group will continue to develop a variety of in-vitro diagnostics assays and with the clinical and trial experience of the first and second products, the time to enter the market will be gradually shortened.

3. Impact from the overall business environment

Given that the Group's principal place of operation is the U.S., changes in politics, economics and taxation in the U.S. affect the Group's overall operating performance. The COVID-19 outbreak has effected the overall economy, and the trade barriers created by geopolitics are all unfavorable factors for business in the short term. However, the medical industry is a steadily growing industry in the U.S. or even around the world, and the

importance of testing assays for epidemic prevention further expands the market share. Through the advantages of our products, the expansion of our experienced sales and technical service teams, strategic alliances with licensed partners as well as diversified commercialization outlets, we will overcome challenges faced in the industry, creating maximum value for our shareholders.

II. Company Profile

1. Date of Incorporation and Corporate Profile

Applied BioCode Corporation (the Group or ABC-KY) is a holding company established in the Cayman Islands on 15 April, 2016. The denomination of shares issued by the Company is NT$10 per share. Applied BioCode, Inc. (ABC-US) and APPLIED BIOCODE TAIWAN LTD. (ABC-TW) are subsidiaries of the Group, which are collectively referred to as the "Group." ABC-KY's headquarters and the R&D Center are currently located in California, U.S.

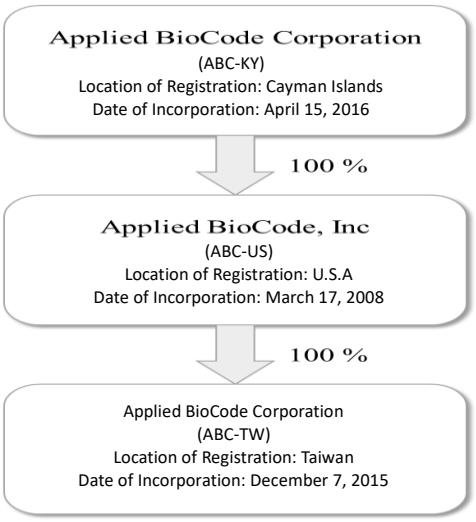
ABC-KY's core business is researching and developing multiplex diagnostic testing products as well as developing, producing and selling diagnostic testing instruments and assays, providing our partners with advanced digital biotechnology and digital multiplex diagnostic testing solutions. ABC-KY's Barcoded Magnetic Beads (BMB) platform is able to accurately identify hundreds of thousands of analytes while obtaining dozens or even hundreds of thousands of results in one single specimen. The applications of BMB are diverse. They cover infectious disease diagnosis, genetic disease diagnosis, allergen diagnosis, autoimmunity, oncology, precision medicine, animal testing, food testing, genetic medicine, life science research, gene expression profiling, drug, and biomarker screening.

The Group develops its own molecular diagnostics panels. The GPP "17-Plex Gastrointestinal Pathogen Panel" and an automated molecular diagnostic system (MDx 3000) has received USFDA clearance on September 29, 2018 (Taiwan time). Since the clearance, several major laboratories have introduced instruments, and many medical testing centers have entered procurement contracts. On December 24, 2019, the 20-Plex Upper Respiratory Tract Pathogen Panel (RPP) has also received USFDA clearance and began shipping in 2020. In terms of the nucleic acid test for COVID-19 developed by the Group, not only did we receive the USFDA's EUA on June 16, 2020 and began its shipping in July 2020, we also received the USFDA's EUA for Pooling Testing on December 8, 2020, and the USFDA for the COVID-19 plus influenza virus assay. The development of Fungal ASR "28-Plex Fungal-Analyte Specific Reagent" was completed in October 2021. The preparation of a fungal infection test protocol was outsourced to several medical centers. We have started to develop Fungal Panel RUO and STI + AMR RUO in 2022. Our goal is to launch 1 infectious disease multiplex diagnostic testing panel every year by using the same automated instrument with a number of testing assays, further enhancing testing efficiency.

Our innovative technology can improve the diagnostic accuracy rate, reduce the consumption of medical resources, and help patients receive the right care as early as possible. Its advantages of accuracy, real-time and wide application, have been successfully licensed to many global companies for multi-field development. These well-known companies include: IDEXX Technologies GmbH, PerkinElmer (an NYSE-listed company), Diatherix Laboratories - a subsidiary of Eurofins Scientific Group (a Euronext N.V.-listed company), Molecular Device - a subsidiary of Danaher Group (a NYSE-listed company), Zhuhai Livzon Diagnostics - a subsidiary of Livzon Pharmaceutical Group

(A shares that trade on SZSE and H shares that trade on the HKEX), Guangzhou Improve Medical Instruments (a ChiNext-listed company), Shanghai Kexin Biotech (a new OTC market-listed company), Genetic Analysis AS Norway, Imusyn Germany, ALPCO and Hardy Diagnostic Inc. We have also licensed Guoyao Group Beijing Medical Apparatus and Instruments to sell our Biocode 2500 and BMB. Our achievements have proven that our products are well-received by our partners.

2. Corporate Structure



3. Formation History

Time	Important Matters of ABC-KY History
March 2008	ABC-US is founded in Santa Fe Springs, Southern California, USA.
July 2008	ABC-US increased its capital by US$0.70 million in cash.
October 2009	ABC-US increased its capital by US$0.850 million in cash.
May 2010	Successfully developed and commercialized 128 plex Barcoded Magnetic Beads (BMB).
November 2010	Launched the instrument Biocode 1000 and obtained CE marking.
December 2010	Received US 7,858,307 BMB patent - exclusive, irrevocable and perpetual license from Maxwell Sensors for the production and structure of barcoded beads.
January 2011	Received US 7,871,770 BMB patent - exclusive, irrevocable and perpetual license from Maxwell Sensors for the production and structure of barcoded magnetic beads (BMB).
April 2011	ABC-US increased its capital by US$1.175 million in cash.
September 2011	ABC-US increased its capital by US$0.200 million in cash.
December 2011	ABC-US increased its capital by US$0.529 million in cash.
April 2012	Received US 8,148,139 patent - exclusive, irrevocable and perpetual license from Maxwell Sensors for the production and structure of polymeric barcoded magnetic beads.
June 2012	ABC-US increased its capital by US$0.508 million in cash.
July 2012	Received US 8,232,092 BMB scanner patent - exclusive, irrevocable and perpetual license from Maxwell Sensors for the production and structure of BMB of instruments.
November 2012	ABC-US increased its capital by US$7.000 million in cash.

Time	Important Matters of ABC-KY History
April 2013	Passed the quality system inspection by the Department of Health California and received a medical device manufacturing license.
July 2013	Successfully developed and commercialized 4,096 plex BMB (based on 12 barcodes)
August 2013	Passed FDA QSIT inspection as a Class II medical device manufacturer of IVD products
November 2013	Signed a non-exclusive license agreement with Genetic Analysis Norway for nucleic acid testing for intestinal ecological disorders and irritable bowel syndrome
March 2014	Attained China 102246037 BMB Patent - Polymer Materials for BMB
May 2014	Began development of IVD molecular diagnostic panels
July 2014	ABC-US increased its capital by US$9.256 million in cash
August 2014	Visited the FDA for Biocode 3000 with infectious colitis test- Pre-submission meeting and obtaining the test protocol
December 2014	Signed a non-exclusive license agreement with PerkinElmer Group (NYSE-listed company) for the Asian infectious disease diagnostics market
September 2015	ABC-US increased its capital by US$5.150 million in cash
December 2015	Founded ABC-TW
January 2016	Signed a non-exclusive license agreement with Diatherix Laboratories for a third-party diagnostic laboratory
April 2016	Founded ABC-KY to apply for stock listing in Taiwan
June 2016	Attained US 9,255,922 BMB patent - polymeric barcoded magnetic beads
June 2016	ABC-US increased its capital by US$6.494 million in cash
June 2016	ABC-KY became the parent company with 100% ownership of ABC-US through share swapping
September 2016	ABC-KY held a shareholders meeting and elected 9 board members, including 3 independent directors. The Audit Committee and Remuneration Committee were established.
October 2016	BioCode 2500 Analyzer successful developed and commercialized.
October 2016	ABC-US increased its capital by US$6.230 million in cash
February 2017	Registered with the Emerging Stock Board
May 2017	Clinical trials began - CLA, U. of Maryland, Tampa M. C, Le Bonheur Children Medical Center and CDC.
July 2017	Signed a non-exclusive license agreement for diagnostic panels with Zhuhai Livzon Diagnostics, Livzon Pharmaceutical Group
September 2017	All samples required for the clinical trial of the 17-Plex Gastrointestinal Pathogen Panel (GPP) were tested.
October 2017	ABC-US signed a supply agreement with IDEXX Technologies GmbH.
December 2017	ABC-KY completed a cash capital increase of NT$140 million.
January 2018	Submission of 17-Plex Gastrointestinal Pathogen Panel (GPP) to the USFDA for market approval.
April 2018	ABC-TW relocated to a new office and set up a BMB factory.

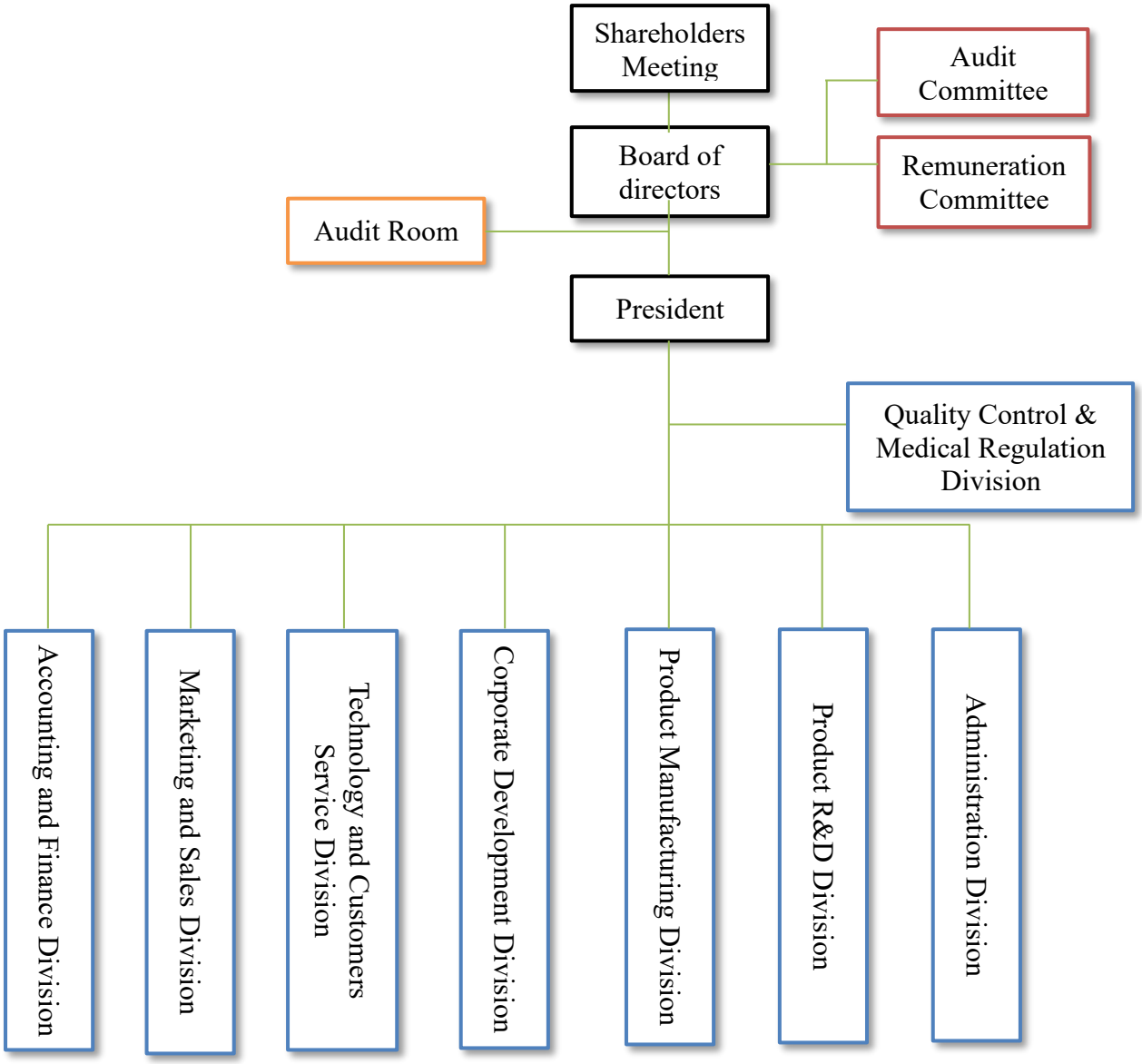
Time	Important Matters of ABC-KY History
April 2018	Maxwell Sensors transferred four patents to ABC-KY: 7,871,770, 7,858,307, 8,232,092 and 8,148,139.
October 2018	Obtained USFDA 510(k) clearance for 17-Plex Gastrointestinal Pathogen Panel (GPP).
October 2018	Received FDA 510(k) clearance for the MDx3000 (an automated molecular diagnostic system)
October 2018	ABC-KY completed a cash capital increase of NT$406,600,000.
March 2019	ABC-KY attained a letter of opinion of "Product or Technology Development is Successful and Marketable" from the Industrial Development Bureau, Ministry of Economic Affairs.
June 2019	Licensed Guoyao Group Beijing Medical Apparatus and Instruments for the sale of Biocode 2500 and BMB.
June 2019	Passed FDA 510(k) clearance for the GI Panel and MDx 3000 with MagNa Pure 96 pre-processing system.
June 2019	Attained patent EP2342561B1 from EUIPO.
September 2019	Submitted a marketing application to the USFDA for the Respiratory Infection Panel (RPP) with MDx 3000 (an automated molecular diagnostic system).
September 2019	ABC-KY completed a cash capital increase of NT$342 million.
December 2019	ABC-KY completed a cash capital increase of NT$48.64 million.
December 2019	Obtained an USFDA clearance for the Respiratory Infection Panel (RPP) with MDx 3000 (an automated molecular diagnostic system).
December 2019	Signed a non-exclusive license with Paitaike Co. Ltd. for the development of cytohormone assays in China.
January 2020	Signed a supply agreement with Tricore for GPP.
March 2020	The listing of ABC-KY was approved by the board of directors of TWSE.
June 2020	ABC-KY was successfully listed.
June 2020	Received the EUA for the Group's self-developed molecular assays for COVID-19 from the USFDA.
July 2020	Molecular assays for COVID-19 began shipment.
August 2020	Benefitting from the shipment of COVID-19 molecular assays, the Group recorded its first single-month operating profit.
August 2020	Filed an application for EUA with the USFDA for COVID-19 molecular assays by Pooling Testing.
September 2020	Considering the high incidence of respiratory disease to occur in the fall and winter, the Group has applied for an EUA prequlification with the USFDA for the COVID-19 plus influenza virus assay.
December 2020	Received the EUA from the USFDA for COVID-19 molecular assays by Pooling Testing.
December 2020	Officially filed for the EUA with the USFDA for COVID-19 plus influenza virus assay.
February 2021	Collaborated with Johns Hopkins University to explore the possibility of installing Biocode 2500 in trucks for testing.

Time	Important Matters of ABC-KY History
March 2021	Worked with City of Hope to investigate the feasibility of using Liquid Biopsy on a PAP and BMB platform to perform genetic testing for cancer mutation.
June 2021	Signed a U.S. food safety non-exclusive authorization with Hardy Diagnostic Inc.
September 2021	Recruited senior sales experts including the Director of Sales and Marketing (Jason Scott and Parisa Hanachi).
October 2021	Completed the development of a fungal-analyte specific reagent (ASR).
December 2021	Received an EUA for Covid flu plus from the U.S. FDA.
December 2021	Signed a U.S. non-exclusive distribution contract with Hardy Diagnostic Inc.
March 2022	Appointment of Christopher Bernard as the CEO of the US subsidiary
May 2022	Signed a US$12 million technical authorization for Singulation Process with IDEXX
March 2023	Signed a U.S. non-exclusive distribution agreement with Medline Industries, LP

4. Risk Disclosure: Please refer to Chapter Seven: 6. Risk Management and Assessment in this Annual Report on pages 134-138.

III. Corporate Governance Report

1. Organization Chart



Department Name	Duty
Board of directors	Plans business operations and policies, sets operational targets, appoints primary managerial officers, and carries out business development for the Company based on the Company's Memorandum of Association.
Audit Committee	Oversees the Company's business and financial condition, the appropriateness of the Company's financial statements and the effective implementation of internal controls.
Remuneration Committee	Establishes and reviews on a regular basis the performance evaluation of directors and managerial officers and the remuneration policy, system, standard and structure. Assesses and sets the content and amount of remuneration for directors and managerial officers on a regular basis and proposes such results to the Board of Directors.
Audit Room	Evaluates the effectiveness of internal controls; plans and carries out internal audits.
President	1. Submits business conditions and development plans to the board of directors and the annual general meeting (AGM) and performing matters resolved by the board of directors. 2. Integrates and enforces business targets and future development plans. 3. Plans and achieves the Group's important business policies and operational plans.
Quality Control and Medical Regulation Division	Carries out quality control and audit; reviews and signs for testing paperwork and trial SOPs; and analyzes statistics of clinical trials.
Administration Division	HR management; administrative operations; information management; general administration; legal compliance; stock affairs; listing-related business.
Product R&D Division	Designs development process; researches and develops R&D analyzers; designs and develops pathogen panels; executes product testing for R&D projects; clinical trial programs.
Product Manufacturing Division	Produces BMB, pathogen panels and instruments; supervises of outsourced product production; product trial production process.
Corporate Development Division	Compiles industry market information; executes product and technology licensing agreements; monitors the market information of competitors; establishes product specifications and introduces product market development directions.
Technology and Customers Service Division	Technical service; customer service.
Marketing and Sales Division	Establishes sales plans and budgets; product promotion and sales.
Accounting and Finance Division	Financial planning; accounting & bookkeeping; product project benefit analysis.

2. Profiles of Board of Directors, Supervisors, President, Vice President, Directors, Department and Branch Heads

(1) Directors and Supervisors

1. Information on Directors

April 14, 2023

Position	Nationality or Place of Registration	Name	Gender / Age	Date elected	Term of Office (year)	Date First Elected	Shareholding when Elected		Current shareholding		Current Shareholding of Spouse & Minor Children		Shares Held by Proxy		Major Work Experience (Education)	Current Concurrent Positions in the Group and Other Companies	Other Managers, Directors or Supervisors Who are Spouses or within Second-Degree of Kinship to Each Other			Remarks
							Shares	%	Shares	%	Shares	%	Shares	%			Position	Name	Relation	
Chairman	Taiwan / USA	George J. Lee	Male/ 71 - 80	2022.6.13	3	2016.6.30	-	-	-	-	-	-	3,571,060	4.37	Ph.D. in Chemistry, New York State University Master, Department of Agricultural Chemistry, National Taiwan University R&D Manager, Syntex USA Inc Chairman, Epitomics, Inc.	Chairman, ABC-US Chairman, ABC-TW Chairman, Genepharm, Inc Chairman, SunWay Biotech Co., Ltd. Director, Foresee Pharmaceuticals Co., Ltd. Chairman, Genepharm, Inc. Chairman, RevMAb, Inc. Director, BioKey Inc. Chairman, RevMAb Biosciences Taiwan, Inc.	-	-	-	None
Director	Taiwan / USA	Winston Z. Ho	Male/ 61 - 70	2022.6.13	3	2016.4.15	103,750	0.13	108,750	0.13	4,953,316	6.06	4,905,900	6.00	Ph.D. of Physical chemistry and Master of Biochemistry, Arizona State University, U.S. Post-doctoral researcher, Columbia University, New York, U.S. - high-speed optics Bachelor of Chemistry, National Chung Hsing University Maxwell Sensors Incorporation Founder / CEO Director of smart optical system and sensor Director, Biomedical Sciences, Physical Optics Corp. US-NIH Grant review committee Research Scientist - Nonlinear Photonics, University of Arizona College of Optical Sciences	President, ABC-KY Director, President and Founder / Chief Technology Officer, ABC-US Director, Maxwell Sensors Managerial Officer, Oceania, LLC	Director, Administrative Office	April Tang	Spouse	The spouse retired in July 2022
Director	Taiwan	Benjamin Jen	Male/ 51 - 60	2022.6.13	3	2016.9.29	-	-	-	-	-	-	-	-	Master in Science and Technology Management, Massachusetts Institute of Technology Director, Strategy and Investment / Director, Marketing, Quanta Computer	Director, Centrillion Technologies Taiwan Director, Applied Biocode, Inc. Director, ABC-TW	Director	Wen-Chin Hung	Spouse	None
Corporate Director	United States	Maxwell Sensors, Inc.	-	2022.6.13	3	2022.6.13	8,307,042	10.16	8,307,042	10.16	-	-	-	-	-	-	-	-	-	None
Director	Taiwan	Wen-Chin Hung	Female/ 51~60	2022.6.13	3	2022.6.13	-	-	-	-	-	-	-	-	Master of MIT Sloan Fellows CEO, Unique Financial Research and Development Foundation Director, Unique Business News	President and Director, Ming Wei International Investment Co., Ltd. Supervisor, Dayu Optoelectronics Co. Ltd. Director, Danen Technology Corporation	Director	Benjamin Jen	Spouse	None

Position	Nationality or Place of Registration	Name	Gender / Age	Date elected	Term of Office (year)	Date First Elected	Shareholding when Elected		Current shareholding		Current Shareholding of Spouse & Minor Children		Shares Held by Proxy		Major Work Experience (Education)	Current Concurrent Positions in the Group and Other Companies	Other Managers, Directors or Supervisors Who are Spouses or within Second-Degree of Kinship to Each Other			Remarks
							Shares	%	Shares	%	Shares	%	Shares	%			Position	Name	Relation	
Independent director	Taiwan	Wen-Jing Tsai	Male/ 51 - 60	2022.6.13	3	2016.9.29	-	-	-	-	-	-	-	-	Master in Accounting, National Chengchi University Bachelor in Accounting, National Taiwan University Manager, Deloitte Taiwan CEO, the Tax Committee, Taipei CPA Association Deputy Chairman, the National Federation of CPA Associations of the R.O.C.	President, Gaowei Accounting Firm Independent Director, Danen Technology Corporation Director, Topview Optronics Corporation Supervisor, Shinho Energy & Technology CO., LTD. Supervisor, Mirror TV Inc.	-	-	-	None
Independent director	Taiwan	Ben Liu	Male/ 51 - 60	2022.6.13	3	2016.9.29	-	-	-	-	-	-	-	-	Ph.D. in Law, National Chengchi University Institute of Finance, National Taiwan University Department of Law, National Taiwan University Lawyer, Perkins Coie Lawyer, Yongyun International Law Firm Lawyer, Lee and Li	Lawyer, InfoShare Tech Law Office Chairman, Aowei Medical Technology Inc. Independent director, Aulisa Medical Devices Technologies Inc. Supervisor, iCare Diagnostics International Co. Ltd. Director, Retain Biotech Corp.	-	-	-	None
Independent director	Taiwan	Jack Hsiao	Male/ 51 - 60	2022.6.13	3	2018.1.3	-	-	-	-	-	-	-	-	PhD, Boston University School of Medicine Deputy Chief Operating Officer, Show Chwan Health Care System Co-host, Telecare, Department of Health, Executive Yuan OmniHealth Group (US/TW) CEO	Chief Operating Officer, Hsiao Chung-cheng Hospital President, TriHealth Enterprise Co., Ltd. Director, TriHealth Enterprise Co., Ltd. Director, ThinkCloud Technology. Inc. Director, FU-DE Biomedical Technology Inc. Chairman, JU-SHENG Biomedical Technology Inc. Supervisor, Ai Wan Lin Biotechnology Co., Ltd. Director, SinoCell Technologies Inc. Chairman, En-Qi Co., Ltd. Chairman, Ding-Qun Intellectual Property Integration Co., Ltd. Director, Wellink Investments Limited Chairman, Fu-Ze Health Co., Ltd.	-	-	-	None

2. Supervisors: The Group has an Audit Committee; therefore, there are no supervisors.
3. Major shareholders of corporate shareholders:

Name of corporate shareholder	Major shareholders of corporate shareholders
Maxwell Sensors, Inc.	The ZAAD Living Trust

4. Major shareholders of corporate shareholders are juristic persons' major shareholders:

Name of corporate shareholder	Major shareholders of corporate shareholders
The ZAAD Living Trust	Winston Z. Ho, April Tang

5. Directors or Supervisors' professional qualifications and their independence:

Qualification / Name	Professional Qualification (Note 1)	Experience (Note 1)	Independence Criteria (conforms to the criteria set out in Note 2)	Number of Other Public Companies in Which the Individual is Concurrently Serving as an Independent Director
George J. Lee	Required working experience at least five years in commerce, law, finance, accounting or other fields required by the business of the Company.	Ph.D. in Chemistry, New York State University R&D Manager, Syntex USA Inc Chairman, Epitomics, Inc.	Not applicable	-
Winston Z. Ho	Required working experience at least five years in commerce, law, finance, accounting or other fields required by the business of the Company.	Ph.D. of Physical chemistry and Master of Biochemistry, Arizona State University, U.S. Maxwell Sensors Incorporation Founder / CEO Director of smart optical system and sensor Director, Biomedical Sciences, Physical Optics Corp.	Not applicable	-
Benjamin Jen	Required working experience at least five years in commerce, law, finance, accounting or other fields required by the business of the Company.	Master in Science and Technology Management, Massachusetts Institute of Technology Director, Strategy and Investment / Director, Marketing, Quanta Computer	Not applicable	-
Maxwell Sensors, Inc.	Not applicable	Not applicable	Not applicable	-
Wen-Chin Hung	Required working experience at least five years in commerce, law, finance, accounting or other fields required by the business of the Company.	Master of MIT Sloan Fellows CEO, Unique Financial Research and Development Foundation Director, Unique Business News	Not applicable	-
Wen-Jing Tsai	Professional or technical specialists who have passed a national examination or hold a license in accounting or another profession required for the Company's business operations with at least five years' experience.	Master in Accounting, National Chengchi University Bachelor in Accounting, National Taiwan University Manager, Deloitte Taiwan CEO, the Tax Committee, Taipei CPA Association Deputy Chairman, the National Federation of CPA Associations of the R.O.C.	(1) No; (2) None; (3) No; (4) None; (5) Yes	1
Ben Liu	Lecturer or above in commerce, law, finance, accounting or other subjects required for the Company's business operations in public or private colleges or universities, at least five years' experience in commerce, law, finance, accounting, or another profession required for the Company's business operations, and professional or technical specialists who have passed a national examination or hold a license in law or another profession required for the Company's business operations.	Ph.D. in Law, National Chengchi University Department of Law, National Taiwan University Lawyer, Perkins Coie Lawyer, Yongyun International Law Firm Lawyer, Lee and Li	(1) No; (2) None; (3) No; (4) None; (5) Yes	1
Jack Hsiao	Required working experience at least five years in commerce, law, finance, accounting or other fields required by the business of the Company.	PhD, Boston University School of Medicine Deputy Chief Operating Officer, Show Chwan Health Care System Co-host, Telecare, Department of Health, Executive Yuan OmniHealth Group (US/TW) CEO	(1) No; (2) None; (3) No; (4) None; (5) Yes	-

Note 1: Professional qualifications and experiences: Description of director and supervisor qualifications and experiences. If Audit Committee members have professional expertise in accounting or finance, their background and work experience in these fields shall be described in detail.

Note 2: Independent directors shall provide a detailed description of their conformity to independence criteria including but not limited to the following: (1) Does the candidate, his/her spouse, or one of his/her relatives within the second degree of kinship serve as director, supervisor, or employee at the Company or one if its affiliates? (2) How many company shares does the candidate, his/her spouse, or one of his/her relatives within the second degree of kinship (or the candidate under others' names) hold and what is the shareholding ratio? (3) Does the candidate serve as director, supervisor, or employee of a company that has a specific relationship with this Company (as stipulated in Article 3, Paragraph 1, Subparagraph 5-8 of the Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies)? (4) Cumulative compensation received for the provision of commercial, law, financial, and accounting services to this Company or its affiliates within the past two years; (5) Do one of the circumstances specified in Article 30 of the Company Act apply?

6. Board diversity and independence:

(1) Board diversity:

The composition of the Company's Board of Directors shall consider the diversification of the Board of Directors from various aspects based on Article 20 of the Corporate Governance Best Practice Principles, and the Board of Directors shall have the knowledge, skills, and experience necessary to perform their duties. The board of directors shall possess the ability to make operational judgments, ability to perform accounting and financial analysis, ability to conduct management administration, ability to conduct crisis management, knowledge of the industry, an international market perspective, ability to lead and ability to make policy decisions. The board is composed of seven directors (incl. three independent directors). All board members have extensive experience and professional expertise in a wide range of fields including commerce, law, finance, accounting, production technologies, and management. One board member (14%) is an employee of the Company; one independent director has served for five years; two independent directors have served for 6-7 years; none of the independent directors have served for more than three consecutive terms. One director is aged above 70; one director is aged between 61 and 70; the other five directors are aged between 51 and 60. Six directors are male and one director is female. They are all R.O.C. citizens and two of them hold U.S. citizenship.

The concrete objectives and implementation of the Board of Directors diversification policy are as follows

Concrete objectives	Implementation status
At least 1/3 of the board members are biotech industry and operation professionals	Achieved
At least 1/3 of the independent directors possess legal, financial or information technology skills	Achieved

Diversification of the Board of Directors:

Position	Name	Experience in biotech industry			Professional skill		
		Research and development	Industry knowledge	Business management	Legal	Finance and accounting	Marketing
Chairman	George J. Lee	✓	✓	✓	-	-	✓
Director	Winston Z. Ho	✓	✓	✓	-	-	✓
Director	Benjamin Jen	-	✓	✓	-	-	✓
Corporate Director	Maxwell Sensors, Inc.	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Director (Proxy of Corporate Director)	Wen-Chin Hung	-	✓	✓	-	-	✓
Independent director	Wen-Jing Tsai	-	-	-	-	✓	✓
Independent director	Ben Liu	-	-	-	✓	-	✓
Independent director	Jack Hsiao	-	✓	✓	-	-	✓

(2) Board member independence:

The board is composed of seven directors (incl. three independent directors accounting for 43%). Based on the kinship diagram provided by the independent directors, it can be determined that none of the circumstances specified in Article 26-3, Paragraphs 3 and 4 of the Securities and Exchange Act exist. Director Benjamin Jen and Director Wen-Chin Hung are spouses and relatives within the second degree of kinship.

(2) Profile of Presidents, Vice Presidents, Directors, and Heads of Departments and Branches:

April 14, 2023

Position	Nationality	Name	Gender	Date of Assumption of Office	Shareholding		Shareholding of Spouse & Minor Children		Shares Held by Proxy (Note)		Major Work Experience (Education)	Current Concurrent Positions in Other Companies	Spouse or Relatives of Second Degree or Closer Acting as Managerial Officers			Remarks
					Shares	%	Shares	%	Shares	%			Position	Name	Relation	
President and Founder/ Chief Technology Officer	Taiwan / USA	Winston Z. Ho (Note 1)	Male	2008.03	108,750	0.13	4,953,316	6.06	4,905,900	6.00	Ph.D. of Physical chemistry and Master of Biochemistry, Arizona State University, U.S. Post-doctoral researcher, Columbia University, New York, U.S. - high-speed optics Bachelor of Chemistry, National Chung Hsing University Maxwell Sensors Founder / CEO Director of smart optical system and sensor Director, Biomedical Sciences, Physical Optics Corp. - US-NIH Grant Review Committee Researcher, optical center of University of Arizona, U.S. - non-linear optics	Director & Presidents, ABC-US Director, ABC-TW Director, Maxwell Sensors Managerial Officer, Oceania, LLC	Director, Administrative Office	April Tang	Spouse	The spouse retired.
Chief of Scientist	United States	Michael Aye	Male	2013.02	225,000	0.28	-	-	-	-	Ph.D. in Microbiology, University of California, Irvine Director of Molecular Analysis, Focus Diagnostics	-	-	-	-	None
Product Manufacturing Division Vice-President	United States	Donald Wong (Note 2)	Male	2010.12	69,580	0.09	-	-	-	-	Bachelor in Biology, University of California, Los Angeles Biological Director, Manufacturing/QC, ProteoGenix, Inc. QC/Calibration, BioCentrex, LLC Corporate Director, CareSide Manager, R&D Department, SmithKline Beecham Clinical Labs	-	-	-	-	None
Technology and Customers Service Division Director	United States	Michael Ho	Male	2015.07	159,791	0.20	-	-	-	-	Ph.D., University of California, Davis Technical Services, Quest Diagnostics Field Application / Training Manager, Technical Support Manager, Customer Support Manager, EraGen Biosciences (Luminex) Team Leader and Senior Scientist, Cepheid Project Leader, Thermo Fisher	-	-	-	-	None
US Subsidiary Operating Vice President	United States	Gerald Kowalski	Male	2014.07	8,000	0.01	-	-	-	-	Bachelor in Technology in Electronic Instrumentation Engineering, Michigan Technological University Software team leader, BECKMAN COULTER INC. Senior Software Engineer, BAXTER International Inc.	-	-	-	-	None
Senior Director, Product Manufacturing Division	Canada	Gao Chen (Note 2)	Male	2014.10	143,000	0.17	-	-	-	-	Ph.D. in Molecular Biology and Immunology, Gembloux Agro-Bio Tech, Belgium Researcher, University of California, Los Angeles Senior Researcher, R&D Department, Maxwell Sensors Incorporation	-	-	-	-	None
Administration Division Director	Taiwan / USA	April Tang (Note 3)	Female	2008.03	47,416	0.06	5,014,650	6.13	4,905,900	6.00	Bachelor in English, Chung Hsing University Master, Virginia Polytechnic Institute and State University Joint founder of Maxwell Sensors Incorporation	Director, Maxwell Sensors Managerial Officer, Oceania, LLC	President	Winston Z. Ho	Spouse	None
CFO	Taiwan	Liang-Kai Huang	Male	2018.02	10,000	0.01	-	-	-	-	Bachelor in Accounting, Soochow University CFO, BTL Corporate CFO, Landseed International Medical Group Vice President, Tianjin TEDA Biomedical Engineering Company Limited	-	-	-	-	None
Administration Division Director	United States	Ingrid Joseph	Female	2020.08	9,500	0.01	-	-	-	-	Bachelor, Management at Cerritos College Procurement Supervisor of Maxwell Sensors Incorporation	-	-	-	-	None
Human Resources Division Director	United States	Frank Mitchell (Note 4)	Male	2020.08	-	-	-	-	-	-	Master, Pepperdine University HR Manager of Gary's HR Manager of Adir International	-	-	-	-	None
Human Resources Division Director	United States	Julian Sanchez (Note 4)	Male	2023.03	-	-	-	-	-	-	M.A., Human Resources in Public Administration, California State University, Long Beach Interim HR Director, Skillset Group HR Director, G4S	-	-	-	-	None

Position	Nationality	Name	Gender	Date of Assumption of Office	Shareholding		Shareholding of Spouse & Minor Children		Shares Held by Proxy (Note)		Major Work Experience (Education)	Current Concurrent Positions in Other Companies	Spouse or Relatives of Second Degree or Closer Acting as Managerial Officers			Remarks
					Shares	%	Shares	%	Shares	%			Position	Name	Relation	
Taiwan sub-subsidiary Vice President	Taiwan	Yu-Lin Chen	Male	2016.05	6,500	0.01	-	-	-	-	Bachelor in Electrical Engineering, George Washington University Deputy General Manager, Opto-Sensor Ltd. Business Engineer, Opto-Sensor Ltd.	-	-	-	-	None
Accounting Supervisor	Taiwan	Jau-Tung Pan	Female	2019.08	1,000	0.00	-	-	-	-	Bachelor in Accounting, National Chengchi University Assistant Manager, Merck KGaA Assistant Manager, Deloitte Taiwan Assistant Manager, PwC Taiwan	-	-	-	-	None
Internal Auditer	Taiwan	Zong-Han You	Male	2019.09	-	-	13,000	0.02	-	-	Bachelor in of Accounting, National Taiwan University Assistant Manager, Merck KGaA Assistant Manager, Deloitte Taiwan	-	-	-	-	None
Director, Product R&D Division	United States	Colleen Knoth (Note 5)	Female	2021.05	-	-	-	-	-	-	PhD in Plant Molecular Biology and Genetics, University of California - Riverside Technical Support Manager, Focus Diagnostics Senior Researcher, Veridex, LLC.	-	-	-	-	None
Director, Product R&D Division	United States	Anna Alkhouri (Note 5)	Female	2022.08	-	-	-	-	-	-	Ph.D. in Cellular and Molecular Biology, Colorado State University Vice Director of Clinical Study Development, Fluidigm Corporation R&D Manager, DiaSorin Molecular	-	-	-	-	None
Quality Assurance Division Director	United States	Roland Strickland (Note 6)	Male	2021.08	-	-	-	-	-	-	PhD in Chemistry, University of California, San Diego Quality Assurance Project Leader, Abbott Point of Care Medical Law and Clinical Experiment Manager, Bioamerica, Inc.	-	-	-	-	None
Marketing Division Vice President	United States	Parisa Hanachi	Female	2021.11	-	-	-	-	-	-	PhD in Molecular Microbiology, University of California, Davis CMO, HiPic Inc. Senior Director, Marketing Division, Alere Inc.	-	-	-	-	None
Director, Sales Division	United States	Michael Jason Scott (Note 7)	Male	2021.11	-	-	-	-	-	-	Master in Engineering Technology (Occupational Health and Safety), Middle Tennessee State University Business Development, Korvis Marketing Team Leader, Karius Diagnostics	-	-	-	-	None
Director, Sales Division	United States	Craig Adams (Note 7)	Male	2022.08	-	-	-	-	-	-	Sul Ross State University, Master of Arts Sales Director, Hycor Biomedical, Inc. Vice President of Business Development, Spiriplex, Inc.	-	-	-	-	None
Sales Division Vice President	United States	Jim Leigh (Note 7)	Male	2023.03	-	-	-	-	-	-	B.S. in Finance, Department of Business Administration, University of Iowa Renovia Inc. Vice President, Strategic Accounts Senior Director, Genoptix National Accounts	-	-	-	-	None
US Subsidiary CEO	United States	Christopher Bernard (Note 8)	Male	2022.03	-	-	-	-	-	-	Bachelor in Psychobiology, Hiram College CEO, Oncogenesis CEO, Curetis USA Inc.	-	-	-	-	None
Supply Chain Management Director	United States	Quanta Tann (Note 9)	Female	2022.08	-	-	-	-	-	-	Bachelor in Business Administration, University of Phoenix (California) Material Manager, Luminit LLC Procurement Specialist, BCBG Corporation	-	-	-	-	None
Equipment Director	United States	Marc Macon (Note 9)	Male	2022.08	-	-	-	-	-	-	U.S. Navy Aviation/Naval Electronics School Manufacturing Engineer, Applied Medical Manufacturing Engineer, STAAR Surgical	-	-	-	-	None
Clinical Affairs Director	United States	Cassandra Ingles (Note 10)	Female	2023.03	-	-	-	-	-	-	PhD in Public Health, University of Capella Clinical and Medical Affairs Director, SpeeDx, Inc. Technical Services Specialist, Oxford Immunotec Inc.	-	-	-	-	None

Note 1: Director and President Winston Z. Ho and his spouse April Tang jointly set up the ZAAD Living Trust. They are both the trustees of this trust. The ZAAD Living Trust has total ownership of Maxwell Sensors and Oceanina, LLC. Maxwell Sensors holds 8,307,042 shares of ABC-KY, or 10.16%, and Oceania, LLC holds 1,504,758 shares of ABC-KY, or 1.84%.

Note 2: Managerial officer Donald Wong was relieved from his duties in March 2022. His duties were taken over by Managerial officer Gao Chen.

Note 3: Managerial officer April Tang retired on July 28, 2022.

Note 4: Managerial officer Frank Mitchell resigned on November 28, 2022. The position was replaced by the newly appointed Managerial officer, Julian Sanchez, in March 2023.

Note 5: Managerial officer Colleen Knoth resigned on March 24, 2022 and Anna Alkhouri was appointed in August 2022.
Note 6: Managerial officer Roland Strickland resigned on April 23, 2022.
Note 7: Managerial officer Michael Jason Scott resigned on May 17, 2022. The position was replaced by the newly appointed Managerial officer, Craig Adams, in August 2022. Craig Adams resigned on January 4, 2023. The position was replaced by Managerial officer Jim Leigh, Vice President of the Sales Division.
Note 8: Christopher Bernard was appointed as the new CEO of the US subsidiary in March 2022.
Note 9: Managerial officer Quanta Tann was newly appointed in August 2022 and Managerial officer Marc Macon was promoted to Equipment Director in August 2022.
Note 10: Managerial officer Cassandra Ingles was newly appointed in March 2023.

3. Remuneration of Board of Directors, Supervisors, President and Vice Presidents for the last fiscal year

(1) Remuneration of general directors and independent directors for the most recent fiscal year (2022)

December 31, 2022; unit: NT$ thousand

Position	Name	Remuneration to Directors								Total of A, B, C and D as a percentage of net income after tax (%)		Relevant remuneration received by Directors who are also employees								Total of A, B, C, D, E, F and G as a percentage of net income after tax		Remuneration paid to Directors from an invested company other than the Company's subsidiary or from the parent company
		Remuneration (A)		Severance Payment and Pension (B)		Remuneration to directors (C)		Fees for Performance of Work (D)				Salary, Bonuses, and Allowances (E)		Severance Payment and Pension (F)		Remuneration to Employees (G)						
																The Group		Companies Included in the Financial Statements				
		The Group	Companies Included in the Financial Statements	The Group	Companies Included in the Financial Statements	The Group	Companies Included in the Financial Statements	The Group	Companies Included in the Financial Statements	The Group	Companies Included in the Financial Statements	The Group	Companies Included in the Financial Statements	The Group	Companies Included in the Financial Statements	Cash Amount	Stock Amount	Cash Amount	Stock Amount	The Group	Companies Included in the Financial Statements	
Chairman	George J. Lee	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	None
Director	Winston Z. Ho	—	—	—	—	—	—	—	—	—	—	—	4,656	—	819	—	—	—	—	—	5,476 (2.96)%	None
Director	Benjamin Jen	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	None
Director	Wen-Chin Hung	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	None
Independent director	Wen-Jing Tsai	380	380	—	—	—	—	—	—	380 (0.21)%	380 (0.21)%	—	—	—	—	—	—	—	—	380 (0.21)%	380 (0.21)%	None
Independent director	Ben Liu	380	380	—	—	—	—	—	—	380 (0.21)%	380 (0.21)%	—	—	—	—	—	—	—	—	380 (0.21)%	380 (0.21)%	None
Independent director	Jack Hsiao	380	380	—	—	—	—	—	—	380 (0.21)%	380 (0.21)%	—	—	—	—	—	—	—	—	380 (0.21)%	380 (0.21)%	None

(1) Please explain the policy, system, standards and structure by which independent director remuneration is paid, and the association between the amount paid and independent directors' responsibilities, risks and time committed: The Group's remuneration to directors is determined concerning the practice of public companies in Taiwan and the participation of the independent directors in the Audit Committee, Remuneration Committee and the Board meeting. After the directors of this Board have been elected, it was discussed and approved by general directors at the Board meeting that remuneration shall be paid after NT$100 thousand each quarter.
(2) Remuneration received by directors for providing service to any company listed in the financial statements (e.g. consultancy service without the title of an employee for the parent company/any company listed in the financial statements/joint ventures) for the last fiscal year, except those disclosed in the above table: None.

Breakdown of Remuneration

Remuneration to individual directors in respective brackets along the remuneration scale	Name of director			
	Total remuneration (A+B+C+D)		Total remuneration (A+B+C+D+E+F+G)	
	The Group	Companies Included in the Financial Statements	The Group	Companies Included in the Financial Statements
Below NT$1,000,000	Wen-Jing Tsai, Ben Liu, Jack Hsiao	Wen-Jing Tsai, Ben Liu, Jack Hsiao	Wen-Jing Tsai, Ben Liu, Jack Hsiao	Wen-Jing Tsai, Ben Liu, Jack Hsiao
NT$1,000,000 (inclusive) - NT$2,000,000 (exclusive)	-	-	-	-
NT$2,000,000 (inclusive) - NT$3,500,000 (exclusive)	-	-	-	-
NT$3,500,000 (inclusive) - NT$5,000,000 (exclusive)	-	-	-	-
NT$5,000,000 (inclusive) - NT$10,000,000 (exclusive)	-	-	-	Winston Z. Ho
NT$10,000,000 (inclusive) - NT$15,000,000 (exclusive)	-	-	-	-
NT$15,000,000 (inclusive) - NT$30,000,000 (exclusive)	-	-	-	-
NT$30,000,000 (inclusive) - NT$50,000,000 (exclusive)	-	-	-	-
NT$50,000,000 (inclusive) - NT$100,000,000 (exclusive)	-	-	-	-
Above NT$100,000,000	-	-	-	-
Total	3 persons	3 persons	3 persons	4 persons

(2) Remuneration to supervisors: The Group has an Audit Committee; therefore, there are no supervisors.

(3) Remuneration to the president and vice president for the most recent fiscal year (2022)

December 31, 2022; unit: NT$ thousand

Position	Name	Salary (A)		Severance Payment and Pension (B)		Bonuses and special allowances, etc. (C)		Remuneration to employees (D)				Total of A, B, C and D as a percentage of net income after tax (%)		Remuneration paid to Directors from an invested company other than the Company's subsidiary or from the parent company
		The Group	Companies Included in the Financial Statements	The Group	Companies Included in the Financial Statements	The Group	Companies Included in the Financial Statements	The Group		Companies Included in the Financial Statements		The Group	Companies Included in the Financial Statements	
								Cash Amount	Stock Amount	Cash Amount	Stock Amount			
President	Winston Z. Ho	-	4,656	-	819	-	-	-	-	-	-	-	5,476 (2.96)	-
Vice President	Christopher Bernard (Note)	-	7,577	-	159	-	1,765	-	-	-	-	-	9,501 (5.14)	-
Vice President	Michael Aye	-	6,308	-	189	-	493	-	-	-	-	-	6,990 (3.78)	-
Vice President	Gerald Kowalski	-	5,764	-	173	-	109	-	-	-	-	-	6,046 (3.27)	-
Vice President	Parisa Hanachi	-	6,268	-	174	-	211	-	-	-	-	-	6,653 (3.60)	-
Vice President	Liang-Kai Huang	-	3,230	-	108	-	302	-	-	-	-	-	3,640 (1.97)	-
Vice President	Yu-Lin Chen	-	1,788	-	108	-	403	-	-	-	-	-	2,299 (1.24)	-

Breakdown of Remuneration

Remuneration to presidents and vice presidents in respective brackets along the remuneration scale	President and vice president name	
	The Group	Companies Included in the Financial Statements
Below NT$1,000,000	-	-
NT$1,000,000 (inclusive) - NT$2,000,000 (exclusive)	-	-
NT$2,000,000 (inclusive) - NT$3,500,000 (exclusive)	-	Yu-Lin Chen
NT$3,500,000 (inclusive) - NT$5,000,000 (exclusive)	-	Liang-Kai Huang
NT$5,000,000 (inclusive) - NT$10,000,000 (exclusive)	-	Winston Z. Ho, Christopher Bernard, Michael Aye, Gerald Kowalski, and Parisa Hanachi
NT$10,000,000 (inclusive) - NT$15,000,000 (exclusive)	-	-
NT$15,000,000 (inclusive) - NT$30,000,000 (exclusive)	-	-
NT$30,000,000 (inclusive) - NT$50,000,000 (exclusive)	-	-
NT$50,000,000 (inclusive) - NT$100,000,000 (exclusive)	-	-
Above NT$100,000,000	-	-
Total	-	7 persons

Note: The Manager was newly appointed in March 2022.

(4) Top 5 managers with the highest remuneration:

Position	Name	Salary (A)		Severance Payment and Pension (B)		Bonuses and special allowances, etc. (C)		Remuneration to employees (D)				Total of A, B, C and D as a percentage of net income after tax (%)		Remuneration paid to Directors from an invested company other than the Company's subsidiary or from the parent company
		The Group	Companies Included in the Financial Statements	The Group	Companies Included in the Financial Statements	The Group	Companies Included in the Financial Statements	The Group		Companies Included in the Financial Statements		The Group	Companies Included in the Financial Statements	
								Cash Amount	Stock Amount	Cash Amount	Stock Amount			
Vice President	Christopher Bernard (Note)	-	7,577	-	159	-	1,765	-	-	-	-	-	9,501 (5.14)	-
Vice President	Michael Aye	-	6,308	-	189	-	493	-	-	-	-	-	6,990 (3.78)	-
Vice President	Parisa Hanachi	-	6,268	-	174	-	211	-	-	-	-	-	6,653 (3.60)	-
Vice President	Gerald Kowalski	-	5,764	-	173	-	109	-	-	-	-	-	6,046 (3.27)	-
President	Winston Z. Ho	-	4,656	-	819	-	-	-	-	-	-	-	5,476 (2.96)	-

Breakdown of Remuneration

Remuneration to presidents and vice presidents in respective brackets along the remuneration scale	President and vice president name	
	The Group	Companies Included in the Financial Statements
Below NT$1,000,000	-	-
NT$1,000,000 (inclusive) - NT$2,000,000 (exclusive)	-	-
NT$2,000,000 (inclusive) - NT$3,500,000 (exclusive)	-	-
NT$3,500,000 (inclusive) - NT$5,000,000 (exclusive)	-	-
NT$5,000,000 (inclusive) - NT$10,000,000 (exclusive)	-	Christopher Bernard, Michael Aye, Parisa Hanachi, Gerald Kowalski, Winston Z. Ho
NT$10,000,000 (inclusive) - NT$15,000,000 (exclusive)	-	-
NT$15,000,000 (inclusive) - NT$30,000,000 (exclusive)	-	-
NT$30,000,000 (inclusive) - NT$50,000,000 (exclusive)	-	-
NT$50,000,000 (inclusive) - NT$100,000,000 (exclusive)	-	-
Above NT$100,000,000	-	-
Total	-	5 persons

Note: The Manager was newly appointed in March 2022.

