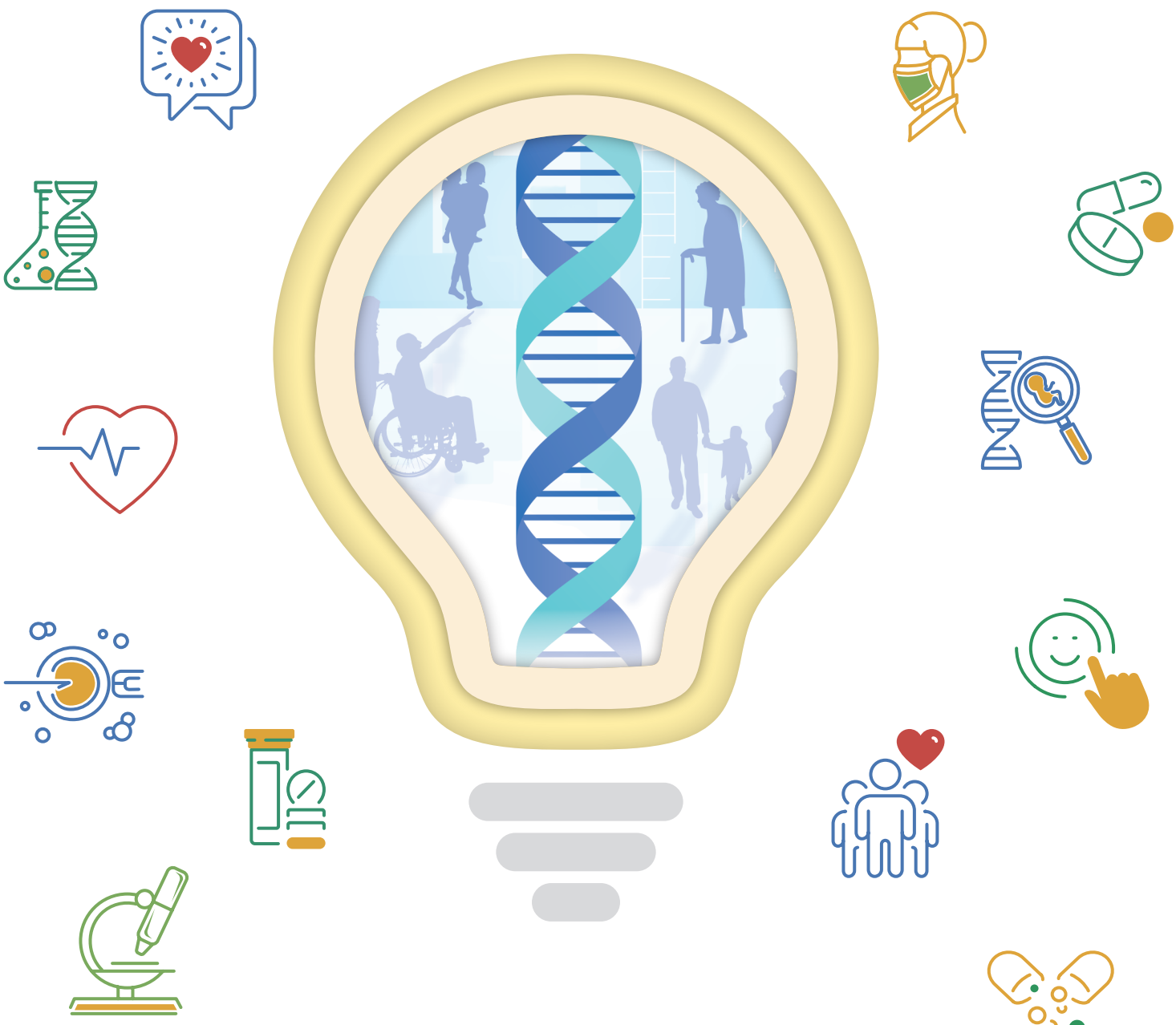
Hong Kong
Genome Institute
香港基因組中心



啟發醫學創新
精準治療 共享健康
Genomic Innovations for Precision Health

2023-24 年報
Annual Report

The Hong Kong Genome Institute (HKGI) has made impressive strides in advancing genomic medicine in Hong Kong during 2023-24. Driven by the team's exceptional professionalism and dedication, HKGI has fostered clinical applications, informed personalised treatments, and inspired scientific research, delivering life-changing impacts with the steadfast support from patients, partners, and stakeholders.