(5) Names of managerial officers who received employee remuneration for the most recent fiscal year (2022): None.

(6) Compare and analyze the total remuneration as a percentage of net income after tax stated in the parent company only financial reports or individual financial reports, paid by this group and by all consolidated entities (including this company) for the most recent 2 fiscal years to each of this group's directors, supervisors, presidents, and vice presidents, and describe the policies, standards, and packages for payment of remuneration, the procedures for determining remuneration, and its linkage to business performance and future risk exposure.

1. The total remuneration as a percentage of net income after tax paid by this group and by all consolidated entities (including this group) for the most recent 2 fiscal years to each of this group's directors, presidents, and vice presidents

Unit: NT$ thousand

Year / Item	2021		2022	
	The Group	As a percentage of net income after tax	The Group	As a percentage of net income after tax
Directors, presidents and vice presidents	22,380	(13.55)%	41,745	(22.60)%

Remuneration policy, standards and composition, procedures and the correlation with operational performance and future risks:

(1) Principle of payment of remuneration to directors

The remuneration to directors includes travel expenses, business execution expenses and earnings distribution. The remuneration to the directors of the consolidated company is determined according to the Company's Articles of Association. The Board of Directors is authorized to determine the remuneration based on the directors' participation in the consolidated company's operations, the value of their contributions and the industry standard.

(2) President and Vice President

The remuneration to the president and vice president includes salary and employee bonus. The salary level is determined based on the Company's contribution and the reference to the industry standard.

(3) Operating performance and the relevance of future risks

The Group has established the Remuneration Committee that is made up of all independent directors. These independent directors review and evaluate on a regular basis the performance of directors and managerial officers as well as the remuneration policy, system, standard and structure.

4. Implementation of Corporate Governance

(1) Functionality of the Board of Directors

The 3rd term Board of Directors of the Group held 9 meetings before the re-election of directors in 2021 and 2022. 7 directors were re-elected for the 4th Board of Directors at the shareholders' meeting held on June 13, 2022. Six board meetings were held in the reporting year until the annual report's publication date. The board convened a total of 15 times (A) in the most recent 2 fiscal years until the annual report's publication date. Director attendance records were as follows:

Position	Name	Actual Attendance (B)	Proxy Attendance	Actual Attendance Ratio (B/A) (%)	Remarks
Chairman	George J. Lee	15	0	100%	
Director	Winston Z. Ho	15	0	100%	
Director	Wen-Chin Hung	6	0		Newly appointed on June 13, 2022
Director	Benjamin Jen	12	3	80%	
Independent director	Wen-Jing Tsai	15	0	100%	
Independent director	Ben Liu	15	0	100%	
Independent director	Jack Hsiao	15	0	100%	

Supplementary Information:

1. For Board of Directors meetings that meet any of the following descriptions, state the date, session, the content of motions, independent directors' opinions and how the company has responded to such opinions:

(1) Matters listed in Article 14-3 of the Securities and Exchange Act:

Meeting Date and Session	Content of motions	Independent directors' opinions and how the Company has responded to such opinions:
2021/01/06 3rd Board 12th Session	1. Motion for the withdrawal of the Group's second cash capital increase application for 2020	Passed by all independent directors.
2021/03/17 3rd Board 13th Session	1. Motion of 2020 business report and 2020 consolidated financial statements 2. Acknowledge 2020 Deficit Compensation Statement 3. Internal Control System Statement 4. The independence and appropriateness of CPAs 5. Motion of the appointment of CPAs 6. Motion of amendments to the plan of a sound business 7. Motion of amendments to the Group's "Procedures for Acquisition or Disposal of Assets" 8. Motion of setting a date, location, shareholder proposal procedures and agenda for the 2021 Annual General Meeting Motion for 2020 distribution of employee stock warrants (4th distribution)	Passed by all independent directors.
2021/05/13 3rd Board	1. Motion of the Q1 2021 consolidated financial statements	Passed by all independent

	14th Session	2. Expanded rental plan of US subsidiary 3. Motion of capital increase for Taiwan's sub-subsidiary 4. Contract revision stipulating provision of assistance by lead securities underwriters in the compliance by the Company with applicable laws and regulations 5. Sales incentive plan for Sales Division for the second half of 2021 6. Motion for 2020 distribution of employee stock warrants (5th distribution) 7. Retroactive recognition of Chief of Scientist (Director of Science) promotion 8. Retroactive recognition of Director (Product R&D Division) promotion	directors.
	2021/06/09 3rd Board 15th Session	1. 2021 Postponement of Annual General Meeting	Passed by all independent directors.
	2021/08/24 3rd Board 16th Session	1. Implementation status of the plan of a sound business in Q2 2021 2. Motion of amendments to the plan of a sound business 3. Motion of the plan for 2021 employee stock warrants 4. Motion for 2021 distribution of employee stock warrants (1st distribution) 5. Motion for the appointment of a QA a director and their salary and remuneration plan	Passed by all independent directors.
	2021/11/08 3rd Board 17th Session	1. Motion of the Q3 2021 consolidated financial statements 2. Motion of 2022 budget 3. 2022 audit plan 4. Motion for the determination of remuneration packages for managerial officers in 2022 5. 2022 sales incentive plan for Sales Division 6. Motion for amendments to the plan for 2021 employee stock warrants 7. Motion for 2021 distribution of employee stock warrants (2nd distribution) 8. Motion for the appointment of a marketing director and their salary and remuneration plan 9. Motion for the appointment of a sales director and their salary and remuneration plan	Passed by all independent directors.
	2022/03/23 3rd Board 18th Session	1. Motion of 2021 business report and 2021 consolidated financial statements 2. Acknowledge 2021 Deficit Compensation Statement 3. Internal Control System Statement 4. The independence and appropriateness of CPAs 5. Amendment to the "Company's Memorandum and Articles of Association" 6. Amendment to the Company's "Rules of Procedure for the Shareholders' Meeting" 7. Amendment to the Company's "Procedures for Acquisition or Disposal of Assets"	Passed by all independent directors.

		8. Amendment to the Company's Corporate Governance Best Practice Principles 9. Motion of setting a date, location, shareholder proposal and nomination procedures, and agenda for the 2022 Annual Shareholders' General Meeting 10. Motion for 2021 distribution of employee stock warrants (3rd distribution) 11. Appointment of administration a director (internal transfer) 12. Appointment of a CEO for the US subsidiary 13. Appointment of a senior director, Product Manufacturing Division (personnel transfer) 14. Promotion of financial controller	
	2022/04/28 3rd Board 19th Session	1. Motion of election of all directors and independent directors 2. Motion of lifting the Company's competition restriction for newly appointed directors (including independent directors) 3. Motion of setting a date, location, shareholder proposal and nomination procedures, and agenda for the 2022 Annual Shareholders' General Meeting (confirm the meeting venue)	Passed by all independent directors.
	2022/05/10 3rd Board 20th Session	1. Motion of the Q1 2022 consolidated financial statements 2. Motion of capital increase for Taiwan's sub-subsidiary 3. Motion for 2021 distribution of employee stock warrants (4th distribution) 4. Lending of funds to a sub-subsidiary in Taiwan	Passed by all independent directors.
	2022/06/22 4th Board 1st Session	1. Election of chairman 2. Motion of the convener appointment by the Audit Committee 3. Proposed to appoint members of the Company's Remuneration Committee	Except for the independent directors who had to recuse themselves in the motion of the Remuneration Committee members, all motions were passed by all independent directors.
	2022/08/25 4th Board 2nd Session	1. Motion of the Q2 2022 consolidated financial statements 2. Motion of amendments to the plan of a sound business 3. Appointment of directors of a subsidiary 4. Motion for 2021 distribution of employee stock warrants (5th distribution) 5. Appointment of Director of Sales Division 6. Appointment of Director of Product R&D Division 7. Promotion of Director of Supply Chain Management 8. Promotion of Operating Vice President 9. Promotion of Equipment Director	Passed by all independent directors.

2022/11/10 4th Board 3rd Session	1. Motion of the Q3 2022 consolidated financial statements 2. Motion of 2023 budget 3. 2023 audit plan 4. Amendment to the Company's "Rules of Procedure for Board Meetings" 5. Amendments to the "Procedures for Handling Material Inside Information and Prevention of Insider Trading" of the Company 6. Application of the 2022 employee stock warrants 7. Motion for the determination of remuneration packages for managerial officers in 2023 8. 2023 sales incentive plan for Sales Division	Passed by all independent directors.
2023/01/18 4th Board 4th Session	Salary adjustment for CEO of the US subsidiary	Passed by all independent directors.
2023/03/13 4th Board 5th Session	1. Motion of 2022 business report and 2022 consolidated financial statements 2. Acknowledge 2022 Deficit Compensation Statement 3. Internal Control System Statement 4. The independence and appropriateness of CPAs 5. Discussion on pre-approval the CPAs, and the non-audit services provided by their accounting firms and associates of the firms 6. Amendment to the "Company's Memorandum and Articles of Association" 7. Amendment to the Company's "Operational Procedures for Loaning Funds to Others" 8. Motion of setting a date, location, shareholder proposal procedures and agenda for the 2023 Annual General Meeting 9. Appointment of Corporate Governance Officer 10. Appointment of HR Director 11. Appointment of Clinical Compliance Director 12. Appointment of Vice President of Sales Division 13. Promotion of Marketing Vice President 14. Promotion of Senior Financial Director 15. Motion for 2022 distribution of employee stock warrants (1st distribution)	Passed by all independent directors.
2023/05/12 4th Board 6th Session	1. 2023 Q1 Consolidated Financial Statements 2. Appointment of Senior Business Development Director 3. 2022 Employee Stock Option Allocation Plan (The Second Allocation)	Passed by all independent directors.

(2) Any other documented objections or qualified opinions raised by independent directors against board resolutions in relation to matters other than those described above: None.

2. In the case of recusal of a director in a motion related to his/her own interests, please specify the director's names, the content of motions, the reasons for the recusal and the voting results: None.

3. TWSE/TPEx Listed Companies should disclose information on the evaluation content

of the board's self (or peer) evaluation:

Evaluation Cycle	Once a year
Evaluation Period	January 1, 2022 - December 31, 2022
Evaluation Scope	Board of directors, individual directors and functional committees
Evaluation method	Internal self-evaluation by the board of directors and self-evaluation by the board members
Evaluation content	1. Performance evaluation of the board of directors: Participation in the operation of the company, improvement of the quality of the board of directors' decision making, composition and structure of the board of directors, election and continuing education of the directors, and internal control. 2. Performance evaluation of the board members: Alignment of the goals and missions of the Company, awareness of the duties of a director, participation in the operation of the Company, management of internal relationships and communication, the director's professionalism and continuing education, and internal control. 3. Performance evaluation of the functional committees: Participation in the operation of the Company, awareness of the duties of the functional committee, quality of decisions made by the functional committee, makeup of the functional committee and election of its members, and internal control.
Evaluation outcome	The results of the evaluation are reported to the Board of Directors in Q1 2023 according to the Regulations for Self-evaluation or Peer Evaluation of the Board of Directors adopted by the Board of Directors to be used as the basis for review and improvement. 1. Performance evaluation of the board of directors Excellent. 2. Performance evaluation of the board members: Excellent. 3. Performance evaluation of the functional committees: Excellent.

4. Measures the objectives to strengthen the board's functionality (e.g. establish Audit Committee, enhance information transparency) and execution status in the current and the most recent fiscal year: The Group has formulated the "Rules of Procedure for Board Meetings" as guidelines for the operation of Board meetings. The Group has 3 independent directors and has established the Audit Committee and Remuneration Committee. In the future, the Group will disclose related information on its website and on the MOPS to improve the transparency of information required by the law.

(2) The operation of the Audit Committee

The Audit Committee assists the Board in fulfilling its oversight of the quality and integrity of the accounting, auditing, reporting, and financial control practices, as well as risk management of the Company.

The Audit Committee is responsible to review the following major matters:

Financial reports; Auditing and accounting policies and procedures; Internal control systems and related policies and procedures;

Material asset or derivatives transactions; Material lending funds, endorsements or guarantees;

Offering or issuance of any equity-type securities; Derivatives and cash investments; Legal compliance;

Related-party transactions and potential conflicts of interests involving executive officers and directors; Ombudsman reports;

Fraud prevention and investigation reports; Corporate information security; Corporate risk management;

Performance, independence, qualification of independent auditor; Hiring or dismissal of an attesting CPA, or the compensation given thereto;

Appointment or discharge of financial, accounting, or internal auditing officers; Assessment and fulfillment of Audit Committee duties.

The 2nd term Audit Committee of the Group held 7 meetings before the re-election of directors in 2021 and 2022. The 3rd Audit Committee convened 4 meetings from June 13, 2022, when the 7 directors were re-elected at the shareholders' meeting to the reporting year until the annual report's publication date. The Audit Committee convened a total of 11 times (A) in the most recent 2 fiscal years until the annual report's publication date. Independent director attendance records were as follows:

Position	Name	Actual Attendance (B)	Proxy Attendance	Actual Attendance Ratio (B/A) (%)	Remarks
Independent director	Wen-Jing Tsai	11	0	100%	
Independent director	Ben Liu	11	0	100%	
Independent director	Jack Hsiao	11	0	100%	

Supplementary Information:

1. Where Audit Committee meetings meet any of the following criteria, the date and session of the convened Audit Committee meeting, the content of motions, dissenting or qualified opinions or major recommendations by independent directors, Audit Committee resolutions, and the handling of such opinions shall be clearly specified:

(1) The items listed in Article 14-5 of the Securities and Exchange Act:

Meeting Date and Session	Content of motions	How the Company has responded to the Audit Committee's opinions:
2021/01/06 2nd Board 11th Session	1. Motion for the withdrawal of the Group's second cash capital increase application for 2020	Passed by all members of the Audit Committee
2021/03/17 2nd Board 12th Session	1. Motion of 2020 business report and 2020 consolidated financial statements 2. Acknowledge 2020 Deficit Compensation Statement 3. Internal Control System Statement 4. Motion of the appointment of CPAs 5. Motion of amendments to the plan of a sound business 6. Motion of amendments to the Group's "Procedures for Acquisition or Disposal of Assets"	Passed by all members of the Audit Committee
2021/05/13 2nd Board 13th Session	1. Motion of the Q1 2021 consolidated financial statements 2. Expanded rental plan of US subsidiary 3. Expanded rental plan of US subsidiary	Passed by all members of the Audit Committee
2021/08/24 2nd Board 14th Session	1. Motion of the Q2 2021 consolidated financial statements 2. Motion of amendments to the plan of a sound business 3. Motion of the plan for 2021 employee stock warrants 4. Motion for 2020 distribution of employee stock (1st distribution)	Passed by all members of the Audit Committee
2021/11/08 2nd Board 15th Session	1. Motion of the Q3 2021 consolidated financial statements 2. Motion of 2021 budget 3. 2022 audit plan 4. Motion for amendments to the plan for 2020 employee stock warrants 5. Motion for 2020 distribution of employee stock warrants (2nd distribution)	Passed by all members of the Audit Committee
2022/03/23 2nd Board 16th Session	1. Motion of 2021 business report and 2021 consolidated financial statements 2. Acknowledge 2021 Deficit Compensation Statement 3. Internal Control System Statement 4. Amendment to the Company's "Rules of Procedure for the Shareholders' Meeting" 5. Amendment to the Company's "Procedures for Acquisition or Disposal of Assets" 6. Amendment to the Company's Corporate Governance Best Practice Principles 7. Motion for 2020 distribution of employee stock warrants (3rd distribution)	Passed by all members of the Audit Committee
2022/05/10 2nd Board 17th Session	1. Motion of the Q1 2022 consolidated financial statements 2. Motion of capital increase for Taiwan's sub-subsidiary	Passed by all members of the Audit Committee

	3. Motion for 2021 distribution of employee stock warrants (4th distribution) 4. Lending of funds to a sub-subsidiary in Taiwan	
2022/08/25 3rd Board 1st Session	1. Motion of the Q2 2022 consolidated financial statements 2. Motion of amendments to the plan of a sound business 3. Motion for 2021 distribution of employee stock warrants (5th distribution)	Passed by all members of the Audit Committee
2022/11/10 3rd Board 2nd Session	1. Motion of the Q3 2022 consolidated financial statements 2. Motion of 2023 budget 3. 2023 audit plan 4. Amendment to the Company's "Rules of Procedure for Board Meetings" 5. Amendments to the "Procedures for Handling Material Inside Information and Prevention of Insider Trading" of the Company 6. Application of the 2022 employee stock warrants	Passed by all members of the Audit Committee
2023/03/13 3rd Board 3rd Session	1. Motion of 2022 business report and 2022 consolidated financial statements 2. Acknowledge 2022 Deficit Compensation Statement 3. Internal Control System Statement 4. Discussion on pre-approval the CPAs, and the non-audit services provided by their accounting firms and associates of the firms 5. Amendment to the Company's "Operational Procedures for Loaning Funds to Others" 6. Motion for 2022 distribution of employee stock warrants (1st distribution)	Passed by all members of the Audit Committee
2023/05/12 3rd Board 4th Session	1. 2023 Q1 Consolidated Financial Statements 2. 2022 Employee Stock Option Allocation Plan (The Second Allocation)	Passed by all members of the Audit Committee

(2) Other than those described above, any resolutions not approved by the Audit Committee passed by more than two-thirds of directors: None.

2. In case of an independent director's recusal in a motion related to his/her own interests, please specify the director's names, the content of motions, the reasons for the recusal, and the voting results: None.

3. State of communication between independent directors, internal auditer and CPA (such as significant items, methods and results of communications on the Group's finances and business status): The Group's Audit Committee meetings are convened in accordance with the "Audit Committee Charter." Through related motions, financial reports audited by CPAs are regularly reviewed. The internal audit implementation status and results are regularly reported to the Audit Committee. The Audit Committee also keeps a smooth communication channel with the independent directors.

(3) Corporate governance execution status and deviations from "Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies"

Evaluation Item	Implementation Status			Difference from the Corporate Governance Best-Practice Principles for TWSE/TEPx Listed Companies and the reasons
	Yes	No	Summary	
1. Whether the Company establishes and discloses its corporate governance rules in accordance with the Corporate Governance Best-Practice Principles for TSE/TPEx Listed Companies?	✓		The Group has established its Corporate Governance Best-Practice Principles to implement vital corporate governance principles to protect shareholders' equity and interests, strengthen the functions of the Board of Directors and enhance the transparency of information. The Group has also formulated related corporate governance rules, such as the Rules of Procedure for Board Meetings, the Audit Committee Charter, the Remuneration Committee Charter, the Procedures for Handling Material Inside Information and Prevention of Insider Trading, the internal audit system, and the Ethical Corporate Management Best Practice Principles. The Group discloses material information as required by applicable laws and regulations and discloses financial and nonfinancial information regularly. 3 independent directors have also been set up; therefore, the Group's practical operations are handled in accordance with corporate governance rules.	No material nonconformity
2. Equity structure and shareholders' equity (1) Has the Company established internal procedures to handle shareholders' proposals, doubts, disputes, and litigation matters; also, have the procedures been implemented accordingly?	✓		(1) The Group has appointed a professional stock transfer agency in Taiwan to handle stock affairs. It has set up a spokesperson and deputy spokesperson that are available to deal with shareholders' suggestions, doubts and disputes.	No material nonconformity

Evaluation Item	Implementation Status			Difference from the Corporate Governance Best-Practice Principles for TWSE/TEPx Listed Companies and the reasons
	Yes	No	Summary	
(2) Does the Company have the list of the Company's major shareholders and the list of the ultimate controllers of the major shareholders?	✓		(2) Through the insider reporting system, the Group is aware of the changes in the list of major shareholders and ultimate controllers of major shareholders.	No material nonconformity
(3) Has the Company established and implemented the risk control and firewall mechanisms with affiliated enterprises?	✓		(3) The Group has formulated the "Management Measures Governing Transactions between Enterprises, Certain Companies and Related Parties." Related matters are handled accordingly to enforce risk control.	No material nonconformity
(4) Has the Company set up internal norms to prohibit insiders from utilizing undisclosed information to trade securities?	✓		(4) The Group has formulated the Procedures for Handling Material Inside Information and Prevention of Insider Trading to prevent insiders from trading marketable securities using information that is not yet open to the public. The Group also strengthens the promotion of legal compliance of insiders to be aware of and follow applicable regulations.	No material nonconformity
3. The composition, duties of the Board of Directors				
(1) Has the board of directors formulated a diversity policy and concrete management objectives and have this policy and objectives been implemented?	✓		(1) The Group's current Board is made up of 3 directors and 3 independent directors, who share backgrounds of biotechnology, healthcare, business management, and finance and accounting.	No material nonconformity
(2) Apart from establishing the Remuneration Committee and audit committee by the law, has the Company established other functional committees voluntarily?	✓		(2) Currently, we have established the Remuneration Committee and Audit Committee. In the future, the Group may set up other functional committees according to business needs.	May be established according to future needs.

Evaluation Item	Implementation Status			Difference from the Corporate Governance Best-Practice Principles for TWSE/TEPx Listed Companies and the reasons
	Yes	No	Summary	
(3) Has the company established the Regulations Governing the Board Performance Evaluation and its evaluation methods, and does the company conduct a regular performance evaluation each year and submit the results of performance evaluations to the Board of Directors (or peer) and use them as a reference in determining remuneration for individual directors, their nomination, and additional office terms?	✓		(3) The Group has established the Regulations Governing the Board Performance Evaluation and its evaluation methods and conducts a regular performance evaluation as required. The first quarter of 2020 has been evaluated by all members of the board and the result has been submitted to the Board.	No material nonconformity
(4) Has the company assessed the independence of the CPAs regularly?	✓		(4) We appoint CPAs through approval by the Board and carry out regular evaluations on the independence of the CPAs. The accounting firm of the Group's CPAs is a large accounting firm that audits the Group's financial statements with their substantial independence and is in compliance with laws and regulations.	No material nonconformity
4. Has the company designated an appropriate number of personnel that specializes (or are involved) in corporate governance affairs (including but not limited to providing directors/supervisors with the information needed and assist directors and	✓		The Group currently does not meet the criteria of establishing a corporate governance department or personnel required by the competent authority; however, there are part-time corporate governance personnel responsible for related affairs.	May be established according to future needs.

Evaluation Item	Implementation Status			Difference from the Corporate Governance Best-Practice Principles for TWSE/TEPx Listed Companies and the reasons
	Yes	No	Summary	
supervisors in complying with the laws and regulations to perform their duties, convention of board meetings and shareholders meetings, preparation of board meeting and shareholders meeting minutes, etc.)?				
5. Has the company established channels for communication with the stakeholders (including but not limited to shareholders, employees, customers, and suppliers), and set up a section for stakeholders on the official website of the Company with a proper response to the concerns of the stakeholders on issues related to corporate social responsibility?	✓		The Group has set up dedicated personnel and email to respond to CSR issues concerning stakeholders properly.	No material nonconformity
6. Has the company appointed a professional stock transfer agency to handle stock affairs related to shareholders meetings?	✓		The Group has appointed a professional stock transfer agency in Taiwan to handle stock affairs and affairs related to shareholders meetings.	No material nonconformity
7. Information Disclosure				
(1) Does the company have a website set up and the financial business and corporate governance information disclosed?	✓		(1) The Group has a website in both Chinese and English where Company information will continue to be disclosed. The Group also discloses related information on MOPS as required by regulations.	No material nonconformity
(2) Has the company adopted other information disclosure methods (such as	✓		(2) The Group has a website in both Chinese and English and provides information on the Group's business and corporate governance. The	No material nonconformity

Evaluation Item	Implementation Status			Difference from the Corporate Governance Best-Practice Principles for TWSE/TEPx Listed Companies and the reasons
	Yes	No	Summary	
establishing an English website, designating a responsible person for collecting and disclosing information of the Company, substantiating the spokesperson system, and upload the procedure of institutional investor conference on its website, etc.)?			information is also disclosed on MOPS to facilitate external inquiries about the Group's financial and business information. Dedicated personnel have been appointed to collect and disclose the company's information. The Group has also established a spokesperson and deputy spokesperson system and will convene institutional investor conferences in the future as required by regulations.	
(3) Has the company published and reported its annual financial report within two months after the end of a fiscal year, and published and reported its financial reports for the first, second, and third quarters, as well as its operating status for each month before the specified deadline?	✓		(3) The Group published and reported its financial reports before the specified deadline.	No material nonconformity
8. Is there any important information (including but not limited to employee rights and benefits, employee care, investor relations, supplier relations, stakeholder rights, the continuing education of the directors and supervisors, risk management policy and risk assessment implementation, the pursuit of customer	✓		(1) Employee rights and benefits, employee care: We attach great importance to the rights and benefits of employees and maintains smooth communication channels while providing adequate education and training and reasonable remuneration and benefits. (2) Investor relations: We publish all information on MOPS and the Group's website. Spokesperson and deputy spokesperson have also been set up to maintains investor relations. (3) Supply relations: We have clear	No material nonconformity No material nonconformity No material

Evaluation Item	Implementation Status			Difference from the Corporate Governance Best-Practice Principles for TWSE/TEPx Listed Companies and the reasons
	Yes	No	Summary	
policy, and the purchase of liability insurance for the company's directors and supervisors) that is helpful in understanding the corporate governance operation of the company?			agreements with suppliers and customers to regulate each other's rights and obligations. (4) Stakeholder rights: Stakeholders may communicate with and make suggestions to us through our website, spokesperson and deputy spokesperson to protect their legitimate rights and interests. (5) The directors and supervisors' continuing education: Continuing education is provided to directors as required by regulations. (6) Risk management policy and risk assessment implementation: We have established an internal control system and management measures and carry out operating procedures required by regulations. (7) The pursuit of customer policy: We implement quick response and quality customer service mechanism so as to become our customers' permanent business partner. (8) The purchase of liability insurance for the Company's directors and supervisors: The Group currently purchases liability insurance for directors.	nonconformity No material nonconformity No material nonconformity No material nonconformity No material nonconformity No material nonconformity
9. Please explain the improvements made, based on the latest Corporate Governance Evaluation results published by TWSE Corporate Governance Center, and propose enhancement measures for any issues that are yet to be rectified: (companies that are not included in the evaluation list do not need to fill in this field): The Group is not listed as an evaluation company, so filling in is not required.				

(4) If the company has established a remuneration committee, its composition, duties and operations should be disclosed:

1. Information of members of the Remuneration Committee

Qualification / Identity	Name	Professional Qualification	Experience	Independence Criteria (conforms to the criteria set out in the Note)	Number of Other Public Companies Where the Member is Also a Member of Their Remuneration Committee
Independent director (Convener)	Wen-Jing Tsai	Professional or technical specialists who have passed a national examination or hold a license in accounting or another profession required for the Company's business operations with at least five years' experience.	Master in Accounting, National Chengchi University Bachelor in Accounting, National Taiwan University Manager, Deloitte Taiwan CEO, the Tax Committee, Taipei CPA Association Deputy Chairman, the National Federation of CPA Associations of the R.O.C.	(1) No; (2) None; (3) No; (4) None; (5) Yes	1
Independent director	Ben Liu	Lecturer or above in commerce, law, finance, accounting or other subjects required for the Company's business operations in public or private colleges or universities, at least five years' experience in commerce, law, finance, accounting, or another profession required for the Company's business operations, and professional or technical specialists who have passed a national examination or hold a license in law or another profession required for the Company's business operations.	Ph.D. in Law, National Chengchi University Department of Law, National Taiwan University Lawyer, Perkins Coie Lawyer, Yongyun International Law Firm Lawyer, Lee and Li	(1) No; (2) None; (3) No; (4) None; (5) Yes	1

Qualification / Identity	Name	Professional Qualification	Experience	Independence Criteria (conforms to the criteria set out in the Note)	Number of Other Public Companies Where the Member is Also a Member of Their Remuneration Committee
Independent director	Jack Hsiao	Required working experience at least five years in commerce, law, finance, accounting or other fields required by the business of the Company.	PhD, Boston University School of Medicine Deputy Chief Operating Officer, Show Chwan Health Care System Co-host, Telecare, Department of Health, Executive Yuan OmniHealth Group (US/TW) CEO	(1) No; (2) None; (3) No; (4) None; (5) Yes	-

Note: Independent directors shall provide a detailed description of their conformity to independence criteria including but not limited to the following: (1) Does the candidate, his/her spouse, or one of his/her relatives within the second degree of kinship serve as director, supervisor, or employee at the Company or one if its affiliates? (2) How many company shares does the candidate, his/her spouse, or one of his/her relatives within the second degree of kinship (or the candidate under others' names) hold and what is the shareholding ratio? (3) Does the candidate serve as director, supervisor, or employee of a company that has a specific relationship with this Company (as stipulated in Article 3, Paragraph 1, Subparagraph 5-8 of the Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies)? (4) Cumulative compensation received for the provision of commercial, law, financial, and accounting services to this Company or its affiliates within the past two years; (5) Do one of the circumstances specified in Article 30 of the Company Act apply?

2. Information on the operation of the Remuneration Committee
   (1) The Group's Remuneration Committee is made up of 3 persons.
   (2) Current term: June 13, 2022 to June 12, 2025. The Remuneration Committee convened 7 times between 2021 and 2022 and twice in the current year until the printing of the annual report for publication. The committee convened a total of 9 times in the most recent 2 fiscal years until the printing of the annual report for publication. Committee member attendance records were as follows:

Position	Name	Actual Attendance (B)	Proxy Attendance	Actual Attendance Ratio (%) (B/A)	Remarks
Convener	Wen-Jing Tsai	9	-	100%	
Member	Ben Liu	9	-	100%	
Member	Jack Hsiao	9	-	100%	

Supplementary Information:

1. The Remuneration Committee held three regular meetings on March 23, August 25 and November 10, 2022, to discuss the following matters:
   - Report on employee compensation related matters
   - Discussion on directors' evaluation
   - Appointment of the managers
   -Motion of 2021 distribution of employee stock warrants
   - Application of the 2022 employee stock warrants
   All of the above matters were reviewed or approved by the Remuneration Committee.
2. If the Board of Directors declines to adopt or modify a recommendation of the Remuneration Committee, the date, session, the content of motions, and the resolution of the Board meeting and handling of the resolution of the Remuneration Committee shall be specified (if the compensation package approved by the Board is better than the recommendation made by Remuneration Committee, please specify the discrepancy and its reason): None.
3. If a particular member holds an adverse opinion or qualified opinion on the resolution of the Remuneration Committee on record or in a written declaration, specify the date, the session, the content of motions, the opinions of all members, and the responses to the opinions of the members: None.

(5) Promotion of sustainable development and deviation from the Sustainable Development Best Practice Principles for TWSE/TPEx Listed Companies and the reasons thereof

Evaluation Item	Implementation Status			Deviation from the Sustainable Development Best Practice Principles for TWSE/TPEx Listed Companies and the reasons thereof
	Yes	No	Summary	
1. Has the Company established a governance framework for the promotion of sustainable development and has it designated units that are directly or concurrently responsible for the promotion of sustainable development? Has the board of directors authorized senior management to handle relevant matters and does it fulfill its supervisory duties?	✓		The Group has adopted Corporate Social Responsibility Best Practice Principles, which encompass sustainable development planning and internal control systems and relevant management measures of the Group's operating bodies formulated in accordance with the actual operations and needs of the environment in which they operate.	No material nonconformity
2. Has the company performed risk assessments on environmental, social, and corporate issues in relation to the Company's operations according to material principles and formulated relevant risk management policies or strategies?	✓		Although we have not yet set up a designated (or part-time) department to promote CSR, we explain to our employees the environmental management system to raise their awareness regarding environmental protection through education and training.	May be established according to future needs.
3. Environmental issues (1) Does the company have an appropriate environmental management system established in accordance with its industrial character? (2) Has the company committed efforts to upgrade the efficient use of resources and using recycled materials, causing less burden to the environment? (3) Does the company assess potential risks and opportunities associated with climate change and undertake measures in response to climate issues?	✓		(1) We place great importance on environmental protection and have established an appropriate environmental management system in accordance with its industrial character. (2) We strive to enhance the efficient use of resources and foster good habits such as low-carbon office, water and power conservation among our employees. (3) As we are primarily engaged in the production and sales of vitro diagnostic products, we are not directly related to climate change. However, the management team keeps a close	No material nonconformity No material nonconformity No material nonconformity

Evaluation Item	Implementation Status			Deviation from the Sustainable Development Best Practice Principles for TWSE/TPEx Listed Companies and the reasons thereof
	Yes	No	Summary	
			eye on the target market regarding the impact of climate change in order to formulate and adopt relevant measures accordingly.	
(4) Does the company maintain statistics on greenhouse gas emissions, water usage and total waste volume in the last two years and implement policies to reduce energy, carbon, greenhouse gas, water and waste?			(4) We are committed to reducing the impact of the Group's operation on the environment. We pay attention to the temperature in the office in an attempt to reduce carbon emissions while promoting energy conservation, recycling and reusing.	No material nonconformity
4. Social issues	✓			
(1) Does the company have the relevant management policies and procedures stipulated in accordance with the applicable laws and regulations and international conventions on human rights?			(1) We protect employees' legal rights and interests by formulating personnel management rules, work rules, and other policies and procedures as required by labor laws and regulations.	No material nonconformity
(2) Has the company established and implemented reasonable measures for employee benefits (including: remuneration, holidays and other benefits) and appropriately reflect the business performance or achievements in the employee remuneration?			(2) We have established and implemented reasonable employee benefit measures (including remuneration, holidays and other benefits), and reflect our business performance or achievements in the employee remuneration.	No material nonconformity
(3) Does the company provide employees with a safe and healthy work environment and regularly provide safety and health education to employees?			(3) We provide our employees with a safe and healthy workplace. We organize labor safety education and training periodically.	No material nonconformity
(4) Has the company established a training program for helping employees with effective			(4) We organize internal education and training from time to time and encourage our employees to	No material nonconformity

Evaluation Item	Implementation Status			Deviation from the Sustainable Development Best Practice Principles for TWSE/TPEx Listed Companies and the reasons thereof
	Yes	No	Summary	
career planning?			take part in external education and training so that employees are able to improve their working ability.	
(5) Has the company complied with laws and international standards with respect to customers' health, safety and privacy, marketing and labeling in all products and services offered, and implemented consumer and client protection policies and complaint procedures?			(5) Our marketing and labeling of products and services comply with applicable laws, regulations, and international standards.	No material nonconformity
(6) Has the company implemented a supplier management policy that regulates suppliers' conduct with respect to environmental protection, occupational safety and health or work rights/human rights issues, and tracked suppliers' performance on a regular basis?			(6) Although the Group's contracts currently entered into with its major suppliers do not cover the contents listed on the left, ABC-KY performs audits on suppliers' basic information as required by the internal control system and applicable management measures. Until now, ABC-KY has no suppliers with significant environmental protection concerns, occupational safety and health, or labor and human rights.	May be established according to future needs.
5. Does the company prepare a corporate social responsibility report or any non-financial information report based on international reporting standards or guidelines? Are the abovementioned reports supported by the assurance or opinion of a third-party verification unit?		✓	The Group has not prepared a CSR report.	May be established according to future needs.

Evaluation Item	Implementation Status			Deviation from the Sustainable Development Best Practice Principles for TWSE/TPEx Listed Companies and the reasons thereof
	Yes	No	Summary	
6. If the Company has formulated its own sustainable development best practice principles in accordance with the "Sustainable Development Best Practice Principles for TWSE/TPEx Listed Companies," please clearly specify the state of implementation and any deviations: The Group has adopted its own Corporate Social Responsibility Best Practice Principles There are no significant deviations from the "Sustainable Development Best Practice Principles for TWSE/TPEx Listed Companies."				
7. Any other important information that may help the understanding of the performance of sustainable development promotion better: Not only do we attach great importance to legal compliance to protect all stakeholders, as a group concerned by society, but it has also become the Group's culture to strive to fulfill its corporate social responsibility while setting an example.				

(6) Ethical Corporate Management Best Practice Principles and Deviations from Ethical Corporate Management Best Practice Principles for TWSE/TPEx Listed Companies and Reasons

Evaluation Item	Implementation Status			Deviations from Ethical Corporate Management Best Practice Principles for TWSE/TPEx Listed Companies and Reasons
	Yes	No	Summary	
1. Ethical Management Policies and Action Plans				
(1) Has the company established an ethical management policy that its Board of Directors has passed, and clearly specified in its rules and external documents the ethical corporate management policies and the commitment by the Board of Directors and senior management on the rigorous and thorough implementation of such policies and methods?	✓		(1) The Group has formulated the Ethical Corporate Management Best Practice Principles and the Conduct Guidelines, in which the policy, method and commitment of ethical management are clearly listed.	No material nonconformity
(2) Has the company established a risk assessment mechanism against unethical behavior, analyzed and assessed business activities within their business scope regularly that are at a higher risk of being involved in unethical behavior, and established prevention programs at least covering the preventive measures specified in Paragraph 2, Article 7 "Ethical Corporate Management Best Practice Principles for TWSE/TPEx Listed Companies"?	✓		(2) The Group has formulated the Ethical Corporate Management Best Practice Principles and the Conduct Guidelines, in which the regulations are clearly listed.	No material nonconformity
(3) Has the company specified operational procedures, behavioral guidelines, disciplines of violations, as well as an appeal system in the program against unethical behavior, and implemented such programs, and reviewed and revised the previous program on a regular basis?	✓		(3) The Group has established the Guidelines for the Adoption of Codes of Ethical Conduct and foster the idea of corporate ethics to the employee. The Group's management regulations have clear, relevant reward and disciplinary measures.	No material nonconformity

Evaluation Item	Implementation Status			Deviations from Ethical Corporate Management Best Practice Principles for TWSE/TPEx Listed Companies and Reasons
	Yes	No	Summary	
2. Implementation of Ethical Management				
(1) Does the company evaluate the integrity of all counterparties it has business relationships with? Are there any integrity clauses in the agreements it signs with business partners?	✓		(1) The Company carries out a review on the basic information of whom the Company does business with, as required by the internal control system and applicable management measures. So far, there is no significant irregularity in the content of purchase and sales or payment and receipt. Therefore, the main counterparties should have no unethical record. Although ABC-KY does not specify integrity terms in the contract entered into with counterparties, both the Company and counterparties carry out operating procedures in accordance with our respective internal norms. ABC-KY also enforces the regulations stipulated in the Ethical Corporate Management Best Practice Principles and the Conduct Guidelines.	No material nonconformity / The Company will specify ethical terms and conditions in the contract according to future needs.
(2) Has the company set up a dedicated, responsible unit to promote corporate ethical management under the Board of Directors, and has such unit reported its execution in terms of ethical management policy and preventive programs against unethical behaviors and the supervision status to the Board of Directors on a regular basis (at least once a year)?	✓		(2) Although the Group has not established a dedicated unit to promote corporate ethical management under the Board of Directors, all of the Group's operating activities adhere to the spirit of ethical Corporate Management Best Practice Principles and the Conduct Guidelines, and implement ethical management policy while proactively preventing any unethical conduct.	May be established according to future needs.
(3) Does the company have any policy that prevents conflict of	✓		(3) The Group has established the Guidelines for the Adoption of	No material nonconformity

Evaluation Item	Implementation Status			Deviations from Ethical Corporate Management Best Practice Principles for TWSE/TPEx Listed Companies and Reasons
	Yes	No	Summary	
interest and channels that facilitate the reporting of conflicting interests?			Codes of Ethical Conduct for the employee to follow, to prevent them from sacrificing the Company's interests for their personal gains.	
(4) Has the company established an effective accounting system and internal control system in order to implement ethical management, and propose relevant audit plans according to the assessment results of the risks of unethical behaviors, and review the compliance status of the prevention of unethical behaviors, or entrust an accountant to carry out the review?	✓		(4) The Group has established an effective accounting system and internal control system. These systems are regularly reviewed for compliance by internal auditors.	No material nonconformity
(5) Does the company organize internal or external training on a regular basis to maintain ethical management?	✓		(5) The Group has established rules for ethical management and promotes the importance of ethical management to the employee from time to time.	No material nonconformity
3. Whistleblowing system				
(1) Does the company have a specific whistleblowing and reward system established, a convenient report channel established, and a responsible staff designated to handle the individual being reported?	✓		(1) Applicable operations have been stipulated in the Group's Ethical Corporate Management Best Practice Principles and the Conduct Guidelines. However, there has not been any whistleblowing incidents.	No material nonconformity
(2) Has the company implemented any standard procedures and/or subsequent measures after carrying out an investigation or confidentiality measures for handling reported misconducts?	✓		(2) Applicable operations have been stipulated in the Group's Ethical Corporate Management Best Practice Principles and the Conduct Guidelines.	No material nonconformity
(3) Has the company taken appropriate measures to protect the whistle-blower	✓		(3) Applicable operations have been stipulated in the Group's Ethical Corporate Management Best	No material nonconformity

Evaluation Item	Implementation Status			Deviations from Ethical Corporate Management Best Practice Principles for TWSE/TPEx Listed Companies and Reasons
	Yes	No	Summary	
from suffering any consequences of reporting an incident?			Practice Principles and the Conduct Guidelines.	
4. Information Disclosure Strengthening Has the company disclosed the content of its ethical corporate management best practice principles and the results of implementation on its official website and MOPS?	✓		The Group's information is released in a timely and transparent manner, and information related to ethical corporate management is fully disclosed in the annual report.	No material nonconformity
5. For companies who have established Ethical Corporate Management Best Practice Principles in accordance with the "Ethical Corporate Management Best Practice Principles for TWSE/TPEx Listed Companies," please describe the current practice and any deviations from the code of conduct: So far, there are no significant differences in the operation.				
6. Other important information that helps to understand the practice of ethical management of the company: (e.g., the review and revision of Ethical Corporate Management Best Practice Principles): The Group arranges corporate governance courses for directors on a regular basis and promotes the ethical management policy through internal meetings from time to time.				

Note: Regardless of clicking "yes" or "no," it should be explained in the summary field.

(7) If the Company established the Corporate Governance Principles and related articles, please disclose the inquiry method:

We have formulated measures including the Ethical Corporate Management Best Practice Principles and Guidelines for the Adoption of Ethical Conduct codes. Not only are these measures disclosed on MOPS as required by the competent authority, we have also set up a corporate governance section on the website to fully disclose information on the Group's corporate governance.

(8) Other important information that is sufficient to enhance the understanding of the operation of corporate governance: None.

(9) Internal control system implementation status

1. Internal Control System Statement

Applied BioCode Corporation

內部控制制度聲明書

日期：112年3月13日

本公司民國111年度1月1日至12月31日之內部控制制度，依據自行評估的結果，謹聲明如下：

一、本公司確知建立、實施和維護內部控制制度係本公司董事會及經理人之責任，本公司業已建立此一制度。其目的係在對營運之效果及效率(含獲利、績效及保障資產安全等)、報導具可靠性、及時性、透明性及符合相關規範暨相關法令規章之遵循等目標的達成，提供合理的確保。

二、內部控制制度有其先天限制，不論設計如何完善，有效之內部控制制度亦僅能對上述三項目標之達成提供合理的確保；而且，由於環境、情況之改變，內部控制制度之有效性可能隨之改變。惟本公司之內部控制制度設有自我監督之機制，缺失一經辨認，本公司即採取更正之行動。

三、本公司係依據「公開發行公司建立內部控制制度處理準則」（以下簡稱「處理準則」）規定之內部控制制度有效性之判斷項目，判斷內部控制制度之設計及執行是否有效。該「處理準則」所採用之內部控制制度判斷項目，係為依管理控制之過程，將內部控制制度劃分為五個組成要素：1.控制環境，2.風險評估，3.控制作業，4.資訊與溝通，及5.監督作業。每個組成要素又包括若干項目。前述項目請參見「處理準則」之規定。

四、本公司業已採用上述內部控制制度判斷項目，評估內部控制制度之設計及執行的有效性。

五、本公司基於前項評估結果，認為本公司於民國111年12月31日之內部控制制度（含對子公司之監督與管理），包括瞭解營運之效果及效率目標達成之程度、報導係屬可靠、及時、透明及符合相關規範暨相關法令規章之遵循有關的內部控制制度等之設計及執行係屬有效，其能合理確保上述目標之達成。

六、依「臺灣證券交易所股份有限公司外國發行人第一上市後管理作業辦法」第四條之規定，本公司依據「處理準則」第二十八條之規定，委託會計師專案審查上開期間與外部財務報導之可靠性及與保障資產安全(使資產不致在未經授權之情況下取得、使用或處分)有關的內部控制制度，如前項所述，其設計及執行係屬有效，並無影響財務資訊之記錄、處理、彙總及報告可靠性之重大缺失，亦無影響保障資產安全，使資產在未經授權之情況下遂行取得、使用或處分之重大缺失。

七、本聲明書將成為本公司年報及公開說明書之主要內容，並對外公開。上述公開之內容如有虛偽、隱匿等不法情事，將涉及證券交易法第二十條、第三十二條、第一百七十一條及第一百七十四條等之法律責任。

八、本聲明書業經本公司民國112年3月 13 日董事會通過，出席董事7人中，有0人持反對意見，餘均同意本聲明書之內容，併此聲明。

Applied BioCode Corporation

董事長： 簽章

總經理： 簽章

If an accountant is entrusted to perform a special audit on the internal control system, the audit report shall be disclosed

pwc 資誠

內部控制制度審查確信報告

資會綜字第 22010194 號

Applied BioCode Corporation 公鑒：

後附 Applied BioCode Corporation 民國 112 年 3 月 13 日謂經評估其與外部財務報導及保障資產安全有關之內部控制制度，於民國 111 年 12 月 31 日係有效設計及執行之聲明書，業經本會計師執行合理確信審查程序竣事。

標的、標的資訊與適用基準

本確信案件之標的及標的資訊係 Applied BioCode Corporation 與外部財務報導和保障資產安全有關之內部控制制度於民國 111 年 12 月 31 日之設計及執行情形，及 Applied BioCode Corporation 於民國 112 年 3 月 13 日所出具謂經評估其與外部財務報導及保障資產安全有關之內部控制制度係有效設計及執行之聲明書(以下併稱確信標的)。

用以衡量或評估上開確信標的之適用基準係「公開發行公司建立內部控制制度處理準則」之內部控制制度有效性判斷項目。

先天限制

由於任何內部控制制度均有其先天上之限制，故 Applied BioCode Corporation 上述內部控制制度仍可能未能預防或偵測出業已發生之錯誤或舞弊。此外，未來之環境可能變遷，遵循內部控制制度之程度亦可能降低，故在本期有效之內部控制制度，並不表示在未來亦必有效。

管理階層之責任

管理階層之責任係依據相關法令規章建立內部控制制度，且隨時檢討，以維持內部控制制度之設計及執行持續有效，並於評估其有效性後，據以出具內部控制制度聲明書。

會計師之責任

本會計師之責任係依照「公開發行公司建立內部控制制度處理準則」及確信準則 3000 號「非屬歷史性財務資訊查核或核閱之確信案件」對確信標的執行必要程序以取得合理確信，並對確信標的在所有重大方面是否遵循適用基準及是否允當表達作成結論。

資誠聯合會計師事務所 PricewaterhouseCoopers, Taiwan
110208 臺北市信義區基隆路一段 333 號 27 樓
27F, No. 333, Sec. 1, Keelung Rd., Xinyi Dist., Taipei 110208, Taiwan
T: +886 (2) 2729 6666, F:+ 886 (2) 2729 6686, www.pwc.tw

pwc 資誠

獨立性及品質管理規範

本會計師及所隸屬會計師事務所已遵循會計師職業道德規範中有關獨立性及其他道德規範之規定，該規範之基本原則為正直、公正客觀、專業能力及專業上應有之注意、保密及專業行為。此外，本會計師所隸屬會計師事務所遵循品質管理準則，維持完備之品質管理制度，包含與遵循職業道德規範、專業準則及所適用法令相關之書面政策及程序。

所執行程序之彙總說明

本會計師係基於專業判斷規劃及執行必要程序，以獲取相關確信標的之證據。所執行之程序包括瞭解公司內部控制制度、評估管理階層評估整體內部控制制度有效性之過程、測試及評估其與外部財務報導及保障資產安全有關之內部控制制度設計及執行之有效性，以及本會計師認為必要之其他審查程序。本會計師相信此項審查工作可對所表示之結論提供合理之依據。

確信結論

依本會計師意見，依照「公開發行公司建立內部控制制度處理準則」之內部控制制度有效性判斷項目判斷，Applied BioCode Corporation 與外部財務報導及保障資產安全有關之內部控制制度於民國 111 年 12 月 31 日之設計及執行，在所有重大方面可維持有效性；Applied BioCode Corporation 於民國 112 年 3 月 13 日所出具謂經評估其與外部財務報導及保障資產安全有關之內部控制制度係有效設計及執行之聲明書，在所有重大方面則屬允當。

資 誠 聯 合 會 計 師 事 務 所

許 林 翁

會計師 梁 [illegible] 女

前行政院金融監督管理委員會證券期貨局
核准簽證文號：金管證審字第0990047105號
前行政院金融監督管理委員會
核准簽證文號：金管證審字第0990001654號

中 華 民 國 112 年 4 月 14 日

(10) If there has been any legal penalty against the company or its internal personnel, or any disciplinary penalty by the company against its internal personnel for violation of the internal control system, during the last fiscal year or during the current fiscal year up to the publication date of the annual report, where the result of such penalty could have a material effect on shareholders' equity or securities prices, the annual report shall disclose the penalty, the main shortcomings, and condition of improvement: None.

(11) Important resolutions adopted at the most recent annual shareholders' meeting and their implementation status:

The 2022 Annual General Shareholders' Meeting was held on June 13, 2022. The resolutions adopted at the meeting by the shareholders present and the status of implementation are as follows:

1. To ratify the 2021 business report and consolidated financial statements

   Implementation status: 2021 Business Report and Consolidated Financial Statements were ratified.

2. To ratify the 2021 Deficit Compensation Statement.

   Implementation status: The resolution was adopted and implemented as resolved by the shareholders' meeting.

3. Amendment to the Company's "Memorandum and Articles of Association"

   Implementation status: The resolution was adopted and implemented as resolved by the shareholders' meeting.

4. Amendment to the Company's "Rules of Procedure for the Shareholders' Meeting"

   Implementation status: The resolution was adopted and implemented as resolved by the shareholders' meeting.

5. Amendment to the Company's "Procedures for Acquisition or Disposal of Assets"

   Implementation status: The resolution was adopted and implemented as resolved by the shareholders' meeting.

6. Election: To re-elect seven directors (including three independent directors)

   Implementation status: The elected directors are as follows: George J. Lee, Winston Z. Ho, Benjamin Jen, Wen-Chin Hung (representative of Maxwell Sensors Incorporation), Wen-Jing Tsai (independent director), Ben Liu (independent director) and Jack Hsiao (independent director).

(12) Important resolutions of board of directors' meeting during the last fiscal year and up to the date of publication of the annual report:

Date of Meeting	Session	Content of motions	Resolution
2022/03/23	18th meeting of the 3rd board	(1) Motion of 2021 business report and 2021 consolidated financial statements (2) Acknowledge 2021 Deficit Compensation Statement (3) Amendment to the "Company's Memorandum and Articles of Association"	Motion has been passed
2022/04/28	19th meeting of the 3rd board	(1) Motion of election of all directors and independent directors (1) Motion of lifting the Company's competition restriction for newly appointed directors (including independent directors)	Motion has been passed

Date of Meeting	Session	Content of motions	Resolution
2022/05/10	20th meeting of the 3rd board	(1) Motion of the Q1 2022 consolidated financial statements (2) Motion of capital increase for Taiwan's sub-subsidiary (1) Lending of funds to a sub-subsidiary in Taiwan	Motion has been passed
2022/06/22	1st meeting of the 4th board	(1) Election of chairman (2) Motion of the convener appointment by the Audit Committee (3) Proposed to appoint members of the Company's Remuneration Committee	The directors and the independent directors elected the chairman and the convener from among themselves
2022/08/25	2nd meeting of the 4th board	(1) Motion of the Q2 2022 consolidated financial statements (2) Appointment of directors of a subsidiary	Motion has been passed
2022/11/10	3rd meeting of the 4th board	(1) Motion of the Q3 2022 consolidated financial statements (2) Motion of 2023 budget	Motion has been passed
2023/01/18	4th meeting of the 4th board	(1) Salary adjustment for CEO of the US subsidiary	Motion has been passed
2023/03/13	5th meeting of the 4th board	(1) Motion of 2022 business report and 2022 consolidated financial statements (2) Acknowledge 2022 Deficit Compensation Statement (3) Amendment to the "Company's Memorandum and Articles of Association" (4) Amendment to the Company's "Operational Procedures for Loaning Funds to Others"	Motion has been passed
2023/05/12	6th meeting of the 4th board	(1) 2023 Q1 Consolidated Financial Statements	Motion has been passed

(13) Any other documented objections or qualified opinions raised by directors or supervisors against board resolutions in relation to matters, and their content for the most recent fiscal year and as of the publication date of the annual report: None.

(14) Separation or discharge of chairman, president and managerial staff of accounting, finance, internal audit, and research and development for the most recent fiscal year and as of the publication date of the annual report: None.

5. Information of CPA Professional Fees

(1) Information of CPA Professional Fees

Unit: NT$ thousand

Name of the Accounting Firm	Name of the CPAs	CPA audit period	Audit Fee	Non-Audit Fee	Total	Remarks
PwC Taiwan	Wendy Liang	2022	6,579	0	6,579	
	Alan Chien					
	Wendy Liang	Issuance of employee stock warrants	0	208	208	
	Gary Hsu	Special internal control audit	1,089	0	1,089	

(2) When the company changes its accounting firm and the audit fees paid for the financial year in which the change took place are lower than those paid for the financial year immediately preceding the change, the amount of the audit fees before and after the change and the reason shall be disclosed: None.

(3) Over 10% decrease in audit fee compared to the previous year, the decreased amount, percentage and reason of the audit fee shall be disclosed: None.

6. Change of CPAs: None.

7. Status of whether the company's chairman, president, or any managerial officer in charge of finance or accounting matters has for the last fiscal year held a position at the accounting firm of its auditing CPAs or at an affiliate: None.

8. Evaluation of CPAs' Independence:

The Audit Committee assessed the independence of the CPAs using the following criteria and reported the results of its assessment to the Board of Directors.

(1) Independence Declaration of the CPAs

(2) The same CPA has not performed audit services for more than seven consecutive years

(3) The CPA's independence evaluation report is used to evaluate the financial interests, business relationships, and employment relationships of the CPA annually in order to summarize the results of the evaluation of the CPA's independence.

9. Information of shares transfers or pledges from Board of Directors, Managers, and shareholders with more than 10% shareholding

(1) Changes in shareholding and changes in pledge of shares by directors, supervisors, managerial officers and major Shareholders:

Unit: Shares

Position	Name	2021		2022		As of March 31, 2023	
		Net Change in Shareholding	Net Change in Shares Pledged	Net Change in Shareholding	Net Change in Shares Pledged	Net Change in Shareholding	Net Change in Shares Pledged
Chairman	George J. Lee	—	—	—	—	—	—
Director and President	Winston Z. Ho	—	—	—	—	5,000	—
Director	Wen-Chin Hung (Note 1)	—	—	—	—	—	—
Director	Benjamin Jen	—	—	—	—	—	—
Independent director	Wen-Jing Tsai	—	—	—	—	—	—
Independent director	Jack Hsiao	—	—	—	—	—	—
Independent director	Ben Liu	—	—	—	—	—	—
Vice President	Michael Aye	30,000	—	—	—	—	—
Vice President	Donald Wong (Note 2)	(18,500)	—	—	—	—	—
Vice President	Liang-Kai Huang	—	—	—	—	—	—
Vice President	Yu-Lin Chen	6,500	—	—	—	—	—
Vice President	Christopher Bernard (Note 3)	—	—	—	—	—	—
Vice President	Gerald Kowalski	(3,500)	—	—	—	—	—
Vice President	Parisa Hanachi	—	—	—	—	—	—
Vice President	Jim Leigh (Note 4)	—	—	—	—	—	—
Director	Michael Ho	—	—	—	—	—	—
Director	Gao Chen	—	—	—	—	—	—
Director	April Tang (Note 5)	—	—	5,000	—	—	—
Director	Ingrid Joseph	—	—	—	—	—	—
Director	Frank Mitchell (Note 5)	—	—	—	—	—	—
Director	Julan Snachez (Note 4)	—	—	—	—	—	—
Director	Chia-Chi Chang (Note 6)	(4,000)	—	—	—	—	—
Director	Roland Stricland (Note 5)	—	—	—	—	—	—
Director	Michale Jason Scott (Note 5)	—	—	—	—	—	—
Director	Anna Alkhouri (Note 7)	—	—	—	—	—	—
Director	Quanta Tann (Note 7)	—	—	—	—	—	—

Position	Name	2021		2022		As of March 31, 2023	
		Net Change in Shareholding	Net Change in Shares Pledged	Net Change in Shareholding	Net Change in Shares Pledged	Net Change in Shareholding	Net Change in Shares Pledged
Director	Marc Macon (Note 7)	—	—	—	—	—	—
Director	Cassandra Ingles (Note 4)	—	—	—	—	—	—
Manager	Jau-Tung Pan	—	—	—	—	—	—
Manager	Zong-Han You	—	—	—	—	—	—
Corporate Director and shareholders holding more than 10% of the shares	Maxwell Sensors	—	—	—	—	—	—

Note 1: Director Wen-Chin Hung (Representative of Corporate Director) was newly appointed on June 13, 2022.

Note 2: Managerial officer Donald Wong was relieved from his duties in March 2022. His duties were taken over by Manager Gao Chen.

Note 3: Managerial officer Christopher Bernard was newly appointed in March 2022.

Note 4: Managerial officers Jim Leigh, Julain Sanchez and Cassandra Ingles were newly appointed in March 2023.

Note 5: Managerial officer April Tang retired on July 28, 2022; Managerial officer Frank Mitchell resigned on November 28, 2022; Managerial officer Roland Strickland resigned on April 23, 2022; and Managerial officer Michael Jason Scott resigned on May 17, 2022.

Note 6: Managerial officer Chia-Chi Chang left the job in 2021.

Note 7: Managerial officer Anna Alkhouri and Quanta Tann were newly appointed in August 2022 and Managerial officer Marc Macon was promoted to Equipment Director in August 2022.

(2) Information on transfer of shares or pledge of shares to related parties: Not applicable.

10. Information of Relationship between top 10 shareholder

April 14, 2023; Unit: share; %

Name	Shareholding		Shareholding of Spouse & Minor Children		Number of shares held under another person's name		Names and relationship of top ten shareholders who are related parties, spouses or within second-degree of kinship to each other		Remarks
	Shares	%	Shares	%	Shares	%	Name	Relation	
Maxwell Sensors Inc.	8,307,042	10.16	-	-	-	-	Oceania, LLC.	-	-
(Representative: Winston Z. Ho)	108,750	0.13	4,953,316	6.06	4,905,900	6.00	-	-	-
Fu-Lung Shiu	7,341,723	8.98	-	-	-	-	-	-	-
Eureka BioVenture Partners	3,571,060	4.37	-	-	-	-	-	-	-
(Representative: George J. Lee)	-	-	-	-	3,571,060	4.37	-	-	-
GVT Fund, L.P.	2,779,421	3.40	-	-	-	-	-	-	-
(Representative: Benjamin Jen)	-	-	-	-	-	-	-	-	-
Celerus Diagnostics Inc.	2,729,061	3.34	-	-	-	-	-	-	-
Jih-Yuan Venture & Investment Inc.	2,088,427	2.55	-	-	-	-	-	-	-
(Representative: Richard Chang)	-	-	-	-	-	-	-	-	-
Wistron Corporation	2,075,000	2.54	-	-	-	-	-	-	-
(Representative: Shian-Ming Lin)	-	-	-	-	-	-	-	-	-
Wise Cap Limited Company	1,724,514	2.11	-	-	-	-	Wistron Corporation	-	-
(Representative: Fu-Chian Lin)	-	-	-	-	-	-	-	-	-
Oceania, LLC.	1,504,758	1.84	-	-	-	-	-	-	-
(Representative: Winston Z. Ho)	108,750	0.13	4,953,316	6.06	4,905,900	6.00	Maxwell Sensors	-	-
Min-De Huang	1,230,766	1.51	-	-	-	-	-	-	-

11. Number of shares and shareholding percentage of an invested entity held by the company, the company's board members, supervisors, managers and directly or indirectly controlled entities

December 31, 2022; Unit: thousand shares; %

Investment business	Group Investment		Directors, supervisors, managers and investments in direct or indirectly controlled entities		Consolidated Investment	
	Shares	Shares Ratio	Shares	Shares Ratio	Shares	Shares Ratio
Applied BioCode, Inc.	43,140	100.00	-	-	43,140	100.00
ABC-TW (Note)	10,300	100.00	-	-	10,300	100.00

Note: Originally named Wei-Cih Biotechnology Corporation; changed its name on August 12, 2016.

IV. Fundraising

1. Capital and Shares

(1) Source of Share Capital

1. Formation of Share Capital

Unit: NT$; Shares

Year / Month	Issue Price	Authorized Share Capital		Paid-up Share Capital		Remarks		
		Shares	Amount	Shares	Amount	Source of Share Capital	Paid in properties other than cash	Others
2016.04	USD 0.0001	35,470,000	USD 3,547	1	USD 0.0001	Share Capital at establishment	None	—
Denomination of NT$10 (Note 1)								
2016.06	-	39,000,000	390,000,000	30,919,658	309,196,580	Share conversion	ABC-US Equity	Note 2
2016.07	-	39,000,000	390,000,000	30,909,658	309,096,580	Cancellation of 10,000 shares of restricted stock	None	—
2016.08	-	39,000,000	390,000,000	30,907,762	309,077,620	Cancellation of 1,896 shares of restricted stock	None	—
2016.10	USD 2.7751	90,000,000	900,000,000	33,152,605	331,526,050	Issuance of common stock for cash	None	—
2016.11	-	90,000,000	900,000,000	46,413,646	464,136,460	Capital surplus transferred to capital increase	Capital surplus	—
2017.07	USD 0.036, 0.107, 0.286	90,000,000	900,000,000	46,437,509	464,375,090	Conversion of 23,863 shares of employee stock warrants	None	—
2017.8	USD 0.036, 0.107, 0.286	90,000,000	900,000,000	46,507,432	465,074,320	Conversion of 69,923 shares of employee stock warrants	None	—
2017.09	USD 0.036, 0.286	90,000,000	900,000,000	46,571,389	465,713,890	Conversion of 63,957 shares of employee stock warrants	None	—
2017.12	-	90,000,000	900,000,000	46,567,901	465,679,010	Cancellation of 3,488 shares of restricted stock	None	—
2017.12	NT$35	90,000,000	900,000,000	50,567,901	505,679,010	Cash capital increase to issue 4,000,000 new shares	None	Note 3
2018.01	USD 0.107, 0.286	90,000,000	900,000,000	50,598,233	505,982,330	Conversion of 30,332 shares of employee stock warrants	None	—
2018.03	USD 0.036, 0.039, 0.107, 0.286	90,000,000	900,000,000	50,764,174	507,641,740	Conversion of 165,941 shares of employee stock warrants	None	—
2018.06	0	90,000,000	900,000,000	51,092,174	510,921,740	Issued 328,000 new restricted employee shares	None	—

Year / Month	Issue Price	Authorized Share Capital		Paid-up Share Capital		Remarks		
		Shares	Amount	Shares	Amount	Source of Share Capital	Paid in properties other than cash	Others
2018.07	USD 0.036, 0.107, 0.286	90,000,000	900,000,000	51,258,744	512,587,440	Conversion of 166,570 shares of employee stock warrants	None	—
2018.08	USD 0.286	90,000,000	900,000,000	51,267,441	512,674,410	Conversion of 8,697 shares of employee stock warrants	None	—
2018.10	NT$38	90,000,000	900,000,000	61,967,441	619,674,410	Cash capital increase to issue 10,700,000 new shares	None	Note 4
2018.11	USD 0.286	90,000,000	900,000,000	61,970,024	619,700,240	Conversion of 2,583 shares of employee stock warrants	None	—
2018.12	USD 0.286	90,000,000	900,000,000	61,990,752	619,907,520	Conversion of 20,728 shares of employee stock warrants	None	—
2018.12	0	90,000,000	900,000,000	62,010,752	620,107,520	Issued 20,000 new restricted employee shares	None	—
2019.03	USD 0.286, 0.571	90,000,000	900,000,000	62,013,887	620,138,870	Conversion of 3,135 shares of employee stock warrants	None	—
2019.05	-	90,000,000	900,000,000	62,008,887	620,088,870	Cancellation of 5,000 shares of restricted stock	None	—
2019.09	NT$38	90,000,000	900,000,000	71,008,887	710,088,870	Cash capital increase to issue 9,000,000 new shares	None	Note 5
2019.12	NT$38	90,000,000	900,000,000	72,288,887	722,888,870	Cash capital increase to issue 1,280,000 new shares	None	Note 6
2019.12	USD 0.286	90,000,000	900,000,000	72,292,950	722,929,500	Conversion of 4,063 shares of employee stock warrants		
2020.02	USD 0.286	90,000,000	900,000,000	72,295,763	722,957,630	Conversion of 2,813 shares of employee stock warrants	None	—
2020.03	USD 0.286	90,000,000	900,000,000	72,297,764	722,977,640	Conversion of 2,001 shares of employee stock warrants	None	—
2020.03	-	90,000,000	900,000,000	72,290,264	722,902,640	Cancellation of 7,500 shares of restricted stock	None	—
2020.06	NT$ 48	90,000,000	900,000,000	81,340,264	813,402,640	Cash capital increase to issue 9,050,000 new shares	None	—

Year / Month	Issue Price	Authorized Share Capital		Paid-up Share Capital		Remarks		
		Shares	Amount	Shares	Amount	Source of Share Capital	Paid in properties other than cash	Others
2020.06	USD 0.107, 0.286, 0.571	90,000,000	900,000,000	81,413,265	814,132,650	Conversion of 73,001 shares of employee stock warrants	None	—
2020.07	USD 0.107, 0.571; NT$37.8	90,000,000	900,000,000	81,535,848	815,358,480	Conversion of 122,583 shares of employee stock warrants	None	—
2020.08	USD 0.107; NT$37.8	90,000,000	900,000,000	81,579,598	815,795,980	Conversion of 43,750 shares of employee stock warrants	None	—
2020.09	USD 0.286; NT$37.8	90,000,000	900,000,000	81,592,998	815,929,980	Conversion of 13,400 shares of employee stock warrants	None	—
2020.10	NT$37.8	90,000,000	900,000,000	81,597,998	815,979,980	Conversion of 5,000 shares of employee stock warrants	None	—
2020.12	USD 0.286; NT$ 35.6, 37.8	90,000,000	900,000,000	81,638,998	816,389,980	Conversion of 41,000 shares of employee stock warrants	None	—
2021.01	USD 0.286; NT$ 35.6, 37.8	90,000,000	900,000,000	81,660,718	816,607,180	Conversion of 21,720 shares of employee stock warrants	None	—
2021.03	USD 0.286	90,000,000	900,000,000	81,690,718	816,907,180	Conversion of 30,000 shares of employee stock warrants	None	—
2021.04	NT$37.8	90,000,000	900,000,000	81,697,218	816,972,180	Conversion of 6,500 shares of employee stock warrants	None	—
2021.08	USD 0.286; NT$37.8	90,000,000	900,000,000	81,729,218	817,292,180	Conversion of 32,000 shares of employee stock warrants	None	—
2022.03	USD 0.286	90,000,000	900,000,000	81,734,218	817,342,180	Conversion of 5,000 shares of employee stock warrants	None	—
2022.04	USD 0.286	90,000,000	900,000,000	81,763,218	817,632,180	Conversion of 29,000 shares of employee stock warrants	None	—
2022.07	USD 0.571	150,000,000	1,500,000,000	81,763,352	817,633,520	Conversion of 134 shares of employee stock warrants	None	—
2023.02	USD 0.286	150,000,000	1,500,000,000	81,768,352	817,638,520	Conversion of 5,000 shares of employee stock warrants	None	—

Note 1: The capital currency of ABC-KY was changed to New Taiwan Dollars at the shareholders meeting held on June 25, 2016. The capital of USD 0.0001 at the establishment was recovered for cancellation.
Note 2: At the shareholders meeting held on June 25, 2016, it was resolved to transfer ABC-US shares into ABC-KY shares.
Note 3: Effective on November 10, 2017 by Order No. Jin-Guan-Zheng-Fa-Zhi 1060042480.
Note 4: Effective on 5 July, 2018 by Order No. Jin-Guan-Zheng-Fa-Zhi 1070324292.
Note 5: Effective on April 26, 2019 by Order No. Jin-Guan-Zheng-Fa-Zhi 1080312561. The share capital after increase includes 7,500 shares that have been recovered but not yet cancelled.
Note 6: Effective on November 18, 2019 by Order No. Jin-Guan-Zheng-Fa-Zhi 1080336143. The share capital after increase includes 7,500 shares that have been recovered but not yet cancelled.
Note 7: The shareholders' meeting held on June 13, 2022 approved to increase the authorized capital to NT$1.5 billion.

2. The Company's private placement of common stock for the past 3 years and as of the publication date of the annual report: The Group was not engaged in the private placement of common stock for the past 3 years and as of the publication date of the annual report.

3. Types of shares issued

April 14, 2023; Unit: share

Types of shares	Authorized Share Capital			Remarks
	Outstanding shares	Unissued shares	Total	
Ordinary share	81,768,352	68,231,648	150,000,000	

4. General information about the reporting system: Not applicable.

(2) Shareholder Structure

April 14, 2023

Shareholder Structure / Count	Government agency	Financial institution	Other corporations	Individual	Foreign institutions and foreigners	Total
Number of personnel	-	3	144	9,476	49	9,672
No. of shares held	-	42,000	8,771,791	47,491,522	25,463,039	81,768,352
Shares Ratio	-	0.05	10.73	58.08	31.14	100.00
Shareholders from PRC: -, shareholding ratio: -.						

Note: The definitions of "individual" and "foreign institutions and foreigners" are based on whether or not their nationality is Taiwan. Therefore "individual" in this table refers to individuals with Taiwan nationality, while "foreign institutions and foreigners" refer to individuals and corporations without Taiwan nationality (including the U.S.).

(3) Distribution of Share Ownership

Denomination of NT$10 per share; April 14, 2023

Range of shares	Number of shareholders (persons)	Shares held (shares)	Shareholding percentage (%)
1 to 999	2,679	92,987	0.11
1,000 to 5,000	5,693	11,024,557	13.48
5,001 to 10,000	634	5,039,678	6.16
10,001 to 15,000	197	2,538,886	3.10
15,001 to 20,000	134	2,486,492	3.04
20,001 to 30,000	113	2,843,215	3.48
30,001 to 40,000	53	1,948,000	2.38
40,001 to 50,000	30	1,410,426	1.72
50,001 to 100,000	70	4,810,958	5.88
100,001 to 200,000	28	3,968,773	4.85
200,001 to 400,000	19	5,300,062	6.48
400,001 to 600,000	9	4,379,952	5.36
600,001 to 800,000	1	630,000	0.77
800,001 to 1,000,000	2	1,942,594	2.38
Above 1,000,001	10	33,351,772	40.79
Total	9,672	81,768,352	100.00

(4) List of major shareholders

April 14, 2023; Unit: share

Share / Name of major shareholder	No. of shares held	Shares Ratio
Maxwell Sensors Inc.	8,307,042	10.16%
Fu-Lung Shiu	7,341,723	8.98%
Eureka BioVenture Partners	3,571,060	4.37%
GVT Fund, L.P. (investment account of GRC SinoGreen Fund under the custody of Bank SinoPac)	2,779,421	3.40%
Celerus Diagnostics Inc	2,729,061	3.34%
Jih-Yuan Venture & Investment Inc.	2,088,427	2.55%
Wistron Corporation	2,075,000	2.54%
Wise Cap Limited Company	1,724,514	2.11%
Oceania, LLC.	1,504,758	1.84%
Min-De Huang	1,230,766	1.51%

1. The status of directors, supervisors and shareholders holding more than 10 percent of outstanding shares waived their subscription right to the cash capital increase during the most recent 2 fiscal years and in the current fiscal year.

(1) The status that directors, supervisors and shareholders holding more than 10 percent of outstanding shares had waived their subscription right to the cash capital increase: None.

(2) If the subscription to the cash capital increase being waived was subscribed by a related person who was designated for such subscription, the name of such related person, its relationship with the company, directors, supervisors and shareholders holding more than 10 percent of outstanding shares, and the number of the shares thus subscribed shall also be disclosed: None.

(5) Market price, net worth, earnings, dividends per share and other relevant information forthe most recent 2 fiscal years

Unit: thousand shares; NT$

Item \ Year			2021	2022
Market price per share	Highest		61.2	60.7
	Lowest		30.05	23.2
	Average		43.58	33.23
Net worth per share	Before dividends		11.05	9.98
	After dividends		11.05	9.98
Earnings per Share	Number of weighted average shares		81,701	81,756
	Earnings (loss) per share		(2.02)	(2.26)
Dividends per share (Note 1)	Cash dividends		—	—
	Bonus shares	Retained shares distribution	—	—
		Stock dividends from capital surplus	—	—
	Cumulative undistributed dividends		—	—
Return on investment analysis (Note 2)	Price earnings ratios		—	—
	P/E ratio		—	—
	Cash Dividend Yield		—	—

Note 1: From 2017, the Group has not distributed any dividends yet.

Note 2: No cash dividends were issued due to the fact that the Group recorded losses in the current and previous fiscal year

(6) Company dividend policy and implementation status

1. Dividend policy in Articles of Association

It is determined based on the Group's dividend policy, and the Board understands that the Group's operations are in a growth stage. Determined dividends or other distributable amounts (if any) are agreed upon by shareholders in a fiscal year, and the Board of Directors:

(1) Must take into account the Group's earnings, overall development, financial planning, capital needs, industry outlook, and future prospects for the fiscal year to ensure the rights and interests of shareholders; and

(2) As required by Article 14.4 of the Company's Articles of Association, not only remuneration to employees and directors shall be distributed. The following shall also be set aside from the current net income: (i) losses to be made up; (ii) 10% of the general reserve (the "legal reserve"); and (iii) the special reserve required by the Board of Directors in accordance with the rules for public companies promulgated by the Securities Authority, or the surplus resolved in Article 15.1 of the Company's Articles of Association.

Without violating the Company Law of the Cayman Islands, after remuneration to employees and directors in accordance with Article 14.4 of the Company's Articles of Association and an amount deemed appropriate by the Board of Directors in accordance with Article 14.5 of the Company's Articles of Association are set aside, the

Board of Directors shall set aside not less than 10% of the distributable amount of the earnings from the previous fiscal year (excluding the accumulated earnings from previous years) as dividends for shareholders. These dividends must be resolved by the shareholders meeting prior to distribution. Distribution of dividends to shareholders and remuneration to employees shall be determined by the Board of Directors and distributed in cash, or by the amount of the unissued shares in such amount, or both. However, dividends to shareholders may not be less than 10% of the total dividends and shall be distributed in cash. The Group does not pay interest on undistributed dividends and remuneration.

2. The proposed distribution of dividends for the year

The Group suffered a loss in 2022; therefore, there is no distribution of the previous year's earnings in 2023.

(7) The impact of bonus shares on company operating performance and earnings per share for the current fiscal year: None.

(8) Remuneration to employees, directors and supervisors

1. The percentage or scope of remuneration to employees, directors and supervisors stipulated in the Articles of Association

As stipulated in the Group's Articles of Association, if the Group makes a "profit" (as defined below) in the year, no more than 12% of the profit shall be set aside as remuneration to employees ("employee remuneration"). Employee remuneration is paid to employees of the Group and of its subsidiaries who are subject to meet certain criteria. The Group may set aside no more than 3% of the said profit as remuneration to directors (directors' remuneration) (excluding independent directors). The motion of the employee remuneration and directors' remuneration shall be approved by a resolution made by the Board of Directors' meeting attended by two-thirds of the total number of directors and approved by a majority of the directors present at the meeting. Then it will be submitted to the shareholders meeting. Where the Group still has accumulated losses, the amount of remuneration shall be retained in advance. Employee remuneration and directors' remuneration shall be set in accordance with the aforementioned ratio. The term "profit" refers to the Group's profit before tax. So as to avoid confusion, the term "profit before tax" refers to the amount before the payment of employee remuneration and directors' remuneration.

2. The accounting of the difference between the estimates of remuneration to employees, directors and supervisors, the basis for the calculation of outstanding shares for dividend payment and the accounting treatment of the discrepancy, if any, between the actual distributed amount and the estimated figure:

The Group suffered a loss in 2022; therefore, there is no allocated remuneration to employees and directors.

3. Remuneration to employees passed by the Board of Directors: None.

4. Remuneration distribution and the result reported by the shareholders meeting: None.

5. If there is any discrepancy between actual distribution (including the number of shares distributed, amount and stock price) and the recognized remuneration for employees, directors and supervisors for the previous year, please specify the discrepancy, cause, and how it is treated: None.

(9) Repurchase of shares:

Until now, the Group has not repurchased or acquired the Group's shares from the market as approved by the Board of Directors. Therefore, the Group has not been engaged in matters stipulated in Article 28-2 of the Securities and Exchange Act. However, since the Company began its public offering in Taiwan in January 2017, only employees restricted new shares owned by an employee were withdrawn due to their departure as required by the issuance regulations. Currently, there are no ongoing repurchasing procedures.

2. Corporate Bonds (overseas included): None.

3. Preferred Shares: None.

4. Global Depository Receipts: None.

5. Employees Incentive Stock Options

(1) For employee stock warrants issued by the Company but not yet mature, the date of effective registration from the competent authority; issue date, number of units issued; the ratio of the number of issued shares for subscription to total number of issued shares; subscription period, exercise method; period and ratio in which subscription is restricted; the number of shares that have been obtained through exercise of subscription rights, NT dollar amount of the shares subscribed, number of shares that have not been subscribed, subscription price per share of the unsubscribed shares, and the ratio of the number of unsubscribed shares to the number of issued and outstanding shares up to the publication date of the annual report, and effect on shareholders' equity:

April 14, 2023

Type of employee stock warrants	2008 1st Employee Incentive Plan (amended in 2016)				
Filing Effective Date and Total Units	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Date of issuance	2014/1/14	2014/6/16	2014/9/26	2015/3/20	2015/6/26
Total number of issued units	80,000 shares	100,000 shares	70,000 shares	26,500 shares (of which 4,886 shares have lapsed)	60,000 shares (of which 20,000 shares have lapsed)
Number of units still available for issuance	-	-	-	-	-
Ratio of the number of issued shares for subscription to total number of issued shares	0.10%	0.12%	0.09%	0.03%	0.05%
Subscription period	10 years	10 years	10 years	10 years	10 years
Exercise method	Issuance of new shares	Issuance of new shares	Issuance of new shares	Issuance of new shares	Issuance of new shares
Period and ratio in which subscription is restricted	Four-year vesting schedule; certificate holders are granted 25% of the stock options after one year of employment and 1/48 of the total grant of shares will vest each month thereafter.	Four-year vesting schedule; 1/48 of the total grant of shares will vest each month using the straight-line method.	0 to 4 years; vesting conditions include: (1)Immediate vesting. (2)Four-year vesting schedule; certificate holders are granted 25% of the stock options after one year of employment and 1/48 of the total grant of	0 to 4 years; vesting conditions include: (1)Immediate vesting. (2)Four-year vesting schedule; certificate holders are granted 25% of the stock options after one year of employment and 1/48 of the total grant of	0 to 4 years; vesting conditions include: (1)Immediate vesting. (2)Four-year vesting schedule; certificate holders are granted 25% of the stock options after one year of employment and 1/48 of the total grant of

Type of employee stock warrants	2008 1st Employee Incentive Plan (amended in 2016)				
			shares will vest each month thereafter.	shares will vest each month thereafter. (3)1-year vesting schedule; 1/12 of the total grant of shares will vest each month using the straight-line method.	shares will vest each month thereafter. (3)1-year vesting schedule; 1/12 of the total grant of shares will vest each month using the straight-line method.
Number of shares that have been obtained through the exercise of subscription rights	80,000 shares	100,000 shares	30,000 shares	21,614 shares	20,000 shares
Amount of the shares subscribed	USD 8,560.00	USD 10,700.00	USD 8,580.00	USD 6,181.60	USD 5,720.00
Number of shares that have not been subscribed	-	-	40,000 shares	-	20,000 shares
Subscription price per share of the unsubscribed shares (Note)	USD 0.107	USD 0.107	USD 0.286	USD 0.286	USD 0.286
Ratio of the number of unsubscribed shares to the number of issued (%)	-	-	0.05%	-	0.02%
Effect on shareholders' equity	The effect on the dilution of original common shareholders is not significant	The effect on the dilution of original common shareholders is not significant	The effect on the dilution of original common shareholders is not significant	The effect on the dilution of original common shareholders is not significant	The effect on the dilution of original common shareholders is not significant

Note: The exercise price is the exercise price adjust by the anti-dilution terms and conditions to accommodate the capital increase proposal of the capital company resolved at the shareholders meeting held on November 7, 2016. The base date for the capital increase of the capital reserve ex-rights is November 15, 2016.

Type of employee stock warrants	2008 1st Employee Incentive Plan (amended in 2016)					
Filing Effective Date and Total Units	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Date of issuance	2015/10/16	2016/2/29	2016/6/8	2016/9/18	2016/9/29	2016/11/2
Total number of issued units	47,400 shares (of which 15,000 shares have lapsed)	211,700 shares (of which 45,295 shares have lapsed)	112,800 shares (of which 32,892 shares have lapsed)	13,100 shares (of which 4,167 shares have lapsed)	20,000 shares	7,000 shares (of which 5,032 shares have lapsed)
Number of units still available for issuance	-	-	-	-	-	-
Ratio of the number of issued shares for subscription to total number of issued shares	0.04%	0.20%	0.10%	0.01%	0.02%	0.00%
Subscription period	10 years	10 years	10 years	10 years	10 years	10 years
Exercise method	Issuance of new shares	Issuance of new shares	Issuance of new shares	Issuance of new shares	Issuance of new shares	Issuance of new shares
Period and ratio in which subscription is restricted	0 to 4 years; vesting conditions include: (1)Immediate vesting. (2)Four-year vesting schedule; certificate holders are granted 25% of the stock options after one year of employment and 1/48 of the total grant of shares will vest each month thereafter. (3)2-year vesting schedule; 1/24 of the	1 to 4 years; vesting conditions include: (1)Four-year vesting schedule; certificate holders are granted 25% of the stock options after one year of employment and 1/48 of the total grant of shares will vest each month thereafter. (2)1-year vesting schedule; 1/12 of the total grant of shares will vest	0 to 4 years; vesting conditions include: (1)Immediate vesting. (2)Four-year vesting schedule; certificate holders are granted 25% of the stock options after one year of employment and 1/48 of the total grant of shares will vest each month thereafter.	Four-year vesting schedule; certificate holders are granted 25% of the stock options after one year of employment and 1/48 of the total grant of shares will vest each month thereafter.	Four-year vesting schedule; certificate holders are granted 25% of the stock options after one year of employment and 1/48 of the total grant of shares will vest each month thereafter.	Four-year vesting schedule; certificate holders are granted 25% of the stock options after one year of employment and 1/48 of the total grant of shares will vest each month thereafter.

Type of employee stock warrants	2008 1st Employee Incentive Plan (amended in 2016)					
	total grant of shares will vest each month using the straight-line method. (4)6-month vesting schedule; 1/6 of the total grant of shares will vest each month using the straight-line method.	each month using the straight-line method.				
Number of shares that have been obtained through the exercise of subscription rights	2,400 shares	110,696 shares	69,908 shares	8,933 shares	20,000 shares	1,968 shares
Amount of the shares subscribed	USD 686.40	USD 31,659.06	USD 19,993.69	USD 5,100.74	USD 5,720	USD 1,123.73
Number of shares that have not been subscribed	30,000 shares	55,709 shares	10,000 shares	-	-	-
Subscription price per share of the unsubscribed shares (Note)	USD	USD	USD	USD	USD	USD
	USD 0.286	USD 0.286	USD 0.286	USD 0.571	USD 0.286	USD 0.571
Ratio of the number of unsubscribed shares to the number of issued (%)	0.04%	0.07%	0.01%	-	-	-
Effect on shareholders' equity	The effect on the dilution of original common shareholders is not significant	The effect on the dilution of original common shareholders is not significant	The effect on the dilution of original common shareholders is not significant	The effect on the dilution of original common shareholders is not significant	The effect on the dilution of original common shareholders is not significant	The effect on the dilution of original common shareholders is not significant

Note: The exercise price is the exercise price adjust by the anti-dilution terms and conditions to accommodate the capital increase proposal of the capital company resolved at the shareholders meeting held on November 7, 2016. The base date for the capital increase of the capital reserve ex-rights is November 15, 2016.

Type of employee stock warrants	2017 1st Employee Incentive Plan			
Filing Effective Date and Total Units	2018/5/22 650,000 shares	2018/5/22 650,000 shares	2018/5/22 650,000 shares	2018/5/22 650,000 shares
Date of issuance	2018/7/2	2018/9/28	2018/12/11	2019/4/11
Total number of issued units	210,500 shares (of which 63,250 shares have lapsed)	172,000 shares (of which 8,000 shares have lapsed)	51,000 shares (of which 11,500 shares have lapsed)	26,500 shares (of which 22,000 shares have lapsed)
Number of units still available for issuance	435,000 shares	263,000 shares	212,000 shares	185,500 shares
Ratio of the number of issued shares for subscription to total number of issued shares	0.19%	0.20%	0.05%	0.01%
Subscription period	10 years	10 years	10 years	10 years
Exercise method	Issuance of new shares	Issuance of new shares	Issuance of new shares	Issuance of new shares
Period and ratio in which subscription is restricted	Four-year vesting schedule; certificate holders are granted 50% of the stock options after two years of employment and 1/24 of the total grant of shares will vest each month thereafter.	Four-year vesting schedule; certificate holders are granted 50% of the stock options after two years of employment and 1/24 of the total grant of shares will vest each month thereafter.	Four-year vesting schedule; certificate holders are granted 50% of the stock options after two years of employment and 1/24 of the total grant of shares will vest each month thereafter.	Four-year vesting schedule; certificate holders are granted 50% of the stock options after two years of employment and 1/24 of the total grant of shares will vest each month thereafter.
Number of shares that have been obtained through the exercise of subscription rights	48,500 shares	11,000 shares	10,000 shares	-
Amount of the shares subscribed	NT$1,833,300	NT$415,800	NT$356,000	-
Number of shares that have not been subscribed	103,250 shares	153,000 shares	29,500 shares	4,500 shares
Subscription price per share of the unsubscribed shares (Note)	NT$37.80	NT$37.80	NT$35.60	NT$41.00
Ratio of the number of unsubscribed shares to the number of issued (%)	0.13%	0.19%	0.04%	0.01%
Effect on shareholders' equity	The effect on the dilution of original common shareholders is not significant	The effect on the dilution of original common shareholders is not significant	The effect on the dilution of original common shareholders is not significant	The effect on the dilution of original common shareholders is not significant

Note: Pursuant to Article 60 of the Regulations Governing the Offering and Issuance of Securities by Foreign Issuers, employee stock warrants issued after 2017 are price-adjusted in the event of a change in conformity to applicable regulations in the shares of the Company's common stock. The price for such stock options is adjusted in accordance with the Company's stock option regulations.

Type of employee stock warrants	2020 1st Employee Incentive Plan			
Filing Effective Date and Total Units	2020/7/21 800,000 shares	2020/7/21 800,000 shares	2020/7/21 800,000 shares	2020/7/21 800,000 shares
Date of issuance	2020/7/21	2020/8/11	2021/1/5	2021/3/18
Total number of issued units	347,360 shares (of which 128,870 shares have lapsed)	72,000 shares (of which 72,000 shares have lapsed)	25,500 shares (of which 4,000 shares have lapsed)	10,500 shares (of which 6,000 shares have lapsed)
Number of units still available for issuance	452,640 shares	380,640 shares	355,140 shares	344,640 shares
Ratio of the number of issued shares for subscription to total number of issued shares	0.27%	-	0.03%	0.01%
Subscription period	10 years	10 years	10 years	10 years
Exercise method	Issuance of new shares	Issuance of new shares	Issuance of new shares	Issuance of new shares
Period and ratio in which subscription is restricted	Four-year vesting schedule; certificate holders are granted 50% of the stock options after two years of employment and 1/24 of the total grant of shares will vest each month thereafter.	Four-year vesting schedule; certificate holders are granted 50% of the stock options after two years of employment and 1/24 of the total grant of shares will vest each month thereafter.	Four-year vesting schedule; certificate holders are granted 50% of the stock options after two years of employment and 1/24 of the total grant of shares will vest each month thereafter.	Four-year vesting schedule; certificate holders are granted 50% of the stock options after two years of employment and 1/24 of the total grant of shares will vest each month thereafter.
Number of shares that have been obtained through the exercise of subscription rights	-	-	-	-
Amount of the shares subscribed	-	-	-	-
Number of shares that have not been subscribed	218,490 shares	-	21,500 shares	4,500 shares
Subscription price per share of the unsubscribed shares	NT$98.30	NT$101	NT$57.20	NT$49.81
Ratio of the number of unsubscribed shares to the number of issued (%)	0.27%	-	0.03%	0.01%
Effect on shareholders' equity	The effect on the dilution of original common shareholders is not significant	The effect on the dilution of original common shareholders is not significant	The effect on the dilution of original common shareholders is not significant	The effect on the dilution of original common shareholders is not significant

Note: Pursuant to Article 60 of the Regulations Governing the Offering and Issuance of Securities by Foreign Issuers, employee stock warrants issued after 2017 are price-adjusted in the event of a change in conformity to applicable regulations in the shares of the Company's common stock. The price for such stock options is adjusted in accordance with the Company's stock option regulations.

Type of employee stock warrants	2020 1st Employee Incentive Plan	2021 Employee Incentive Plan		
Filing Effective Date and Total Units	2020/7/21 800,000 shares	2021/9/3 800,000 shares	2021/9/3 800,000 shares	2021/9/3 800,000 shares
Date of issuance	2021/5/14	2021/9/6	2021/11/8	2022/3/23
Total number of issued units	331,800 shares (of which 91,340 shares have lapsed)	34,500 shares (of which 26,000 shares have lapsed)	83,500 shares (of which 31,000 shares have lapsed)	327,500 shares (of which 8,000 shares have lapsed)
Number of units still available for issuance	12,840 shares	765,500 shares	682,000 shares	354,500 shares
Ratio of the number of issued shares for subscription to total number of issued shares	0.29%	0.01%	0.06%	0.39%
Subscription period	10 years	10 years	10 years	10 years
Exercise method	Issuance of new shares	Issuance of new shares	Issuance of new shares	Issuance of new shares
Period and ratio in which subscription is restricted	Four-year vesting schedule; certificate holders are granted 50% of the stock options after two years of employment and 1/24 of the total grant of shares will vest each month thereafter.	Four-year vesting schedule; certificate holders are granted 50% of the stock options after two years of employment and 1/24 of the total grant of shares will vest each month thereafter.	Four-year vesting schedule; certificate holders are granted 50% of the stock options after two years of employment and 1/24 of the total grant of shares will vest each month thereafter.	Four-year vesting schedule; certificate holders are granted 50% of the stock options after two years of employment and 1/24 of the total grant of shares will vest each month thereafter.
Number of shares that have been obtained through the exercise of subscription rights	-	-	-	-
Amount of the shares subscribed	-	-	-	-
Number of shares that have not been subscribed	240,460 shares	8,500 shares	52,500 shares	319,500 shares
Subscription price per share of the unsubscribed shares	NT$50	NT$37.85	NT$31.90	NT$33.15
Ratio of the number of unsubscribed shares to the number of issued (%)	0.29%	0.01%	0.06%	0.39%
Effect on shareholders' equity	The effect on the dilution of original common shareholders is not significant	The effect on the dilution of original common shareholders is not significant	The effect on the dilution of original common shareholders is not significant	The effect on the dilution of original common shareholders is not significant

Note: Pursuant to Article 60 of the Regulations Governing the Offering and Issuance of Securities by Foreign Issuers, employee stock warrants issued after 2017 are price-adjusted in the event of a change in conformity to applicable regulations in the shares of the Company's common stock. The price for such stock options is adjusted in accordance with the Company's stock option regulations.

Type of employee stock warrants	2021 Employee Incentive Plan		2022 Employee Incentive Plan
Filing Effective Date and Total Units	2021/9/3 800,000 shares	2021/9/3 800,000 shares	2022/11/22 1,500,000 shares
Date of issuance	2022/5/10	2022/08/26	2023/03/13
Total number of issued units	1,000 shares	140,000 shares (of which 120,000 shares have lapsed)	124,000 shares
Number of units still available for issuance	353,500 shares	213,500 shares	1,376,000 shares
Ratio of the number of issued shares for subscription to total number of issued shares	0.00%	0.17%	0.15%
Subscription period	10 years	10 years	10 years
Exercise method	Issuance of new shares	Issuance of new shares	Issuance of new shares
Period and ratio in which subscription is restricted	Four-year vesting schedule; certificate holders are granted 50% of the stock options after two years of employment and 1/24 of the total grant of shares will vest each month thereafter.	Four-year vesting schedule; certificate holders are granted 50% of the stock options after two years of employment and 1/24 of the total grant of shares will vest each month thereafter.	Four-year vesting schedule; certificate holders are granted 50% of the stock options after two years of employment and 1/24 of the total grant of shares will vest each month thereafter.
Number of shares that have been obtained through the exercise of subscription rights	-	-	-
Amount of the shares subscribed	-	-	-
Number of shares that have not been subscribed	1,000 shares	20,000 shares	124,000 shares
Subscription price per share of the unsubscribed shares	NT$35.4	NT$31.65	NT$28.6
Ratio of the number of unsubscribed shares to the number of issued (%)	0.00%	0.02%	0.15%
Effect on shareholders' equity	The effect on the dilution of original common shareholders is not significant	The effect on the dilution of original common shareholders is not significant	The effect on the dilution of original common shareholders is not significant

Note: Pursuant to Article 60 of the Regulations Governing the Offering and Issuance of Securities by Foreign Issuers, employee stock warrants issued after 2017 are price-adjusted in the event of a change in conformity to applicable regulations in the shares of the Company's common stock. The price for such stock options is adjusted in accordance with the Company's stock option regulations.

(2) Names of managerial officers having acquired employee stock warrants and names of employees ranking top ten in convertible shares:

April 14, 2023

Item	Position (Note 1)	Name	Number of acquired shares that have been subscribed	Ratio of the number of acquired shares that have been subscribed to the number of issued (%)	Subscribed				Not subscribed			
					Number of shares subscribed	Subscription price (USD) (Note 2)	Subscription amount (USD) (Note 2)	Ratio of the number of shares that have been subscribed to the number of issued (%)	Volume of shares subscribed	Subscription price (USD) (Note 2)	Subscription amount USD (Note 2)	Ratio of the number of shares that have been subscribed to the number of issued (%)
Managerial officer	President	Winston Z. Ho	1,485,840	1.82	598,291	0.036~ 0.286; NTD 37.80	83,222.56	0.73	792,249	0.286; NTD 28.60~ 98.30	1,057,435.48	0.97
	Vice President	Michael Aye										
	Vice President	Liang-Kai Huang										
	Vice President	Yu-Lin Chen										
	Vice President	Christopher Bernard (Note 3)										
	Vice President	Gerald Kowalski										
	Vice President	Parisa Hanachi										
	Vice President	Jim Leigh (Note 4)										
	Director	Gao Chen										
	Director	Michael Ho										
	Director	April Tang (Note 5)										
	Director	Ingrid Joseph										
	Director	Colleen Knoth (Note 6)										
	Director	Roland Stricland (Note 7)										
	Director	Michael Jason Scott (Note 7)										
	Director	Frank Mitchell (Note 7)										
	Director	QuantaTann (Note 8)										
	Director	Anna Alkhouri (Note 8)										
	Director	Marc Macon (Note 8)										

Item	Position (Note 1)	Name	Number of acquired shares that have been subscribed	Ratio of the number of acquired shares that have been subscribed to the number of issued (%)	Subscribed				Not subscribed			
					Number of shares subscribed	Subscription price (USD) (Note 2)	Subscription amount (USD) (Note 2)	Ratio of the number of shares that have been subscribed to the number of issued (%)	Volume of shares subscribed	Subscription price (USD) (Note 2)	Subscription amount USD (Note 2)	Ratio of the number of shares that have been subscribed to the number of issued (%)
	Director	Cassandra Ingles (Note 4)										
	Director	Julian Sanchez (Note 4)										
	Accounting Supervisor	Jau-Tung Pan										
	Internal Auditer	Zong-Han You										
Employee	Scientist	Chung-Jen Hou	432,540	0.53	161,900	0.036~ 0.286; NTD 35.60~ 37.80	35,127.33	0.20	243,140	0.286; NTD 35.60~ 98.30	404,260.91	0.30
	Engineer	Peter Low										
	Engineer	Shu Huang										
	Information Specialist	Cliff Chang										
	Engineer	Jie Chen										
	Scientist	Anh Pham										
	Engineer	Brandon Phan										
	Scientist	Roger Wang										
	Manager	Jesse Fisher										
	Project Manager	Yu-Tsung Chou (Note 9)										

Note 1: Including managerial officers and employees (please indicate if they have left the job or are deceased) - their respective names and titles shall be disclosed, but their acquisition and subscriptions shall be disclosed in an aggregate manner.
Note 2: The subscription price is the subscription price adjust by the anti-dilution terms and conditions to accommodate the capital increase proposal of the capital group resolved at the shareholders meeting held on November 7, 2016. The base date for the capital increase of the capital reserve ex-rights is November 15, 2016.
Note 3: The Manager was newly appointed on March 23, 2022
Note 4: Managers Jim Leigh, Cassandra Ingles and Julian Sanchez were newly appointed in March 2023.
Note 5: The Manager retired on July 28, 2022.
Note 6: The Manager resigned on March 24, 2022.
Note 7: Manager Roland Strickland resigned on April 23, 2022; Manager Michael Jason Scott resigned on May 17, 2022; Manager Frank Mitchell resigned on November 28, 2022.
Note 8: Managers Quanta Tann and Anna Alkhouri were newly appointed in August 2022 and Manager Marc Macon was promoted to Manager in August 2022.
Note 9: The employee resigned on January 13, 2023.