To illustrate the noteworthy achievements of HKGI and the promising future of genomic medicine, the cover of this year's annual report features a vibrant and dynamic design, emblazoned with the tagline "**Genomic Innovations for Precision Health**".

At the heart of the design stands a brilliantly lit light bulb – a shining symbol of medical advances, therapeutic possibilities and newfound hope that HKGI brings to the community with precise healthcare. Within the warm glow of the light bulb, a future brimming with vitality and wellness is vividly portrayed through the interplay of the double-stranded DNA and a diverse array of silhouettes. This captivating visual speaks to HKGI's vision of "**availing genomic medicine to all for better health and well-being**", and its commitment to realising it for the benefit of every individual.

A collection of icons radiating from the light bulb illustrates the widespread applications of genomic medicine. These icons, coloured in alignment with HKGI's corporate hues, underscore HKGI's core values. Altogether, the design highlights the transformative power of genomic medicine, made possible by the multifaceted efforts of HKGI and its partners in fostering a healthy future.

香港基因組中心(基因組中心)於2023-24年度就推動本地基因組醫學發展繼續取得非凡成就。有賴團隊的高效專業和專心致志，基因組中心於年內大大促進了基因組醫學的臨床應用和個人化治療，亦啟發了科學研究，在病人、合作夥伴及各持份者鼎力支持下，寫下一個又一個改變生命的故事。

年報以「**啟發醫學創新：精準治療．共享健康**」為主題，採用了明亮活潑的設計風格，以展現基因組中心的豐碩成果，並寄寓基因組醫學發展的光明前景。

封面設計以明亮的燈泡為中心，象徵着基因組中心透過推動精準醫學，引領醫學創新，為疾病防治帶來無限可能，亦為社會燃點希望。在溫暖柔和的光線中，透視出雙螺旋DNA長鏈及代表着市民大眾的剪影。各個圖案相互交錯，立體地描繪了一個生氣盎然、健康快樂的未來，與基因組中心「**普及基因組醫學，共享健康福樂**」的願景相呼應，呈現了團隊竭力實現初衷及造福人群的決心。

燈泡四周的一系列圖案，其用色與基因組中心標誌上的色系一致，既寓意基因組醫學的廣泛應用，亦代表着機構的核心價值。年報的整體設計旨在凸顯基因組中心透過與夥伴通力合作，多管齊下，致力發揮基因組醫學的變革力量，讓廣大市民樂享健康未來。

OUR YEAR AT A GLANCE
年度大事速覽

Good Progress of Hong Kong Genome Project (HKGP)
順利推展香港基因組計劃

30,000+

HKGP participants,
with recruitment channels expanded to 10 public hospitals
香港基因組計劃參加者
招募渠道擴展至10間公立醫院

4,000+ TB

Genomic data processed,
equivalent to over 2,150 iPads (2 TB each)
已處理的基因組數據
容量相當於超過2,150 部iPad（每部2 TB）

Achievements in Advancing Genomic Research
積極推動基因組醫學研究

Synergistic Research Environment
協同合作研究平台

Launched this secure platform to inspire genomic research and scientific discoveries
設立安全數據平台
啟發基因組醫學研究及創新

High-impact Research Papers
具影響力研究論文

Published papers in renowned journals to facilitate knowledge and experience exchanges
於國際權威期刊發表論文
促進知識及經驗交流

Proactive Engagement with the Community
廣泛接觸社會各界

4,000+

Healthcare professionals and students engaged through over 40 events
醫護專業人員及學生
參與基因組中心逾40場活動

Patient Forum
病友分享會

Hosted HKGI's first Patient Forum, engaging over 70 patients and patient group leaders
首次舉辦分享會，與超過70位病友及病人組織領袖交流

Visit of Legislative Council Members
立法會議員到訪

Engaged with the Panel on Health Services to promote HKGI's work and genomic medicine
向立法會衞生事務委員會介紹工作進度及基因組醫學

LinkedIn
社交平台專頁

Launched HKGI's page to extend connections with local and global professionals
開設專頁，加強聯繫本地及國際專家

International Awards for Corporate Publications
機構刊物屢獲國際殊榮

Annual Report
年報2022-23

LACP Vision Awards 2023
Platinum Award 鉑金獎

Mercury Excellence Awards 2023/24
Silver Award 銀獎

Expert Videos
專家短片系列

The Communicator Awards 2024
Excellence Award (Gold)
卓越獎（金獎）

Contents
目錄

About Hong Kong Genome Institute
關於香港基因組中心

Corporate Introduction

The Hong Kong Genome Institute (HKGI), established and wholly owned by the Government of the Hong Kong Special Administrative Region (HKSAR Government), commenced full operations in 2021. With the vision "**to avail genomic medicine to all for better health and well-being**" and supported by the Health Bureau, HKGI works in close collaboration with the Department of Health, Hospital Authority, medical schools of local universities, and various stakeholders to accelerate the development of genomic medicine in Hong Kong along four strategic foci: integrating genomics into medicine, advancing research, nurturing talents and enhancing public genomic literacy.