(3) Information shall be furnished on the status of any private placement of employees incentive stock options in the most recent 3 fiscal years and as of the publication date of the annual report, disclosing the date on which the private placement was approved at a shareholders meeting and the amount thus approved; the basis for and reasonableness of the pricing; the manner in which the specified persons were selected (where the offerees have already been arranged, the names of the offerees and relationship between the offerees and the company shall also be described); the reasons why the private placement was necessary; the targets of the private placement, their qualifications, subscription amounts, relationship with the company, participation in the operations of the company, actual subscription price, the difference between the actual subscription price and the reference price; the effect of the private placement on shareholders' equity; and for the period from receipt of payment in full to the completion of the related capital allocation plan, the status of use of the capital raised through the private placement of employees incentive stock options, the implementation progress of the plan, and the realization of the benefits of the plan: None.

6. Employees Restricted New Shares

Dates of effective registration from the competent authority for all employees restricted new shares under which the vesting conditions have not been fully met; issue date; number of shares issued; number of shares still available for issuance; issue price; vesting conditions; restricted rights; custody status; measures to be taken when vesting conditions are not met; number of shares that have been redeemed or bought back; number of shares in which the restrictions on rights have been released; number of shares in which the restrictions on rights have not been released; and the ratio of the number of shares in which the restrictions on rights have not been released to the number of total issued shares and the effect on shareholders' equity: None.

7. New shares issued for merger or acquisition: None.

8. Usage of Injected Capital

Not applicable as the Group did not issue new shares for merger or acquisition or issue any corporate bonds. Also, the Group has completed the cash capital increase in 2019 and 2020, and related funds raised have been fully utilized for working capital. Related plans and their execution are analyzed as follows:

(1) Contents of Plans

1. In 2019, the Company issued 9,000,000 shares for the 1st cash capital increase. The shares were issued at NT$38 per share for a total of NT$342,000,000. After completion, it was planned to fully fund the Company's working capital.
2. In 2019, the Company issued 1,280,000 shares for the 2nd cash capital increase. The shares were issued at NT$38 per share for a total of NT$48,640,000. After completion, it was planned to fully fund the Company's working capital.
3. In 2020, the Company issued 9,050 thousand common shares through cash capital increase prior to initial listing. Based on the weighted average price of NT$90.21 per share in the auction and the underwriting price of NT$48 per share, the total proceeds amounted to NT$709,409 thousand. The total fund raised has been planned to enrich the working capital after the completion.

(2) Implementation

1. First public sale of 9,000,000 shares issued through cash capital increase in 2019

(1) Progress of raised funds utilization

Unit: NT$ thousand

Plans	Execution			Is the progress ahead or behind, the reason and the improvement plan
Enriching working capital	Amount	Estimated amount	342,000	The Group's first cash capital increase in 2019 raised NT$342,000 thousand, which was fully utilized to fund working capital.
		Actual amount	342,000	
	Execution progress (%)	Estimated amount	100%	
		Actual amount	100%	
Total	Amount	Estimated amount	342,000	
		Actual amount	342,000	
	Execution progress (%)	Estimated amount	100%	
		Actual amount	100%	

(2) Execution benefits of raised funds

Analysis item \ Year		End of June 2019	End of 2018
Financial structure	Debt ratio (%)	49.36	38.03
	Long-term fund to property, plant and equipment (%)	709.37	1,192.07
Solvency	Current ratio (%)	229.21	300.13
	Quick ratio (%)	178.01	262.11

Source: Compiled from the Group's financial statements audited or reviewed by CPAs.

The Group has raised NT$342,000,000, which has been used to fund working capital primarily to strengthen the financial structure and improve solvency. As the above table suggests, after the completion of the cash capital raising in September 2019, the Group's debt ratio at the end of June 2019 has decreased to 38.03% from 49.36%; long-term fund to property, plant, and equipment ratio after the completion of the cash capital raising at the end of June 2019 has increased to 1,192.07% from 709.37%. As for solvency, the current ratio after completing the cash capital raising at the end of June 2019 has increased to 300.13% from 229.21%; quick ratio after the completion of the cash capital raising at the end of June 2019 increased to 262.11% from 178.01%. The cash capital increase has fully strengthened the Group's financial structure and solvency while also enhancing the Group capital deployment flexibility and reducing overall operating risks.

2. Second public sale of 1,280,000 shares issued through cash capital increase in 2019

(1) Progress of raised funds utilization

Unit: NT$ thousand

Plans	Execution			Is the progress ahead or behind, the reason and the improvement plan
Repayment of loans	Amount	Estimated amount	48,640	The Group's second cash capital increase in 2019 raised NT$48,640 thousand, which was fully utilized to fund working capital and repay loans.
		Actual amount	48,640	
	Execution progress (%)	Estimated amount	100%	
		Actual amount	100%	
Total	Amount	Estimated amount	48,640	
		Actual amount	48,640	
	Execution progress (%)	Estimated amount	100%	
		Actual amount	100%	

(2) Execution benefits of raised funds

Lending institutions	Interest rate (%)	Agreement period	Original loan purpose	Original loan amount 2019.09	Repayment amount 2019.12	Reduced interest in December 2019	Estimated annual interest reduction (Note)
Chailease Finance Co., Ltd.	3.55	2019/02/19-2021/02/18	Enriching working capital	55,800	48,640	96	1,727
Total	-	-	-	55,800	48,640	96	1,727

Note: It is assumed that each bank loan in this table will be automatically extended at maturity.

The Group's second cash capital increase in 2019 raised NT$48,640 thousand which has been fully collected in December and repaid loans. Based on the assumption that the loan contract will be extended at maturity, the Group expects to save an annual interest expense of approximately NT$1,727,000 in the future.

3.First public offering of 9,050,000 shares issued through cash capital increase in 2020

(1) Progress of raised funds utilization

Unit: NT$ thousand

Plans	Implementation			Is the progress ahead or behind, the reason and the improvement plan
Enriching working capital	Amount	Estimated amount	709,409	The funds raised through cash capital increase has been utilized to enrich working capital, improve its financial structure and increase the flexibility to deploy capital. The benefit of the funds raised to strengthen the financial structure has been demonstrated in Q2 2020. However, as the actual amount of NT$709,409 thousand raised was NT$401,709 thousand more than the expected amount of NT$307,700 thousand, the extra amount will be used for R&D and operating expenses within the working capital funds.
		Actual amount	709,409	
	Execution progress (%)	Estimated amount	100.00	
		Actual amount	100.00	

(2) Execution benefits of raised funds

Unit: %

Item	Year	Q1 2020 (prior to the fundraising)	Q2 2020 (after the fundraising)
Solvency	Current ratio	454.95	1,325.77
	Quick ratio	392.13	1,212.40
Financial structure	Debt ratio	27.43	13.40
	Long-term fund to property, plant and equipment	622.59	1,262.83

Source: The Group's consolidated financial reports audited by CPAs for Q1 and Q2 2020.

The Group raised a total of NT$709,409 thousand through cash capital increase. The fund has been utilized to enrich working capital in the second quarter of 2020 to strengthen the financial structure and improve the Company's capital deployment flexibility to increase operational efficiency. With the injection of the funds raised through cash capital increase, the Group's current ratio and quick ratio increased by 454.95% and 392.13% to 1,325.77% and 1,212.40%, respectively; debt to assets ratio decreased to 27.43% from 13.40%; and long-term funds to property, plant and equipment ratio increased to 622.59% from 1,262.83%. Not only has the fund been used for enriching the working capital, the Group's financial structure has at the same time been strengthened, its flexibility in capital deployment increased and overall operating risks reduced, demonstrating the benefits of the funds raised through cash capital increase.

V. Operation Overview

1. Business Scope

1. Scope of business affairs

(1) Main contents of business affairs

A. Our corporation has successfully applied the digital barcode technology, commonly used in supermarkets, logistics and shopping industry, into the realm of "Digital Biotechnology." By shrinking the length and width of the barcode by about a 1,000 fold with advanced technology, we can precisely identify hundreds of analytes in a single specimen.

B. Our corporation has mass-produced Barcoded Magnetic Beads (BMB) using an innovative semiconductor silicon wafer fabrication process.

C. Optical instrument MDx 3000 developed by our Group when used in combination with our reagents kits, offers a fully-automatic, high-throughput and diverse tests for major hospitals and laboratories.

Our Barcoded Magnetic Beads (BMB) technology platform is able to encode 4,096 (2^{12}) numbers and chemically bond molecular probes or antibodies/antigens from various diseases onto the BMB, allowing rapid and precise analysis of single or multiple analytes. For example, we can detect thousands of bacteria, viruses, parasites, DNA and RNA from a single specimen or any of the proteins, hormones and allergens present in the specimen.

Our BMB technology platform has been awarded multiple international patents. They cover applications from immuno and nucleic acid test analysis to wider market applications like clinical diagnosis, academic research, agriculture testing, animal health testing and environmental testing. Due to its high application value, we have successfully licensed our BMB technology to various international manufacturers for use as a platform for testing diverse product development. To name a few examples, these well-known companies include: IDEXX Technologies GmbH, PerkinElmer (an NYSE-listed company), Diatherix Laboratories - a subsidiary of Eurofins Scientific Group (a Euronext N.V.-listed company), Molecular Device - a subsidiary of Danaher Group (a NYSE-listed company), Livzon Pharmaceutical Group - a subsidiary of Livzon Pharm (A shares that trade on SZSE and H shares that trade on the HKEX), Guangzhou Improve Medical Instruments (a ChiNext-listed company), Shanghai Kexin Biotech (a new OTC market-listed company), Genetic Analysis AS Norway, Imusyn Germany, ALPCO USA, Paitaike Beijing, Hardy Diagnostics USA. It is expected that these international manufacturers will continue to contribute to the revenue gains of our Group, which include the sale of BMB and instruments and royalties from future product sales.

In addition to the diverse applications developed by our authorized partners, the Group is also working on molecular diagnostic panels for infectious diseases with rapid growth and high test demands over the years, such as GPP "17-Plex Gastrointestinal Pathogen Panel", RPP "20-Plex Upper Respiratory Tract Pathogen Panel", coronavirus

tests, coronavirus pooling tests, Covid-Flu-Plus, Cov-2 Flu Plus Direct (clinical trials in preparation), and Fungal-Analyte Specific Reagents (LDT protocol completed). We have also planned to develop a series of high-value investigational test kits (RUO), including: fungal test kits (RUO version), first-of-its-kind STI-ARM test kits (RUO version), domestic sampling and consumables developed in response to the brand new B2C commercial model, artificial joint infection test kits (RUO version), comprehensive antimicrobial resistance markers panel (RUO version), which will be launched upon completion of validation by individual client laboratory. Clinical studies will be designed based on client feedback for market approval (FDA 510k version). In the future, we will further explore the market demand. There is currently lack of multiplex clinical test options for urinary tract infections (UTI), vaginitis, opportunistic infection, etc. These tests are established on the fully-automatic MDx 3000 instrument system, which integrates systems like the polymerase chain reaction (PCR), molecular hybridization, automatic operation and molecular imaging and interpretation system. The Instrument MDx 3000, developed by our corporation, is one of the few products available on the global clinical diagnostic market that offers a fully-automatic and high-throughput analysis solution for use by major hospitals and laboratories. Our Group also plans to invest in immuno diagnostics, focusing the primary development target on allergen tests, including over 400 allergen test panels and automated immuno diagnostic systems. In addition, we also have results from preliminary feasibility studies for liquid biopsy tumor panels that can be used in collaboration with external experts to develop clinical applications.

(2) Operating proportion of primary products

Unit: NT$ thousand

Year / Primary products	2020		2021		2022	
	Net revenue	Operating proportion (%)	Net revenue	Operating proportion (%)	Net revenue	Operating proportion (%)
Barcoded Magnetic Beads (BMB)	44,755	14.97	92,462	28.90	119,357	30.58
Optical Scanner	25,487	8.52	69,009	21.57	94,724	24.27
Reagent/In-vitro diagnostic assay(Panel)	210,908	70.54	138,513	43.29	147,918	37.90
Others	17,865	5.97	19,978	6.24	28,303	7.25
Total	299,015	100.00	319,962	100.00	390,302	100.00

(3) The Company’s current products (services)

Our core business affairs are Barcoded Magnetic Beads (BMB) analysis technology platform and related products, which primarily include BMB, instruments, development, and sale of in-vitro diagnostic assays. Our BMB technology offers high precision and

diverse test services for a single analysis, and significantly saves costs of in-vitro diagnostic assays. Instrument MDx 3000, our corporation's latest development, is characterized by fully-automatic, high throughput and diversified analysis applications, easy to operate and small footprint. Coupled with our BMB and test assays, these systems form a technology platform that will satisfy the current market needs. Following is a summary description of products developed by the Group:

Product		Introduction	Application
Barcoded Magnetic Beads (BMB)		The BMB technology contains 4,096 encoded barcodes. Each BMB allows binding to DNA, antibodies or antigens, and specific binding identification with target molecules.	A wide-ranging analysis platform provides detection of bacteria, viruses, parasites, hormones, allergens, DNA, RNA or proteins from a single test specimen. It can be applied to diverse disciplines such as academic research, agricultural testing, animal health testing and environmental testing.
Instrument		The Instrument is used in decoding each BMB and fluorescent signal. Our corporation's Instrument systems - BioCode 1000, BioCode 2500 and MDx 3000, are characterized by high sensitivity and user-friendly analysis software operation. MDx 3000 is a fully-automated multiplex test system.	Provides a test analysis platform for proteins and nucleic acids.
In-vitro diagnostics assay (Reagent)	GPP "17-plex Gastrointestinal Pathogen Panel"	Obtained USFDA 510k clearance and registered with the Taiwan Ministry of Health and Welfare. With fecal samples, one molecular test can detect up to 17 pathogens that can cause diarrhea and infection.	Sold to large hospitals or reference laboratories to provide reference and drug use guidance for doctors.

Product		Introduction	Application
	RPP “17-plex Upper Respiratory Pathogen Panel”	Obtained USFDA 510k clearance and registered with the Taiwan Ministry of Health and Welfare. With nasal swab samples, one molecular test can detect up to 20 pathogens that can cause upper respiratory tract infection.	Sold to large hospitals or reference laboratories to provide reference and drug use guidance.
	EUA coronavirus test reagents, Cov-Flu-Plus test	Obtained the US/Taiwan EUA to detect coronavirus infection with nasal swab, oral swab or lung lavage samples.	Sold to large hospitals or reference laboratories for use under EUA guidelines to provide the result of coronavirus/influenza virus infection.
	Fungal ASR “28-Plex Fungal-Analyte Specific Reagent”	Registered as ASRs with the USFDA, which detect pathogenic fungus through molecular testing.	The clients are required to develop their own LDT or refer to a third party protocol in order to use the test result as a diagnostic reference.
Consumables		Assay buffers, DNA extraction reagents and detection buffers.	Provide consumables required during the analysis.
Technical Service (Technical Service)		A fixed percentage of the system pricing is collected each year for system maintenance and the analytical instrument’s service charges.	Technical support and customized product services.

Our corporation’s BMB multiplex analysis technology platform has been awarded multiple patents. In addition to clinical diagnostics, it can be applied to diverse disciplines such as academic research, agricultural testing, animal health testing and environmental testing. Due to its high application values, our corporation have issued licenses to the following:

Subject	Discipline	Main field of license	Types of license
PerkinElmer Health Science Inc. (U.S.)	Infectious diseases - genotype analysis of Hepatitis B and C viruses	Asia	1. Non-Exclusive License 2. Client is responsible for the initial royalty payment, consumables fees, instrument fees and royalties from sales.

Subject	Discipline	Main field of license	Types of license
DIATHERIX Laboratories, LLC/Eurofins group (U.S.)	3rd party molecular test laboratory	Global	1. Non-Exclusive License 2. Client is responsible for the initial royalty payment, consumables fees, instrument fees and royalties from sales.
Molecular Devices Inc./Danaher group (U.S.)	Proteomics research	Global	1. Non-Exclusive License 2. Client is responsible for the initial royalty payment, consumables fees, instrument fees and royalties from sales.
Genetic Analysis AS (Norway)	Irritable bowel diseases (IBD), Gut microbiota analysis	Global	1. Non-Exclusive License 2. Client is responsible for the initial royalty payment, consumables fees, instrument fees and sale royalties.
Imusyn GmbH & Co. KG (Germany)	Organ transplant, human leukocyte antigen pairing (HLA Proteins)	Europe	1. Non-Exclusive License 2. Client is responsible for the initial royalty payment, consumables fees, instrument fees and royalties from sales.
Improve Medical Instrumentation Co., Guangzhou Improve/Hecin Scientific. Inc (China)	Respiratory track research, cancer research	China	1. Non-Exclusive License 2. Client is responsible for the initial royalty payment, consumables fees, instrument fees and royalties from sales.
Shanghai Kexin Biotech Co., Ltd. (China)	Autoimmuno diseases, infectious disease test	China	1. Non-Exclusive License 2. Client is responsible for the initial royalty payment, consumables fees, instrument fees and royalties from sales.
Zhuhai Livzon Diagnostics Inc. (China)	Autoimmuno diseases, tumor test	China	1. Non-Exclusive License 2. Client is responsible for the initial royalty payment, consumables fees, instrument fees and royalties from sales.
IDEXX Technologies GmbH (Switzerland)	Non-human animal testing	Global	1. Exclusive License 2. Client is responsible for consumable fees and instrument fees.

Subject	Discipline	Main field of license	Types of license
ALPCO	Gut microbiota and inflammation analysis	United States	1. Non-Exclusive License 2. Client is responsible for the initial royalty payment, consumables fees, instrument fees and royalties from sales.
Paitaike	Development of autoimmuno and cytokine biomarkers	China	1. Non-Exclusive License 2. Client is responsible for the initial royalty payment, consumables fees, instrument fees and royalties from sales.
Hardy Diagnostic	Food safety test	United States	1. Non-Exclusive License 2. Client is responsible for the initial royalty payment, consumables fees, instrument fees and royalties from sales.

(4) Planning of new product development (service)

The Group utilized a core technology platform – barcoded magnetic beads (BMB) and focused on the diagnostic panel for infectious disease, with the primary consideration for specific diagnostic demands for infectious disease and insurance reimbursement. Major infectious disease are now covered by insurance in the U.S. We plan to develop test kits, including a series of high-value investigational test kits (RUO), such as: fungal test kits (RUO version), STI-ARM test kits (RUO version), prosthetic joint infection test kits (RUO version) and antimicrobial resistance markers panel (RUO version), which will be launched upon completion of validation by individual client laboratory. Clinical studies will be designed based on client feedback to apply for market approval (FDA 510k version). In the future, we will further explore the market demand. There is currently lack of multiplex clinical test options for urinary tract infections (UTI), vaginitis, opportunistic infection, etc. All of the above products can work with our self-developed automated molecular diagnostic system MDx3000. We are also working on upgrading the MDx3000 by adding an integrated extraction step and through the development of consumables for sample collection, which will allow the more convenient collection of laboratory samples that are difficult to process, such as diarrhea samples and vaginal swaps, thereby enhancing the efficiency of laboratory testing.

Product	Introduction
Fungal Panel RUO	Indicated for diagnosis of infections caused by fungus, including blood infection, deep wound infection, pulmonary infection. Several hospitals, including John Hopkins University and Baylor Hospital have completed the testing and preparation of protocol using our Fungal ASR. The Company further categorizes the fungal target

Product	Introduction
	into different Fungal Panel RUO versions based on the type of samples and infections. This will make the analysis easier to perform and help the client select the right reagent kit based on the type of infection.
STI + AMR RUO	According to the WHO data, at least 0.37 billion people are infected with sexually transmitted disease (STD) every year. The risk of STD and resistance mutation among pathogens also increases in specific populations with multiple partners and group sex. Drug resistance of pathogens is considered by public health experts to be one of the major threats to the modern human society. Due to the widespread usage of anti-biotics and mutation of pathogens after multiple infections, there are more pathogens nowadays that have begun developing resistance to medication. According to a 2019 report by the U.S. CDC, about 2 million people in the U.S. were diagnosed with drug-resistant pathogens annually, resulting in about 35,000 deaths per year. As the drug resistance of pathogens can be determined by their special genetic fragments- the drug-resistance markers-, additional screening of bacterial drug-resistance when detecting these pathogens of sexually transmitted disease can be a very useful information for clinical diagnosis. Resistant gonorrhea is considered the most refractory sexually transmitted threat by the public health community. In most clinical practices, the first step is to screen the sexually transmitted infections and followed by a genetic analysis of drug resistance. Our goal is to introduce a first-line test tool for infectious disease with the option of including drug resistance genes. This will allow more timely treatment while eliminating the overuse of antibiotics. The Company also plans to establish a B2C commercial model (direct sales to user) for these STD tests that require large amount of samples and high degree of privacy. Adopting the model developed during the Covid pandemic, many laboratories utilized a domestic sampling and shipping the samples to the laboratory approach for STD tests as well. The Company will provide the domestic sampling method and consumables with anticipation to rapidly enter this market with unmet demands.
Prosthetic Joint Infection RUO	With the prolonging of life expectancy, joint replacement has become more common in an aging society. The WHO

Product	Introduction
	estimated in 2014 that the prevalence of artificial hip and knee joints in the global population between 60 years old and the average life expectancy was 10% in male and 18% in female. Both the joint replacement surgery and the prolonged abrasion from before and after the surgery can cause inflammation that becomes a lesion for prosthetic joint infection. According to the US NIH investigation, the rate of prosthetic joint infection after a total hip and total knee joint replacement is 3% and 2%, respectively. Prosthetic joint infection can cause significant impact on the patient's health and behavior ability. Major pathogens that can cause these infections include Staphylococcus aureus, Staphylococcus epidermidis and Enterococci. Some resistance cases have also been reported recently. Identifying pathogens with precision through multiplex test approach can improve the patient's health by allowing us to provide correct treatment and medication.
Antimicrobial Resistance Markers Panel RUO	Drug resistance of pathogens is considered by public health experts to be one of the major threats to the modern human society. Due to the widespread usage of anti-biotics and mutation of pathogens after multiple infections, there are more pathogens nowadays that have begun developing resistance to medication. According to a 2019 report by the U.S. CDC, about 2 million people in the U.S. were diagnosed with drug-resistant pathogens annually, resulting in about 35,000 deaths per year. Nowadays, the antimicrobial resistance is determined primarily by susceptibility test. This test still have a lot of shortcomings including highly manpower consuming, one single marker at a time and a wait time up to 24 hours. The product is designed to provide a molecular test option that is innovatively designed for multiple markers and generates results within hours for large laboratories and public health departments.
Urinal Track Infection	Common pathogens that cause urinary tract infections include Escherichia coli, Citrobacter freundii, Acinetobacter baumanii, Proteus mirabilis, Enterococcus, Klebsiella, Enterobacter, Morganella, Mycoplasma and Chlamydia. Considering the efficiency and insurance reimbursement in the clinical practice in the U.S., a negative result of pathogens by a single rapid screening test is usually confirmed by a molecular test approach. Our product utilizes molecular testing to screen these

Product	Introduction
	pathogens and provides a comprehensive and accurate diagnosis of urinal tract infection. Our goal is to offer a less expensive retail price and a shorter test diagnosis/treatment process.
Vaginitis test	Female vaginitis comes in many forms, including Candidiasis (yeast infection), bacterial vaginitis, viral vaginitis, trichomoniasis and non infectious vaginitis. Considering the efficiency and insurance reimbursement in the clinical practice in the U.S., a negative result of pathogens by a single rapid screening test is usually confirmed by a molecular test approach. Our product utilizes molecular testing to screen these pathogens and provides a comprehensive and accurate diagnosis of vaginitis. Our goal is to offer a less expensive retail price and a shorter test diagnosis/treatment process.
Opportunistic Infection	Immunosuppressed populations, such as the elderly, cancer patients, immunocompromised patients and HIV patients are more likely to be infected. For tests of common infection targets (fungus, bacteria, virus), our Company provides existing test kits that cover most of these targets. After re-grouping, we intend to introduce test kits suitable for opportunistic infections via RUO for test facilities specializing in this field.
120-Plex Allergy Diagnostic Panel and Automated Immunoassay System	The global market of rapid immunoassay is expected to grow from 18.725 billion U.S. dollars in 2017 to 31.885 billion in 2026, a compound annual growth rate of 8.49%. The rapid assay is suitable for preliminary or emergency medical diagnosis and use by medical institutions with limited resources. Due to its convenience and rapid testing capability, it will assist in providing timely treatment. There is currently a great demand globally on preventive management, and as the awareness for early disease detection continues to increase globally, it is expected that this segment of the market will grow significantly in the future. Diseases related to allergies include asthma, rhinitis, angioedema, urticaria, conjunctivitis and eczema. Populations suffering from these diseases are rapidly increasing due to industrial pollution and population growth. For the asthmatic population alone, the World Health Organization forecasts that the global asthmatic population will growth to 400 million people by the year 2025. Allergies result in an increase of direct medical costs and decrease of social behavioral efficiency; the

Product	Introduction
	decrease in work efficiency will result in health burdens for all. Treating these kinds of diseases requires effective testing tools of allergens.
Liquid Biopsy	Testing circulating tumor DNA (ct-DNA) to determine the incidence of tumor formation or treatment efficacy is a novel molecular test application. Most products on the market analyze tumor DNA using a genetic sequencing approach which is time consuming and requires bioinformatic service to translate the data for interpretation. In line with the diverse test features offered by the barcoded magnetic beads, our Company hopes to isolate multiple types of ct-DNAs for PCR tests, hoping to reduce the test time and lower the cost of testing. A feasibility study is currently being conducted.

2. Industry Status

(1) Industry Status and Development

Our corporation provides an automated multiplex detection platform, research and development of platform applications, and development and sales of infectious disease test assays. Our technology platform aims to provide accurate real-time diagnosis and precision treatment to greatly improve the efficiency of medical analysis and reduce the costs of treatment and risks of patients. The following is an analysis on the global markets for in-vitro diagnostic products, immuno diagnosis, molecular diagnosis and infectious disease detection:

A. Status of Global In-Vitro Diagnostic Product Market

In-Vitro diagnostics, also known as IVD, are assay kits or medical instruments (like instrument system) that are used in the collection, preparation and analysis of specimens collected from the human body, which are used for disease diagnosis and other purposes (including the determination of health status). In-vitro diagnostics assays refer to any assays, calibration substances or control substances described previously. IVD is classified based on the diagnostic basics and methods used and is mainly classified as hematology diagnosis, biochemical diagnosis, urinary diagnosis, immuno diagnosis, microbial diagnosis and molecular diagnosis.

According to the analysis report published in the MarketWatch in 2022 (2022/03/15, In-Vitro Diagnostics Market: 2022), the production value of the IVD market in 2021 was US$76.9 billion dollars. In 2022~2028, the IVD market will exhibit a compound annual growth rate of 6.6% and is expected to reach an output value of US$120.9 billion dollars in 2028. The prevalence of chronic disease and infectious disease, with the increased coverage of medical test facilities, are the main

driving forces for this market. In an overall market analysis, the health-related expenses in North America have increased drastically since 2020 faster than the average rate witnessed in the past 10 years, with the epidemic prevention measures dominating the allocation of medical resources. North America has a market share of approximately 39.8% in the global IVD market, with Europe accounting for approximately 28% and the Asian-Pacific region approximately 23% of the market share.

B. Status of Global immuno Diagnosis Market

According to the analysis report published in the Markets and Markets (2021, Immunoassay Global Market Forecast to 2026), the global immuno diagnostic market is expecting growth from US$28 billion dollars in 2021 to US$39 billion dollars in 2026, a compound annual growth rate of 6.6%. The revenue of the immunoassay market is mainly based on immuno technology, products and service applications. Based on the aforementioned product types and service applications, kits and reagents of immuno assays occupied a significant market portion. As the population continues to age and chronic diseases become more prevalent, it is expected that demand for immuno assay kits and analytical technology will continue to push the market to grow. Household assay and kits for a wide range of tests will be the future development trends of the market.

A report by Markets and Markets indicated that diagnosis of allergens is the key step for effective treatment. The diagnosis of allergens can identify specific factors inducing individual immuno responses, and is a process required for drug development, manufacturing and treatment. The global market of allergen diagnostics is also expecting growth from US$4.8 billion dollars in 2021 to US$8.2 billion dollars in 2026, a compound annual growth rate of 11.1%. Presumably the main reason for the growth in such market is the high disease incidence rate of allergic diseases and the enormous accompanying financial burden, exacerbation of environmental pollution, increase in healthcare expenses and utilization of medical insurance. The market of allergen diagnostics can be divided according to products and services into test assays, instruments, and services. In the future, it is expected that the market for allergen test assays will grow at a tremendous speed, and the widespread usage and consumption of allergen test assays will continue to promote the growth of this field in the near future.

Diseases related to allergy include asthma, rhinitis, angioedema, urticaria, conjunctivitis and eczema. Populations suffering from these diseases are rapidly increasing due to industrial pollution and population growth. For the asthmatic population alone, the World Health Organization forecasts that the global asthmatic population will growth to 400 million people by the year 2025. Allergies result in an increase of direct medical costs and decrease of social behavioral efficiency; the decrease in work efficiency will result in health burdens for all. Treating these kinds of diseases requires effective testing tools of allergens. Market surveys have shown

that the development niche of allergen diagnostic products lie in the increase in turn around time and laboratory automation.

In the overall analysis, the North American market remains the leading segment, followed closely by the European, Asian and other markets. Major international manufacturers of immuno assays are based in North America and Europe, such as Switzerland's Roche Diagnostics, Germany's Siemens Healthcare, Abbott Laboratories, Beckman Coulter and Ortho Clinical Diagnostics from the United States and France's bioMérieux. However, the population growth and rising awareness of health in Asia are expected to create more demands for the diagnostic market, representing a potentially significant business opportunity.

C. Status of Global Molecular Diagnosis Market

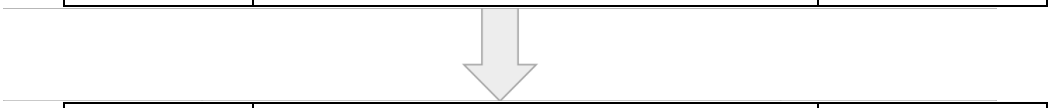
According to the analysis report by Mordor Intelligence (Molecular Diagnostics Market, 2021), the global scale of the molecular diagnostics market (MDX) in 2020 was US$9.3 billion, and is expected to grow to US$15 billion with the compound annual growth rate is expected to become 9.2% by 2026. According to the report, molecular or nuclei acid diagnosis of human diseases are now a proven, viable medical technology for diagnosis, treatment, prevention and monitoring treatment progress. MDX combines professional knowledge and technology acquired through years of diagnostic medical research and molecular genetics. Innovation in the field of molecular biology has also lead to revolutionary breakthroughs in the past few decades. Depending on the fields of applications, MDX can be categorized as infectious disease diagnosis, tumor gene mutation analysis, blood screening, microbial identification and other applications (e.g. diagnosis for cardiovascular diseases, neurological diseases, DNA fingerprinting profile, tissue classification and foodborne pathogen analysis). The convenience of molecular diagnostic allows it to occupy a significant portion of the diagnostic market for infectious diseases.

D. Analysis of Infectious disease diagnostic market

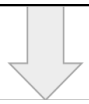
According to Markets and Markets (Oct. 2019, Report code: MD 3088), the 2021 global infection diagnostic market reached a scale of US$28 billion dollars and is expected to reach US$39.8 billion dollars in 2026, a compound annual growth rate of 7.2%. Conventional diagnostic technology that immuno diagnosis is the major part of the infectious disease market. The fastest-growing technology will be molecular diagnostic technology like nucleic acid amplification technology. Based on the applications, the infectious disease diagnostic market can be categorized as gastrointestinal tract (GPP), influenza and upper respiratory track (RPP), pneumonia, Hepatitis B, Hepatitis C, sexually transmitted disease (STD), tuberculosis (TB), Chlamydia trachomatis and Neisseria gonorrhoeae (CT/NG), Methicillin (MRSA) and others (influenza, Ebola, Typhoid fever, Malaria and Dengue fever). The growth in this category is due to the growing prevalence of infectious diseases in recent years.

(2) Correlation between the upstream, midstream and downstream industries

Industry correlation	Related stakeholders	Function
Upstream	Material supply: Proteins, antibodies, antigens, DNA, reaction assays, instrument components, test carriers and related consumables.	Provides basic materials



Industry correlation	Related stakeholders	Function
Midstream	Product development personnel, product manufacturing personnel: Test assays, instrument and equipment, design of test platform and analyzer, manufacturing and retail sale	Provides products and services



Industry correlation	Related stakeholders	Function
Downstream	Customers: University medical centers, community hospitals, government health-related organizations, regional hospital laboratories and 3rd party reference laboratories.	Collect specimens from patients, perform tests and generate reports.

Manufacturers of in-vitro diagnostics assays rely on existing technologies to develop in-vitro diagnostic assays and test instruments. The upstream industries of this field are suppliers of proteins, antibodies, antigens, DNA, reaction assays, instrument components and related consumables; the midstream industries are the designers, sellers and manufacturers of test assay kits, instruments, testing platform and analyzers. The midstream industry can also be retailers who distribute products to the end customers; the downstream customers include university medical centers, community hospitals, government health organizations, regional hospital laboratories and 3rd party reference laboratories.

Our corporation’s core business affairs are development, manufacture and sale of BMB, test instruments, fully-automated molecular multiplex diagnostic system, diagnostic platform, and assays. Therefore, our corporation is positioned as the midstream industry within this industry chain, and the downstream industries are our target customers.

(3) Development trends of various products

In general, in-vitro diagnostics are testing specimens collected from the human body, such as urine, blood, tissue, stool and cells, and used as a basis for disease diagnosis and verification of physiological conditions. The following is a brief description of the various development trends of in-vitro diagnostic products:

A. Biochemical diagnosis-immuno diagnosis-advancement of molecular diagnosis

A biochemical diagnosis like the diagnosis of triglyceride, blood glucose and metallic elements (sodium ions, potassium ions and magnesium ions) are some of the earliest types of in-vitro diagnostics, with more than 70 years of development culminating in a mature market. After 30 years, the diagnostic technology has extended to the immuno diagnostic market with protein detection technology. The compound annual growth rate of the immuno diagnostic market for the past 10 years was 8.49%. From 2000, the flourishing of genomic molecular biology has resulted in the in-vitro diagnostic market's growth based on molecular genetics and molecular biotechnology. It is estimated that the molecular diagnostic market is rapidly growing at a rate of 9.23% compound annual growth rate in the recent decade and is currently the main development axis of in-vitro diagnostics.

B. Full automation

Early test platform requires manual operation and is labor-intensive, requiring technical operators with high technical proficiency and experience to effectively carry out the testing procedures. However, such highly technical proficient talents are costly to train and hard to recruit. The quality of manual operation also varies from person to person and is prone to testing errors. Thus, the tests take time and the labor-cost is intensive, often requiring prolonged testing time to verify the results.

Recently, the rising health consciousness and increasing aging population have resulted in a significant increase in specimen collection by clinical and medical laboratories. Therefore, a testing platform capable of full-automation and high-throughput testing is in urgent demand by the market and has since become a development trend; in addition, a fully automated testing platform can provide immediate, consistent and accurate test results. This excellent feature allows clinicians to arrange personalized treatment quickly and can maintain and improve the quality of medical diagnosis for customers with large-scale testing needs.

C. Multiplex testing

We have integrated molecular diagnostic technology, automated analysis technology and multiple testing platforms into a single system. It is intended to provide technology and products for markets that have not yet been satisfied and address future medical market trends.

Traditionally, a single test means that only one test can be performed from a single specimen. Because specimens are difficult to obtain, the traditional single test is less effective, giving rise to the revolutionary advancement in multiplex and all-in-one testing technology. The benefits of multiplex testing are not only limited to technological breakthroughs. They can be beneficial for instrument users and patients as well:

(A) Clinician: able to detect the pathogenic causes of the patient early (identify whether it's a single pathogen or shared latent infection) for better and faster patient management.

(B) Laboratory: improves laboratory efficiency, no longer requires multiple platforms for multiple tests, can effectively save on personnel costs and lower the assay costs from testing.

(C) Hospital: reduce patient isolation period, increases management efficiency and quality of the patient-doctor relationship, which lead to decreased waiting time for result report and lower operational costs of the hospital.

(D) Patient: allow for optimized therapy regimen, decreases waiting time for follow-up report and the frequency of testing at the hospital.

(4) Competition

A. Analysis of competition of multiplex testing technology

(A) Real-time polymerase chain reaction (Real-time PCR)

Real-time PCR is a testing technology that detects the amplification of nucleic acids in the PCR cycle. The strength of the emitted fluorescent signals reflects the concentrations of the nucleic acids. Its limitation is the number of test items in a single test. The Real-Time PCR used in multiplex testing is based on detecting different fluorescent signals to achieve multiple testing objectives. Based on the limitation of current types of fluorescent signals, the multiplex testing capability of real-time PCR can only detect 2~3 target compounds simultaneously. A well-known manufacturer of medical diagnostic equipment is the Cepheid of United States (recently acquired by the Danaher Corporation).

(B) Microarray

Biological chips (microarray technology) technology has been developing for nearly 20 years. A carrier vehicle is spotted with over 10 million of microscopic spots, allowing simultaneous detection/testing of multiple types of biomarkers. Its limitation is its precision. Microarray technology has been successfully applied in biological science to search for new biomarkers. However, its technical weakness is the difficulty to maintain consistency between each spot, the high degree of variance and lack of precision, which is an essential requirement for clinical diagnosis. Its lack of flexibility, high price and lower stability (the produced batches of signals are inconsistent) hampers its market demand for in-vitro medical diagnosis. Affymetrix of the U.S. is one of the well-known companies for this detection technology (recently acquired by the Thermo Fisher Corporation).

(C) Sequencing technology

Sequencing technology is the process of determining the sequence of nucleic acids. It is now widely implemented in scientific research, such as mapping the whole genome of humans and the detection of gene mutations in cancer patients. It can also be used in the investigation of unknown genes and biomarkers. However, single-sequencing is no longer significant once the genome has been decoded. Although it is a revolutionary technology in the field of genomic study, its time-consuming and costly nature makes it less suitable for the medical diagnostic market's routine demands.

(D) Barcoded Magnetic Beads (BMB) assays

Other than our Group, Luminex (purchased by Diasorin in 2021) is the only company that uses barcodes to develop test platforms. The Luminex bead based assay uses the ratio of 2~3 types of fluorescent dye as a method of identification; and the "analog" type can be identified up to 300~500 barcodes at the same time. Our corporation's technology involves "digital" encoding of the barcodes and allows clear and stable identification of 4,096 test labels, with far more detectable target quantifies and higher precision. In addition, the Luminex analyzer's microfluidic channels are complicated to maintain, easily blocked and increases the maintenance risks of the test organization, which in turn induces extra costs on maintenance management.

		Luminex Bead	ABC-BMB
Barcoded Magnetic Beads (BMB)	Encoding method	**Analog** Mix 2-3 types of fluorescent dye beads and based on the intensity of the emitted fluorescence.	**Digital** Barcoded Magnetic Beads (BMB), high contrast barcode (0:1) for precise identification
	Multiple tests	50, 100 (2 fluorescent dyes) **<500** (3 fluorescent dyes)	**4,096**
	Production	Emulsion solution, unstable barcode, light sensitive/requires protective covering, interferes with fluorescent labels	Semiconductor photoetching Permanent barcode with high stability, low-cost batch production and easy to scale production
System/operation	Maintenance	Difficult: Blockage of microfluidic channels, residual beads, require washing and cleaning after loading specimens, labor intensive	Easy: Direct optical imaging of microplate, no microfluidic channels
Automation	Convenient to use	No: Complex procedures/labor intensive/potential contamination	Yes: Easy to create workflow/integrated PCR, hybridization and testing/avoids contamination

Source: compiled by our group

B. Market competition analysis

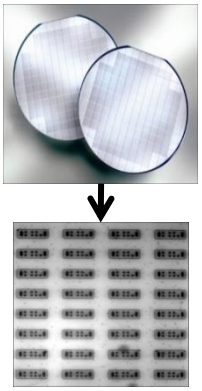
The seven major IVD manufacturers in the world are Roche, Abbott, Siemens, Hologic, Danaher/Cepheid, Qiagen and BioMerieux. These manufacturers have high market shares in medical diagnostic assays but lack innovative technology, especially in multiplex testing. Multiplex testing is the mainstream trend of the current market. Global manufacturers that lack this type of technology risk losing in the future's highly competitive diagnostic market. As such, these manufacturers are catching up by acquiring companies with multiple diagnostic technologies. For example, BioMerieux acquired Biofire in 2014 and the procurement of Cepheid by Danaher in 2016 (up to 4 tests). Roche acquired GenMark and DiaSorin acquired Luminex in 2021. This illustrates the emphasis of global major pharmaceutical companies on multiplex testing. Presently, except for Luminex and BioMerieux, none of the seven major manufacturers have technology platforms and products for multiplex detection (more than 4 labels). Another phenomenon was observed in the U.S. market, where an overspill of test capacity from the existing test facilities caused by the COVID-19 pandemic resulted in a number of new test laboratories. With the decreasing number of COVID-19 samples, these laboratories need to seek new sources of income and therefore created a new blue sea for test demands. The more test items a company can provide, with a high throughput capacity, the more laboratory clients they will attract.

3. Technology and Research & Development Status

(1) Technology level and R&D of business affairs

The development of multiplex in-vitro diagnostics assays and instruments' technology platform with barcoded Magnetic Beads (BMB) are the main operating axes of our corporation. Looking at the diagnostic assay products available on the market, most technology platforms are similar to the existing single test platform. It is impossible to obtain multiple and accurate diagnostic results in a single test. Our corporation uses semiconductor-based manufacturing technology to produce millions of test carriers encoded to obtain multiple and accurate test results in a single test pass. Here we describe the technology level and R&D status of our corporation's main product lines:

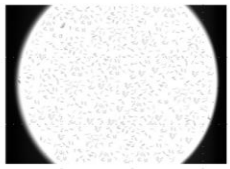
A. Barcoded Magnetic Beads (BMB)



- Digital barcodes (used in supermarket and logistics) shrink the length and width to 1,000 times and imprinted onto magnetic beads

Dimension: 1 x 0.5 inch
Raw material: paper

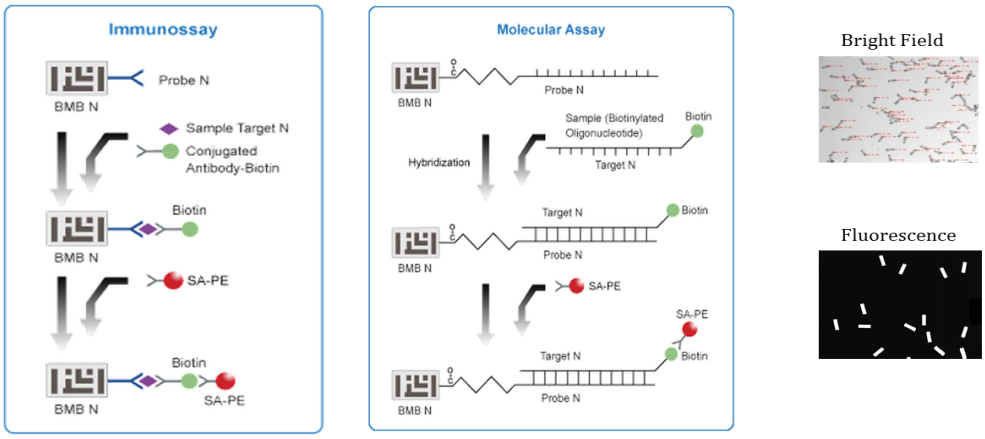
每一個微小的顆粒（平板）都有各自的條碼



Dimension: 70 x 35 microns (thickness 5 microns)
Raw material: bio-polymer
(Temperature, pressure, pH, chemical and biochemical stability/compatibility)

Barcodes on the magnetic beads identify specific probes

Stable BMB optical scanning: fluorescence signals indicate quantitative/qualitative



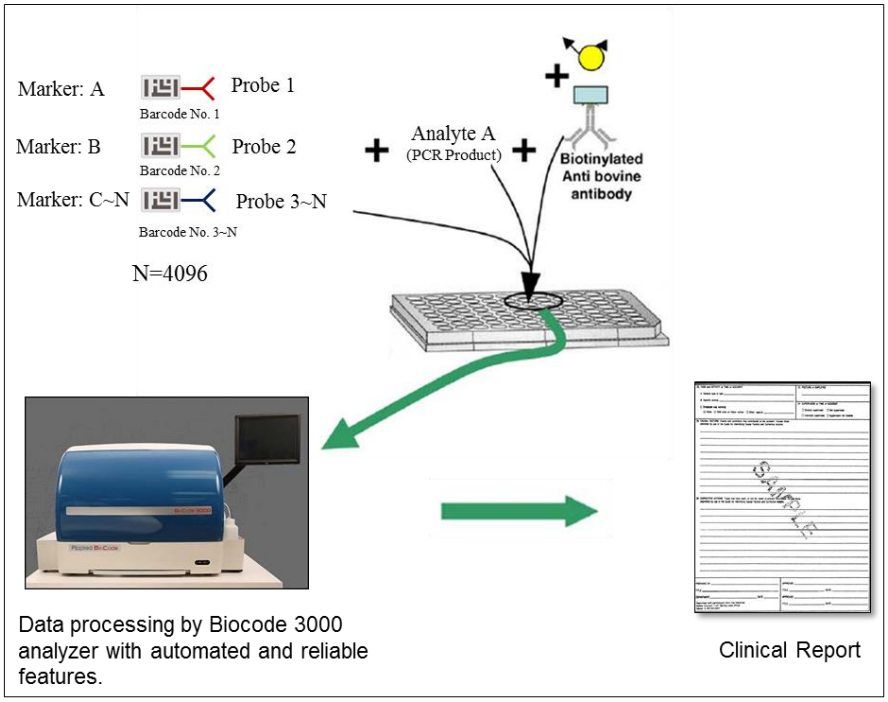
Source: compiled by our group

BMB is the shrinkage and etching of digital barcodes onto silicon wafers using a semiconductor manufacturing process and applying diagnostic assays. Its unique encoding method allows more than 4,000 codes to be encoded. At present, the encoding method can identify up to 12 bars on a barcode, which culminates in a combination of 4,096 (2^{12}) combinations of different digital barcodes. The molecular probes or antibody/antigen combinations of different diseases can be chemically bonded to the BMB on organic polymer (as shown in the figure above). The probes react with the specimen to emit fluorescent signals, which the system interprets to identify the barcode with a fluorescent signal, achieving hundreds of label readings in a single test for multiplex diagnosis.

B. Instrument- Optical Scanner

The instrument developed by our corporation includes high and low power LEDs, microscope lenses, imaging cameras, scanning systems and analysis software to provide micro-level BMB reading and calculation of fluorescent signal intensity. The current instrument product lines include Biocode 1000, Biocode 2500 and MDx 3000. Biocode 2500 is a 2nd generation product. Compared to Biocode 1000, it has the advantages of smaller size, faster analysis speed and lower costs. multiplex testing can produce large amounts of test results quickly; for example, only 30 seconds is needed to perform 20 multiplex tests, which give 20 test results. This means that the system can produce about 2,000 test results in just 30 minutes (20 x 96-well microplates = 1,920 tests). In addition, Biocode 2500 can be integrated with an automation system to achieve fully-automated operation.

Schematic for multiplex testing of microcarriers



Source: compiled by our group

The MDx 3000 system is a fully automated multiplex testing system, which is very easy to operate. This system integrates molecular analysis steps such as PCR amplification, cross-linking, washing and automatic interpretation. It can perform multiplex tests, including intestinal pathogen typing and identification, infectious bacteria of the respiratory tracts, sexually transmitted diseases, and tuberculosis/non-tuberculous mycobacteria typing and identification, etc.