As the first step towards achieving its vision, HKGI launched the Hong Kong Genome Project (HKGP) in 2021 focusing on diseases and research cohorts that would benefit from whole genome sequencing. They include undiagnosed diseases, hereditary cancers, and cases related to genomics and precision health. Being the city's first large-scale genome sequencing project, HKGP serves as a catalyst to benefit patients and their families with more precise diagnosis and personalised treatment through whole genome sequencing. It also aims to establish a genome database of the local population, testing infrastructure, and talent pool to address the healthcare needs of Hong Kong in the long run.

HKGI has set up partnering centres at the Hong Kong Children's Hospital, Prince of Wales Hospital, and Queen Mary Hospital, as well as referring networks including Alice Ho Miu Ling Nethersole Hospital, Grantham Hospital, Pok Oi Hospital, The Duchess of Kent Children's Hospital at Sandy Bay, Tin Shui Wai Hospital, Tuen Mun Hospital, and Tung Wah Hospital to help recruit eligible participants for HKGP with informed consent, while also keeping other stakeholders closely engaged. The results of sequencing analysis will be fed back to respective clinical leads and patients to aid diagnoses and clinical services.

機構簡介

香港基因組中心(基因組中心)由香港特別行政區政府(特區政府)成立及全資擁有，於2021年正式全面運作。基因組中心致力促進本港基因組醫學發展，在醫務衞生局支持下，與衞生署、醫院管理局、大學醫學院及各方持份者緊密合作，透過聚焦四大策略重點，包括加快融合基因組醫學與臨床應用、促進科學研究、培育人才及加強公眾對基因組學的認識，實現「**普及基因組醫學，共享健康福樂**」的願景。

基因組中心於2021年正式開展香港基因組計劃(基因組計劃)，主要涵蓋三個可受惠於全基因組測序技術的疾病及研究群組，包括未能確診病症、與遺傳有關的癌症，以及與基因組學及精準醫學有關的個案。基因組計劃是本港首個大型基因組測序計劃，扮演着催化劑的角色，以全基因組測序讓病人及其家屬受惠於更準確診斷及個人化治療，並透過建立本地人口的基因組數據庫、測試設施及人才庫，應對香港長遠醫療需要，與大眾同創健康未來。

基因組中心已於香港兒童醫院、威爾斯親王醫院及瑪麗醫院設立夥伴中心，並與其他醫院設立合作網絡，包括雅麗氏何妙齡那打素醫院、葛量洪醫院、博愛醫院、大口環根德公爵夫人兒童醫院、天水圍醫院、屯門醫院及東華醫院，積極與其他持份者緊密合作，透過轉介，招募合資格參加者，經他們知情同意後參與基因組計劃；而相關測序分析的結果，將回饋予有關醫護人員及病人作診斷及臨床治療之用。

Vision, Mission and Core Values

Vision

To avail genomic medicine to all for better health and well-being.

Mission

To accelerate the integration of genomics into medicine by driving clinical application, advancing research, nurturing talents and enhancing genomic literacy.

Core Values

The core values of HKGI are embedded in its logo, which has a five-colour double helix structure with dark green as the primary logo colour, signifying the fundamental HKGI spirit of **"professionalism and reliability"**, as well as the lines in green, red, blue, and yellow, which apart from being the colour codes representing ATCG (A – Adenine, T – Thymine, C – Cytosine, and G – Guanine), the four different bases of DNA nucleotides, also symbolise the HKGI values of **"health and new life"**, **"passion and dedication"**, **"hope and happiness"**, and **"versatility and energy"** respectively.

願景、使命及核心價值

願景

普及基因組醫學，共享健康福樂。

— *實現基因組醫學的廣泛應用，為大眾帶來健康、幸福和快樂。*

使命

銳意推動基因組醫學的臨床應用、科學研究、人才培育及公眾教育，加快基因組學與醫學的融合。

— *多管齊下，加快融合基因組學與臨床應用。*

核心價值

基因組中心的標誌設計與其核心價值相互呼應。標誌以深綠色為主調，象徵**專業與可靠**，是團隊所秉持的基本精神。標誌上雙螺旋結構的DNA長鏈，由五色線條組成，在深綠色以外，其餘綠、紅、藍、黃四色均各有所喻，不僅代表ATCG（A – Adenine、T – Thymine、C – Cytosine及 G – Guanine）四種DNA代碼，也分別代表基因組中心堅守的四大核心價值及理念，包括**健康與新生**、**熱誠與專注**、**希望與快樂**，及**多元與活力**。

About Hong Kong Genome Institute
關於香港基因組中心

Professionalism and Reliability

To provide whole genome sequencing, laboratory, genetic counselling, genetic education, bioinformatics, research facilitation and related services with professionalism and reliability, observing relevant professional guidelines, ethical codes, standardised protocols, as well as principles of data privacy and security.

專業與可靠

以專業及可靠的精神，為持份者提供全基因組測序及其他相關服務，包括實驗室、遺傳輔導及教育、生物信息學及研究等範疇，並遵守相關專業指引、道德守則、數據私隱和安全的標準規程及原則。

Passion and Dedication

To achieve HKGI's vision and mission with passion and dedication, working wholeheartedly, thinking positively, and taking the initiative to go the extra mile to serve patients and the wider community in a better way.

熱誠與專注

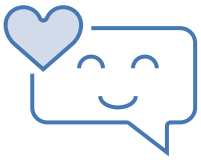
以熱誠和專注的態度實現基因組中心的願景和使命，全情投入，樂觀積極，加倍努力，致力為病人和社會大眾帶來更大裨益。

Versatility and Energy

To adopt a multi-disciplinary approach for engaging professionals from various disciplines to promote the development of genomic medicine with vibrant means, energetic efforts and teamwork, embracing the spirit of openness, mutual respect, and acceptance of different ideas.

多元與活力

採取多元及跨專業的方針，廣泛接觸及聯繫不同界別的專家，以充沛的活力及團隊精神攜手推動基因組醫學的發展，並秉持開放的態度，互相尊重，廣納不同意見。



Hope and Happiness

To bring hope and happiness to patients and their families by fostering the integration of genomic medicine into clinical care to improve genomic diagnosis, personalised treatment, and prevention of diseases.

希望與快樂

促進基因組醫學與臨床護理的融合，以優化基因組診斷、個人化治療和疾病防控，為病人及其家屬帶來希望和快樂。

Health and New Life

To promote health and better quality of life amongst patients and the people of Hong Kong by facilitating the advancement of knowledge and technology in genomic medicine through vigorous research as well as the translation of research breakthroughs into clinical practice.

健康與新生

透過推動研究及將其相關成果轉化為臨床應用，促進基因組醫學的知識和技術發展，藉此提升病人及市民大眾的健康和生活質素。

The Board
董事局

Mr Philip TSAI Wing-chung, BBS, JP
蔡永忠先生, BBS, JP

Chairperson
主席

Mr Tsai is a former Chairman of Deloitte China and has more than 35 years of experience in planning and managing audits for Hong Kong based operations of multi-national groups, as well as local and overseas listed clients in a wide range of industries. As a Fellow of the Hong Kong Institute of Certified Public Accountants (the "HKICPA"), the Association of Chartered Certified Accountants and the Institute of Chartered Accountants of England and Wales (the "ICAEW"), Mr Tsai is actively involved in the development of the CPA profession and also contributes his efforts in various government, community and social services organisations.

蔡先生為德勤前中國主席，擁有逾35年的工作經驗，為跨國集團在港業務以及各行各業本土和海外上市客戶實施審計規劃與審計管理。他亦為香港會計師公會、英國特許公認會計師公會、以及英格蘭與威爾士特許會計師公會資深會員。他積極參與註冊會計師行業的發展，為政府、社區和社會服務機構盡心盡力。

Mr Tsai is a Past President of the HKICPA, a Council Member of the ICAEW, a Member of the Hospital Authority, the Chairman of the Hospital Governing Committee of the Queen Mary Hospital and Tsan Yuk Hospital, the Chairman of the Supplementary Medical Professions Council of the Health Bureau, a Member of the Audit and Risk Committee of the Mandatory Provident Fund Schemes Authority, an Advisor of The Ombudsman, Hong Kong, a Member of the Registration Committee of the Chinese Gold and Silver Exchange, a Member of Para Athletes Career and Education Programme Committee of the China Hong Kong Paralympic Committee, and a Member of the Independent Commission on Remuneration for Members of the Executive Council and the Legislature, and Officials under the Political Appointment System of the HKSAR Government.