C. In-vitro diagnostics assays (multiplex panels)

Technology that can accurately determine the source of infection at the early onset of diseases. Combined with our group's BMB platform, this technology can fulfill the needs for one-time detection of multiple targets, high-throughput and precision diagnosis, and can optimize the testing processes in major hospitals and third party laboratories, allowing rapid provision of large amounts of infection source diagnosis information. The Group has commercialized the following test reagents, including "17-Plex Gastrointestinal Pathogen Panel", "20-Plex Upper Respiratory Tract Pathogen Panel", "coronavirus tests", "Covid-Flu-Plus", "28-Plex Fungal-Analyte Specific Reagent", for important application of diagnosis of infectious disease. We will continue introducing more novel test reagents with higher technical thresholds, including fungal test kits, STI-AMR kits, prosthetic joint infection test kits, antimicrobial resistance markers panel kits, urinary tract infection test kits, vaginitis test kits, opportunistic infection test kits with the hope of becoming the leader in the field of multiplex test for infectious disease.

The Group has also delved into the field of multiplex immuno diagnostic panels, and plan to use our exclusive BMB technology platform to develop Allergy Diagnostic Panel and Automated Immunoassay System. The market of immunoassay is much

more mature than molecular diagnostics, however it lacks novel products capable of multiple testing. We expect that our experience in the development of multiplex diagnostics and automated instrument will revolutionize the technology of multiplex immunoassay.

D. Research and Development of Liquid Biopsy

Testing circulating tumor DNA (ct-DNA) to determine the incidence of tumor formation or treatment efficacy is a novel molecular test application. Most products on the market analyze tumor DNA using a genetic sequencing approach which takes weeks to complete and requires bioinformatic service to translate the data for interpretation. In line with the diverse test features offered by the barcoded magnetic beads, our Company hopes to isolate multiple types of ct-DNAs for PCR tests, hoping to reduce the test time and lower the cost of testing. A feasibility study is currently being conducted.

(2) Research Personnel and Education Background/Professional Experience

A. The main education background distributions of the research and development personnel in our group are as follow:

Year / Education	End of 2020		End of 2021		End of 2022		End of March 2023	
	Number of personnel	Ratio (%)	Number of personnel	Ratio (%)	Number of personnel	Ratio (%)	Number of personnel	Ratio (%)
Ph.D. Degree	7	31.82	7	29.17	9	34.61	10	38.46
Masters Degree	4	18.18	5	20.83	5	19.23	5	19.23
University and College Degree	10	45.45	11	45.83	11	42.31	10	38.46
Others	1	4.35	1	4.17	1	3.85	1	3.85
Total	22	100.00	24	100.00	26	100.00	26	100.00

B. The education backgrounds and professional experiences of the research and development personnel in our group are as follows:

Name	Position	Highest education/Years of Professional Experience	Expertise	Main education backgrounds and experience
Winston Z. Ho	President and Founder/ Chief Technology Officer	Ph.D./ 32 years	Optoelectronics, biochemistry, physical chemistry	Bachelor of Chemistry, National Chung Hsing University Arizona Sate University Master's Degree in Biochemistry and Ph. D. Degree in Physical Chemistry Columbia University in New York City Postdoctoral research fellow -

Name	Position	Highest education/Years of Professional Experience	Expertise	Main education backgrounds and experience
				high speed optics Maxwell Sensors, Inc. Founder / CEO Director of smart optical system and sensor Director, Biomedical Sciences, Physical Optics Corp. US-NIH Grant review committee Research Scientist - Nonlinear Photonics, University of Arizona College of Optical Sciences 52 publications and 15 authorized patents
Michael Aye	Chief of Scientist (Director of Science)	Ph.D./ 18 years	Microbiology, molecular diagnostics, infectious disease, diagnostic assays	Ph.D. in Microbiology, University of California, Irvine Vice-Chairman of Molecular Products Director of Molecular Analysis, Focus Diagnostics Extensive experience in the development of molecular diagnostics and analysis; developed and launched over 40 products approved by ASR and 4 products approved by 510(k) of the FDA.
Collen Knoth (Note 1)	Product R&D Division Manager	Ph.D./ 12 years	Microbiology, biochemistry, infectious disease, molecular genetic diagnostics	Ph.D., University of California, Riverside Senior Scientist, Focus Diagnostics Scientist, Johnson & Johnson Company
Gerald Kowalski	Operating Vice President	Bachelor's Degree/ 32 years	Software engineering, team building and all stages of software projects	Michigan Technological University Bachelor of Electrical and Computer Engineering BECKMAN COULTER INC Leader of Software Team Senior Software Engineer, BAXTER International Inc.

Name	Position	Highest education/Years of Professional Experience	Expertise	Main education backgrounds and experience
Jung-Ren Hou	Senior Scientist	Ph.D./ 26 years	Polymer chemistry, organic chemistry, surface chemistry	Bachelor and Master's Degree in Chemistry, National Taiwan University Ph.D., New York Institute of Technology Post-doctoral researcher, The City University of New York
Gao Chen	Product Manufacturing Division Senior Director	Ph.D./ 28 years	immuno testing, oncology, biochemistry, bio-engineering, molecular biology	Ph.D., Gembloux Agro-Bio Tech, Belgium Bachelor's degree, Gembloux Agro-Bio, Belgium
Anh Pham	Senior Scientist	Ph.D./ 20 years	Microbiology, biochemistry, infectious disease	Ph.D., Walden University Bachelor's degree, UCLA Research scientist, Quest Diagnostics Molecular Diagnostics, Focus Diagnostics
Anna Al-Khouri (Note 2)	Product R&D Division Director	Ph.D./ 15 years	Cellular and Molecular Biology, Microbiology	University of Colorado Ph.D Degree in Cellular and Molecular Biology, Microbiology Fluidigm Corporation Vice Director of Clinical Study Development R&D Manager, DiaSorin Molecular

Note 1: The employee has left the job on March 24, 2022.
Note 2: The employee was on board on August 25, 2022.

(3) Annual budget devoted to research and development for the past 5 years

Unit: NT$ thousand; %

Year / Item	2018	2019	2020	2021	2022
R&D expenses	195,709	216,973	197,005	205,854	238,370
Total operating income	36,904	104,694	299,015	319,962	390,302
Percentage of research expenses in operating income	530.32	207.24	65.88	64.34	61.07

Source: Audited consolidated financial statements of the Group.

(4) Successfully developed technology or products

A. Barcoded Magnetic Beads (BMB)

Our corporation has successfully developed and commercialized Barcoded Magnetic Beads (BMB). Based on the time of development, the products include 32 Plex (5-digit, (2^5)), 128 Plex (7-digit, (2^7)), and 4,096 Plex (12-digit, (2^{12})) of BMBs. While the dimension of the products in this series are largely identical, the encoding mode of the BMB has been changed from 1-dimensional encoding to 2-dimensional encoding. This unique encoding method allows 4,096 barcodes or simultaneous detection of 4,096 targets. The 4,096 barcodes are sufficient for use in clinical diagnostic applications of immuno or molecular detection.

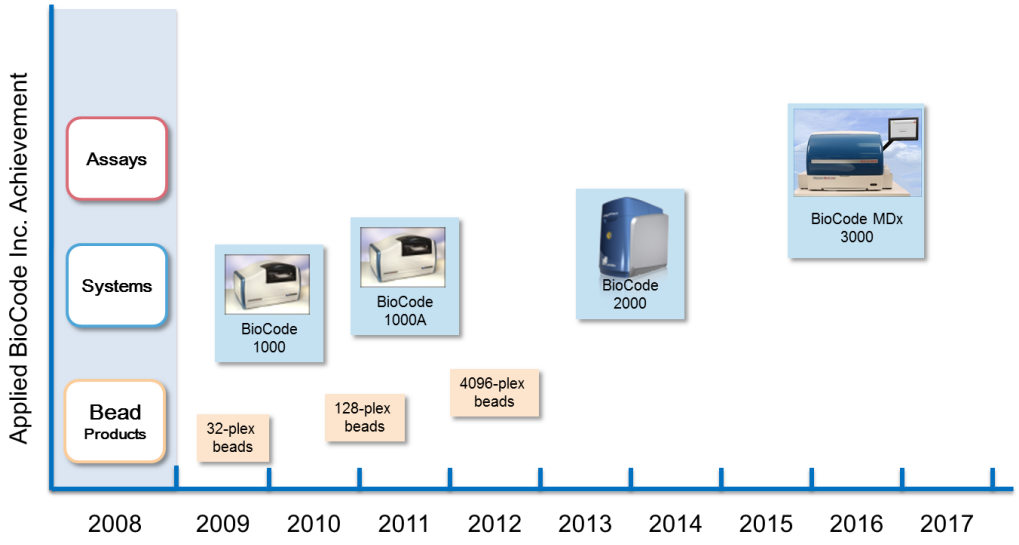
B. Instrument- Optical Scanner

Our corporation has successfully developed and commercialized automated analyzers, which include the Biocode 1000 and 2500. The products in this series can automatically read BMBs, analyze fluorescence signals, and use them as the basis of quantification/qualification interpretation. The instruments include light sources, scanners, optical filters and optical detectors. The 2500 (II) is a smaller analyzer that uses LED as a high-power light source, which saves on costs and can be integrated with a mechanical fluid system.

C. Instrument-Automatic Analyzer

MDx 3000 is a user-friendly automated system that integrates fluid processing and optical detection systems into a single unit. The user places the 96-well PCR plate into the system, which will then automatically carry out all operations and produce a final test results report. MDx 3000 is an automated multiplex diagnostic system. It is easy to operate and integrates molecular test steps including PCR amplification, cross-linking, cleaning, automatic interpretation and testing. It can be used with our molecular diagnostic reagent kits to provide diverse, high throughput molecular diagnostic result.

Development progress of instruments



Source: compiled by our group

D. In-vitro diagnostics assays (multiplex panels)

The Group has received a 510(k) approval from the USFDA on September 29, 2018 for the "17-Plex Gastrointestinal Pathogen Panel" and the automated diagnostic system MDx3000, and a 510(k) clearance for "20-Plex Upper Respiratory Tract Pathogen Panel" on December 24, 2019. We have also received an EUA from the USFDA for coronavirus test panels on June 16, 2020; an EUA from the USFDA for a pooling test for coronavirus on December 8, 2020; and an EUA from the USFDA for Cov-2 Flu Plus on December 16, 2021, which are all used with our automated test instrument MDx 3000 for diagnosis. We currently offer and have commercialized test panels for diarrhea, respiratory tract and coronavirus infections that are used with our automated multiplex test system MDx 3000. The development of a Fungal-Analyte Specific Reagent has been completed. The product has been verified by several hospitals and outsourced to the John Hopkins University, Bayler University and several renowned medical centers for preparation of a LDT protocol.

4. Short and Long-term business development plans

(1) Short-term business development plans

A. The Group appointed a new CEO for the U.S. Operation Center in March 2022, who has 27 years of marketing experience in molecular diagnostics industry, to continue transforming the sales, marketing, customer service and regulatory certification teams, improving our corporate image and strengthening our commercialization ability in order to compete and collaborate with global diagnostic companies. Our primary objective is to increase the market share of our in vitro diagnostic products (IVDs) in over 600 large hospitals and laboratories.

B. By expanding the number of distributors and collaboration with international companies on complementing products, developing new sales channels and working with our own sales team, we can increase our market share through a mixed marketing strategy.

C. Improve collaborative ties with licensed organizations and accelerate the development cycles.

(2) Long-term business development plans

A. Continue developing more infectious disease test kits and move towards commercialization step by step. The Group's core competitiveness is multiplex testing, high throughput and automation. We will go a step further to target the ability to test antimicrobial resistance markers as our future core development. Our goal is to become the best partner in multiplex testing of infectious disease for large hospitals and laboratories.

B. Expand to other test assays such as cancer, allergens, genetic mutations, cytokines, and food tests.

C. Development plan for test instruments, including the additional functions of pre-test sample preparation and extraction, and semi-quantitative tests for the automated diagnostic system MDx3000. We also plan to develop automated immuno diagnostic

analyzer and real-time analyzer (Point of Care Testing, POCT) and expand application markets.

2. Industry, Supply and Sales Overview

1. Market Analysis

(1) Main Locations of Product Sales and Service Provisions

Unit: NT$ thousand; %

Year / Location		2020		2021		2022	
		Amount	Ratio (%)	Amount	Ratio (%)	Amount	Ratio (%)
Domestic sales		276,057	92.32	294,599	92.07	362,955	92.99
International sales	Europe	157	0.05	118	0.04	215	0.06
	Asia	22,801	7.63	25,245	7.89	27,132	6.95
	Others	-	-	-	-	-	-
	Total	22,958	7.68	25,363	7.93	27,347	7.01
Total		299,015	100.00	319,962	100.00	390,302	100.00

Note: domestic sales refers to sales in the United States.

Our corporation's revenue sources are mainly from BMBs, instruments, in-vitro diagnostics assays, licensing and sales of parts and components. Major markets of sales include the United States, Europe and Asia.

According to our corporation’s business development plans, we will focus on assay sales and we will initially focus on the North American markets. Up to the date of publication of the annual report, the Group has successfully commercialized the “17-Plex Gastrointestinal Pathogen Panel”, “20-Plex Upper Respiratory Tract Pathogen Panel” and coronavirus tests in large hospitals and third party laboratories in the United States.

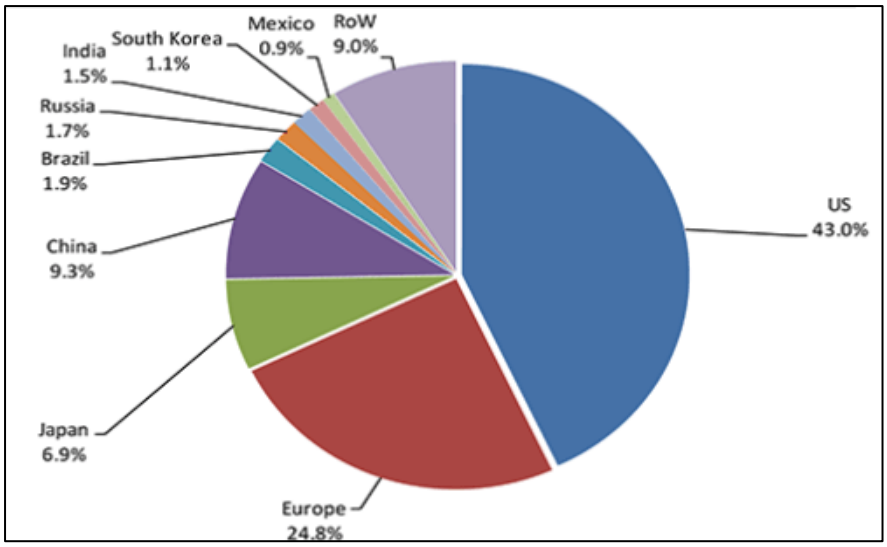
(2) Market shares

The main revenue of 2022 was from the sales of barcoded magnetic beads (BMB) and optical scanners to our authorized clients, income from the royalty fee, as well as the sales revenue from in-vitro diagnostics assays to U.S. laboratories. As the products derived from the commercialized barcoded magnetic beads (BMB) technology purchased by individual authorized client are only part of a product pipeline, more test targets and results are available with the multiplex test platform, which will bring more benefits to our clients. It is anticipated that our clients will depend more heavily on our technology in the future. Meanwhile, in 2022, the Group has also witnessed a significant growth in the in-vitro diagnostics assays for non-coronavirus. This is mainly because our laboratory clients utilize our gastrointestinal and upper respiratory tract pathogen panels in combination with an automated system to enhance their test performance and capacity, which allows them to process more samples. Overall, more products are still undergoing the commercialization stage. Hence, we are unable to analyze the market share for these products at the time of the publication of the annual report.

(3) Future market supply and demand status and opportunities of growth

According to the research report published by Visiongain, the global molecular diagnostic market in 2019 is expected to top 10.4 billion $ U.S. Dollars. With the global aging trend and increasing prevalence of chronic diseases, it is expected that the molecular diagnostic market will continue to grow before 2025; Visiongain also predicted that the North American market will occupy the majority of the shares.

Prediction of Molecular Diagnostic Market in 2019 (by regions)



Source: Visiongain

The multiplex automated molecular diagnostic system provided by our corporation is easy to use, fully-automated, high-throughput, and allows highly varied testings in a small product footprint, which will satisfy the current market needs. In the current molecular diagnostic market, many diversified but low-throughput systems are targeted toward smaller hospitals and clinics; however, as the demand for specimen testing is high in larger hospitals and medical laboratories, products with high-throughput testings are usually favored such as conventional diagnostic instruments from manufacturers like Roche. Although these conventional diagnostic instruments are high-throughput, they could not conduct multiple tests in a single pass and requires more time, money, and manual labors to provide patients with diagnostic reference and medication guidelines. For clinicians, it is expected that the demand for multiple and high-throughput testing will continue to grow.

Our corporation has selected assays of infectious diseases as self-developed products because infectious diseases have clear diagnostic needs and are covered by insurance subsidies. The following is a brief description of the current market status:

A. **GPP** “17-Plex Gastrointestinal Pathogen Panel”

Enteritis is a serious global infectious disease. According to a report from the U.S. Centers for Disease Control and Prevention (CDC-Global Diarrhea Burden), 1 out of 9 children deaths worldwide is due to diarrheal disease. Diarrhea is the second leading

cause of death for children under 5 years of age. It is estimated that there are 2 billion diarrhea cases every year, resulting in about 1.8 million deaths. Diarrhea cases are the second leading cause of death and the leading cause of malnutrition in children under five. Because the diarrhea symptoms are very similar, doctors often cannot distinguish whether the diarrhea is caused by viruses, bacteria or parasites, which makes treatment difficult, therefore necessitating accurate detection of pathogenic sources to act as a diagnostic basis. According to the study report and commercial information that we collected, the market size is estimated to be approximately US$0.8 billion.

B. **RPP "**20-Plex Respiratory Infection Panel"

Upper respiratory tract symptoms are the most common infectious disease. Allows rapid identification and phenotyping of clinically common bacteria and viruses and can determine respiratory infection as early as possible, which lowers treatment costs. If respiratory diseases are not monitored immediately and effectively, they can often cause large-scale infections, leading to issues like deaths and potential drug abuse. Respiratory pathogens, especially those found in children, the elderly and patients with weakened immuno systems, include the following: viruses (H1, H1N12009, H3 subtype), influenza B virus, respiratory syncytial virus (type A and B), para-influenza virus (type 1, type 2, type 3, type 4), human metapneumo virus (Type A and B), rhinovirus, enterovirus, coronavirus (OC43, HKU1, NL63, 229E), adenovirus, Mycoplasma pneumoniae, Chlamydia pneumoniae, and Bacillus pertussis. According to the study report and commercial information that we collected, the market size is estimated to be approximately US$2 billion.

C. SARS-Cov-2, Cov-Flu-Plus

Since 2019, the spread of COVID-19 has hit countries hard around the world, and the situation is still relatively serious as of now. However, with countries starting to administer vaccines as a means to recover the economy, testing at the same time continues to reach its peak to. By making such effort, it ensures the effectiveness of the vaccination so that people will be able to travel and carry on with their day-to-day life. Our Group has received a U.S. FDA license for and commercialized the coronavirus test panels (including pooling) and Cov-2 Flu Plus.

D. 28-Plex Fungal-Analyte Specific Reagent (Fungal ASR)

Symptoms of fungal infections include pneumonia, meningitis, blood infection, allergy and skin infection. Among these, Cryptococcus is the most commonly observed fungus in fungal meningitis. Cryptococcus infection is the 4th ranking pathogens aside from bloodstream infection. Its mortality rate is estimated between 35 and 55% and is a common type of pathogen for nosocomial infections. The Candida auris, known for its multiple drug resistance characteristic, has a mortality rate of about 30 to 60% for those infected, and is listed as one of the emergency threats by the U.S. CDC. This fungal test panel includes: (A) fungus (Aspergillus spp. (including Aspergillus fumigatus, Aspergillus flavus, Aspergillus niger, Aspergillus terreus), Mucor

(including Mucor indicus), Rhizopus (including Rhizopus microspores, Rhizopus oligosporus), Cunninghamella bertholletiae, Fusarium oxysporum, Fusarium solani, Scedosporium apiospermum, Scedosporium prolificans)), (B) Yeasts (such as Candida (including Candida albicans, Candida glabrata, Candida krusei, Candida parapsilosis, Candida tropicalis, candida auris), Cryptococcus neoformans). According to the study report and commercial information that we collected, the fungal test panel market size is estimated to be US$1.2 billion.

E. Fungal Panel RUO

Based on the market information stated above for fungal-analyte specific reagents, the Fungal Panel RUO is designed specifically to target pneumonia, blood infection and skin infection. For our clients, it is easier to introduce than ASR. Once the product has been validated, the test result can be used as diagnostic reference.

F. STI + AMR RUO

According to the WHO data, at least 0.37 billion people are infected with sexually transmitted disease (STD) every year. The risk of STD and resistance mutation among pathogens also increases in specific populations with multiple partners and group sex. Drug resistance of pathogens is considered by public health experts to be one of the major threats to the modern human society. Due to the widespread usage of anti-biotics and mutation of pathogens after multiple infections, there are more pathogens nowadays that have begun developing resistance to medication. According to a 2019 report by the U.S. CDC, about 2 million people in the U.S. were diagnosed with drug-resistant pathogens annually, resulting in about 35,000 deaths per year. As the drug resistance of pathogens can be determined by their special genetic fragments- the drug-resistance markers-, additional screening of bacterial drug-resistance when detecting these pathogens of sexually transmitted disease can be a very useful information for clinical diagnosis. Resistant gonorrhea is considered the most refractory sexually transmitted threat by the public health community. In most clinical practices, the first step is to screen the sexually transmitted infections and followed by a genetic analysis of drug resistance. Our goal is to introduce a first-line test tool for infectious disease with the option of including drug resistance genes. This will allow more timely treatment while eliminating the overuse of antibiotics. According to the study report and commercial information that we collected, the infectious disease molecular testing market size is estimated to be US$1.3 billion.

G. Prosthetic Joint Infection RUO

With the prolonging of life expectancy, joint replacement has become more common in an aging society. The WHO estimated in 2014 that the prevalence of artificial hip and knee joints in the global population between 60 years old and the average life expectancy was 10% in male and 18% in female. Both the joint replacement surgery and the prolonged abrasion from before and after the surgery can

cause inflammation that becomes a lesion for prosthetic joint infection. According to the US NIH investigation, the rate of prosthetic joint infection after a total hip and total knee joint replacement is 3% to 2%, respectively. The massive potential market for prosthetic joint replacement will create a huge demand for infection tests. According to the study report and commercial information that we collected, the prosthetic joint infection test market size is estimated to be US$56 million, where the United States is the biggest market.

H. AMR Panel RUO

Drug resistance of pathogens is considered by public health experts to be one of the major threats to the modern human society. Due to the widespread usage of antibiotics and mutation of pathogens after multiple infections, there are more pathogens nowadays that have begun developing resistance to medication. According to a 2019 report by the U.S. CDC, about 2 million people in the U.S. were diagnosed with drug-resistant pathogens annually, resulting in about 35,000 deaths per year. Nowadays, the antimicrobial resistance is determined primarily by susceptibility test. This test still has a lot of shortcomings including highly manpower consuming, one single marker at a time and a wait time up to 24 hours. According to the study report and commercial information that we collected, the total global antibiotic tolerance test market size is approximately US$3.5 billion.

I. Urinal Track Infection

Urinary tract infection (UTI) is a common indication of community and nosocomial infection. According to the report from the National Institutes of Health, the total expenses related to the medical care of UTI is estimated to be about 3.5 billion USD. The severity of infection may be increased significantly with complications like urinary stones, insertion of urethral catheters, and patients who have undergone urinary surgery. Common pathogens that can cause urinary tract infections include Escherichia coli, Citrobacter freundii, Acinetobacter baumanii, Proteus mirabilis, Enterococcus, Klebsiella, Enterobacter, Morganella, Mycoplasma and Chlamydia. According to the study report and commercial information that we collected, the urinary tract infection test market size is estimated to be US$0.6 billion.

J. Vaginitis test

Female vaginitis comes in many forms, including Candidiasis (yeast infection), bacterial vaginitis, viral vaginitis, trichomoniasis and non infectious vaginitis. Considering the efficiency and insurance reimbursement in the clinical practice in the U.S., a negative result of pathogens by a single rapid screening test is usually confirmed by a molecular test approach. The prolonged diagnosis and treatment time often causes inconvenience and health deterioration in women’s life. As a result, there is still a high unmet demand for an insurance-covered, comprehensive molecular testing that shortens the time to diagnosis. According to the study report and

commercial information that we collected, the total market size of all vaginitis infection tests is US$1.7 billion.

K. Opportunistic Infection diagnostic panel

Immunosuppressed populations, such as the elderly, cancer patients and immunocompromised patients, HIV patients are more prone to opportunistic infections. Infection-causing pathogens including Aspergillus spp., Fusarium spp., Mucor spp., Rhizopus spp. and Cryptococcus spp., are all covered in our existing test kits. After re-grouping, we plan to introduce test kits for opportunistic infections via RUO for test facilities specializing in this field.

L. 120-Plex Allergy Diagnostic Panel and Automated Immunoassay System

The Group intends to develop 120-Plex Allergy Diagnostic Panels and Automated Immunoassay Systems in the future mainly to target diseases related to allergies, including asthma, rhinitis, angioedema, urticaria, conjunctivitis and eczema. Populations suffering from these diseases are rapidly increasing due to industrial pollution and population growth. For the asthmatic population alone, the World Health Organization forecasts that the global asthmatic population will growth to 400 million people by the year 2025. Allergies result in an increase of direct medical costs and decrease of social behavioral efficiency; the decrease in work efficiency will result in health burdens for all. Treating these kinds of diseases requires effective testing tools of allergens.

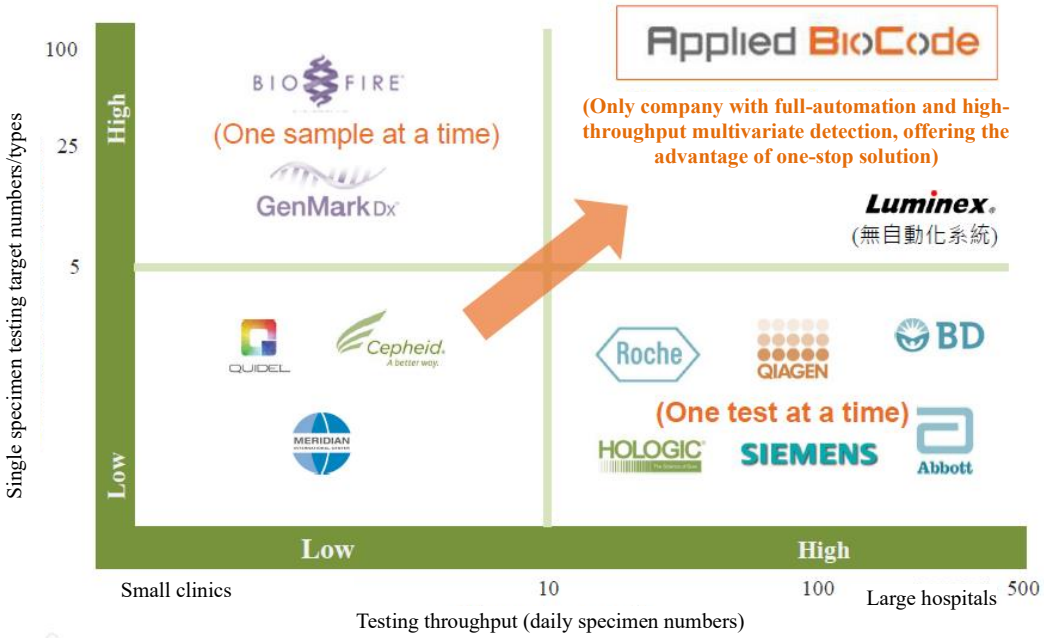
M. Liquid Biopsy

Testing circulating tumor DNA (ct-DNA) to determine the incidence of tumor formation or treatment efficacy is a novel molecular test application. According to a study report, the production value for this application reached US$1.2 billion dollars in 2021. However, it is estimated that the annual growth rate will achieve 20.9% in 2027. The convenience created by the transformation of sample collection from tissue biopsy to blood collection for cancer detection and reduced invasiveness, along with the drug development by several immunotherapy and cell therapy companies that target the association between specific ct-DNA and effective treatment, implied that liquid biopsy is likely to contain the key messages to changing how we fight cancer. A companion diagnostics company, Guardant Health, recently approved by the U.S. FDA reached a market value of US$6 billion dollars in 2021. Another company approved by the FDA, Foundation Mediciney, was purchased by Roche Diagnostic in 2018 for US$2.4 billion dollars. Most of these types of index corporations use genetic sequencing as a platform for tumor DNA analysis, which is time consuming and requires bioinformatic service to translate the data for interpretation. In line with the diverse test features offered by the barcoded magnetic beads, our Company hopes to isolate multiple types of ct-DNAs for PCR test, hoping to reduce the test time and lower the cost of testing. A feasibility study is currently being conducted.

(4) Competitive niche

A. High-throughput, high efficiency, automation

BMB can be used together with the instruments developed by our corporation for analysis. The MDx 3000 is a fully automated multiplex detection system that is easy to operate and integrated many molecular detection steps such as PCR amplification, hybridization, washing and automated reading and interpretation. Up to 4,096 tests can be performed on a single specimen, and up to 188 specimens (8 hours) can be operated and analyzed simultaneously. Compared to the market competitors like Roche and Luminex, while their products also have a high-throughput capability, Roche's offering does not have multiplex detection capability, and neither Roche nor Luminex has full automation built in their systems. Comparing the xMAP instrument of Luminex where each step must be manually completed, our MDx 3000 can reduce the total operation time to 3.5 hours. In addition, full automation can reduce manual operation errors and labor costs, demonstrating the competitive advantages of our corporation's technology platform.



Source: compiled by our group

B. High yield and good stability

BMBs are produced with semiconductor manufacturing technology. As the semiconductor industry has rapidly advanced in the past decades, this production technology's stability is very high and much more stable than other market competitors that offer fluorescent-labeled analog multiplex detection systems. In addition, the fluorescent beads of Luminex are photosensitive and must be stored in darkness. Otherwise, the fluorescent dye will lose its color intensity. The Luminex fluorescent beads are also difficult to produce and can be affected by different barcode reading rates between different batches.

C. Cost advantages

Since the production of Barcoded Magnetic Beads (BMB) is based on a semiconductor manufacturing process that can scale to mass production, the production costs of BMB are competitively advantageous compared to the multiplex detection system of Luminex's fluorescent beads.

D. Proprietary technology and patent protection

Our corporation has previously obtained exclusive, irrevocable and permanent licensing from Maxwell Sensors for our core intellectual property rights, excluding the application in the same fields under our corporation by Maxwell Sensors and third parties. We also have the right to re-authorize applications by third parties. Such core intellectual property rights have been transferred and provided to our corporation. Our corporation is the developer and technology proprietor of the Barcoded Magnetic Beads (BMB) assay platform, we can collaborate with international vendors through licensing. This technology platform has obtained multiple patents in the U.S. and the world, including various BMB core patents (7,871,770, 7,858,307, 8,232,092, 8,148,139 and 9,255,922 are approved by the United States Patent and Trademark Office; the European Union Intellectual Property Office approves EP2342561B1; CN 102246037 B is approved by Chinese Patent). Our corporation's critical technologies' intellectual property rights are the following four: Barcoded Magnetic Beads (BMB), Light transmitted assay bead, Biocompatible and photocurable polymer, Image Decoding and System. When combined, these patents protect our corporation's technologies and ensure their applications in various biomedical fields.

Patent Number	Patent name	Country of Application	Date of Approval
7,871,770	Barcoded Magnetic Beads Structure and Materials	United States	2011/01/18
7,858,307	Barcoded Polymer Beads	United States	2010/12/28
8,232,092	Apparatus and Method for Analyzing Digital Magnetic Beads	United States	2012/07/31
8,148,139	Manufacturing and structure of Barcoded Polymer Beads	United States	2012/04/03
CN 102246037 B	Bio-compatible Polymer Materials for Barcode Magnetic Beads	China	2014/05/21
9,255,922	Biocompatible and photocurable Polymers	United States	2016/02/09
EP2342561B1	Biocompatible and photocurable Polymers	Europe	2019/06/26
PCT/US08/08529	Apparatus and Method for Digital Magnetic Beads Analysis	PCT	–
PCT/US09/60043	Biocompatible and Photocurable Polymers	PCT	–

Source: compiled by our group

(5) Advantages and Disadvantages of Development Prospective and Corresponding Measures

A. Advantages

(A) Technology platform that meets the market trend

As the world's population structure continues the aging trend and the concepts of preventive medicine gain maturity, governments of various countries began to value healthcare and the population's welfare. The improvement of personal economic status and changing healthcare concepts have resulted in continuous expansion and growth of the global healthcare markets. In recent years, the biotechnology industry has paid much attention to precision healthcare and personalized medicine. It is expected that in-vitro diagnostics, such as molecular and immuno diagnosis, will become a popular development field. The multiplex diagnostic technology platform of our corporation can satisfy the three market trends simultaneously: 1. Multiple testing, 2. High throughput, and 3. automated operation. In response to the rapid growth of the personalized medicine and precision medical markets, our corporation's testing platform has high compatibility and expandability, making it easy to incorporate new diagnostic targets into our products. Additionally, in response to the multiplex testing market's highly variable demands, our BMB technology platform has good flexibility on diagnostic expansion, allowing rapid inclusion of new biomarkers.

(B) International Brand and Proprietary Technology

Our corporation is the developer and technology proprietor of the Barcoded Magnetic Beads (BMB) assay platform. This technology platform is protected by various international patents. Through licensing to international vendors, we collect pre-payments and royalties to the licensees and engage in sales of BMBs to licenses, generating technology royalty and revenue for our corporation.

(C) Application in Diverse Disciplines

The scope of application of our corporation's technology platform covers wide market applications like clinical diagnosis, academic research, agriculture testing, animal health testing and environmental testing, in addition to our core diagnostic applications in immuno and nucleic acid analysis. Our BMB technology has been successfully licensed to various international vendors for use as a development platform for various diagnostic products, demonstrating the recognition received for our platform's application value.

B. Disadvantages and corresponding measures

(A) Existing market competitors: BMB is an innovative technology platform. The existing competitors in the market of multiplex diagnostic can present a threat to the future market share expansion of the BMB technology platform. A major competitor of similar characteristics to our platform is the xMAP system of Luminex, which has been successfully implemented in hospital markets. Compared to our BMB technology platform, Luminex has the advantage of technology and brand familiarity. Other competitors on the market: vendors like Biofire and Genmark provide single-use cassette type operation

platforms (one specimen per cassette). Although the volume of specimens is lower, they are nevertheless potential competitors of our corporation.

Corresponding measures

a. Each step of the Luminex xMAP operation requires manual input, which is time-consuming and challenging to control the quality of results. Our corporation's MDx 3000 is a fully automated operation platform, which reduces labor costs and can decrease total operation time to 3.5 hours. It also has the advantages of easy operation, prevention of DNA contamination, and ease of maintenance and repair. Our corporation will continue to promote our products through authoritative seminars in the field of clinical diagnosis, publication in international journals, and participation in international conventions so that we can increase our brand visibility and emphasize our unique automation advantages.

b. Compared to Biofire and Genmark, whose products do not possess high-throughput capacity, our products are positioned toward high test volume users such as major hospitals, which allows our products to compete for different market objectives. Our corporation's high-throughput feature allows our product to reduce personnel operation time, a shorter testing cycle, and lower costs per diagnosis.

(B) Costs invested during the research and development phase: our corporation was founded fairly recently, and being a biotechnology and medical research and development company, it takes a long time for products to go on sale, as the process requires multiple verifications and clinical trials. If there is no fixed revenue or continuous injection of external funding, it is difficult for us to support the research expenses, and failure of product development will also impact our corporation's financial affairs. Therefore, sound financial planning is of paramount importance to our corporation's operations.

Corresponding measures

a. The BMB technology platform can be applied in a wide range of fields. Our BMB technology has been successfully licensed out to various international vendors for research and development in clinical diagnosis and animal health testing. We collect royalty fees from licensees, which, along with BMBs or instruments' sales, have brought in revenue streams for our corporation.

b. Considering the definitive diagnosis and insurance coverage for infectious disease, the Group persisted in the self-development, production and sales of products for infectious disease and have successfully obtained market approval and achieved commercialization for these products. We will further expand our sales channels and collaboration with international companies with the hope of rapidly expanding our market share.

c. Utilize capital market fundraising opportunities to increase diversified outlets for financing.

2. Key usage and production processes of main products

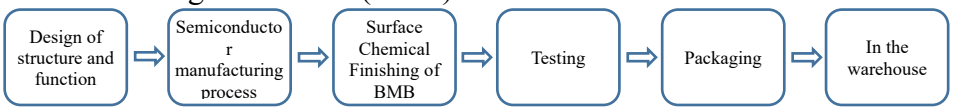
(1) Key usage of main products

The BMB technology platform developed by our corporation can be applied to nucleic acid and immuno testing principles. Therefore, it can be applied to a wide range of markets, such as clinical diagnosis, technology research, agriculture, animal health, food industry and environment testing. Following is a brief description of the main products developed or currently in development by our corporation, and their key usage:

Product name	Key usage
Barcoded Magnetic Beads (BMB)	BMB can encode up to 4,096 unique numbers and bind with DNA, antibodies, or antigens for specific binding and identification of target compounds. It can be used as a carrier for in-vitro diagnostic assays and can be applied to the diverse fields of clinical diagnostic, agriculture and animal health.
Instrument- Optical Scanner	A testing instrument that complements the Barcoded Magnetic Beads (BMB) acts as a diagnostic and analysis platform for proteins and nucleic acids. Our BC2500 is an analytical instrument designed for sale to authorized customers. The Biocode MDx 3000 is targeted to hospitals and third party laboratory clients, and has the advantages of fully automated molecular assays, high-throughput, highly diverse testing, ease of operation and small product footprint. Our Group is currently developing automated testing instrument for immunoassay.
In-vitro diagnostics assay (Reagent)	Diagnostic panel reagents based on BMB technology comprise mainly of molecular and immunoassay products. Panels are divided based on different indications and test targets. Medical personnel can generate important clinical diagnosis basis by following the instructions and operate the tests. Our philosophy is to develop multiple in-vitro diagnostics assays panels for the same testing instrument, which maximizes the testing efficiency for the customer and increases the number of items available.

(2) Manufacturing process of primary products

A. Barcoded Magnetic Beads (BMB)



B. Instrument- Optical Scanner

C. Reagent

3. Supply of primary raw materials

Primary products	Primary raw materials	Primary country of origin	Supply situation
Barcoded Magnetic Beads (BMB)	Wafer fabrication	Taiwan	Adequate
Optical Scanner	System manufacturing	Taiwan/China	Adequate
Reagent/In-vitro diagnostic assay(Panel)	Chemical raw materials	United States	Adequate

4. Significant changes in primary products or gross margin in divisions for the most recent 2 fiscal years

(1) Comparative analysis of changes in the gross margin of primary products for the most recent 2 fiscal years

Unit: NT$ thousand

Item \ Products	Barcoded Magnetic Beads (BMB)		Optical Scanner		Reagent	
	2021	2022	2021	2022	2021	2022
Net sales	92,462	119,357	69,009	94,724	138,513	147,918
Gross profit	53,505	73,855	31,752	38,572	91,246	101,304
Gross margin (%)	57.87	61.88	46.01	40.72	65.88	68.49
Change in gross margin (%)	5.52	6.93	25.11	(11.50)	(18.05)	3.96

Description of the change in the gross margin of 20% or more: None.

5. List of main purchasing and selling customers

(1) The names of the suppliers who have accounted for more than 10% of the total purchase amount in any of the most recent 2 fiscal years, and the amount and proportion of the purchase amount, and explain the reasons for such increase or decrease.

Unit: NT$ thousand

Item	2021				2022			
	Name	Amount	As a percentage of the total net annual purchase (%)	Relationship with the issuer	Name	Amount	As a percentage of the total net annual purchase (%)	Relationship with the issuer
1	Company C	23,225	20.35	None	Company C	44,139	34.55	None
2	Company P	20,069	17.59	None	Company A	18,134	14.19	None
3	Company S	17,875	15.66	None	Others	65,481	51.26	-
4	Company W	13,712	12.02	None	-	-	-	-
5	Others	39,243	34.39	-	-	-	-	-
-	Net purchase	114,124	100.00	-	Net purchase	127,754	100.00	-

Company C is the main suppliers of optical scanners. It purchase volume increases correspondingly with the increasing sales volume in 2022.

Company A is a major supplier of upstream raw material wafers for Barcoded Magnetic Beads (BMB). With the increase in demand for BMB and multiplex panels, we have purchased and stocked more products as compared to the same period last year.

(2) The names of the customers who have accounted for more than 10% of the total sales amount in any of the most recent 2 fiscal years, and the amount and proportion of the sales amount, and explain the reasons for increase or decrease

Unit: NT$ thousand

Item	2021				2022			
	Name	Amount	As a percentage of the annual total sales (%)	Relationship with the issuer	Name	Amount	As a percentage of the annual total sales (%)	Relationship with the issuer
1	Company I	137,845	43.08	None	Company I	195,139	50.00	None
2	Company P	48,191	15.06	None	Company Q	82,239	21.07	None
3	Company Q	33,371	10.43	None	Others	112,924	28.93	-
	Others	100,555	31.43	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	Total sales	319,962	100.00	-	Total sales	390,302	100.00	-

As Company I is currently commercializing the pet test panels developed using our BMB technology platform in December 2021, the increased purchase amount pushed the sales volume of BMB and optical scanners higher, and hence IDEXX became the largest customer in 2021. Company Q has purchased Gastrointestinal Pathogen Panels in addition to Upper Respiratory Tract Pathogen Panels and Covid-Flu Plus in 2022, making Company Q our 2nd biggest client. Company P reduced its demand and the total sales dropped by over 10%.

6. Production volume and value for the most recent 2 fiscal years

Note 1 Unit: 50,000 pieces, NT$ thousand

Year / Primary products	2021			2022		
	Production capacity	Production volume	Production value	Production capacity	Production volume	Production value
Barcoded Magnetic Beads (BMB)	72,000	70,369	38,957	150,000	115,177	45,502
Optical Scanner	Note 2	53	37,258	Note 2	68	56,152
Reagent/In-vitro diagnostic assay(Panel)	4,000	2,449	47,267	4,000	1,894	46,614
Others	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
Total	-	-	123,482	-	-	148,268

Note 1: The BMB is 50,000 pieces per unit in the table above, while the instrument is counted as one unit.
Note 2: The production of an instrument is outsourced and not applicable to production capacity analysis; other revenues include technical services and sales of instrument parts and components, which are also not applicable to production capacity and yield analysis.

The changes in production volume and value for 2021 and 2022, were mainly due to changes in customers' orders.

7. Sales volume and value for the most recent 2 fiscal years

Unit: 50,000 pieces, NT$ thousand

Year / Products	2021				2022			
	International sales		Domestic sales		International sales		Domestic sales	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Barcoded Magnetic Beads (BMB)	22,705	22,337	47,664	70,125	21,095	19,490	94,082	99,866
Optical Scanner			53	69,009			68	94,724
Reagent/In-vitro diagnostic assay (Panel)			2,449	138,513			1,889	147,918
Others	Not applicable	3,027	Not applicable	16,951	Not applicable	7,856	Not applicable	20,447
Total	-	25,364	-	294,598	-	27,346	-	362,955

Note 1: Domestic sales refer to sales activities within the U.S.; foreign sales refer to sales activities outside the U.S.
Note 2: The BMB is 50,000 pieces per unit, while the instrument is counted as one unit.
Note 3: Other income includes income for technical services, parts, and components of instruments; their sales units are different.

The change in total sales value for each product category from 2021~2022 shown in the figure above was a result of the slow down of the Covid pandemic. However, significant growth was shown in high price diagnostic reagents in other categories. Therefore, the sale value increased despite the drop in IVD sales. The sales of barcoded magnetic beads (BMB) and optical scanners increased due to the progression in the client's commercialization.

8. Product technology analysis and sustained research and development planning

(1) Technology level of product development and production, sources, protection (patent rights and legal protection status), and improvement

A. Technology level of product development and production

Our corporation has developed the Barcoded Magnetic Beads (BMB) assay technology to reduce the two-dimensional barcode (commonly used in supermarkets and shipping industry) into a million fold, and engrave it onto BMB, configure it with a multi-layer structure, and use photo masking with polymers to implement photolithography. This technology has the advantages of biocompatibility and stability. The decoding of the binary barcode system makes the identification of BMBs more direct and greatly reduces the error rate. BMBs are not affected by light as they do not carry fluorescence, which allows them to have a longer shelf life and more relaxed storage requirement; in addition, since the detection of fluorescent signals is completed in a stable state, it is suitable for quantitative and qualitative identification of fluorescent signals. For a detailed description, please refer to the previous section I Company status/Technology level of business operation and description on research and development.

B. Sources of product development and production technology

Our corporation's core technologies are developed by Winston Z. Ho, Ph.D., Founder, Chairman and President of the company, and his research team in 1998. The initial patent rights were registered to Dr. Ho and his spouse's co-owning company, Maxwell Sensors. In 2008, Maxwell Sensor authorized ABC-US for the exclusive, irrevocable and permanent license of its four patents and related derived technologies. Based on the premise that Maxwell Sensors and third parties shall not use the four patents on the application of fields related to our corporation, we have since been dedicated to developing technology related to the diagnostic platform. Aside from the independently obtained patent registrations, the Maxwell Sensors' four patents were voluntarily transferred to our corporation in April 2018.

C. Protection and improvement of product development and production technology

Our corporation has devised control mechanisms for internal control of our R&D projects. We regularly hold meetings that include business operation and quality and irregular submission of development proposals from units within the company, which supervisors evaluate for their feasibility. The assessment includes: a description of new product features, market analysis, product positioning, TFDA, US-FDA regulations and environmental guidelines. The development projects are reviewed in the meeting and confirmed by the President. The research director appoints project managers responsible for assembling a task group and delegating responsibilities. The project manager will draw up a development and introduction plan and confirm the product specification is feasible and meets the client's demand based on the development result. Once the responsible supervisor approves the plan, the project manager will prepare and submit a new product development plan to the President for approval. A sample project will be initiated for product development and management before the product enters the design and development process. As the developer and exclusive owner of the BMB technology platform, other than producing and selling our products, we also work with international companies via technology licensing. The technology platform is protected by a number of U.S. and international patents.

(2) Main product competitive advantages, product life cycle and sustained R&D plans and new product development

A. Main product competitive advantages

Please refer to the previous section I for a description of Company status/Competition and Niche

B. Product life cycle

In-vitro test assays usually have a long life cycle, sometimes exceeding even 20 years or more. The application of assays is usually for disease detection or genetic testing. Such demands are long-term and will not easily follow changing habits or times. In-vitro diagnostic assays as non-reusable medical consumables, its downstream market demand is relatively rigid, and assays and testing instruments' development threshold is relatively high. It requires the integration of various technology fields such as electro-optics, optoelectronics, biochemistry, physical chemistry, molecular science and genetics. It also requires long-term validation, evaluation and testing. Once the market has accepted it, it is expected to have a longer life cycle. At present, most countries have gradually implemented related measures based on Medical

Device Management Regulations, which have inadvertently increased the entry threshold of diagnostic assays, so there should be no product life cycle concerns.

C. Sustained R&D plans and new product development

Please see page 81 of this Annual Report for new products (services) planned for development.

3. Number of Employees of past two years

1. Number of workers in the most recent 2 fiscal years and as of the publication date of the annual report

Year / Item		End of 2021	End of 2022	End of March 2023
Number of employees	Management personnel	17	18	19
	Research and technology personnel	47	51	51
	Other employees	18	16	15
	Total	82	85	85
Average age		43.51	43.20	44.10
Average length of service		3.52	3.85	3.96
Education distribution ratio	Ph.D. Degree	11%	14%	15%
	Masters Degree	13%	15%	13%
	University and College Degree	70%	65%	66%
	Senior high school	6%	6%	6%
	Below high school	-	-	-

2. The employment turnover and movement of managers, and technology and research and development personnel, and other employees

Item / Year		2021		2022		End of March 2023	
		Number of personnel	Ratio (%)	Number of personnel	Ratio (%)	Number of personnel	Ratio (%)
Separated employees	Managerial officer	3	13.64	5	29.41	1	14.29
	Research and technology personnel	12	54.55	2	11.77	2	28.57
	Other employees	7	31.81	10	58.82	4	57.14
	Total (A)	22	100.00	17	100.00	7	100.00
Number of active employees at the end of the period (B)		82		85		85	
Separation rate (%)=A/(A+B)		21.15		16.67		7.61	

Note: Separation rate = separated employees / number of active employees at the end of the period+separated employees).

4. Environmental Expenditure

1. According to laws and regulations, if it is required to apply for a permit for installing anti-pollution facilities, or permit of pollution drainage, or to pay anti-pollution fees, or to organize and set up an exclusively responsible unit/office for environmental issues, the description of the status of such applications, payment or establishment shall be made: The Group does not have factories, and only discharges general domestic wastewater. The Group has not yet reached the criteria to set up environmental protection dedicated personnel.
2. Set forth the group's investment in the major anti-pollution facilities, the use purpose of such facilities, and the possible effects to be produced: Not applicable as the group has no factories.
3. Describe the process undertaken by the group on environmental pollution improvement for the most recent 2 fiscal years and up to the prospectus publication date. If there had been any pollution dispute, its handling process should also

be described: The Group has not been penalized by environmental protection authorities on environmental pollution matters or had any pollution dispute.

4. Any losses suffered by the Group in the last fiscal year and up to the annual report publication date due to environmental pollution incidents (including any compensation paid and any violations of environmental protection laws or regulations found in environmental inspection, specifying the disposition dates, disposition reference numbers, the articles of law violated, the substance of the legal violations, and the content of the dispositions), and disclosing an estimate of possible expenses that could be incurred currently and in the future and measures being or to be taken. If a reasonable estimate cannot be made, an explanation of the facts of why it cannot be made shall be provided: The Group has not been involved in environmental pollution incidents in the most recent 2 fiscal years and up to the annual report publication date.

5. Explain the current condition of pollution and the impact of its improvement to the profits, competitive position and capital expenditures of the group, as well as the projected major environment-related capital expenses to be made for the coming 2 fiscal years: As the Group has not been involved in environmental pollution incidents, there is no impact of significant impact on the Group's profits, competitive position and capital expenditures.

5. Employer-Employee Relation

(1) The Company's various policies including employee safety and working environment protection, welfare measures, continuing training, training, retirement systems and their implementation, as well as agreements between labor and management and various employee rights protection measures

1. Employee safety and working environment protection

The Group has set up an occupational safety and health management department in accordance with the law, and has defined the procedures for "work environment control and employee health" in the quality management system. The implementation steps include ensuring employee health, environmental cleanliness and pollution control, environmental control, and abnormal condition identification and recording. Specific identification and recording items and the monitoring frequency include but are not limited to: personnel body temperature monitoring (daily at work), office area cleaning (weekly), manufacturing area environmental cleaning and recording (daily), site control (electronic access), personnel safety protection (active detection at any time as required by the company), temperature control records (daily), safety protection equipment inspection (monthly), and employee safety training (once a year). Based on the significance of the situation, the Company will make reports from time to time or at regular management review meetings. The monitoring records for 2022 showed no employee or workplace hazards as confirmed at regular management review meetings.

2. Employee benefits

Not only does ABC-KY's primary place of business, Applied Biocode, Inc., handles the employee's benefits in accordance with applicable regulations of the Social Security Program Rules and Labor Law, Medical Insurance, Dental Insurance and Worker's Compensation Insurance and retirement Plan-401K are also provided, ensuring employees' related benefits. Employees of ABC-TW are also covered by Labor insurance and National Health Insurance as required by the Taiwan government, protecting employees' rights and interests. So far, incidents that affected the rights and interests of employees have not occurred.

3. Employee education and training

(1) Newcomers

On the first day of employment, an introduction to the Company's work rules, environment, supervisors and colleagues is explained to newcomers by HR personnel.

(2) On-the-job training

In an effort to accommodate the organization's goals and manpower development to improve the quality of personnel, after approval, professional capability and work efficiency, employees are offered a variety of professional and technical training courses according to different functions and business needs. e-Learning and book clubs are also promoted in the Company to encourage the employee to share and exchange their knowledge to enhance their academic skills to help achieve their work tasks. Moreover, we provide convenient and diverse learning outlets and opportunities by cultivating talented professional and technical individuals.

4. Retirement system and implementation status

ABC-KY makes contributions to labor pensions according to local laws and regulations so that employees can concentrate on their work without worries. In accordance with Federal Insurance Contribution Act (FICA), Applied Biocode, Inc.'s primary place of business currently contributes 12.4% of the employee's monthly salaries to the Social Security Tax (shared by both the employer and employee at 6.2%) and 2.9% to the Medicare's Hospital Tax (shared by both the employer and employee at 1.45%). After employees retire, they will be entitled to social security benefits, including pension, disability benefits and federal hospital/medical insurance, etc. Applied Biocode, Inc. also offers a pension system (Retirement Plan -401K), allowing employees to contribute 1%-20% of their monthly salary to their retirement account. Employees are free to choose to join the investment plans launched by financial institutions selected by the Company. The amount contributed by the employee can be deducted from the reported income until

retirement, when tax will be imposed. On the other hand, ABC-TW contributes labor pension funds to a dedicated account of the Bureau of Labor Insurance required by the Taiwan government. Pension funds are provided to retired employees in accordance with the retirement plan.

5. Agreements between labor and management and various employee rights protection measures

The Group has formulated working rules in accordance with laws and regulations to clearly regulate labor conditions to protect the rights and interests of employees, allowing their rights and interests to be handled fairly and reasonably. Up to now, incidents that would damage the rights and interests of employees have not occurred.

(2) Any losses suffered by the Company in the last fiscal year and up to the annual report publication date due to labor-capital disputes (including any violations of the Labor Standards Act found in labor inspection, specifying the disposition dates, disposition reference numbers, the articles of law violated, the substance of the legal violations, and the content of the dispositions), and disclosing an estimate of possible expenses that could be incurred currently and in the future and measures being or to be taken. If a reasonable estimate cannot be made, an explanation of the facts of why it cannot be made shall be provided: We have always regarded our employees as the most precious assets, and the relationship between labor and capital has been harmonious, hence, there have not been any major disputes.

6. Information and Technology Security Management:

(1) Clear description of the information security risk management framework, information security policies and concrete management approaches, and investment of resources in information and technology security management

1. Information security risk management framework

The Group has set up an Information Management Department, which is responsible for the overall planning of information security matters encompassing the formulation of internal information security policies, planning and execution of information security operations, and raising of information security awareness among staff members.

The Audit Room is the supervisory unit responsible for the supervision of information security implementation status. It conducts annual audits to ensure that information security policies are properly enforced.

2. Information security policies and concrete management approaches

All staff members of the Group have the duty and obligation to comply with information security regulations and maintain information security inside the Company. The Information Management Department conducts regular reviews of information security measures and strengthens firewalls and network controls. In addition, security-related training and education is provided to ensure that no confidential information is leaked.

3. Resources input to information and technology security management

Despite the fact that the Group has adopted comprehensive information security protection measures, network attacks of any form still cannot be completely ruled out. With a view to minimizing the damage caused by potential network attacks on the Group's business operations, information security insurance has been effective to protect the Group's operations and safeguard shareholder rights and interests.

(2) The Company is required to disclose losses sustained due to information security deficiencies in the most recent year until the annual report's publication date, in addition to estimated amounts and response measures currently in place or expected to occur in the future. Where reasonable estimates are impossible, reasons shall be specified: The Group has established an information security framework and is committed to strengthening the information security awareness of its employees. No information security-related material losses occurred in the reporting period.

7. Important Agreements

Agreement Nature	Parties	Agreement Period	Main Content	Restricted Terms and Conditions
Development Agreement	Accel Biotech, Inc.,	March 15, 2013	Entered into an agreement with Accel Biotech, Inc. for product development and design services.	None
Technology License Agreement	PerkinElmer, Health Sciences, Inc.	December 28, 2014	PerkinElmer was licensed to purchase ABC-KY's BMB technology, assays and instruments for product development. It was also responsible for commercializing the systems and providing them to customers of vitro diagnostic laboratories in specific fields.	None
OEM agreement	Asia Pacific Microsystems, Inc.	July 7, 2016	ABC-KY entered into an OEM agreement with Asia Pacific Microsystems, Inc. for the manufacturing of products.	None
OEM agreement	CrystalVue Medical Corporation	March 15, 2017	ABC-KY entered into an OEM agreement with CrystalVue Medical Corporation.	None
Non-Exclusive Licensing and Supply Agreement	Zhuhai Livzon Diagnostics Inc. (Zhuhai Livzon Pharmaceutical Group)	July 4, 2017 - July 4, 2027	Zhuhai Livzon Diagnostics Inc. was licensed to purchase ABC-KY's BMB technology, assays and instruments for product development. It was also responsible for commercializing the systems and providing them to customers of vitro diagnostic laboratories in specific fields.	None
Technology Licensing and Supply Agreement	IDEXX Technologies GmbH	October 10, 2017 - December 31 2036	BMB and multiplex immunoassay are sold exclusively to IDEXX Technologies GmbH in the non-human health field, and IDEXX Technologies GmbH agrees to a minimum annual purchase volume.	None
OEM agreement	Suzhou Sym-Bio Lifescience Co., Ltd.(Subsidiary of Perkin Elmer)	November 30, 2017	ABC-KY entered into an OEM agreement with Perkin Elmer.	None
Non-Exclusive License Agreement	Accel Biotech, LLC	April 1, 2018	Attained a non-exclusive license from Accel to use its molecular diagnostic analysis equipment.	None
Plant Lease Agreement	PPF INDUSTRIAL 12016 TELEGRAPH RD, LP	March 21, 2019 - October 31, 2025	ABC-US entered into a plant lease agreement.	None

Agreement Nature	Parties	Agreement Period	Main Content	Restricted Terms and Conditions
Licensing Agreement	Guoyao Group Beijing Medical Apparatus and Instruments	June 1, 2019 - May 31, 2022	Licensed Guoyao Group Beijing Medical Apparatus and Instruments for the sale of Biocode 2500 and BMB.	None
Non-Exclusive Licensing and Supply Agreement	ALPCO	October 21, 2019 - October 21, 2029	`ALPCO was licensed to purchase the Group's BMB technology, assays and instruments for product development. It was also responsible for commercializing the systems and providing them to customers of vitro diagnostic laboratories in specific fields.	None
OEM agreement	Wistron Medical Technology Corporation	November 3, 2020 - November 3, 2023	Entered into an OEM contract for instruments with Wistron Medical Technology Corporation	None
Non-Exclusive Licensing and Supply Agreement	Hardy Diagnostics	August 13, 2021	Authorization of Hardy Diagnostics to utilize the Company's technologies for the development of testing products in the field of food safety	None
Licensing Agreement	Hardy Diagnostics	December 16, 2021 - December 16, 2031	Authorization for sales of diagnostic analysis system and reagents signed with Hardy Diagnostics.	None
Licensing Agreement	Medline Industries, LP	March 28, 2023 - March 27, 2026	Authorization for sales of diagnostic analysis system and reagents signed with Medline Industries, LP.	None

VI. Financial Overview

1. Condensed Consolidated Financial Statements for the Last Five Years

(1) Condensed balance sheet and consolidated income statement

1. Condensed balance sheet

Unit: NT$ thousand

Year / Item		Financial information for the last five years				
		2018	2019	2020	2021	2022
Current asset		423,408	540,039	1,021,077	826,446	1,014,288
Property, Plant and Equipment		45,961	51,438	116,210	111,830	129,407
right-of-use asset		-	69,512	55,309	50,940	40,216
Intangible asset		26,677	21,974	17,196	13,434	10,378
Other assets		18,026	36,044	17,429	16,317	18,160
Total assets		514,072	719,007	1,227,221	1,018,967	1,212,449
Current liabilities	Before dividends	54,990	112,160	77,802	59,947	87,625
	After dividends	54,990	112,160	77,802	59,947	87,625
non-current liabilities		26,356	76,197	62,424	56,063	308,758
Total liabilities	Before dividends	81,346	188,357	140,226	116,010	396,383
	After dividends	81,346	188,357	140,226	116,010	396,383
Equity attributable to parent company owners		432,726	530,650	1,086,995	902,957	816,066
Share capital		620,058	722,854	816,390	817,292	817,634
Capital surplus		479,833	770,920	1,394,683	351,576	359,242
Retained earnings	Before dividends	(668,539)	(948,612)	(1,052,108)	(165,199)	(349,932)
	After dividends	(668,539)	(948,612)	(1,052,108)	(165,199)	(349,932)
Other equities		1,374	(14,512)	(71,970)	(100,712)	(10,878)
Treasury stock		-	-	-	-	-
Non-controlling interests		-	-	-	-	-
Total Equity	Before dividends	432,726	530,650	1,086,995	902,957	816,066
	After dividends	432,726	530,650	1,086,995	902,957	816,066

Source: Consolidated Financial Statements audited by CPAs.

2. Condensed Consolidated Income Statement

Unit: NT$ thousand

Item \ Year	Financial information for the last five years				
	2018	2019	2020	2021	2022
Operating income	36,904	104,694	299,015	319,962	390,302
Gross profit	16,732	52,969	193,524	189,367	234,170
Operating (loss) income	(267,879)	(275,073)	(133,514)	(164,943)	(192,604)
Non-operating income and (expense)	(402)	(4,976)	30,042	(233)	7,894
Profit (losses) before tax	(268,281)	(280,049)	(103,472)	(165,176)	(184,710)
Net income (loss) of continuing operations in the current period	(268,305)	(280,073)	(103,496)	(165,199)	(184,733)
Loss from discontinued operations	-	-	-	-	-
Net income (loss) in the current period	(268,305)	(280,073)	(103,496)	(165,199)	(184,733)
Other comprehensive income in the current period (net, after-tax)	5,671	(19,616)	(58,289)	(28,742)	89,834
Total comprehensive income in the current period	(262,634)	(299,689)	(161,785)	(193,941)	(94,899)
Net income attributable to parent company owners	(268,305)	(280,073)	(103,496)	(165,199)	(184,733)
Net income attributable to non-controlling interests	-	-	-	-	-
Comprehensive income attributable to parent company owners	(262,634)	(299,689)	(161,785)	(193,941)	(94,899)
Comprehensive income attributable to non-controlling interests	-	-	-	-	-
Earnings per share (loss)	(5.06)	(4.36)	(1.33)	(2.02)	(2.26)

Source: Audited consolidated financial statements.

(2) Matters of material significance which affected the comparability of the above-mentioned condensed financial statements, such as accounting changes, corporate mergers, or suspension of work in the operating departments etc., and the impact of these events on the then current financial reports: None.

(3) The names and auditor's opinions of the attesting CPA for the most recent 5 fiscal years

1. The names and auditor's opinions of the attesting CPA for the most recent 5 fiscal years

Year	Accounting Firm	CPAs	Review opinion
2018	PwC Taiwan	Andy Chang, Audrey Tseng	Unqualified opinion
2019	PwC Taiwan	Andy Chang, Audrey Tseng	Unqualified opinion
2020	PwC Taiwan	Andy Chang, Wendy Liang	Unqualified opinion
2021	PwC Taiwan	Wendy Liang, Alan Chien	Unqualified opinion
2022	PwC Taiwan	Wendy Liang, Alan Chien	Unqualified opinion

2. If there was change/replacement of the CPA within the most recent 5 fiscal years, explanation made by the company's previous and current CPA over the causes for such change/replacement shall be set forth: The Group's original CPAs were Andy Chang and Wendy Liang of PwC Taiwan. Due to the rotation requirement, the CPAs were changed to Wendy Liang and Alan Chien from the first quarter of 2021.
3. If the summary financial data of a foreign issuer for the last 7 consecutive years after public issue were audited and certified by the same CPAs in each of those years, the group shall explain the reasons for not changing the CPAs, the independence of the current CPAs, along with specific measures taken by the group to reinforce the CPAs' independence in certification: The Group does not have the same CPAs for 7 consecutive years.

2. Financial Analysis for the Most Recent Fiscal Year

Analysis item (Note 2) \ Year		Financial analysis for the most recent 5 fiscal years				
		2018	2019	2020	2021	2022
Financial structure	Debt ratio (%)	15.82	26.20	11.43	11.39	32.69
	Long-term fund to property, plant and equipment (%)	998.85	1,179.76	989.09	857.57	869.21
Solvency	Current ratio (%)	769.97	481.49	1,312.40	1,378.63	1,157.53
	Quick ratio (%)	648.32	397.93	1,175.61	1,209.52	1,035.79
	Times Interest Earned	The Group's profit before tax remain negative. It is therefore not meaningful for analysis.				
Operating capacity	Receivables turnover (per time)	6.19	7.03	8.13	5.47	5.63
	Average collection days for receivables	59	52	45	67	65
	Inventory turnover (per time)	0.52	0.72	1.12	1.26	1.50
	Payables turnover (per time)	3.27	4.81	5.67	7.05	17.20
	Average days of sale	702	507	326	290	243
	Property, plant, and equipment turnover ratio (per time)	0.96	2.15	3.57	2.81	3.24
	Total asset turnover ratio (per time)	0.09	0.17	0.31	0.28	0.35
Profitability	Return on total assets (%)	(62.94)	(44.36)	(10.19)	(14.45)	(16.31)
	Return on equity (%)	(75.66)	(58.14)	(12.80)	(16.60)	(21.49)
	Ratio of income before tax to paid-in capital (%)	(43.27)	(38.74)	(12.67)	(20.21)	(22.59)
	Profit margin	(727.04)	(267.52)	(34.61)	(51.63)	(47.33)
	Earnings per share (NT$)	(5.06)	(4.36)	(1.33)	(2.02)	(2.26)
Cash flow	Cash flow ratio (%)	(521.39)	(279.81)	(188.61)	(253.18)	166.47
	Cash flow adequacy (%)	(1,128.34)	(864.28)	(595.00)	(438.06)	(308.72)
	Cash re-investment (%)	(59.53)	(48.34)	(12.83)	(15.30)	12.45
Leverage	Operating leverage	Not calculated as the Group’s net operating revenue is a loss and the ratio is negative.				
	Financial leverage	1	1	1	1	1

Please explain the reason for ratio changes for financial information in the most recent 2 fiscal years. (Analysis may be exempted if the increase or decrease change does not reach 20%)

The Group’s financial ratios in 2022 that resulted in changes by more than 20% compared to 2021 are debt ratio, accounts payable turnover, total assets turnover, return on equity, cash flow ratio, cash flow adequacy ratio, and cash reinvestment ratio, and their respective reason for change are as follows:

(1) Debt ratio: This is mainly attributable to the significant increase in contract liabilities arising from the supply agreements signed with suppliers and the advance payment received in May 2022.

(2) Accounts payable turnover: The increase in accounts payable turnover in 2022 compared to 2021 was mainly attributable to the increase in cost of goods sold and the decrease in average accounts payable in 2022.

(3) Total asset turnover: The increase in total asset turnover in 2022 compared to 2021 was mainly attributable to the increase in sales in 2022 as compared to 2021.

(4) Return on equity: The 2022 return on equity was mainly attributable to the increase in net loss before tax and the decrease in shareholders’ equity.

(5) Cash flow ratio, cash flow adequacy ratio and cash reinvestment ratio: The significant changes in the cash flow ratio, cash flow adequacy ratio and cash reinvestment ratio in 2022 were mainly attributable to a net cash inflow from operating activities arising from entering into a supply agreement with a supplier in May 2022 and receiving advance payments.

Note: The following calculation formula should be shown at the end of this table in the annual report.

1. Financial structure
   (1) Debt-to-asset Ratio = total liabilities/total assets.
   (2) Ratio of Long-term Funds to Property, Plant, and Equipment = (total equity + non-current liabilities)/net worth of property, plant, and equipment.
2. Solvency
   (1) Liquidity Ratio = current assets/current liabilities.
   (2) Quick Ratio = (current assets – inventory – prepaid expenses)/current liabilities.
   (3) Times Interest Earned = income before income tax and interest expenses/current interest expenses.
3. Operating capacity
   (1) Receivables (including accounts receivable and notes receivable arising from business operations) Turnover Rate = net sales amount/average receivables (including accounts receivable and notes receivable arising from business operations) for each period.
   (2) Average Collection Days for Receivables = 365/turnover of receivables.
   (3) Inventory Turnover = cost of goods sold/average inventory.
   (4) Payables (including accounts payable and notes payable arising from business operations) Turnover Rate = cost of goods sold/average payables (including accounts payable and notes payable arising from business operations) for each period.
   (5) Average Days of Sale = 365/inventory turnover.
   (6) Real property, plant, and equipment turnover ratio = net sales amount/average net worth of property, plant, and equipment.
   (7) Total Assets Turnover = net sales amount/average total assets.
4. Profitability
   (1) Return on Assets = [post-tax profit or loss + interest expenses × (1- tax rate)]/average total assets.
   (2) Return on Equity = post-tax profit or loss/average total equity.
   (3) Profit Margin = post-tax profit or loss/net sales amount.
   (4) Earnings per Share (EPS) = (profit and loss attributable to owners of the parent – dividends on preferred shares)/weighted average number of issued shares.
5. Cash flow
   (1) Cash Flow Ratio = net cash flow from operating activities/current liabilities.
   (2) Net Cash Flow Adequacy Ratio = net cash flow from operating activities for the last five years/(capital expenditures + inventory increase + cash dividends for the last five years).
   (3) Cash Re-investment Ratio = (net cash flow from operating activities – cash dividends)/gross property, plant, and equipment value + long-term investment + other non-current assets + working capital).
6. Leveraging:
   (1) Operating Leverage = (net operating revenue – variable operating costs and expenses)/operating income.
   (2) Financial Leverage = operating income/(operating income - interest expenses).

3. Audit Committee's Review Report for the Last Annual Financial Report

Applied BioCode corporation

Applied BioCode Corporation

審計委員會審查報告書

茲准 董事會造送本公司一一一年度營業報告書、合併財務報表與虧損撥補議案，其中合併財務報表業經董事會委託資誠聯合會計師事務所梁嬋女會計師及簡汎亞會計師查核完竣並出具查核報告。上開董事會造送之各項表冊，經本審計委員會審查，認為尚無不符，爰依證券交易法第十四條之四及公司法第二一九條之規定報告如上，敬請 鑒核。

此　　致

本公司一一二年股東常會

Applied BioCode Corporation

審計委員會召集人：蔡文精 蔡文精

中　華　民　國　一　一　二　年　三　月　十　三　日

4. Audited Financial Report of last fiscal year: Please refer to pages 149 to 202 of the annual report.

5. Standalone Audited Financial Report of last fiscal year: Not applicable.
6. If the group or its affiliated enterprises have experienced financial difficulties in the most recent fiscal year and up to the date of publication of the annual report, and explain impact : Not applicable

VII. Analysis of Financial Position, Performance, and Risk

1. Financial Position

List the main reasons for any material change in the company's assets, liabilities, or equity during the most recent 2 fiscal years, and describe the effect thereof. Where the effect is of material significance, describe the measures to be taken in response:

Unit: NT$ thousand

Item \ Year	2021	2022	Difference	
			Increase (decrease) amount	Change ratio (%)
Current asset	826,446	1,014,288	187,842	22.73
Property, Plant and Equipment	111,830	129,407	17,577	15.72
right-of-use asset	50,940	40,216	(10,724)	(21.05)
Intangible asset	13,434	10,378	(3,056)	(22.75)
Other assets	16,317	18,160	1,843	11.29
Total assets	1,018,967	1,212,449	193,482	18.99
Current liabilities	59,947	87,625	27,678	46.17
non-current liabilities	56,063	308,758	252,695	450.73
Total liabilities	116,010	396,383	280,373	241.68
Equity attributable to parent company owners	902,957	816,066	(86,891)	(9.62)
Share capital	817,292	817,634	342	0.04
Capital surplus	351,576	359,242	7,666	2.18
Retained earnings (for making up losses)	(165,199)	(349,932)	(184,733)	111.82
Other items in shareholders' equity	(100,712)	(10,878)	89,834	(89.20)
Total shareholders' equity	902,957	816,066	(86,891)	(9.62)

1. The change ratio reaches over 20% and the amount of change reaching NT$10 million or more, and the main reason and their effects are as follows:

(1) Current assets: The increase in current assets at the end of 2022 as compared to the end of 2021 was mainly attributable to the significant increase in cash arising from entering into supply agreements with suppliers and receiving advance payments in May 2022.

(2) Right-of-use assets: The decrease in right-of-use assets in 2022 as compared to 2021 is attributable to normal depreciation, and there is no significant addition or disposal of right-of-use assets in 2022.

(3) Current liabilities, non-current liabilities, and total liabilities: The increase in non-current liabilities and total liabilities at the end of 2022 as compared to the end of 2021 was mainly attributable to the significant increase in contract liabilities arising from entering into supply agreements with suppliers and receiving advance payments in May 2022.

(4) Retained earnings (loss to be made up): The increase in retained earnings (loss to be made up) at the end of 2022 compared to the end of 2021 was mainly attributable to the loss in 2022, which was entirely from the net loss in 2022.

(5) Other items in shareholders' equity: The significant increase in other shareholders' equity items in 2022 compared to the end of 2021 can mainly be attributed to the weak US dollar resulting in exchange differences in the translation of foreign financial statements.

2. Measures to be taken in response:

In summary, the higher change in the ABC-KY's balance sheet accounts at the end of 2022 compared to 2021 was primarily due to the operating losses; therefore measures to be taken in response are as follows:

A. Expand market sales

In addition to the current products including barcoded magnetic beads (BMB), optical scanners, gastrointestinal multiplex molecular pathogen panels, upper respiratory tract pathogen panels, coronavirus test reagents and Covid-Flus Plus, the Group will start the commercialization of fungal panels (RUO) in the 3rd quarter and STI panels (RUO) in the 4th quarter of 2023. Signed a U.S. distribution contract with an international renowned distributor (Medline) in March 2023 to achieve a mixed marketing strategy with the hope of improving the sales revenue and profit in the future.

B. Continuous development of new products

The Group continues to develop in-vitro diagnostics products such as urinal tract infection, antimicrobial resistance gene markers, sexually transmitted disease (gynecology), and low respiratory in-vitro pathogen panels, as well as immunoassay and cancer test products. Product diversity is conducive to customer development and future revenue increase.

2. Financial Performance

(1) List the main reasons for any material change in operating revenues, operating income, or income before tax during the most recent 2 fiscal years, provide a sales volume forecast and the basis therefore, and describe the effect upon the company's financial operations as well as measures to be taken in response:

Unit: NT$ thousand

Year / Item	2021	2022	Difference	
			Increase (decrease) amount	Change ratio (%)
Operating income	319,962	390,302	70,340	21.98
Operating cost	(130,595)	(156,132)	25,537	19.55
Gross profit	189,367	234,170	44,803	23.66
Operating expenses	(354,310)	(426,774)	72,464	20.45
Net operating income (loss)	(164,943)	(192,604)	(27,661)	(16.77)
Non-operating income (expense)	(233)	7,894	8,127	3487.98
Profit (losses) before tax	(165,176)	(184,710)	(19,534)	(11.83)
Income tax (expense)	(23)	(23)	-	-
Current net income (loss)	(165,199)	(184,733)	(19,534)	(11.82)
Other comprehensive income recognized in the current period	(28,742)	89,834	118,576	412.55
Current total comprehensive loss	(193,941)	(94,899)	99,042	51.07

The change ratio reaches over 20% and the amount of change reaching NT$10 million or more, and the main reason and their effects are as follows:

(1) Operating income and gross profit: The growth in operating income in 2022 is attributable to higher gross profit as compared to 2021.

(2) Operating expenses: Operating expenses in 2022 were higher than those in 2021 due to salary increases, including annual salary increases, the hiring of a subsidiary CEO and sales director, and the hiring of additional R&D and production staff to handle the rising sales volume.

(3) Non-operating (expense): The increase in non-operating (expense) income in 2022 as compared to 2021 was mainly attributable to the increase in U.S. interest rates in 2022, which resulted in a significant increase in bank interest.

(4) Other comprehensive net loss for the period: The increase in other comprehensive net loss and decrease in total comprehensive loss YoY in 2022 compared to 2021 was mainly attributable to the increase in cumulative translation adjustments as presented in the Group's financial statements caused by the significant increase in the U.S. dollar exchange rate.

(2) Provide a sales volume forecast and the basis, and describe the effect upon the company's financial operations as well as measures to be taken in response

As of the annual report's publication date, aside from selling BMBs and Optical Scanners, 17-Plex Gastrointestinal Pathogen Panels, Upper Respiratory Pathogen Panel (RPP), and Sars-CoV-2 (including Pooling Testing) products, we have received EUA from the FDA in the US for Covid Flu Plus in December 2021 and have concluded a distribution contract with Hardy Diagnostic Inc. for the US market. The Group's expected sales volume is based on the market forecast of major customers, past product sales status, customers' annual procurement plans, licensed customers' agreement, business plans of licensed customers, new customer development and business growth of existing customers. At the same time, to be able to set a shipping goal, the Group also takes into account factors such as the material condition of primary raw materials and the production capacity and delivery time of suppliers. Not only does the Group adopt its original business model of licensing its patented platforms and technologies to a number of strategic customers in various industries and regions, it is at the same time adding new diagnostic panels for the Group to sell so that products and customers are more diverse in the future. Therefore, there should be no material adverse effect on the future financial development of the Group.

(3) Describe the effect upon the company's financial operations as well as measures to be taken in response.

The Group has a robust financial structure and continues to deepen its operational management and adopts reasonable control of costs for future business growth needs.

3. Cash flow

(1) Describe and analyze any cash flow changes in the most recent 2 fiscal years

Unit: NT$ thousand

Item \ Year	2021	2022	Difference	
	Amount	Amount	Increase (decrease) amount	Change ratio (%)
Net cash (outflow) from operating activities	(151,773)	145,871	297,644	196.11
Net cash inflow (outflow) from investing activities	(16,388)	(22,142)	(5,754)	(35.11)
Net cash inflow (outflow) from financing activities	(14,188)	(14,858)	(670)	(4.72)
Analysis of changes in cash flows: 1. Operating activities: The significant increase in net cash from operating activities in 2022 as compared to the previous year was attributable to the significant cash inflow from the supply agreements and the advance payment received in May 2022. 2. Investing activities: The decrease in net cash inflow from investing activities in 2022 compared to 2021 is mainly attributable to the higher investment in new plants in 2022. 3. Financing activities: Net cash flows from financing activities in 2022 are comparable to 2020, exhibiting only minor changes caused by daily business activities.				

(2) Measures to be taken in response to illiquidity:

In 2022, the Group increased revenue from a number of multiplex panels. However, given that the sales volume of each product segment has not grown enough to support the Group's operating expenses, we will dedicate ourselves to the sales expansion of each product segment and the development of new products. In the future, we will also build up our working capital by improving our revenue and profitability, and also apply for the secondary public offering (SPO) at an appropriate time to expand our source of working capital.

(3) Analysis of cash liquidity in the coming year (2023)

Unit: NT$ thousand

Beginning cash balance (1)	Estimated full-year net cash flows from operating activities (2)	Estimated full-year net cash flows from investing activities (3)	Estimated full-year net cash flows from financing activities (4)	Expected cash surplus (deficit) (1)+(2)+(3)+(4)	Expected remedies for cash deficits	
					Investment plan	Financing plan
831,322	(173,312)	-	-	658,010	—	—

1. Cash flow analysis for the coming year
   (1) Operating activities: The Group's 2023 operating activities are expected to include primarily the sales of in-vitro diagnostics assay products: gastrointestinal panels, respiratory pathway panels, Sars-CoV-2, Covid Flu Plus and fungal panels, sales of BMBs and instruments to licensed customers as well as technology license royalty income. We will also carry on with research and development activities, including the development of sexually transmitted diseases and drug-resistant products and 2nd generation of the automation of immunology product testing devices. The increase in sales and customer service teams will be the main content of cash outflow from operating activities.
   (2) Investing activities: The Group has no investing activities in 2023 primarily because the construction of Slusher unit 2 was completed in the fourth quarter of 2022.

2. Insufficient cash is not expected to be a concern.

4. Impact to Finance and Business from Major Capital Expenditure on financial business

The Group's cash outflow from the acquisition of property, plant and equipment in 2022 was NT$22,142 thousand, mainly attributable to the acquisition of leasehold improvements and occasional equipment. Therefore, there should be no material adverse effect on the Group's financial position due to the increase in capital expenditure.

5. Investment Policies of last fiscal year, causes of profit or loss, improvement plan and upcoming year's investment plans

(1) Investment policy for the most recent fiscal year:

The Group's current investment policy is to invest in targets related to the development of the industry; the Company is not engaged in investments in other industries.

(2) The main reasons for the profits or losses on investment and improvement plans:

The operational losses of the Group's investee companies: ABC-US and ABC-TW in 2022 were mainly due to research and development of next-generation products and are not yet profitable despite the significant increase in revenue by the end of 2022. Apart from BMBs, instruments and a number of multiplex panels, the Group plans to launch RUO for fungal panels and RUO for sexually transmitted disease multiplex panels (RUO) in 2023. Therefore, it is expected that the Group's revenue or profitability will improve in the future with the investee companies' commitment to developing products for the market.

(3) Investment plans for the coming year:

We will focus on product development and clinical trials of STI-AMR panels and semi-quantitative optical scanner (2nd generation MDx3000), as well as the preliminary feasibility studies of allergens and tumor liquid biopsy tests.

6. Risk Management and Assessment

(1) The impact of interest rate, exchange rate changes, and inflation on the Company's profit and loss and corresponding future measures:

1. Interest rate change

The Group's interest income totaled NT$3,111 thousand and NT$8,511 thousand in 2021 and 2022, respectively, representing a net loss before tax of 1.88% and 4.61%. The interest expenses for 2021 and 2022 were NT$2,870 thousand and NT$2,784 thousand, respectively, representing 1.74% and 1.51% of net loss before tax, respectively, which does not have significant impact on the Group. The Group maintains a sound relationship with banks, and its financial personnel keeps a close eye on changes in market interest rates. In the future, if there are significant changes in interest rates upon borrowing from banks, the Group will take corresponding measures so as to reduce the impact on the Group's profit and loss.

2. Exchange rate change

The functional currencies of the Group's daily operations are U.S. dollars and New Taiwan dollars. Given that the main operating place of business is in the U.S, the U.S. dollars are currently used as the main currency for purchasing and selling, so the impact of foreign exchange gains and losses is limited. The currency position in the accounts related to contract negotiations or transaction payments is considered to reduce the risk arising from exchange rate changes. Additionally, the Group's financial personnel keep track of the movement of major currencies and changes of global noneconomic factors to control and adjust the positions of each currency in a timely manner to minimize the impact of exchange rate changes.

3. Inflation

The Group's payment terms for purchasing and selling have not been too long so far, and given that the Group monitors the price changes for raw materials or parts and components and have always kept a sound relationship with suppliers and customers, the significant impact of short-term price fluctuations on operations is avoided. In the future, the Group will continue to attach great

importance to the impact of inflation while also maintaining a good relationship with counterparties, reducing inflation.

(2) Main reasons and corresponding future measures of policies for engaging in highly risky and highly leveraged investments, lending funds to others, endorsements and guarantees and derivatives transactions:

As of the annual report's publication date, the Group has not been engaged in highly risky, highly leveraged investments or derivatives transactions. Nor has the Group provided loans to others since 2020. In terms of providing endorsements/guarantees, the Group guaranteed ABC-US primarily due to applying for the bank loan line. The loan expired in May 2020 and there is no endorsement/guarantee line as of now. The abovementioned transactions were discussed and approved by the Board of Directors. The procedures were carried out in accordance with the regulations. The Group has formulated the "Procedures for Acquisition or Disposal of Assets," the "Operational Procedures for Loaning Funds to Others," and the "Procedures for Endorsements/Guarantees" which have all been approved by shareholders meetings. The Group handles related matters in accordance with these measures.

(3) Future R&D projects and estimated R&D budget:

The Group continues to invest in R&D resources for the development of the efficiency improvement of multiplex diagnostic testing systems, instruments and all types of diagnostic panels while also focusing on feasibility studies of immunology products and automated immunoassay systems. The estimated R&D budget will be set according to each product's progress, including R&D technical personnel, equipment, technological development, and clinical trials, to continue enhancing the Group's competitive advantage.

(4) Impact on the Company's financial operations of important policies adopted and changes in the legal environment at home and abroad, and measures to be taken in response

The Company is registered in the Cayman Islands and its principal place of business is the U.S. The main economic activity of the Cayman Islands is financial services, while the U.S. is one of the world's major economies with stable economic development and political environment. The Group abides by domestic and international important policies and laws when conducting businesses. In the most recent fiscal year and as of the publication date of the annual report, there were no material events affecting the Group's financial operations due to changes in important policies and laws from the aforementioned regions. Meanwhile, the Group pays close attention to domestic and international policy trends and regulatory changes. Lawyers, accountants and other professional sectors are consulted where there are changes in order to respond to the market while adopting suitable countermeasures in a timely manner.

(5) Impact on the company's financial operations of developments in science and technology as well as industrial change, and measures to be taken in response:

The Group monitors the impact of technological and industrial changes on the Group closely while paying close attention to the development of multiplex diagnostic testing technology and the biotechnology and medical industry dynamics. By grasping the R&D progress of products and adjusting the allocation of resources, the impact of technological and industrial changes in the future will be minimized.

(6) Impact on the company's crisis management of changes in the company's corporate image, and corresponding measures to be taken in response

Since the establishment, the Group adheres to the corporate spirit of integrity and sustainable management. The Group does not cease to strengthen the corporate management and improve operational efficiency, striving to maintain its good corporate image and sound and harmonious industrial relations so as to attract more talented people to make a difference in the Company. To date, no incidents have happened that would affect the Company's corporate image, and there are no plans for corporate image changes.

(7) Expected benefits and possible risks associated with any merger and acquisitions, and corresponding measures being or to be taken

As of the publication date of the annual report, the Group has no M&R plans. If there is a plan in the future to carry out such operation, the Group will handle related matters in accordance with the local laws and regulations as well as the applicable measures formulated by the Group to ensure the Group's interests and shareholders' equity.

(8) Expected benefits and possible risks associated with any plant expansion, and corresponding measures being or to be taken

The Group signed a lease agreement for the Slusher Unit 2 extension with the current landlord on September 1, 2021. The monthly rent for the extension is US$3,809.4. Estimated construction costs and equipment purchases do not exceed US$598 thousand. Construction is projected to be completed in Q4 2022. The plant extension will mainly be used for MDx3000 testing and software installation.

This expansion plan allows the Group to have more capacity to operate the MDx3000 to meet customer demand, which will positively benefit the Group's future revenue; furthermore, the low construction capital risk is within the Group's control.

(9) Risks associated with any consolidation of sales or purchasing operations, and corresponding measures being or to be taken

The Group's largest supplier accounted for 20.35% and 34.55% of the total purchase amount in 2021 and 2022, respectively. The higher percentage of the total purchase from the top supplier in 2022 was mainly attributable to the increase in the purchase of optical scanners from our authorized customer, IDEXX, which made the CrystalVue, our OEM scanner company, the top supplier. The Group maintains an excellent partnership with its suppliers and carries out price comparisons and raw material quality analyses of each supplier. It is expected that as assays are added to sales and overall revenue increases, and become more scalable, there will be a second or third source of supply for the purchase of each raw material, thereby reducing the proportion of purchases from a single supplier.

In 2021 and 2022, the Group's major customers accounted for 43.08% and 50.00% of net revenue, respectively. The increase in sales concentration can mainly be attributed to successful product commercialization by licensed customer IDEXX and the number of customers for the Group's multiplex molecular test panels increasing to 18 in 2022. With the increase of product lines, the Group will commit itself to marketing, while at the same time collaborating with its licensed parties to expand the digital multiplex biopanel platform market, hoping to achieve revenue scaling, further reducing the proportion of sales to a single customer.

(10) Information and technology security risks and response measures

The Company and its subsidiaries constantly monitor technology changes and industry developments affecting their business areas. Dedicated information security personnel are responsible for the installation of information security equipment and administration of training to

reinforce information security concepts of our staff members. As of the annual report's publication date, no information security threats have occurred in the Group.

(11) Impact upon and risk to the company in the event a major quantity of shares belonging to a director, supervisor, or shareholder holding greater than a 10 percent stake in the company has been transferred or has otherwise changed hands, and corresponding measures being or to be taken: None.

(12) Litigious and non-litigious matters. List major litigious, non-litigious or administrative disputes that: (1) involve the company and/or any company director, any company supervisor, the president, any person with actual responsibility for the firm, any major shareholder holding a stake of greater than 10 percent, and/or any company or companies controlled by the company; and (2) have been concluded by means of a final and unappealable judgment, or are still under litigation. Where such a dispute could materially affect shareholders' equity or the prices of the company's securities, disclose the facts of the dispute, amount of money at stake in the dispute, the date of litigation commencement, the main parties to the dispute, and the status of the dispute as of the date of publication of the annual report: None.

(13) Impact upon and risk to the company associated with any change in governance personnel or top management, and corresponding measures being or to be taken: As of the publication date of the annual report, there was no change in the the Group's operating right.

(14) Other important risks and corresponding measures

1. Risks of the protection of shareholders' equity

As the Company Law of the Cayman Islands is very different from the Company Act in Taiwan, the Group has amended the "Articles of Association" in accordance with the "Checklist of Shareholders' Equity Protection" promulgated by Taiwan Stock Exchange (TWSE). However, in the matter of company operations, there are many differences between these 2 countries, resulting in investors' inability to apply the legal protection of Taiwan's Company Act to the Cayman Islands where they invest in. Investors must thoroughly understand the laws and regulations regarding investing in the Cayman Islands and seek advice from experts to get hold of the differences regarding the protection of shareholders' equity.

2. Risks in relation to the statements made in the annual report

(1) Facts and statistics

Information and statistics in this annual report were obtained from various statistical publications. However, such information obtained may be inaccurate, incomplete or not up-to-date. The Group makes no declaration as to the truth or accuracy of such statements, and investors should not be overly dependent on such information when making their investment judgments.

(2) Forward-looking statements and risks and uncertainties contained in this annual report

This annual report contains certain forward-looking statements and information about the Group and its subsidiaries. Such statements and information are based on the beliefs and assumptions of the Group's management and information currently held. Words including "anticipate," "believe," "can," "expect," "future, "intend," "may," "must," "plan," "estimate," "seek," "should," "will," "maybe," "hope" and words of similar meaning contained in this annual report refer to forward-looking statements when used concerning the Group or the Group's management. Such statements reflect the group management's current views regarding future events, operations, liquidity, and sources of funds; certain viewpoints may not be realized or may be subject to change. These statements may be affected by certain risks, uncertainties and assumptions, including other risks stated in this annual report. Investors should make careful considerations and rely on any forward-looking statements that involve known and unknown risks and uncertainties. Risks and uncertainties faced by the Group could affect the accuracy of the forward-looking statements.

The Group does not update the forward-looking statements in this annual report nor does

it make amendments to reflect future events or information. Based on these risks and other risks, uncertainties, and assumptions, this annual report's forward-looking statements and circumstances may not occur in an anticipated manner or may not even occur at all. Hence, investors should not rely on any forward-looking statements.

3. Cash dividend distribution and taxation

   Applied BioCode Corporation was organized under the law of the Cayman Islands. Upon the restructuring of its organizational and investment structure, the shares of Applied BioCode, Inc. were acquired through a share swap among all shareholders. As a result, the Company's shareholder structure is the same as the Applied BioCode, Inc. prior to the restructuring. Based on the U.S. federal income tax regulations, the Company is deemed a U.S. corporation and should file federal income tax returns according to the federal income tax policy. In the event of the Group distributing cash dividends to non-U.S. shareholders in the future, the Company should pay tax as a U.S. Company and file U.S. corporate income tax returns. For example: when the Company distributes cash dividends to non-U.S. shareholders, it generally requires to withhold 30% tax on behalf of the non-U.S. shareholders, which is one of the investment risks for investors.

4. Overall economic, political and economic environment, foreign exchange, and legal risks

   Because the Company is domiciled in the Cayman Islands and its principal place of business is in the U.S, the overall economic and political environment changes and fluctuations in foreign exchange rates between the Cayman Islands and the U.S. affect the Group's operating condition.

5. The Company is a holding company. It depends on its subsidiaries' performances and their ability to distribute dividends while being restricted to their payment of dividends and the transfer of funds.

   The Company is a holding company incorporated in the Cayman Islands; it has no commercial operations and revenue sources, and its source of profit mainly depends on its operating subsidiaries. The Group's subsidiary in the U.S. is the Group's vital source of operating income. Therefore, the Group's cash dividend distribution is affected by the subsidiary's cash dividend distribution or the retention of surplus.

   Moreover, the subsidiary's cash dividend distribution is subject to restrictions of the laws of dividends, revenue remittance, cash transfer and foreign exchange controls in the countries in which they are paid. The payment is also affected by the foreign exchange rates, which the Group has no control over.

   The Group's subsidiaries are separate and independent corporations. In the event of bankruptcy, insolvency, restructuring, liquidation or asset realization of a subsidiary, assets acquired by the Group or the order of distribution will be inferior to the subsidiary's creditors, including the subsidiary's trading partners.

   The distribution of the Group's dividends or other benefits is handled in accordance with applicable regulations. It is advised that investors should understand the taxation policy of the investment in the holding company and seek advice from experts.

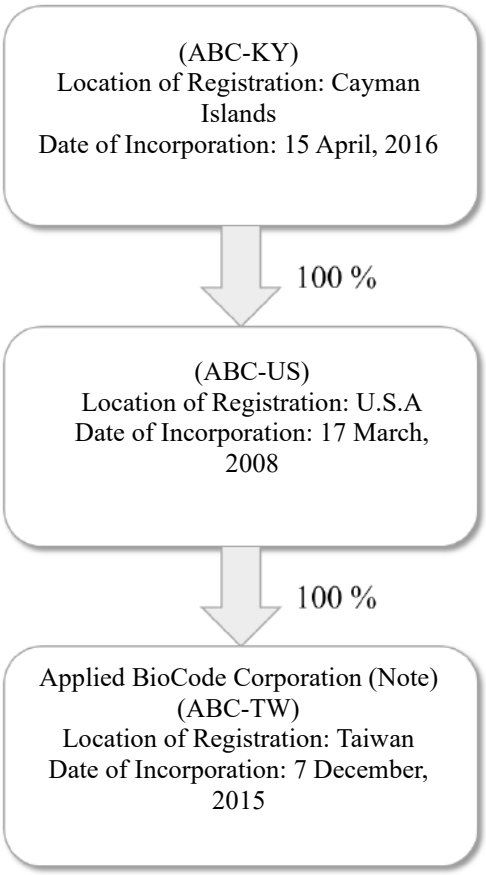
6. Please refer to pages 134-138 regarding the favorable and unfavorable factors concerning the Group's future development and their corresponding measures for other important risks and corresponding measures about the Group's operations. However, such corresponding measures may not be fully enforced due to force majeure and other factors. Their related risks may still affect the Group's business, operating results and financial condition.

7. Other important disclosures: None.

VIII. Special disclosures

1. Information of Affiliates

(1) Organizational table of affiliated enterprises



(2) Basic information of affiliated enterprises

December 31, 2022; NT$ thousand

Company name	Date of incorporation	Address	Paid-in Capital	Primary business or Production
Applied BioCode Corporation	2016/04/15	Grand Pavilion, Hibiscus Way, 802 West Bay Road, P.O. Box 31119, KY1-1205, Cayman Islands	817,634	Researching and developing multiplex diagnostic platform technologies and development, production and sales of testing instruments, magnetic beads and assays
Applied BioCode, Inc.	2008/03/17	12130 Mora Drive, Unit 2, Santa Fe Springs, CA 90670,	1,598,105	R&D, production, sales and leasing of platform technologies and products including BMB, assay and instruments and products for in-vitro diagnostics assays (multiplex panels).
ABC-TW	2015/12/07	6F, No. 1, Lane 28, Xingzhong Road, Neihu District, Taipei City	103,000	R&D, production, and sales of platform technologies and products including BMB, assay and instruments and products for in-vitro diagnostics assays (multiplex panels).

(3) Information on the same shareholders who are presumed to have a relationship of control and subordination: None.

(4) The industries covered by the business operated by the overall affiliated enterprises: The main businesses of the overall affiliated enterprises of the Group's investment include researching and developing multiplex diagnostic platform technologies and development, production and sales of testing instruments, magnetic beads and panels.

(5) Information on directors, supervisors and presidents of affiliated enterprises

Company name	Position	Name or representative	Number of shares held(capital contribution)	Percentage of shares held(capital contribution)
Applied BioCode, Inc.	President / Director	Winston Z. Ho	-	-
	Director	George J. Lee	-	-
	Director	Benjamin Jen	-	-
ABC-TW	Director	George J. Lee	-	-
	Director	Winston Z. Ho	-	-
	Director	Benjamin Jen	-	-
	Supervisor	Jau-Tung Pan (Note)	-	-

Note: Supervisor, Jau-Tung Pan assumed on September 1, 2022.

(6) Operational overview of affiliated enterprises

December 31, 2022; NT$ thousand

Company name	Capital	Total asset value	Total liabilities	Net worth	Operating income	Operating (loss) income	Current profit and loss (post tax)	Earnings per share (NT$) (post tax)
Applied BioCode, Inc.	1,598,105	776,343	418,716	357,627	390,746	(160,624)	(163,510)	(3.79)
ABC-TW	103,000	48,930	7,709	41,221	27,377	(6,250)	(4,871)	(0.47)

(7) Consolidated financial statements of affiliated enterprises: Please refer to the financial statements on pages 149 to 202 in the annual report.

(8) Consolidated business reports of affiliated enterprises: The Group is not a subordinate company as stipulated in the chapter regarding affiliated enterprises in the Company Act. It is therefore not applicable.

2. Issuance of Securities through Private Placement in the most recent fiscal year and up to publication date of the annual report: None.

3. The holding or disposal of the Group's equity by the its Subsidiary: None.

4. Other Required Amended Explanation

(1) Internal control system implementation status

1. The CPA's recommendations for improving the internal control in the most recent 3 fiscal years

Year	recommendations by the CPAs	Status
2020	None	None
2021	None	None
2022	None	None

2. Major flaws discovered through internal auditing in the most recent 3 fiscal years: There are no major flaws so far.

3. Internal control statement: Please refer to page 46.

4. Where the company has retained CPAs to exclusively review its internal control systems, the prospectus shall set forth the reason for doing so, the CPAs' review opinions, measures the company has taken for improvement, and the condition of improvement on lacking items: In the opinion of the CPAs of PwC Taiwan, the Group maintained, in all material respects, effective internal controls over external financial reporting and assets safeguard, based on the criteria of effective internal controls set forth in the "Regulations Governing Establishment of Internal Control Systems by Public Companies".

(2) An explanation of any material differences from the rules of Taiwan in relation to the protection of shareholders' equity.

Explanation of any material differences from the rules of Taiwan in relation to the protection of shareholders' equity.

The Group has amended the "Articles of Association" in accordance with the important measures for the protection of shareholders' rights prescribed in the newly amended "Checklist of Shareholders' Equity Protection Measures at Foreign Issuer's Domicile" ("Checklist of Shareholders' Equity Protection") as per the latest announcement of Taiwan Stock Exchange Corporation. However, certain important measures for the protection of shareholders' equity are not applicable under the Cayman Islands laws and are therefore not included in the amendment to the Company's Articles of Association. Discrepancies between the important measures for the protection of shareholders' equity and the original Articles of Association can be summarized as follows (the amendments to the "Checklist of Shareholders' Equity Protection Measures at Foreign Issuer's Domicile" promulgated on January 9, 2023 have been incorporated into the motions on Articles of Association amendments submitted to this years' shareholders meeting for approval by resolution):

Important matters regarding the protection of shareholders' equity	Regulations of the Articles of Association and reasons for differences
1. Physical shareholder meetings shall be held within the territory of the Republic of China. If a shareholders meeting is convened physically outside of Taiwan, it shall be resolved by the Board meeting or shareholders meeting and gain permission from the competent authorities. It shall then be reported to the TWSE for approval within 2 days after the permission is gained by the competent authorities. 2. Any or a plural number of shareholder(s) of a company which has (have) continuously held 3% or more of the total number of outstanding shares for a period of one year or a longer time may, by filing a written proposal setting forth therein the subjects for discussion and the reasons, request the board of directors to call a special meeting of shareholders. If the board of directors fails to give a notice for convening a special meeting of shareholders within 15 days after the filing of the request under the preceding Paragraph, the proposing shareholder(s) may, after obtaining approval from the competent authority, convene a special meeting of shareholders on his/their own.	1. In terms of convening shareholders meeting by shareholders physically, given the fact that the Company Law of the Cayman Islands does not have special provisions governing the convening of shareholders meetings physically; therefore, Article 19.6 of the Company's Articles of Association does not stipulate that the shareholders shall report to the competent authorities for approval prior to convening an extraordinarily shareholders meeting by themselves. 2. Furthermore, if shareholders wish to convene a shareholders meeting physically outside of Taiwan, it is stipulated in Article 19.6 of the Company's Articles of Association that it is required that the meeting must obtain permission from the TWSE or the TPEx in advance. Given that a special shareholders meeting does not require permission from the local authority of the Cayman Islands, the requirements in the "Checklist of Shareholders' Equity Protection" - "report to the TWSE for approval within two days after shareholders obtain approval from the competent authority for the convening of the meeting" do not apply. This part should have no material impact on the rights of Taiwanese shareholders.
1. When convening shareholder	In terms of exercising shareholder voting rights by

Important matters regarding the protection of shareholders' equity	Regulations of the Articles of Association and reasons for differences
meetings, the Company shall list electronic transmission as one of the methods for exercising the voting power. 2. When voting rights are exercised by correspondence or electronic means, the method of exercise shall be specified in the shareholders' meeting notice. A shareholder exercising voting rights by correspondence or electronic means will be deemed to have attended the meeting in person. But to have waived his/her rights concerning the extraordinary motions and amendments to original proposals of that meeting;	correspondence or electronic means, the Company Law of the Cayman Islands does not mention whether a shareholder excising his/her voting rights by correspondence or electronic means is deemed to have attended the meeting in person, and lawyers of Cayman Islands have not discovered related cases. To make other arrangements, Article 25.4 of the Company's Articles of Association stipulates that "a shareholder exercising his/her voting at a shareholders meeting by correspondence or electronic means is deemed to have appointed the chair of the meeting as its proxy. His/her voting rights must be exercised as instructed by correspondence or electronic documents. The meeting chair may not exercise his/her voting rights on behalf of the shareholder in matters not mentioned or set out in correspondence or electronic means, and/or amendments to the original motion proposed at the shareholders' meeting. To avoid doubts, such shareholder who exercises his/her voting rights through such means shall be deemed to have waived his/her rights concerning the extraordinary motions and amendments to original proposals of that meeting." The voting rights of the chair acting as a proxy at the shareholders' meeting may not exceed 3% of the total voting rights of the issued shares as stipulated in Article 26.3 of the Company's Articles of Association.
For the following resolutions involving significant shareholders' interests, they shall be approved by a majority vote at a meeting of shareholders attended by shareholders representing two-thirds or more of the total number of the issued shares of the company. In the event the total number of shares represented by the shareholders present at a shareholders' meeting is less than the percentage of the total shareholdings required in the preceding Paragraph, the resolution may be adopted by two-thirds of the voting rights exercised by the shareholders present at the shareholders' meeting who represent a majority of the outstanding shares of the company. 1. Enter into, amend, or terminate any contract for lease of the company's business in whole, or entrusted	1. In terms of the resolution method at a shareholders meeting - in addition to the ordinary resolutions and major resolutions under Taiwan's laws, "Special Resolution" under the Company Law of the Cayman Islands is stipulated in Article 1.1 of the Company's Articles of Association. It refers to a resolution passed at the Company's shareholders meeting who have voting rights either attended in person or by a power of attorney, or by a proxy legally authorized by a corporate shareholder or non-natural person. After calculating the number of voting rights of each shareholder, the resolution shall be approved by at least two-thirds of the voting rights of all attending shareholders. 2. In accordance with the Company Law of the Cayman Islands, the following matters shall be resolved by special resolution: (1) Change in the Articles of Association In accordance with the Cayman Islands laws, making changes in the Articles of Association must be performed through a special resolution. Therefore, Article 12.1 of the Company's Articles of

Important matters regarding the protection of shareholders' equity	Regulations of the Articles of Association and reasons for differences
business, or regular joint operation with others; transfer the whole or any essential part of its business or assets; or accept the transfer of another whole business or assets, which has great bearing on the business operation of the company. 2. Change in the Articles of Association 3. Changes in the Articles of Association that damage preferred shareholders' rights shall be subject to resolution at the special shareholders' meeting. 4. Dividends and bonuses in whole or in part distributed in the form of new shares to be issued 5. A resolution for dissolution, consolidation or merger, or split-up of a company 6. Share conversion	Association regarding the resolution threshold of changing the Articles of Association has not been changed to a major resolution as required by the "Checklist of Shareholders' Equity Protection" under Taiwan's laws. In addition, According to Article 13 of the Company's Articles of Association, if any amendment or change made in the Articles of Association would impair the preferential rights of any types of shares, such amendment or change shall be subject to approval by a special resolution. Shareholders holding such type of impaired shares shall convene a separate meeting and pass the motion by special resolution. (2) Dissolution Under the Cayman Islands laws, if a company resolves to voluntarily liquidate and dissolve because it is unable to pay its debts as they fall due, the dissolution shall be resolved by the shareholders' meeting. However, suppose a company resolves to voluntarily liquidate and dissolve for reasons other than those mentioned above. In that case, the dissolution shall be made through a special resolution as required by the Company Law of the Cayman Islands. Hence, Article 12.4 of the Company's Articles of Association (a) "the resolution threshold for voluntary liquidation and dissolution of the Company for the reason the Company is unable to pay its debts as they fall due" has not been changed to a major resolution as required by the "Checklist of Shareholders' Equity Protection" under Taiwan's laws. (3) Merger As there are mandatory provisions of the Company Law of the Cayman Islands regarding the voting manner of "Merger as defined by the laws of the Cayman Islands," Article 12.3 of the Company's Articles of Association (b) provides "Merger" (except for any Merger which falls within the definition of "merger and/or consolidation" under the Company Law of the Cayman Islands that requires only a special resolution) that shall be approved by a major resolution. 3. The difference between the above matters and the Checklist of Shareholders' Equity Protection is important motions regarding the protection of shareholders' equity

Important matters regarding the protection of shareholders' equity	Regulations of the Articles of Association and reasons for differences
	should be resolved by a major resolution and special resolution, respectively, in the Company's Articles of Association. As these differences arise due to the laws of the Cayman Islands, the Company's Articles of Associations clearly stipulate major resolutions and special resolutions for the protection of important matters regarding shareholders' equity. Therefore, the effect on the shareholders' equity shall be limited.
1. Supervisors of a company shall be elected by the meeting of shareholders. Among them, at least one supervisor shall have a domicile within the territory of Taiwan. 2. The term of office of a supervisor shall not exceed three years, but he/she may be eligible for re-election. 3. In case all supervisors of a company are discharged, the board of directors shall, within 60 days, convene a special meeting of shareholders to elect new supervisors. 4. Supervisors shall supervise the execution of business operations of the company, and may at any time or from time to time investigate the business and financial conditions of the company, inspect, transcribe or make copies of the accounting books and documents, and request the board of directors or managerial personnel to make reports thereon. 5. Supervisors shall audit the various statements and records prepared for submission to the shareholders' meeting by the board of directors, and shall make a report of their findings and opinions at the meeting of shareholders. 6. Supervisors may appoint a practicing lawyer on behalf of the Company and a certified public account to conduct the review matters. 7. Supervisors of a company may attend the meeting of the board of	The Company Law of the Cayman Islands does not have the concept of "supervisor." Issuing companies set up Audit Committees and there are no supervisors. Therefore, there are no provisions with regards to supervisors in the Articles of Association.

Important matters regarding the protection of shareholders' equity	Regulations of the Articles of Association and reasons for differences
directors to express their opinions. In case the board of directors or any director commits any act, in carrying out the business operations of the company, in a manner in violation of the laws, regulations, the Articles of Association or the resolutions of the shareholders' meeting, the supervisors shall forthwith advise, by a notice, to the board of directors or the director, as the case may be, to cease such act. 8. Supervisor may each exercise the supervision power individually. 9. A supervisor shall not be concurrently a director, a managerial officer or other staff/employee of the company.	
1. Shareholder(s) who has/have been continuously holding 1% or more of the total number of the outstanding shares of the company over six months may request in writing the supervisors of the company to institute, for the company, an action against a director of the company. The Taiwan Taipei District Court shall be the court of the first instance. 2. If the supervisor does not institute proceedings within 30 days after the shareholder's request, the shareholder may institute proceedings on behalf of the company, and the Taiwan Taipei District Court shall be the court of the first instance. 3. Subject to the condition that the board of directors does not or is unable to convene a meeting of shareholders, the supervisors or independent directors of the Audit Committee may, for the benefit of the company, call a meeting of shareholders when it is deemed	As there is no equivalent concept of supervisor under the laws of Cayman Islands, and the company has set up an Audit Committee. Therefore, there are no provisions with regards to supervisors in the Articles of Association. However, subject to the provisions stipulated in Article 214 of Taiwan's Company Act regarding minority shareholders requesting to institute proceedings against directors, Article 48.3 of the company's Articles of Association stipulates "within the permission scope of the laws of the Cayman Islands, a shareholder who has continuously held more than one percent of the company's issued shares for 6 months or more may: (a) requesting in writing that the Board of Directors to authorize the independent directors of the Audit Committee to institute proceedings against the director on behalf of the group, and the Taiwan Taipei District Court shall be the court of the first instance; or (b) requesting in writing that independent directors of the Audit Committee to institute proceedings against the director on behalf of the group, and the Taiwan Taipei District Court shall be the court of the first instance. Within 30 days after the request is made in accordance with abovementioned (a) or (b), if (i) the independent directors of the Audit Committee authorized by the Board or the independent directors of the Audit Committee authorized by the Board fail to institute proceedings in accordance (a); or (ii) the requested independent directors of the Audit Committee fails to institute proceedings in accordance with (b), within the

Important matters regarding the protection of shareholders' equity	Regulations of the Articles of Association and reasons for differences
necessary.	permission scope of the laws of the Cayman Islands, the Taiwan Taipei District Court shall be the court of the first instance. However, regarding the above provisions and laws of the Cayman Islands, lawyers of the Cayman Islands have the following polite reminders: There are no specific provisions in the Cayman Islands' Company Law that allow minority shareholders to bring a derivative action against directors in the court. The Articles of Association are not a contract between the shareholders and directors; they agree between the shareholders and the company. Even though the Articles of Association allow minority shareholders to institute proceedings against directors, lawyers in the Cayman Islands suggest that such content will not bind the directors. However, under common law, all shareholders (including minority shareholders) have the right to bring derivative actions (including actions against directors) regardless of their shareholding ratio or their period of ownership. Once shareholders have instituted proceedings, the court in the Cayman Islands will determine whether they may proceed with the litigation. In other words, although the Articles of Association stipulate that a minority shareholder (or shareholders with the required shareholding ratio or period of ownership) may institute proceedings against the director on behalf of the Company, the court in the Cayman Islands holds the ultimate right to determine whether or not the litigation shall continue. Regarding the relevant decisions made by the Grand Court of the Cayman Islands, when considering whether or not the derivative action should continue, the applicable guideline is whether the Cayman Islands court is satisfied and accepts that the plaintiff's claim on behalf of the company is prima facie material. The court will also take into account that the wrongful behavior is conducted by persons in control of the company and that such persons are able to keep the Company from instituting proceedings against them. The court in the Cayman Islands will determine a case based on facts (although the court may refer to provisions of the company's Articles of Association, it is not a decisive factor). According to the Cayman Islands law, the Board of Directors shall make decisions on behalf of the company as a whole (not as individual directors). The board of directors should authorize one of the directors on behalf of the company to institute proceedings against other directors as

Important matters regarding the protection of shareholders' equity	Regulations of the Articles of Association and reasons for differences
	prescribed in the company's Articles of Association. The Company Law of the Cayman Islands does not provide the right for shareholders to request the directors to convene a board meeting to resolve specific matters. However, the Cayman Islands' Company Law does not prohibit a company from formulating provisions regarding board meeting procedures in its Articles of Association (including the requirements for the convening of the board meeting).
1. The directors of a company shall have the loyalty and shall exercise the due care of a good administrator in conducting the company's business operation; and if he/she has acted contrary to this provision, shall be liable for the damages to be sustained by the company there-from. If the act is carried out by the director or by others, the meeting of shareholders may, by a resolution, consider the earnings in such an act as earnings of the company. 2. If the director of a company has, in the course of conducting the business operations, violated any provision of the applicable laws and/or regulations and thus caused damage to any other person, he/she shall be liable, jointly and severally, for the damage to such other person. 3. Managerial officers and supervisors shall be liable for the same damages as the company's directors when executing duties within their scope.	Although it is stipulated in Article 48.4 of the Company's Articles of Association that "Under the circumstances that do not affect and do not violate the principles of the common law of the Cayman Islands and general directors' duties to the company and shareholders under the law, directors shall faithfully execute the company's business and perform the duty of care of a good manager. If a director causes damage to the Company, he/she shall be liable to the maximum extent permitted by the law. If a director obtains benefits for himself/herself or others due to a violation of carrying out the act mentioned above, the company shall take all appropriate actions and steps to the maximum extent permitted by the law and consider such earnings of the Company. If a director violates the law or order during executing his/her duties that result in the Company becoming liable to any person for any compensation or damages, the director shall be jointly and severally responsible with the company for any compensation or damage caused to the company. If for any reason the director is not jointly and severally liable with the company, the director shall reimburse the company for any loss suffered by the company due to his/her breach of duty. When a managerial officer carries out company duties, he/she shall bear the same liability for damages as the company's directors. " However, regarding the above provisions and laws of the Cayman Islands, lawyers of the Cayman Islands have the following polite reminders: In general, under the Cayman Islands law, managerial officers or supervisors do not bear the same responsibilities to the company or shareholders as a director of the company. However, if a managerial officer or supervisor is authorized to carry out duties on behalf of a senior executive, he/she will have the same obligations as a director of the company. To avoid confusion, Cayman Islands companies generally define the duties and obligations of a managerial officer and supervisor to the company and its shareholders in their

Important matters regarding the protection of shareholders' equity	Regulations of the Articles of Association and reasons for differences
	service contracts. The same is true for the Articles of Association acting as an agreement between shareholders and the company. As managerial officers or supervisors are not a party to the Articles of Association, and therefore, all rights of damages and compensation upon a violation of a managerial officer or supervisor shall be regulated in the service contract. Under the law of the Cayman Islands, the Articles of Association are an agreement between shareholders and the company, and directors (as a director of the company) are not a party to the Articles of Association. Lawyers of the Cayman Islands suggest that Articles of Association do not bind the directors. If the company intends to give contractual effect to directors with applicable provisions, lawyers of the Cayman Islands believe that relevant rights should be enclosed in the individual director's contract, such as a service contract.

5. If any of the situations listed in Article 36, paragraph 2 subparagraph 2 of the Securities and Exchange Act, which might materially affect shareholders' equity or the price of the company's securities, has occurred during the most recent fiscal year or up to publication of the annual report: None.

APPLIED BIOCODE CORPORATION AND SUBSIDIARIES

CONSOLIDATED FINANCIAL STATEMENTS AND

INDEPENDENT AUDITORS' REPORT

DECEMBER 31, 2022 AND 2021

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INDEPENDENT AUDITORS' REPORT

To the Board of Directors and Shareholders of Applied BioCode Corporation

Opinion

We have audited the accompanying consolidated balance sheets of Applied BioCode Corporation and subsidiaries (the "Group") as at December 31, 2022 and 2021, and the related consolidated statements of comprehensive income, of changes in equity and of cash flows for the years then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at December 31, 2022 and 2021, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the International Financial Reporting Standards, International Accounting Standards, IFRIC Interpretations, and SIC Interpretations that came into effect as endorsed by the Financial Supervisory Commission.

Basis for opinion

We conducted our audits in accordance with the Regulations Governing Auditing and Attestation of Financial Statements by Certified Public Accountants and Standards on Auditing of the Republic of China. Our responsibilities under those standards are further described in the *Auditors' responsibilities for the audit of the consolidated financial statements* section of our report. We are independent of the Group in accordance with the Norm of Professional Ethics for Certified Public Accountant of the Republic of China, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

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Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the Group's 2022 consolidated financial statements. These matters were addressed in the context of our audit of the consolidated financial statements as a whole and, in forming our opinion thereon, we do not provide a separate opinion on these matters.

Key audit matters for the Group's 2022 consolidated financial statements are stated as follows:

Existence and occurrence of cash and cash equivalents

Description

Please refer to Note 4(6) for accounting policies applied to cash and cash equivalents, and Note 6(1) for details of account items. As of December 31, 2022, cash and cash equivalents amounted to NT$831,322 thousand, constituting 69% of the total consolidated assets. As cash and cash equivalents constitute a significant portion of total consolidated assets and inherent risk exists, we consider the existence and occurance of cash and cash equivalents a key audit matter.

How our audit addressed the matter

The procedures performed in respect of this key audit matter include:

1. Confirmed bank accounts and special arrangements with financial institutions to verify the existence and rights and obligations of the bank deposits;
2. Verified the authenticity of the necessary information for the bank confirmations;
3. Reviewed and tested the mathematical accuracy of bank reconciliation statements, agreed the balances with the balances per cash book and per bank balance, identified any unusual or significant items and ensured that these were properly disposed of.
4. Selected samples of significant cash receipt and payment transactions to check whether the transactions were incurred for operational needs.

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Existence of sales revenues

Description

Please refer to Note 4(20) for accounting policies on revenue recognition, and Note 6(15) for details of sales revenue.

The primary business of Applied BioCode Group is the selling of Barcoded Magnetic Beads, Reagents and Optical Analyzers for multiplex in-vitro diagnostics to third party testing laboratories and medical institutions. The transaction terms vary depending on market conditions and customers' needs. As sales revenue are the main transactions of the Group and are material to the financial statements, thus, the existence of sales revenue has been identified as a key audit matter.

How our audit addressed the matter

Our key audit procedures performed in respect of the above key audit matter included the following:

1. Inspected whether approved additions to the merchandise master file data had been correctly entered in the merchandise master file which include basic information of customers for evaluating the creditworthiness of buyers.
2. Evaluated and tested management's controls in respect of the Group's sales transactions and the execution of actual processes.
3. Performed substantive test on selected sales transactions including confirming orders, shipping documents, invoices and cash receipts to verify the existence of sales revenues.

Responsibilities of management and those charged with governance for the consolidated financial statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the International Financial Reporting Standards, International Accounting Standards, IFRIC Interpretations, and SIC Interpretations that came into effect as endorsed by the Financial Supervisory Commission, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement,

whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance, including audit committee, are responsible for overseeing the Group's financial reporting process.

Auditors' responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Standards on Auditing of the Republic of China will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with the Standards on Auditing of the Republic of China, we exercise professional judgment and professional skepticism throughout the audit. We also:

1. Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

2. Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.

3. Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

4. Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Group to cease to continue as a going concern.

5. Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

6. Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we

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determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Wendy Liang　　Alan Chien

For and on behalf of PricewaterhouseCoopers, Taiwan

March 13, 2023

The accompanying consolidated financial statements are not intended to present the financial position and results of operations and cash flows in accordance with accounting principles generally accepted in countries and jurisdictions other than the Republic of China. The standards, procedures and practices in the Republic of China governing the audit of such financial statements may differ from those generally accepted in countries and jurisdictions other than the Republic of China. Accordingly, the accompanying consolidated financial statements and independent auditors' report are not intended for use by those who are not informed about the accounting principles or auditing standards generally accepted in the Republic of China, and their applications in practice.

APPLIED BIOCODE CORPORATION AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
DECEMBER 31, 2022 AND 2021
(Expressed in thousands of New Taiwan dollars)

	Assets	Notes	December 31, 2022 AMOUNT	%	December 31, 2021 AMOUNT	%
	Current assets					
1100	Cash and cash equivalents	6(1)	$ 831,322	69	$ 646,070	63
1170	Accounts receivable, net	6(2) and 12(2)	70,810	6	67,805	7
130X	Inventories, net	6(3)	106,679	9	101,374	10
1479	Other current assets, others		5,477	-	11,197	1
11XX	**Total current assets**		1,014,288	84	826,446	81
	Non-current assets					
1600	Property, plant and equipment, net	6(4)	129,407	11	111,830	11
1755	Right-of-use assets	6(5)	40,216	3	50,940	5
1780	Intangible assets, net	6(6)	10,378	1	13,434	1
1840	Deferred income tax assets	6(21)	3,985	-	3,513	1
1900	Other non-current assets	8	14,175	1	12,804	1
15XX	**Total non-current assets**		198,161	16	192,521	19
1XXX	**Total assets**		$ 1,212,449	100	$ 1,018,967	100

(Continued)

APPLIED BIOCODE CORPORATION AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
DECEMBER 31, 2022 AND 2021
(Expressed in thousands of New Taiwan dollars)

	Liabilities and Equity	Notes	December 31, 2022 AMOUNT	%	December 31, 2021 AMOUNT	%
	Liabilities					
	Current liabilities					
2130	Current contract liabilities	6(15)	$ 22,766	2	$ 1,987	-
2170	Accounts payable		8,727	1	9,428	1
2200	Other payables	6(8)	40,296	3	34,234	3
2280	Current lease liabilities	6(5)	15,664	1	14,195	2
2399	Other current liabilities, others		172	-	103	-
21XX	**Total current liabilities**		87,625	7	59,947	6
	Non-current liabilities					
2527	Non-current contract liabilities	6(15)	271,325	23	7,988	1
2570	Deferred tax liabilities	6(21)	3,985	-	3,513	-
2580	Non-current lease liabilities	6(5)	33,448	3	44,562	4
25XX	**Total non-current liabilities**		308,758	26	56,063	5
2XXX	**Total Liabilities**		396,383	33	116,010	11
	Equity					
	Share capital	6(11)				
3110	Common share		817,634	68	817,292	80
	Capital surplus	6(9)(12)				
3200	Capital surplus		359,242	29	351,576	35
	Retained earnings	6(13)				
3350	Accumulated deficit		(349,932)	(29)	(165,199)	(16)
	Other equity interest	6(9)(14)				
3400	Other equity interest		(10,878)	(1)	(100,712)	(10)
3XXX	**Total equity**		816,066	67	902,957	89
3X2X	**Total liabilities and equity**		$ 1,212,449	100	$ 1,018,967	100

The accompanying notes are an integral part of these consolidated financial statements.

APPLIED BIOCODE CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
YEARS ENDED DECEMBER 31, 2022 AND 2021
(Expressed in thousands of New Taiwan dollars, except for loss per share)

			Year ended December 31			
			2022		2021	
	Items	Notes	AMOUNT	%	AMOUNT	%
4000	Operating revenue	6(7)(15)	$ 390,302	100	$ 319,962	100
5000	Operating costs	6(3)(19)(20)	(156,132)	(40)	(130,595)	(41)
5900	Gross profit from operation		234,170	60	189,367	59
	Operating expenses	6(19)(20)				
6100	Selling expenses		(79,381)	(20)	(56,941)	(18)
6200	Administrative expenses		(109,023)	(28)	(91,515)	(29)
6300	Research and development expenses		(238,370)	(61)	(205,854)	(64)
6000	Total operating expenses		(426,774)	(109)	(354,310)	(111)
6900	Net operating loss		(192,604)	(49)	(164,943)	(52)
	Non-operating income and expenses					
7100	Interest income	6(16)	8,511	2	3,111	1
7020	Other gains and losses	6(17)	2,167	1	(474)	-
7050	Finance costs	6(5)(18)	(2,784)	(1)	(2,870)	(1)
7000	Total non-operating income and expenses		7,894	2	(233)	-
7900	**Loss before income tax**		(184,710)	(47)	(165,176)	(52)
7950	Income tax expense	6(21)	(23)	-	(23)	-
8200	**Loss for the year**		($ 184,733)	(47)	($ 165,199)	(52)
	Other comprehensive income (loss)					
	Components of other comprehensive income (loss) that will not be reclassified to profit or loss					
8361	Financial statements translation differences of foreign operations	6(14)	$ 89,834	23	($ 28,742)	(9)
8500	**Total comprehensive loss for the year**		($ 94,899)	(24)	($ 193,941)	(61)
	Loss attributable to					
8610	Owners of the parent	6(22)	($ 184,733)	(47)	($ 165,199)	(52)
	Comprehensive loss attributable to					
8710	Owners of the parent		($ 94,899)	(24)	($ 193,941)	(61)
	Basic loss per share					
9750	Basic loss per share (In dollars)	6(22)	($ 2.26)		($ 2.02)	
9850	Diluted loss per share (In dollars)	6(22)	($ 2.26)		($ 2.02)	

The accompanying notes are an integral part of these consolidated financial statements.

APPLIED BIOCODE CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
YEARS ENDED DECEMBER 31, 2022 AND 2021
(Expressed in thousands of New Taiwan dollars)

	Notes	Share capital - common stock	Total capital surplus, additional paid-in capital	Accumulated deficit	Financial statements translation differences of foreign operations	Total equity
2021						
Balance at January 1, 2021		$ 816,390	$ 1,394,683	($ 1,052,108)	($ 71,970)	$ 1,086,995
Loss for the year	6(13)	-	-	(165,199)	-	(165,199)
Other comprehensive loss for the year	6(14)	-	-	-	(28,742)	(28,742)
Total comprehensive loss		-	-	(165,199)	(28,742)	(193,941)
Compensation cost of employee stock options	6(9)(12)	-	8,565	-	-	8,565
Exercise of employee stock options	6(9)(11)(12)	902	436	-	-	1,338
Capited surplus used to offset accumulated deficits	6(12)	-	(1,052,108)	1,052,108	-	-
Balance at December 31, 2021		$ 817,292	$ 351,576	($ 165,199)	($ 100,712)	$ 902,957
2022						
Balance at January 1, 2022		$ 817,292	$ 351,576	($ 165,199)	($ 100,712)	$ 902,957
Loss for the year	6(13)	-	-	(184,733)	-	(184,733)
Other comprehensive income for the year	6(14)	-	-	-	89,834	89,834
Total comprehensive income (loss)		-	-	(184,733)	89,834	(94,899)
Compensation cost of employee stock options	6(9)(12)	-	7,727	-	-	7,727
Exercise of employee stock options	6(9)(11)(12)	342	(61)	-	-	281
Balance at December 31, 2022		$ 817,634	$ 359,242	($ 349,932)	($ 10,878)	$ 816,066

The accompanying notes are an integral part of these consolidated financial statements.

APPLIED BIOCODE CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
YEARS ENDED DECEMBER 31, 2022 AND 2021
(Expressed in thousands of New Taiwan dollars)

	Notes	Year ended December 31 2022	2021
CASH FLOWS FROM OPERATING ACTIVITIES			
Loss before tax		($ 184,710)	($ 165,176)
Adjustments			
Adjustments to reconcile profit (loss)			
Depreciation expense	6(19)	52,152	46,891
Amortisation expense	6(6)(19)	4,360	4,068
Expected credit loss	12(2)	362	5,668
Interest income	6(16)	(8,511)	(3,111)
Interest expense	6(18)	2,784	2,870
Losses on disposals of property, plant and equipment	6(4)(17)	-	10
Compensation cost of employee share-based payment	6(9)(12)	7,727	8,565
Changes in operating assets and liabilities			
Changes in operating assets			
Accounts receivable, net		(3,367)	(24,001)
Inventories, net		(25,896)	(13,383)
Other current assets, others		5,720	6,066
Changes in operating liabilities			
Contract liabilities		284,116	(1,076)
Accounts payable		(701)	(18,174)
Other payables		6,062	(1,272)
Other current liabilities, others		69	64
Cash inflow (outflow) generated from operations		140,167	(151,991)
Interest received		8,511	3,111
Interest paid		(2,784)	(2,870)
Income tax paid		(23)	(23)
Net cash flows from (used in) operating activities		145,871	(151,773)
CASH FLOWS FROM INVESTING ACTIVITIES			
Acquisition of property, plant and equipment	6(23)	(22,142)	(15,518)
Acquisition of intangible assets	6(6)	-	(750)
Increase in refundable deposits		-	(120)
Net cash flows used in investing activities		(22,142)	(16,388)
CASH FLOWS FROM FINANCING ACTIVITIES			
Repayments of principal portion of lease liabilities	6(24)	(15,139)	(15,526)
Exercise of employee stock options	6(9)(11)(12)	281	1,338
Net cash flows used in financing activities		(14,858)	(14,188)
Effect of exchange rate changes		76,381	(19,491)
Net increase (decrease) in cash and cash equivalents		185,252	(201,840)
Cash and cash equivalents at beginning of year		646,070	847,910
Cash and cash equivalents at end of year		$ 831,322	$ 646,070

The accompanying notes are an integral part of these consolidated financial statements.

APPLIED BIOCODE CORPORATION AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
YEARS ENDED DECEMBER 31, 2022 AND 2021
(EXPRESSED IN THOUSANDS OF NEW TAIWAN DOLLARS,
EXCEPT AS OTHERWISE INDICATED)

1. History and Organization

Applied BioCode Corporation (the "Company") was incorporated as a company in British Cayman Islands on April 15, 2016, as a holding company for the purpose of reorganization. On June 30, 2016, as part of a reorganization, Applied BioCode Inc. converted all of its outstanding shares to the Company's newly issued shares. The Company and its subsidiaries (collectively referred herein as the "Group") are primarily engaged in Barcoded Magnetic Beads of multiplex in-vitro diagnostics, platform technology of assays and instruments and research and development, production, sales, leasing and authorisation of products. The Company's shares have been listed on the Taiwan Stock Exchange since June 9, 2020.

2. The Date of Authorisation for Issuance of the Financial Statements and Procedures for Authorisation

These consolidated financial statements were authorized for issuance by the Board of Directors on March 13, 2023.

3. Application of New Standards, Amendments and Interpretations

(1) Effect of the adoption of new issuances of or amendments to International Financial Reporting Standards ("IFRS") that came into effect as endorsed by the Financial Supervisory Commission ("FSC")

New standards, interpretations and amendments endorsed by the FSC and became effective from 2022 are as follows:

New Standards, Interpretations and Amendments	Effective date by International Accounting Standards Board
Amendments to IFRS 3, 'Reference to the conceptual framework'	January 1, 2022
Amendments to IAS 16, 'Property, plant and equipment: proceeds before intended use'	January 1, 2022
Amendments to IAS 37, 'Onerous contracts—cost of fulfilling a contract'	January 1, 2022
Annual improvements to IFRS Standards 2018–2020	January 1, 2022

The above standards and interpretations have no significant impact to the Group's financial condition and financial performance based on the Group's assessment.

(2) Effect of new issuances of or amendments to IFRSs as endorsed by the FSC but not yet adopted by the Group

New standards, interpretations and amendments endorsed by the FSC effective from 2023 are as follows:

New Standards, Interpretations and Amendments	Effective date by International Accounting Standards Board
Amendments to IAS 1, 'Disclosure of accounting policies'	January 1, 2023
Amendments to IAS 8, 'Definition of accounting estimates'	January 1, 2023
Amendments to IAS 12, 'Deferred tax related to assets and liabilities arising from a single transaction'	January 1, 2023

The above standards and interpretations have no significant impact to the Group's financial condition and financial performance based on the Group's assessment.

(3) IFRSs issued by IASB but not yet endorsed by the FSC

New standards, interpretations and amendments issued by IASB but not yet included in the IFRSs as endorsed by the FSC are as follows:

New Standards, Interpretations and Amendments	Effective date by International Accounting Standards Board
Amendments to IFRS 10 and IAS 28, 'Sale or contribution of assets between an investor and its associate or joint venture'	To be determined by International Accounting Standards Board
Amendments to IFRS 16, 'Lease liability in a sale and leaseback'	January 1, 2024
IFRS 17, 'Insurance contracts'	January 1, 2023
Amendments to IFRS 17, 'Insurance contracts'	January 1, 2023
Amendment to IFRS 17, 'Initial application of IFRS 17 and IFRS 9 – comparative information'	January 1, 2023
Amendments to IAS 1, 'Classification of liabilities as current or non-current'	January 1, 2024
Amendments to IAS 1, 'Non-current liabilities with covenants'	January 1, 2024

The above standards and interpretations have no significant impact to the Group's financial condition and financial performance based on the Group's assessment.

4. Summary of Significant Accounting Policies

The principal accounting policies applied in the preparation of these consolidated financial statements are set out below. These policies have been consistently applied to all the periods presented, unless

otherwise stated.

(1) Compliance statement

The consolidated financial statements of the Group have been prepared in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers, International Financial Reporting Standards, International Accounting Standards, IFRIC Interpretations, and SIC Interpretations that came into effect as endorsed by the FSC (collectively referred herein as the "IFRSs").

(2) Basis of preparation

A. The Consolidated financial statements have been prepared under the historical cost convention.

B. The preparation of financial statements in conformity with IFRSs requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Group's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in Note 5.

(3) Basis of consolidation

A. Basis for preparation of consolidated financial statements:

(a) The Group's financial statements are initially presented in USD. When converting the consolidated financial statements into New Taiwan Dollars, all assets and liabilities are translated into New Taiwan Dollars at the exchange rate of the balance sheet; except for the balance accrued at the end of the period, the balance of the equity in the equity account is carried forward, and the rest is based on historical exchange rates. Profit and loss accounts are translated at the weighted average exchange rate, and the difference arising from the conversion is included in the "cumulative translation adjustment" as an adjustment item for equity.

(b) All subsidiaries are included in the Group's consolidated financial statements. Subsidiaries are all entities controlled by the Group. The Group controls an entity when the Group is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Consolidation of subsidiaries begins from the date the Group obtains control of the subsidiaries and ceases when the Group loses control of the subsidiaries.

(c) Inter-company transactions, balances and unrealised gains or losses on transactions between companies within the Group are eliminated. Accounting policies of subsidiaries have been adjusted where necessary to ensure consistency with the policies adopted by the Group.

(d) Profit or loss and each component of other comprehensive income are attributed to the owners of the parent and to the non-controlling interests. Total comprehensive income is attributed to

the owners of the parent and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

(e) Changes in the Company's shares in subsidiaries do not result in loss in control (transactions with non-controlling interest), transactions shall be considered as equity transactions, which are transactions between owners. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognised directly in equity.

(f) When the Group loses control of a subsidiary, the Group remeasures any investment retained in the former subsidiary at its fair value. That fair value is regarded as the fair value on initial recognition of a financial asset or the cost on initial recognition of the associate or joint venture. Any difference between fair value and carrying amount is recognised in profit or loss. All amounts previously recognised in other comprehensive income in relation to the subsidiary are reclassified to profit or loss on the same basis as would be required if the related assets or liabilities were disposed of. That is, when the Group loses control of a subsidiary, all gains or losses previously recognised in other comprehensive income in relation to the subsidiary should be reclassified from equity to profit or loss, if such gains or losses would be reclassified to profit or loss when the related assets or liabilities are disposed of.

B. Subsidiaries included in the consolidated financial statements:

			Ownership (%)	
Name of investor	Name of the subsidiary	Main business activities	December 31, 2022	December 31, 2021
Applied BioCode Corporation	Applied BioCode, Inc.	Barcoded Magnetic Beads of multiplex in-vitro diagnostics, platform technology of assays and instruments and research and development, production, sales and leasing.	100%	100%
Applied BioCode, Inc.	Applied BioCode Taiwan Ltd.	Barcoded Magnetic Beads of multiplex in-vitro diagnostics, platform technology of assays and instruments and research and development, production and sales of products.	100%	100%

C. Subsidiaries not included in the consolidated financial statements: None.

D. Adjustments for subsidiaries with different balance sheet dates: None.

E. Significant restrictions: None.

F. Subsidiaries that have non-controlling interests that are material to the Group: None.

(4) Foreign currency translation

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates (the "functional currency"). The consolidated financial statements are presented in USD, which is the Company's functional and the Group's presentation currency. However, the consolidated financial statements are

presented in NTD under the future financing plan and the regulations of the country where the consolidated financial statements are reported to the regulatory authorities.

A. Foreign currency transactions and balances

(a) Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are remeasured. Foreign exchange gains and losses resulting from the settlement of such transactions are recognised in profit or loss in the period in which they arise.

(b) Monetary assets and liabilities denominated in foreign currencies at the period end are re-translated at the exchange rates prevailing at the balance sheet date. Exchange differences arising upon re-translation at the balance sheet date are recognised in profit or loss.

(c) Non-monetary assets and liabilities denominated in foreign currencies held at fair value through profit or loss are re-translated at the exchange rates prevailing at the balance sheet date; their translation differences are recognised in profit or loss. Non-monetary assets and liabilities denominated in foreign currencies held at fair value through other comprehensive income are re-translated at the exchange rates prevailing at the balance sheet date; their translation differences are recognised in other comprehensive income. However, non-monetary assets and liabilities denominated in foreign currencies that are not measured at fair value are translated using the historical exchange rates at the dates of the initial transactions.

(d) All other foreign exchange gains and losses based on the nature of those transactions are presented in the statement of comprehensive income within ‘other gains and losses’.

B. Translation of foreign operations

(a) The operating results and financial position of all the group entities that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

i. Assets and liabilities presented in each balance sheet are translated at the closing exchange rate at the date of that balance sheet;

ii. Income and expenses for each statement of comprehensive income are translated at average exchange rates of that period; and

iii. All resulting exchange differences are recognised in other comprehensive income.

(b) When the foreign operation partially disposed of or sold is a subsidiary, cumulative exchange differences that were recorded in other comprehensive income (loss) are proportionately transferred to the non-controlling interest in this foreign operation. In addition, even when the Group retains partial interest in the former foreign subsidiary after losing control of the former foreign subsidiary, such transactions should be accounted for as disposal of all interest in the foreign operation.

(5) Classification of current and non-current items

A. Assets that meet one of the following criteria are classified as current assets; otherwise they are classified as non-current assets:
   (a) Assets that are expected to be realised, or are intended to be sold or consumed within the normal operating cycle;
   (b) Assets held mainly for trading purposes;
   (c) Assets that are expected to be realised within twelve months from the balance sheet date; and
   (d) Cash and cash equivalents, excluding restricted cash and cash equivalents and those that are to be exchanged or used to settle liabilities more than twelve months after the balance sheet date.

B. Liabilities that meet one of the following criteria are classified as current liabilities; otherwise they are classified as non-current liabilities:
   (a) Liabilities that are expected to be settled within the normal operating cycle;
   (b) Assets held mainly for trading purposes;
   (c) Liabilities that are to be settled within twelve months from the balance sheet date; and
   (d) Liabilities for which the repayment date cannot be deferred unconditionally for at least twelve months after the balance sheet date. Terms of a liability that could, at the option of the counterparty, result in its settlement by the issue of equity instruments do not affect its classification.

(6) Cash equivalents

Cash equivalents refer to short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value. Time deposits that meet the definition above and are held for the purpose of meeting short-term cash commitments in operations are classified as cash equivalents.

(7) Accounts receivable

A. Accounts receivable entitle the Group a legal right to receive consideration in exchange for transferred goods or rendered services.

B. The short-term accounts receivable without bearing interest are subsequently measured at initial invoice amount as the effect of discounting is immaterial.

(8) Impairment of financial assets

For financial assets at amortised cost including accounts receivable or contract assets that have a significant financing component, lease receivables, loan commitments and financial guarantee contracts, at each reporting date, the Group recognises the impairment provision for 12 months expected credit losses if there has not been a significant increase in credit risk since initial recognition or recognises the impairment provision for the lifetime expected credit losses (ECLs) if such credit

risk has increased since initial recognition after taking into consideration all reasonable and verifiable information that includes forecasts. On the other hand, for accounts receivable or contract assets that do not contain a significant financing component, the Group recognises the impairment provision for lifetime ECLs.

(9) Leasing arrangements (lessor)－operating leases

Lease income from an operating lease (net of any incentives given to the lessee) is recognised in profit or loss on a straight-line basis over the lease term.

(10) Inventories

Inventories are stated at the lower of cost and net realisable value. Cost is determined using the weighted-average method. The cost of finished goods and work in progress comprises raw materials, direct labour, other direct costs and related production overheads. The item by item approach is used in applying the lower of cost and net realisable value. Net realisable value is the estimated selling price in the ordinary course of business, less the estimated cost of completion and the estimated costs necessary to make the sale.

(11) Property, plant and equipment

A. Property, plant and equipment are initially recorded at cost.
B. Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognised. All other repairs and maintenance are charged to profit or loss during the financial period in which they are incurred.
C. Property, plant and equipment apply cost model and are depreciated using the straight-line method to allocate their cost over their estimated useful lives. Each part of an item of property, plant, and equipment with a cost that is significant in relation to the total cost of the item must be depreciated separately.
D. The assets' residual values, useful lives and depreciation methods are reviewed, and adjusted if appropriate, at each financial year-end. If expectations for the assets' residual values and useful lives differ from previous estimates or the patterns of consumption of the assets' future economic benefits embodied in the assets have changed significantly, any change is accounted for as a change in estimate under IAS 8, 'Accounting Policies, Changes in Accounting Estimates and Errors', from the date of the change. The estimated useful lives of property, plant and equipment are as follows:

Test equipment	5 years
Machinery and equipment	5 years
Rental assets	5 years
Office equipment	5 years
Leasehold improvements	6 years

(12) Leasing arrangements (lessee)－right-of-use assets / lease liabilities

A. Leases are recognised as a right-of-use asset and a corresponding lease liability at the date at which the leased asset is available for use by the Group. For short-term leases or leases of low-value assets, lease payments are recognised as an expense on a straight-line basis over the lease term.

B. Lease liabilities include the net present value of the remaining lease payments at the commencement date, discounted using the incremental borrowing interest rate.

Lease payments are comprised of the following:

(a) Fixed payments, less any lease incentives receivable; and

(b) Amounts expected to be payable by the lessee under residual value guarantees.

The Group subsequently measures the lease liability at amortised cost using the interest method and recognises interest expense over the lease term. The lease liability is remeasured and the amount of remeasurement is recognised as an adjustment to the right-of-use asset when there are changes in the lease term or lease payments and such changes do not arise from contract modifications.

C. At the commencement date, the right-of-use asset is stated at cost comprising the following:

(a) The amount of the initial measurement of lease liability;

(b) Any initial direct costs incurred by the lessee; and

(c) An estimate of costs to be incurred by the lessee in dismantling and removing the underlying asset, restoring the site on which it is located or restoring the underlying asset to the condition required by the terms and conditions of the lease.

The right-of-use asset is measured subsequently using the cost model and is depreciated from the commencement date to the earlier of the end of the asset's useful life or the end of the lease term. When the lease liability is remeasured, the amount of remeasurement is recognised as an adjustment to the right-of-use asset.

(13) Intangible assets

A. Computer software

Computer software is stated at cost and amortised on a straight-line basis over its estimated useful life of 5 years.

B. Patents and patented technologies

Patents acquired by issuing new shares to exchange is recognised based on the fair value at the

acquisition date. The fair value is stated based on the appraisal report and is amortized on a straight-line basis over patent's estimated useful of 15 to 17 years.

Other patents are stated at cost and amortised on a straight-line basis over its duration of 6 to 9 years.

(14) Impairment of non-financial assets

A. The Group assesses at each balance sheet date the recoverable amounts of those assets where there is an indication that they are impaired. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell or value in use.

B. The recoverable amounts of intangible assets with an indefinite useful life and intangible assets that have not yet been available for use are evaluated periodically. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount.

(15) Accounts payable

A. Accounts payable are liabilities for purchases of raw materials, goods or services and accounts payable are those resulting from operating and non-operating activities.

B. The short-term accounts payable without bearing interest are subsequently measured at initial invoice amount as the effect of discounting is immaterial.

(16) Employee benefits

A. Short-term employee benefits

Short-term employee benefits are measured at the undiscounted amount of the benefits expected to be paid in respect of service rendered by employees in a period and should be recognized as expenses in that period when the employees render service.

B. Pensions

For the defined contribution plans, the contributions are recognised as pension expense when they are due on an accrual basis. Prepaid contributions are recognised as an asset to the extent of a cash refund or a reduction in the future payments.

C. Employees' compensation and directors' remuneration

Employees' compensation and directors' remuneration are recognised as expense and liability, provided that such recognition is required under legal or constructive obligation and those amounts can be reliably estimated. Any difference between the resolved amounts and the subsequently distributed amounts is accounted for as changes in estimates.

(17) Employee share-based payment

A. For the equity-settled share-based payment arrangements, the employee services received are measured at the fair value of the equity instruments granted at the grant date, and are recognised as compensation cost over the vesting period, with a corresponding adjustment to equity. The fair value of the equity instruments granted shall reflect the impact of market vesting conditions and non-vesting conditions. Compensation cost is subject to adjustment based on the service conditions that are expected to be satisfied and the estimates of the number of equity instruments that are expected to vest under the non-market vesting conditions at each balance sheet date. Ultimately, the amount of compensation cost recognised is based on the number of equity instruments that eventually vest.

B. Restricted stocks

(a) Restricted stocks issued to employees are measured at the fair value of the equity instruments granted at the grant date, and are recognised as compensation cost over the vesting period.

(b) For restricted stocks where those stocks do not restrict distribution of dividends to employees and employees are not required to return the dividends received if they resign during the vesting period, the Group recognises the fair value of the dividends received by the employees who are expected to resign during the vesting period as compensation cost at the date of dividends declared.

(c) For restricted stocks where employees do not need to pay to acquire those stocks, if the Group will pay the employees who resign during the vesting period to repurchase the stocks, the Group estimates such payments that will be made and recognises such amounts as compensation cost and liability at the grant date, in accordance with the terms of restricted stocks.

(18) Income taxes

A. The tax expense for the period comprises current and deferred tax. Tax is recognised in profit or loss, except to the extent that it relates to items recognised in other comprehensive income or items recognised directly in equity, in which cases the tax is recognised in other comprehensive income or equity.

B. The current income tax expense is calculated on the basis of the tax laws enacted or substantively enacted at the balance sheet date in the countries where the Company and its subsidiaries operate and generate taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in accordance with applicable tax regulations. It establishes provisions where appropriate based on the amounts expected to be paid to the tax authorities. An additional tax of Taiwan subsidiary is levied on the unappropriated retained earnings and is recorded as income tax expense in the year the stockholders resolve to retain the earnings.

C. Deferred tax is recognised, using the balance sheet liability method, on temporary differences

arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated balance sheet. Deferred tax is provided on temporary differences arising on investments in subsidiaries, except where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax is determined using tax rates (and laws) that have been enacted or substantially enacted by the balance sheet date and are expected to apply when the related deferred tax asset is realised or the deferred tax liability is settled.

D. Deferred tax assets are recognised only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised. At each balance sheet date, unrecognised and recognised deferred tax assets are reassessed.

E. Current income tax assets and liabilities are offset and the net amount reported in the balance sheet when there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously. Deferred tax assets and liabilities are offset on the balance sheet when the entity has the legally enforceable right to offset current tax assets against current tax liabilities and they are levied by the same taxation authority on either the same entity or different entities that intend to settle on a net basis or realise the asset and settle the liability simultaneously.

F. A deferred tax asset shall be recognised for the carryforward of unused tax credits resulting from acquisitions of equipment or technology, research and development expenditures to the extent that it is possible that future taxable profit will be available against which the unused tax credits can be utilised.

(19) Share capital

A. Common shares are classified as equity. Incremental costs directly attributable to the issue of new shares or stock options are shown in equity as a deduction, net of tax, from the proceeds.

B. Where the Company repurchases the Company's shares that have been issued, the consideration paid, including any directly attributable incremental costs (net of income taxes) is deducted from equity attributable to the Company's equity holders. Where such shares are subsequently reissued, the difference between their book value and any consideration received, net of any directly attributable incremental transaction costs and the related income tax effects, is included in equity attributable to the Company's equity holders.

(20) Revenue recognition

A. Sales revenue

(a) The Group manufactures and sells test reagents and medical instrument. Revenue is measured at the fair value of the received or receivable from the sale of goods to external customers in the ordinary course of the Group's operating activities after netting the business tax, returns,

rebates and discounts. Sales are recognised when control of the products has transferred, being when the products are delivered to the buyer, the buyer has full discretion over the channel and price to sell the products, and there is no unfulfilled obligation that could affect the buyer's acceptance of the products. Delivery occurs when the products have been shipped to the specific location, the risks of obsolescence and loss have been transferred to the buyer, and either the buyer has accepted the products in accordance with the sales contract, or the Group has objective evidence that all criteria for acceptance have been satisfied.

(b) If the payment (or payable) exceeds the services or goods delivered, a contract liability is recognised.

B. Revenue from licencing intellectual property

The Group entered into contracts with customers to grant licences of patents to the customers. Given the licences are distinct from other promised goods or services in the contract, the Group recognises the revenue from licencing based on the nature of the licences granted. The nature of the Group's promise in granting licences is a promise to provide a right to access the Group's intellectual property if the Group undertakes activities that significantly affect the patents to which the customer has rights, the customer is affected by the Group's activities and those activities do not result in the transfer of a good or a service to the customer as they occur. The royalties are recognised as revenue on a straight-line basis throughout the licencing period. In case the abovementioned conditions are not met, the nature of the Group's promise in granting a licence is a promise to provide a right to use the Group's intellectual property and therefore, the revenue is recognised when transferring the licence to a customer at a point in time.

C. Rental revenue

The Group entered into the reagent purchase agreements with clients and provides the medical devices for the customers to use through operating leases. Lease income from operating leases (net of any incentives given to the lessee) is recognised in profit or loss on a straight-line basis over the lease term.

D. Other operating revenue

Other operating revenue from the sale of consumables is recognised when the Group sells a product to the customer. Payment of the transaction price is due when the customer purchases the product.

(21) Operating segments

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker. The Group's chief operating decision-maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Board of Directors that makes strategic decisions.

5. Critical Accounting Judgements, Estimates and Key Sources of Assumption Uncertainty

The preparation of these consolidated financial statements requires management to make critical judgements in applying the Group's accounting policies and make critical assumptions and estimates concerning future events. Assumptions and estimates may differ from the actual results and are continually evaluated and adjusted based on historical experience and other factors. Such assumptions and estimates have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year. The related information is addressed below:

(1) Critical judgements in applying the Group's accounting policies

Whether performance obligations are distinguishable

The Group assesses the promised goods and services to the customers in the technology licensing and goods supply contracts in accordance with the regulation in paragraph 27 of IFRS 15 to identify which goods and services are distinguishable. The Group determines that the customers could not independently benefit from the technology licensing without obtaining the raw material goods provided by the Group. The terms in paragraph 27 of IFRS 15 are not met. Therefore, the technology licensing and the sales of raw material goods are not distinguishable. The Group accounts for the technology licensing and the sales of raw material goods as a single performance obligation.

(2) Critical accounting estimates and assumptions

Evaluation of inventories

As inventories are stated at the lower of cost and net realisable value, the Group must determine the net realisable value of inventories on balance sheet date using judgements and estimates. Due to the rapid technology innovation, the Group evaluates the amounts of normal inventory consumption, obsolete inventories or inventories without market selling value on balance sheet date, and writes down the cost of inventories to the net realisable value. Such an evaluation of inventories is principally based on the demand for the products within the specified period in the future. Therefore, there might be material changes to the evaluation.

Revenue recognition from technology licensing and goods supply contracts

The Group's revenue from technology licensing and goods supply contracts is the contract payments received in advance from customers for contracts of licensing for technology transfer and supplying inventory goods at discounted prices for the next ten years and shown as contract liabilities. The contract liabilities will be transferred to the sales revenue subsequently when the performance obligation has been satisfied according to the proportion of the actual quantity of inventory goods purchased by the customer each year relative to the total expected quantity. On the balance sheet date, according to the budgeted purchase volume and estimated market growth rate for the next year provided by the customer, the Group reviews the reasonableness of the estimates periodically and adjusts it if there are significant differences.

6. Details of Significant Accounts

(1) Cash and cash equivalents

	December 31, 2022	December 31, 2021
Checking accounts and demand deposits	$ 831,322	$ 460,916
Time deposits	-	185,154
Total	$ 831,322	$ 646,070

A. The Group transacts with a variety of financial institutions all with high credit quality to disperse credit risk, so it expects that the probability of counterparty default is remote.

B. The Group has no cash and cash equivalents pledged to others.

C. As of December 31, 2021, the interest rate of time deposits was 0.6%.

(2) Accounts receivable

	December 31, 2022	December 31, 2021
Accounts receivable	$ 74,895	$ 71,153
Less: Allowance for uncollectible accounts	(4,085)	(3,348)
	$ 70,810	$ 67,805

A. The ageing analysis of accounts receivable that were past due but not impaired is as follows:

	December 31, 2022	December 31, 2021
Not past due	$ 59,253	$ 61,774
Up to 90 days	11,498	175
91 to 180 days	-	3,065
181 to 360 days	118	5,925
Over 360 days	4,026	214
	$ 74,895	$ 71,153

The above ageing analysis was based on past due date.

B. As of December 31, 2022, and 2021, and January 1, 2021 the balances of receivables from contracts with customers gross amounted to $74,895, $71,153, and $49,559, respectively.

C. The Group has no accounts receivable pledged to others.

D. As at December 31, 2022 and 2021, without taking into account any collateral held or other credit enhancements, the maximum exposure to credit risk in respect of the amount that best represents the Group's accounts receivable was $70,810 and $67,805, respectively.

E. Information relating to credit risk of accounts receivable is provided in Note 12(2).

(3) Inventories

	December 31, 2022		
	Cost	Allowance for valuation loss	Book value
Raw materials	$ 81,600	($ 19,329)	$ 62,271
Work in process	21,341	-	21,341
Finished goods	26,104	(3,037)	23,067
	$ 129,045	($ 22,366)	$ 106,679

	December 31, 2021		
	Cost	Allowance for valuation loss	Book value
Raw materials	$ 82,626	($ 13,080)	$ 69,546
Work in process	18,367	-	18,367
Finished goods	13,498	(37)	13,461
	$ 114,491	($ 13,117)	$ 101,374

The cost of inventories recognised as expense for the year:

	Year ended December 31, 2022	Year ended December 31, 2021
Cost of goods sold	$ 146,031	$ 117,191
Loss on scrap	2,475	5,882
Valuation loss	7,626	7,522
	$ 156,132	$ 130,595

(4) Property, plant and equipment

	Test equipment	Leasehold improvements	Machinery and equipment	Office equipment	Rental assets	Unfinished construction and equipment under acceptance	Total
At January 1, 2022							
Cost	$ 4,470	$ 46,708	$ 80,838	$ 6,652	$ 69,628	$ 1,007	$ 209,303
Accumulated depreciation	(3,064)	(15,518)	(52,468)	(3,898)	(22,525)	-	(97,473)
	$ 1,406	$ 31,190	$ 28,370	$ 2,754	$ 47,103	$ 1,007	$ 111,830
2022							
At January 1	$ 1,406	$ 31,190	$ 28,370	$ 2,754	$ 47,103	$ 1,007	$ 111,830
Additions	-	587	3,998	565	-	16,524	21,674
Transfer (Note)	-	212	6,923	-	13,667	(212)	20,590
Depreciation charge	(803)	(7,952)	(11,081)	(1,041)	(15,903)	-	(36,780)
Net exchange differences	43	3,192	2,926	284	5,069	579	12,093
At December 31	$ 646	$ 27,229	$ 31,136	$ 2,562	$ 49,936	$ 17,898	$ 129,407
At December 31, 2022							
Cost	$ 3,662	$ 52,288	$ 58,747	$ 5,497	$ 89,135	$ 17,898	$ 227,227
Accumulated depreciation	(3,016)	(25,059)	(27,611)	(2,935)	(39,199)	-	(97,820)
	$ 646	$ 27,229	$ 31,136	$ 2,562	$ 49,936	$ 17,898	$ 129,407

	Test equipment	Leasehold improvements	Machinery and equipment	Office equipment	Rental assets	Unfinished construction and equipment under acceptance	Total
At January 1, 2021							
Cost	$ 4,530	$ 44,365	$ 71,512	$ 5,667	$ 56,528	$ -	$ 182,602
Accumulated depreciation	(2,283)	(8,789)	(41,876)	(3,139)	(10,305)	-	(66,392)
	$ 2,247	$ 35,576	$ 29,636	$ 2,528	$ 46,223	$ -	$ 116,210
2021							
At January 1	$ 2,247	$ 35,576	$ 29,636	$ 2,528	$ 46,223	$ -	$ 116,210
Additions	-	3,569	7,891	1,154	-	1,019	13,633
Disposals	-	-	(10)	-	-	-	(10)
Transfer (Note)	-	-	3,548	-	14,893	-	18,441
Depreciation charge	(820)	(6,974)	(11,904)	(853)	(12,662)	-	(33,213)
Net exchange differences	(21)	(981)	(791)	(75)	(1,351)	(12)	(3,231)
At December 31	$ 1,406	$ 31,190	$ 28,370	$ 2,754	$ 47,103	$ 1,007	$ 111,830
At December 31, 2021							
Cost	$ 4,470	$ 46,708	$ 80,838	$ 6,652	$ 69,628	$ 1,007	$ 209,303
Accumulated depreciation	(3,064)	(15,518)	(52,468)	(3,898)	(22,525)	-	(97,473)
	$ 1,406	$ 31,190	$ 28,370	$ 2,754	$ 47,103	$ 1,007	$ 111,830

Note: The inventory was transferred to rental assets and machinery and equipment.

(5) Lease arrangements - lessee

A. The Group leases various assets, including buildings, machinery and equipment. Rental contracts are made for periods of 2 to 7 years. Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions. The lease agreements do not impose covenants other than the restriction to be used as guarantee for borrowing purposes.

B. The carrying amount of right-of-use assets and the depreciation charge are as follows:

	December 31, 2022	December 31, 2021
	Carrying amount	Carrying amount
Buildings	$ 39,431	$ 48,499
Machinery and equipment	785	2,441
	$ 40,216	$ 50,940

	Year ended December 31, 2022	Year ended December 31, 2021
	Depreciation expense	Depreciation expense
Buildings	$ 13,503	$ 11,924
Machinery and equipment	1,869	1,754
	$ 15,372	$ 13,678

C. For the years ended December 31, 2022 and 2021, the additions to right-of-use assets were $0 and $10,779, respectively.

D. The carrying amount of lease liabilities are as follows:

	December 31, 2022	December 31, 2021
	Carrying amount	Carrying amount
Current	$ 15,664	$ 14,195
Non-current	33,448	44,562
	$ 49,112	$ 58,757

E. Information on profit or loss in relation to lease contracts is as follows:

	Year ended December 31, 2022	Year ended December 31, 2021
Items affecting profit or loss		
Interest expense on lease liabilities	$ 2,784	$ 2,870
Expense on leases of low-value assets	41	18

F. For the years ended December 31, 2022 and 2021, the Group's total cash outflow for leases were $17,964 and $18,414, respectively.

G. Extension options

(a) Extension options are included in the Group's lease contracts pertaining to offices and plants. These terms and conditions aim to maximise optional flexibility in terms of managing contracts.

(b) In determining the lease term, the Group takes into consideration all facts and circumstances that create an economic incentive to exercise an extension option. The assessment of lease period is reviewed if a significant event occurs which affects the assessment.

(6) Intangible assets

	Patents and patented technologies	Computer software	Total
At January 1,2022			
Cost	$ 52,460	$ 3,673	$ 56,133
Accumulated amortisation	(40,177)	(2,522)	(42,699)
	$ 12,283	$ 1,151	$ 13,434
2022			
At January 1	$ 12,283	$ 1,151	$ 13,434
Amortisation charge	(3,970)	(390)	(4,360)
Net exchange differences	1,224	80	1,304
At December 31	$ 9,537	$ 841	$ 10,378
At December 31,2022			
Cost	$ 58,178	$ 1,922	$ 60,100
Accumulated amortisation	(48,641)	(1,081)	(49,722)
	$ 9,537	$ 841	$ 10,378

	Patents and patented technologies	Computer software	Total
At January 1,2021			
Cost	$ 54,010	$ 3,002	$ 57,012
Accumulated amortisation	(37,572)	(2,244)	(39,816)
	$ 16,438	$ 758	$ 17,196
2021			
At January 1	$ 16,438	$ 758	$ 17,196
Additions	-	750	750
Amortisation charge	(3,726)	(342)	(4,068)
Net exchange differences	(429)	(15)	(444)
At December 31	$ 12,283	$ 1,151	$ 13,434
At December 31,2021			
Cost	$ 52,460	$ 3,673	$ 56,133
Accumulated amortisation	(40,177)	(2,522)	(42,699)
	$ 12,283	$ 1,151	$ 13,434

Patents and patented technologies refer to the patents and technologies acquired by the Group for manufacturing and testing of Barcoded Magnetic Beads.

(7) Leasing arrangements – lessor

A. The Group leases various assets including machinery and equipment. Rental contracts are typically made for a period of 3 years. Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions.

B. Gain arising from operating lease agreements for the years ended December 31, 2022 and 2021 are as follows(shown as 'operating revenue') :

	Year ended December 31, 2022	Year ended December 31, 2021
Rental revenue	$ 6,284	$ 10,068
Rental revenue from variable lease payments	$ 4,647	$ 1,596

C. The Group's rental revenue from operating leases were based on the sales amount of reagent during the contract period, which is a variable lease payment.

(8) Other payables

	December 31, 2022	December 31, 2021
Accrued salaries and bonus	$ 23,149	$ 18,790
Accrued professional service fee	7,800	6,179
Accrued research and development expenses	4,112	1,143
Accrued tax	1,498	4,175
Payables for equipment	-	153
Others	3,737	3,794
	$ 40,296	$ 34,234

(9) Share-based payment

A. As of December 31, 2022, the Group's share-based payment arrangements were as follows:

Type of arrangement	Grant date	Quantity granted	Contract period	Vesting conditions
Employee stock options	2014/09/26	70,000	10 years	0 to 4 years' service; Description (a)(b)
	2015/06/26	60,000	10 years	0 to 4 years' service; Description (a)(b)(e)
	2015/10/16	47,400	10 years	0 to 4 years' service; Description (a)(b)(c)(d)
	2016/02/29	211,700	10 years	1 to 4 years' service; Description (b)(e)
	2016/06/08	112,800	10 years	0 to 4 years' service; Description (a)(b)
	2018/07/02	215,000	10 years	2 to 4 years' service; Description (h)
	2018/09/28	172,000	10 years	2 to 4 years' service; Description (h)
	2018/12/11	51,000	10 years	2 to 4 years' service; Description (h)
	2019/04/11	26,500	10 years	2 to 4 years' service; Description (h)
	2020/07/21	347,360	10 years	2 to 4 years' service; Description (h)
	2020/08/11	72,000	10 years	2 to 4 years' service; Description (h)
	2021/01/05	25,500	10 years	2 to 4 years' service; Description (h)
	2021/03/18	10,500	10 years	2 to 4 years' service; Description (h)
	2021/05/14	331,800	10 years	2 to 4 years' service; Description (h)
	2021/09/06	34,500	10 years	2 to 4 years' service; Description (h)
	2021/11/08	83,500	10 years	2 to 4 years' service; Description (h)
	2022/03/23	327,500	10 years	2 to 4 years' service; Description (h)
	2022/05/10	1,000	10 years	2 to 4 years' service; Description (h)
	2022/08/26	140,000	10 years	2 to 4 years' service; Description (h)

Type of arrangement	Grant date	Quantity granted	Contract period	Vesting conditions
Restricted stocks to employees (Note)	2013/06/21	804,000	10 years	4 years' service; Description (b)(g)
	2013/11/03	12,000	10 years	4 years' service; Description (b)
	2014/01/14	116,000	10 years	4 years' service; Description (b)
	2014/06/16	33,500	10 years	0 to 4 years' service; Description (a)(b)(g)
	2014/09/26	33,000	10 years	0 to 4 years' service; Description (a)(b)(e)(f)

The fair value of the abovementioned restricted stocks to employees were measured based on the 30 business days average transaction price of the Group's stocks.

Description:

(a) Vested immediately.

(b) 25% of options were vested after the employee renders one-year service, then the option was vested one of forty-eighth options every month.

(c) Vested one of twenty-fourth options every month based on straight-line method.

(d) Vested one-sixth options every month based on straight-line method.

(e) Vested one-twelfth options every month based on straight-line method.

(f) Vested one-third options every month based on straight-line method.

(g) Vested one of forty-eighth options every month based on straight-line method.

(h) 50% of options vested at the date that the option holder had two-year service, and the option holder is subsequently granted 25% (1/4) every year.

(Note) The restricted stocks issued by the Group cannot be transferred during the vesting period, but voting right and dividend right are not restricted on these stocks. Employees are required to return the stocks but not required to return the dividends received if they resign during the vesting period. On November 15, 2016, the Group issued new shares through the transfer of capital surplus, and each share of common stock as well as the unvested restricted stocks to employees had been distributed an additional 0.4 share of common stock.

The share-based payment arrangements above are settled by equity.

B. Details of the share-based payment arrangements are as follows:

	2022	
	No. of options	Weighted-average exercise price (in dollars)
Options outstanding at January 1	1,227,743	$ 42.92
Options granted	468,500	32.71
Options forfeited	(180,700)	58.77
Options exercised	(34,134)	8.23
Options outstanding at December 31	1,481,409	43.94
Options exercisable at December 31	576,079	40.53

	2021	
	No. of options	Weighted-average exercise price (in dollars)
Options outstanding at January 1	992,473	$ 43.25
Options granted	485,800	46.40
Options forfeited	(160,310)	75.13
Options exercised	(90,220)	14.83
Options outstanding at December 31	1,227,743	42.92
Options exercisable at December 31	394,468	20.69

(Note) The employee stock options issued by the Group cannot be transferred during the vesting period. On November 15, 2016, the Group issued new shares through the transfer of capital surplus and each share of common stock had been distributed an additional 0.4 share of common stock, and the exercise price of the outstanding employee stock options which were not exercised before November 15, 2016 had been adjusted accordingly.

C. As of December 31, 2022 and 2021, the ranges of exercise prices of stock options outstanding were $11.94～$101(in dollars) and $11.21～$101 (in dollars), respectively; the weighted-average remaining contractual periods were 6.88 years and 6.79 years, respectively.

D. Aside from restricted stocks to employees, the fair value of stock options granted on grant date is measured using the Black-Scholes option-pricing model. Relevant information is as follows:

Type of arrangement	Grant date	Stock price (in dollars)	Exercise price (in dollars)	Expected price volatility	Expected option life	Expected dividends	Risk-free interest rate	Fair value per unit (in dollars)
Employee share options	2020/07/21	98.30	98.30	57.87%	6.37 years	0%	0.39%	$ 53.14
Employee share options	2020/08/11	101	101	57.87%	6.37 years	0%	0.39%	$ 55.38
Employee share options	2021/01/05	57.20	57.20	59.97%	6.37 years	0%	0.57%	$ 31.97
Employee share options	2021/03/18	48.45	49.81	60.02%	6.37 years	0%	1.20%	$ 27.23
Employee share options	2021/05/14	50.00	50.00	59.91%	6.37 years	0%	1.14%	$ 28.33
Employee share options	2021/09/06	37.85	37.85	58.86%	6.37 years	0%	0.99%	$ 21.07
Employee share options	2021/11/08	31.90	31.90	58.31%	6.37 years	0%	1.30%	$ 17.77
Employee share options	2022/03/23	33.15	33.15	58.98%	6.38 years	0%	2.36%	$ 19.15
Employee share options	2022/05/10	35.40	35.40	60.09%	6.50 years	0%	3.02%	$ 21.21
Employee share options	2022/08/26	31.65	31.65	59.63%	6.50 years	0%	3.16%	$ 18.93

E. Expenses incurred on share-based payment transactions are shown below:

	Year ended December 31, 2022	Year ended December 31, 2021
Equity-settled	$ 7,727	$ 8,565

(10) Pensions

Defined contribution plan

A. The Company's subsidiary, Applied BioCode, Inc., provides a 401(K) retirement plan, which is a defined contribution plan. Under the plan, the employees contribute an amount based on a certain percentage of the employees' salaries and wages to the employees' individual pension accounts, and Applied BioCode, Inc. also contributes an amount as pension expense to the employees' individual pension accounts accordingly. For the years ended December 31, 2022 and 2021, the pension contributed to the employees' individual pension accounts by Applied BioCode, Inc. accordingly amounted to $6,108 and $4,625, respectively.

B. The Company's subsidiary, Applied BioCode Taiwan Ltd., has established a defined contribution pension plan (the "New Plan") under the Labor Pension Act (the "Act"), covering all regular employees with R.O.C. nationality. Under the New Plan, the subsidiary contributes monthly an amount based on 6% of the employees' monthly salaries and wages to the employees' individual pension accounts at the Bureau of Labor Insurance. The benefits accrued are paid monthly or in lump sum upon termination of employment. For the years ended December 31, 2022 and 2021, the Group recognised pension cost of $798 and $869, respectively.

(11) Share capital

As of December 31, 2022, the Company's authorised capital was $1,500,000, consisting of 150,000 thousand shares, and the paid-in capital was $817,634 with a par value of $10 (in dollars) per share. All proceeds from shares issued have been collected.

Movements in the number of the Company's common shares outstanding are as follows:

	2022	2021
	No. of shares (in thousands)	No. of shares (in thousands)
At January 1	81,729	81,639
Employee stock options exercised	34	90
At December 31	81,763	81,729

(12) Capital surplus

A. Pursuant to the Company's Articles of Incorporation, capital surplus arising from paid-in capital in excess of par value on issuance of common stocks and donations can be used to cover accumulated deficit or to issue new stocks or cash to shareholders in proportion to their share ownership.

	2022				
	Share premium	Employee restricted shares	Employee stock options	Donated assets	Total
At January 1	$ 318,235	$ 14,419	$ 17,825	$ 1,097	$ 351,576
Compensation cost of employee stock options	-	-	7,727	-	7,727
Employee stock options exercised	1,365	-	(1,426)	-	(61)
Options forfeited or expired	270	-	(270)	-	-
At December 31	$ 319,870	$ 14,419	$ 23,856	$ 1,097	$ 359,242

	2021				
	Share premium	Employee restricted shares	Employee stock options	Donated assets	Total
At January 1	$ 1,369,117	$ 14,419	$ 10,050	$ 1,097	$ 1,394,683
Compensation cost of employee stock options	-	-	8,565	-	8,565
Employee stock options exercised	1,226	-	(790)	-	436
Options forfeited or expired	(1,052,108)	-	-	-	(1,052,108)
At December 31	$ 318,235	$ 14,419	$ 17,825	$ 1,097	$ 351,576

B. The Company used capital surplus to offset the beginning accumulated deficits amounting to $1,052,108 thousand as resolved at the shareholders' meeting on July 5, 2021. After the offset, there was no beginning balance of accumulated deficits to be covered.

(13) Retained earnings/Accumulated deficit

A. Under the Company's Articles of Incorporation, the current year's earnings, if any, shall first be used to pay all taxes and offset prior years' operating losses and then 10% of the remaining amount shall be set aside as legal reserve, and setting aside special reserve in accordance with related laws or a resolution made by the Board of Directors. The remainder, if any, shall set aside no more than 12% as compensation to employee, and no more than 3% as remuneration for the directors. The remainder, if any, to be retained or to be appropriated shall be resolved by the shareholders. The dividend distribution amount shall not be less than 10% of the remaining distributable amount. The Company's dividends may be paid in cash or shares.

B. In determining the Company's dividend policy, the Board recognizes that the Company is in the growth stage. In determining the amount, if any, of the dividend or other distribution it recommends to Board members for approval in any financial year, the Board may take into consideration the earnings of the Company, overall development, financial planning, capital needs, industry outlook and future prospects of the Company in the relevant financial year.

C. Legal reserve shall be used to cover the Company's accumulated deficit or issue new shares or cash to shareholders in proportion to their share ownership.

(14) Other equity

	2022		
	Foreign currency translation	Unearned employees' compensation	Total
At January 1	($ 100,480)	($ 232)	($ 100,712)
Group foreign currency translation	89,834	-	89,834
At December 31	($ 10,646)	($ 232)	($ 10,878)

	2021		
	Foreign currency translation	Unearned employees' compensation	Total
At January 1	($ 71,738)	($ 232)	($ 71,970)
Group foreign currency translation	(28,742)	-	(28,742)
At December 31	($ 100,480)	($ 232)	($ 100,712)

(15) Operating revenue

A. Disaggregation of revenue from contracts with customers

	Year ended December 31, 2022	Year ended December 31, 2021
Timing of revenue		
At a point in time		
Sales revenue	$ 351,068	$ 288,411
Rental revenue	10,931	11,664
Licensing revenue	2,691	403
Other operating revenue	20,182	17,875
	$ 384,872	$ 318,353
Over time		
Licensing revenue	5,430	1,609
	5,430	1,609
	$ 390,302	$ 319,962

B. Contract liabilities

(a) The Group has recognised the following revenue-related contract liabilities:

	December 31, 2022	December 31, 2021	January 1, 2021
Current contract liabilities :			
Product selling	$ 21,676	$ 334	$ 344
Technology licensing	1,090	1,653	1,615
	$ 22,766	$ 1,987	$ 1,959
Non-current contract liabilities :			
Product selling	$ 267,310	$ -	$ -
Technology licensing	4,015	7,988	9,092
	$ 271,325	$ 7,988	$ 9,092

(b) Revenue recognised that was included in the contract liability balance at the beginning of the periods is as follows:

	Year ended December 31, 2022	Year ended December 31, 2021
Revenue from contracts with customers :		
Revenue from technology licensing	$ 5,430	$ 1,609

C. Unfulfilled contracts

The total transaction price allocated to the unfulfilled performance obligation was $294,091 as of December 31, 2022. The Group expected to recognise the revenue gradually based on the sales volume and contract agreement before December 31, 2036.

(16) Interest income

	Year ended December 31, 2022	Year ended December 31, 2021
Interest income from bank deposits	$ 8,511	$ 3,111

(17) Other gains and losses

	Year ended December 31, 2022	Year ended December 31, 2021
Losses on disposals of property, plant and equipment	$ -	($ 10)
Foreign exchange gains (losses)	1,217	(1)
Other gains (losses)	950	(463)
	$ 2,167	($ 474)

(18) Finance costs

	Year ended December 31, 2022	Year ended December 31, 2021
Interest expense from lease liabilities	$ 2,784	$ 2,870

(19) Expenses by nature

	Year ended December 31, 2022		
	Operating costs	Operating expenses	Total
Raw materials and supplies and manufacturing cost	$ 102,945	$ -	$ 102,945
Employee benefit expense	$ 34,741	$ 255,417	$ 290,158
Depreciation charges	$ 18,446	$ 33,706	$ 52,152
Amortisation charges	$ -	$ 4,360	$ 4,360

	Year ended December 31, 2021		
	Operating costs	Operating expenses	Total
Raw materials and supplies and manufacturing cost	$ 86,570	$ -	$ 86,570
Employee benefit expense	$ 28,023	$ 208,195	$ 236,218
Depreciation charges	$ 16,002	$ 30,889	$ 46,891
Amortisation charges	$ -	$ 4,068	$ 4,068

(20) Employee benefit expense

	Year ended December 31, 2022		
	Operating costs	Operating expenses	Total
Wages and salaries	$ 30,860	$ 203,998	$ 234,858
Labour and health insurance fees	992	13,406	14,398
Pension costs	788	6,118	6,906
Other personnel expenses	2,101	31,895	33,996
	$ 34,741	$ 255,417	$ 290,158

	Year ended December 31, 2021		
	Operating costs	Operating expenses	Total
Wages and salaries	$ 24,806	$ 164,178	$ 188,984
Labour and health insurance fees	829	11,408	12,237
Pension costs	612	4,882	5,494
Other personnel expenses	1,776	27,727	29,503
	$ 28,023	$ 208,195	$ 236,218

(21) Income taxes

A. Components of income tax expense:

	Year ended December 31, 2022	Year ended December 31, 2021
Current tax:		
Current tax on profits for the year	$ 23	$ 23
Income tax expense	$ 23	$ 23

B. Reconciliation between income tax expense and accounting profit (loss)

	Year ended December 31, 2022	Year ended December 31, 2021
Tax calculated based on loss before tax and statutory tax rate	($ 51,547)	($ 46,066)
Origination and reversal of temporary differences	85,984	8,103
Taxable loss not recognised as deferred tax assets	(37,061)	35,050
Effect from Alternative Minimum Tax	23	23
Permanent differences	2,235	2,368
Effect of different tax rates in countries in which the Group operates	389	545
Income tax expense	$ 23	$ 23

C. Amounts of deferred tax assets or liabilities as a result of temporary differences, tax losses and investment tax credits are as follows:

	2022			
	January 1	Recognised in profit or loss	Translation differences	December 31
Deferred tax assets:				
-Temporary differences:				
Tax losses	$ 3,513	($ 372)	$ 844	$ 3,985
	$ 3,513	($ 372)	$ 844	$ 3,985
Deferred tax liabilities:				
Book-tax difference on intangible assets	($ 3,374)	$ 287	$ 151	($ 2,936)
Book-tax difference on right-of-use assets	(139)	85	(995)	(1,049)
	($ 3,513)	$ 372	($ 844)	($ 3,985)
	$ -	$ -	$ -	$ -

	2021			
	January 1	Recognised in profit or loss	Translation differences	December 31
Deferred tax assets:				
-Temporary differences:				
Tax losses	$ 4,600	($ 1,384)	$ 297	$ 3,513
	$ 4,600	($ 1,384)	$ 297	$ 3,513
Deferred tax liabilities:				
Book-tax difference on intangible assets	($ 4,600)	$ 1,107	$ 119	($ 3,374)
Book-tax difference on right-of-use assets	-	277	(416)	(139)
	($ 4,600)	$ 1,384	($ 297)	($ 3,513)
	$ -	$ -	$ -	$ -

D. Details of the amount the Group is entitled as investment tax credit and unrecognised deferred tax assets are as follows:

December 31, 2022			
Qualifying items	Unused tax credits	Unrecognised deferred tax assets	Expiry year
General Business Credits－Federal tax	$35,959	$35,959	2029~2040

December 31, 2021			
Qualifying items	Unused tax credits	Unrecognised deferred tax assets	Expiry year
General Business Credits－Federal tax	$31,205	$31,205	2029~2040

E. Expiration years of unused loss carryforward and amounts of unrecognised deferred tax assets are as follows:

U.S. Federal tax

December 31, 2022				
Year incurred	Amount filed / assessed	Unused amount	Unrecognised deferred tax assets	Expiry year
2021	$ 129,372	$ 129,372	$ 129,372	No deduction limitation
2020	70,500	70,500	70,500	"
2019	289,582	289,582	289,582	"
2018	278,807	278,807	278,807	"
2017	229,617	229,617	229,617	2037
2016	193,567	193,567	193,567	2036
2015	208,494	208,494	208,494	2035
2014	155,419	155,419	155,419	2034
2013	82,790	82,790	82,790	2033
2012	27,909	27,909	27,909	2032
2011	17,456	17,456	17,456	2031
2010	23,619	23,619	23,619	2030
2009	22,558	22,558	18,131	2029
2008	6,263	6,263	-	2028

California State tax

December 31, 2022				
Year incurred	Amount filed / assessed	Unused amount	Unrecognised deferred tax assets	Expiry year
2021	$131,344	$ 131,344	$131,344	2041
2020	91,137	91,137	91,137	2040
2019	238,332	238,332	238,332	2039
2018	241,517	241,517	241,517	2038
2017	204,760	204,760	204,760	2037
2016	184,984	184,984	184,984	2036
2015	210,115	210,115	210,115	2035
2014	155,098	155,098	155,098	2034
2013	21,191	21,191	21,191	2033
2012	57,998	57,998	57,998	2032
2011	27,807	27,807	27,807	2031
2010	16,401	16,401	16,401	2030
2009	23,722	23,722	20,169	2029

U.S. Federal tax

December 31, 2021				
Year incurred	Amount filed / assessed	Unused amount	Unrecognised deferred tax assets	Expiry year
2021	$118,989	$118,989	$118,989	No deduction limitation
2020	65,449	65,449	65,449	"
2019	268,836	268,836	268,836	"
2018	258,833	258,833	258,833	"
2017	213,166	213,166	213,166	2037
2016	179,700	179,700	179,700	2036
2015	193,557	193,557	193,557	2035
2014	144,284	144,284	144,284	2034
2013	76,859	76,859	76,859	2033
2012	25,910	25,910	25,910	2032
2011	16,205	16,205	16,205	2031
2010	21,927	21,927	21,927	2030
2009	20,941	20,941	17,332	2029
2008	5,815	5,815	-	2028

California State tax

December 31, 2021				
Year incurred	Amount filed / assessed	Unused amount	Unrecognised deferred tax assets	Expiry year
2021	$125,023	$125,023	$125,023	2041
2020	84,608	84,608	84,608	2040
2019	221,257	221,257	221,257	2039
2018	224,214	224,214	224,214	2038
2017	190,090	190,090	190,090	2037
2016	171,732	171,732	171,732	2036
2015	195,061	195,061	195,061	2035
2014	143,987	143,987	143,987	2034
2013	19,672	19,672	19,672	2033
2012	53,843	53,843	53,843	2032
2011	25,815	25,815	25,815	2031
2010	15,226	15,226	15,226	2030
2009	22,022	22,022	18,890	2029

F. The amounts of deductible temporary differences that were not recognised as deferred tax assets are as follows:

	December 31, 2022	December 31, 2021
Deductible temporary differences	$ 436,351	$ 111,722

G. The income tax returns of the Group's Taiwan second-tier subsidiary through 2020 have been assessed and approved by the Tax Authority.

(22) Loss per share

	Year ended December 31, 2022		
	Amount after tax	Weighted average number of ordinary shares outstanding (share in thousands)	Loss per share (in dollars)
Basic (diluted) loss per share			
Loss attributable to ordinary shareholders of the Company	($ 184,733)	81,756	($ 2.26)

	Year ended December 31, 2021		
	Amount after tax	Weighted average number of ordinary shares outstanding (share in thousands)	Loss per share (in dollars)
Basic (diluted) loss per share			
Loss attributable to ordinary shareholders of the Company	($ 165,199)	81,701	($ 2.02)

Note: Outstanding options and warrants as of December 31, 2022 and 2021 will reverse diluted loss per share if full conversion is assumed; therefore, options and warrants were excluded from diluted loss per share calculation.

(23) Supplemental cash flow information

Investing activities with partial cash payments：

	Year ended December 31, 2022	Year ended December 31, 2021
Purchase of property, plant and equipment	$ 21,674	$ 13,633
Add: Ending balance of prepayments for equipment	315	-
Add: Opening balance of payables for equipment	153	2,038
Less: Ending balance of payables for equipment	-	(153)
Cash paid during the year	$ 22,142	$ 15,518

(24) Changes in liabilities from financing activities

	2022	2021
At January 1	$ 58,757	$ 61,428
Changes in cash flow from financing activities	(15,139)	(15,526)
Payment of interest expenses	(2,784)	(2,870)
Amortisation of interest expenses	2,784	2,870
Increase in lease principal	-	10,779
Net foreign exchange differences	5,494	2,076
At December 31	$ 49,112	$ 58,757

7. RELATED PARTY TRANSACTIONS

Key management compensation

	Year ended December 31, 2022	Year ended December 31, 2021
Salaries and short-term employee benefits	$ 82,169	$ 67,083
Share-based payment	3,284	2,733
	$ 85,453	$ 69,816

8. Pledged Assets

The Group's assets pledged as collateral are as follows:

Pledged asset	Book value December 31, 2022	Book value December 31, 2021	Purpose
Restricted asset (Note) (shown as 'other non-current assets')	$ 6,273	$ 5,657	Performane guarantee
Guarantee deposits paid (shown as 'other non-current assets')	7,677	6,923	Guarantee for instrument OEM
	$ 13,950	$ 12,580	

Note: The Company's US subsidiary, Applied BioCode Inc., entered into a lease agreement for the new plant and office on March 21, 2019. In accordance with the lease agreement, the US subsidiary paid guarantee deposits of $6,273 (shown as 'other non-current assets') to CTBC Bank Corp. (USA) and CTBC Bank Corp. (USA) issued a standby letter of credit to the lessor as a performance guarantee. As of December 31, 2022 and 2021, the balance of standby letter of credit amounted to US$204 and US$204, respectively.

9. Significant Contingent Liabilities and Unrecognised Contract Commitments

(1) Contingencies

None.

(2) Commitments

None.

10. Significant Disaster Loss

None.

11. Significant Events after the Balance Sheet Date

The capital surplus of $320,968 thousand used to offset the accumulated deficit has been resolved by the Company's Board of Directors on March 13, 2023 but has not yet been resolved by the shareholders at their meeting.

12. Others

(1) Capital management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and to maintain an optimal capital structure to reduce the cost of capital. In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt.

(2) Financial instruments

A. Financial instruments by category

	December 31, 2022	December 31, 2021
Financial assets		
Financial assets at amortised cost		
Cash and cash equivalents	$ 831,322	$ 646,070
Accounts receivable	70,810	67,805
Guarantee deposits paid (shown as 'other non-current assets')	14,175	12,804
	$ 916,307	$ 726,679
Financial liabilities		
Financial liabilities at amortised cost		
Accounts payable	$ 8,727	$ 9,428
Other accounts payable	40,296	34,234
	$ 49,023	$ 43,662
Lease liability	$ 49,112	$ 58,757

B. Financial risk management policies

(a) The Group's activities expose it to a variety of financial risks: market risk (including foreign exchange risk, interest rate risk), credit risk and liquidity risk. The Group's overall risk management policies focuses on the unpredictable events in the financial market and seeks to reduce the potential adverse effects on the Group's financial position and financial performance.

(b) Risk management is carried out by a central treasury department (Group treasury) under policies approved by management. Group treasury identifies, evaluates and hedges financial risks in close co-operation with the Group's operating units.

C. Significant financial risks and degrees of financial risks

(a) Market risk

Foreign exchange risk

The Group operates internationally and is exposed to foreign exchange risk arising from

the transactions of the Company and its subsidiaries used in various function currency, primarily with respect to the USD and NTD. Foreign exchange risk arises from future commercial transactions and recognised assets and liabilities and net investments in foreign operations.

(b) Credit risk

i. Credit risk refers to the risk of financial loss to the Group arising from default by the clients or counterparties of financial instruments on the contract obligations. The main factor is that counterparties could not repay in full the accounts receivable based on the agreed terms.

ii. According to the Group's credit policy, the Group is responsible for managing and analysing the credit risk for clients before standard payment and delivery terms and conditions are offered. Internal risk control assesses the credit quality of the customers, taking into account their financial position, past experience and other factors. Individual risk limits are set based on internal or external ratings in accordance with limits set by management. The utilisation of credit limits is regularly monitored.

iii. The Group adopts the assumptions under IFRS 9, the default occurs when the contract payments are past due over 360 days.

iv. The Group adopts following assumption under IFRS 9 to assess whether there has been a significant increase in credit risk on that instrument since initial recognition:
If the contract payments were past due over 90 days based on the terms, there has been a significant increase in credit risk on that instrument since initial recognition.

v. The Group classifies customers' accounts receivable in accordance with credit rating of customer and historical default. The Group applies the modified approach based on the loss rate methodology to estimate expect credit loss.

vi. The Group used the forecast ability to adjust historical and timely information to assess the default possibility of accounts receivable. On December 31, 2022 and 2021, the loss rate methodology is as follows:

	Not past due	Up to 90 days past due	91 to 180 days past due	181 to 360 days past due	Over 360 days past due	Total
December 31, 2022						
Expected loss rate	0%	0%	5%	50%	100%	
Total book value	$ 59,253	$ 11,498	$ -	$ 118	$ 4,026	$ 74,895
Loss allowance	$ -	$ -	$ -	$ 59	$ 4,026	$ 4,085
December 31, 2021						
Expected loss rate	0%	0%	5%	50%	100%	
Total book value	$ 61,774	$ 175	$ 3,065	$ 5,925	$ 214	$ 71,153
Loss allowance	$ -	$ -	$ 153	$ 2,981	$ 214	$ 3,348

vii. Movements in relation to the Group applying the modified approach to provide loss allowance for accounts receivable are as follows:

	2022	2021
	Accounts receivable	Accounts receivable
At January 1	$ 3,348	$ 87
Provision for impairment	362	5,668
Write-offs	-	(2,367)
Net exchange differences	375	(40)
At December 31	$ 4,085	$ 3,348

For provisioned loss in 2022 and 2021, the impairment losses arising from customers' contracts are $362 and $5,668, respectively.

(c) Liquidity risk

i. Cash flow forecasting is performed in the operating entities of the Group and aggregated by Group treasury. Group treasury monitors rolling forecasts of the Group's liquidity requirements to ensure it has sufficient cash to meet operational needs.

ii. The table below analyses the Group's non-derivative financial liabilities into relevant maturity groupings based on the remaining period at the balance sheet date to the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows.

Non-derivative financial liabilities

December 31, 2022	Less than 3 months	Between 3 months and 1 year	Between 1 and 2 years	Between 2 and 5 years	Total
Accounts payable	$ 8,727	$ -	$ -	$ -	$ 8,727
Other payables	40,296	-	-	-	$ 40,296
Lease liability	4,379	13,217	17,260	18,419	$ 53,275
Total	$ 53,402	$ 13,217	$ 17,260	$ 18,419	$ 102,298

December 31, 2021	Less than 3 months	Between 3 months and 1 year	Between 1 and 2 years	Between 2 and 5 years	Total
Accounts payable	$ 9,428	$ -	$ -	$ -	$ 9,428
Other payables	34,234	-	-	-	$ 34,234
Lease liability	4,144	12,594	16,019	32,963	$ 65,720
Total	$ 47,806	$ 12,594	$ 16,019	$ 32,963	$ 109,382

(3) The impact of the Covid-19 pandemic on the Group's operation

The SARS-Cov-2 reagent developed by the Group was authorized by the U.S. FDA under EUA on June 16, 2020 and has been shipped starting July 2020. This reagent combined with the Group's 20-Plex Respiratory Infection Panel reagent have contributed to the Group's revenue in the second half

of 2020 and reduced the overall operational risks caused by the Covid-19 pandemic.

However, after the increase in vaccination coverage in 2021, the Group's sales of SARS-Cov-2 Direct Test Reagent has slowed down since the second half of 2021. In addition, the purchase volume of other products, such as Barcoded Magnetic Beads (BMB), Instruments and other Reagents (17-Plex Gastrointestinal Pathogen Panel and 20-Plex Respiratory Infection Panel), have gradually increased due to the slowdown of the pandemic. Thus, the pandemic had no significant impact on the Group's ability to continue as a going concern, impairment of assets and financing risks for the current year based on the management's assessment.

13. Supplementary Disclosures

(4) Significant transactions information

A. Loans to others: None.

B. Provision of endorsements and guarantees to others: None.

C. Holding of marketable securities at the end of the period (not including subsidiaries, associates, and joint ventures): None.

D. Acquisition or sale of the same security with the accumulated cost exceeding $300 million or 20% of the Company's paid-in capital: None.

E. Acquisition of real estate reaching $300 million or 20% of paid-in capital or more: None.

F. Disposal of real estate reaching $300 million or 20% of paid-in capital or more: None.

G. Purchases or sales of goods from or to related parties reaching $100 million or 20% of paid-in capital or more: None.

H. Receivables from related parties reaching $100 million or 20% of paid-in capital or more: None.

I. Trading in derivative instruments undertaken during the reporting period: None.

J. Significant inter-company transactions during the reporting period: None.

(5) Inform action on investees

Names, locations and other information of investee companies (not including investees in Mainland China): Please refer to table 1.

(6) Inform action on investments in Mainland China

None.

(7) Major shareholders information

Please refer to table 2.

14. Segment Information

(1) General information

The core business of the Group is the research and development of multiplexing testing platform technologies, as well as the development, production, sales and authorization of Barcoded Magnetic Beads, optical scanner and reagents, etc. The Group operates business only in a single industry. The

Board of Directors who allocates resources and assesses performance of the Group as a whole, has identified that the Group has only one reportable operating segment.

(2) Measurement of segment information

The accounting policies of the Group's operating segment are the same as the summary description of the significant accounting policies described in the notes to the consolidated financial statements. The profit and loss of the operating segment is measured by the after-tax profit and loss and used as the basis for evaluating the performance of the operating segment.

(3) Information about segment profit or loss

The Group is a single reportable segment, and therefore, the reportable information is the same as the financial statements.

(4) Reconciliation for segment income (loss)

The segment's net operating loss reported by the Group to the chief operating decision-maker is measured in a manner consistent with the revenue and expense that in the consolidated income statement. Therefore, the reconciliation for the net operating loss are the same as the consolidated statement of comprehensive income.

(5) Information on products and services

	Year ended December 31, 2022	Year ended December 31, 2021
Sales revenue	$ 351,068	$ 288,411
Rental revenue	10,931	11,664
Licensing revenue	8,121	2,012
Other operating revenue	20,182	17,875
	$ 390,302	$ 319,962

(6) Geographical information

The Group's geographical revenue is classified based on the geographic location of customers, while geographical non-current assets are classified based on the geographic location of assets. The geographical information for 2022 and 2021 are as follows:

	Year ended December 31, 2022		Year ended December 31, 2021	
	Revenue	Non-current assets	Revenue	Non-current assets
USA	$ 362,955	$ 188,974	$ 294,599	$ 168,657
China	27,132	-	25,048	-
Taiwan	-	5,202	197	7,546
Others	215	-	118	-
Total	$ 390,302	$ 194,176	$ 319,962	$ 176,203

(7) Major customer information

	Year ended December 31, 2022	Year ended December 31, 2021
	Revenue	Revenue
I Company	$ 195,139	$ 137,845
Q Company	82,239	33,371
P Company	31,074	48,191

Applied BioCode Corporation and Subsidiaries

Information on investees

Year ended December 31, 2022

Table 1

Expressed in thousands of NTD

(Except as otherwise indicated)

Investor	Investee	Location	Main business activities	Initial investment amount		Shares held as at December 31, 2022			Net loss of the investee for the year ended December 31, 2022	Investment loss recognized by the Company for the year ended December 31, 2022	Footnote
				Balance as at December 31, 2022	Balance as at December 31, 2021	Number of shares	Ownership (%)	Book value			
Applied BioCode, Corporation	Applied BioCode, Inc.	USA	Barcoded Magnetic Beads of multiplex in-vitro diagnostics, platform technology of assays and instruments and research and development, production, sales and leasing.	$ 1,598,105	$ 1,598,105	43,140	100%	$ 357,627	($ 163,510)	($ 163,510)	Subsidiary
Applied BioCode, Inc.	Applied BioCode Taiwan Ltd.	Taiwan	Barcoded Magnetic Beads of multiplex in-vitro diagnostics, platform technology of assays and instruments and research and development, production and sales of products.	$ 103,000	$ 88,850	10,300	100%	$ 41,221	($ 4,871)	($ 4,871)	Second-tier subsidiary

Applied BioCode Corporation and Subsidiaries
Information of major stockholders
Year ended December 31, 2022

Table 2

Name of major stockholders	Number of stock held	Ownership (%)
Maxwell Sensors Incorporation	8,307,042	10.15%
Fu Long-Xu	7,341,723	8.97%

Note : If the company applies Taiwan Depository & Clearing Corporation for the information of the table, the following can be explained in the notes of the table.

(a) The major shareholders' information was derived from the data using the Company issued common shares (including treasury shares) and preference shares in dematerialised form which were registered and held by the shareholders above 5% on the last operating date of each quarter and was calculated by Taiwan Depository & Clearing Corporation. The share capital which was recorded on the financial statements may differ from the actual number of shares in dematerialised form due to the difference of calculation basis.

(b) If the aforementioned data contains shares which were kept in the trust by the shareholders, the data was disclosed as a separate account of the client which was set by the trustee. As for the shareholder who reports share equity as an insider whose shareholding ratio was greater than 10% in accordance with Securities and Exchange Act, the shareholding ratio included the self-owned shares and trusted shares, at the same time, persons who have power to decide how to allocate the trust assets. For the information on reported share equity of insiders, please refer to the Market Observation Post System.

瑞磁生物科技集團股份有限公司

Applied BioCode Corporation

董事長：李　家　榮