蔡先生亦是香港會計師公會前會長、英格蘭與威爾士特許會計師公會理事會成員、醫院管理局大會成員、瑪麗醫院／贊育醫院醫院管治委員會主席、醫務衞生局輔助醫療業管理局主席、強制性公積金計劃管理局審核及風險委員會委員、申訴專員顧問、香港金銀業貿易場註冊委員會成員、中國香港殘疾人奧委會殘疾人運動員職業和教育計劃委員會成員、及香港特別行政區行政會議成員、立法會議員及政治委任制度官員薪津獨立委員會成員。

Moreover, Mr Tsai is a Member of the University Grants Committee, an Honorary Court Member and the Chairman of the Student Residence Board of the Hong Kong Baptist University, the Deputy Chairman of the Alumni Committee of the Hong Kong Baptist University Foundation, a Trustee of the Staff Superannuation Scheme of the Chinese University of Hong Kong and a Member of the Institutional Advancement and Outreach Committee of the University Council of the Hong Kong University of Science and Technology.

他同時擔任大學教育資助委員會成員、香港浸會大學榮譽諮議會成員及學生舍堂管理委員會主席、香港浸會大學基金校友委員會副主席、香港中文大學教職員公積金計劃信託人及香港科技大學大學拓展委員會成員。

Mr Tsai is also an Advisory Board Member of the Hong Kong Red Cross.

蔡先生亦為現任香港紅十字會顧問團成員。

Professor Raymond LIANG Hin-suen, SBS, JP
梁憲孫教授, SBS, JP

Deputy Chairperson
副主席

Professor Liang is a Specialist in Haematology and Haematological Oncology. He is currently Head of Department of Medicine, Director of Comprehensive Oncology Centre and Assistant Medical Superintendent of Hong Kong Sanatorium and Hospital. He is also Emeritus Professor of the University of Hong Kong (HKU) and Honorary Professor of both HKU and the Chinese University of Hong Kong.

梁教授是一位血液及血液腫瘤科專科醫生，現為養和醫院副院長、內科部主管及綜合腫瘤科中心主任、香港大學(港大)榮休教授和榮譽講座教授，以及香港中文大學榮譽講座教授。

Professor Liang was a member of the Hospital Authority Board. Furthermore, he was the Ex-Dean of Li Ka Shing Faculty of Medicine, HKU, and the Past President of the Hong Kong Academy of Medicine.

他亦為前醫院管理局委員、港大醫學院前院長和香港醫學專科學院前主席。

Professor Liang was one of the founders of Hong Kong Blood Cancer Foundation and Hong Kong Marrow Match Foundation. The latter was responsible for establishing the first all Chinese Unrelated Marrow Donor Registry, serving Chinese patients in need of bone marrow transplantation in Hong Kong, Macau, Taiwan and Mainland China, as well as Chinese patients around the world.

梁教授為香港血癌基金和香港骨髓捐贈基金的創會成員之一，後者更成立了全球首個以華人為主的香港骨髓捐贈基金資料庫，為華裔血病患者尋找適合的無血緣骨髓。

The Board
董事局

Dr LO Su-vui
羅思偉醫生

Non-official Director
非官方董事

Dr Lo joined Hong Kong Genome Institute (HKGI) as the Chief Executive Officer in March 2021. As the CEO, Dr Lo leads HKGI in formulating its strategic direction and development plan. He also provides leadership to the team in launching the Hong Kong Genome Project, the city's first-ever large-scale whole genome sequencing initiative. With the aspiration to benefit the wider community, Dr Lo drives the team to be the change agent in fostering clinical application of genomic medicine and its long-term development in Hong Kong.

羅醫生於2021年3月出任香港基因組中心行政總裁，負責領導基因組中心制訂發展策略，帶領團隊發揮推動者的角色，推行本港首個大規模的基因組測序計劃「香港基因組計劃」，以促進基因組醫學在香港的臨床應用及長遠發展，實現為社會大眾帶來裨益的願景。

Dr Lo is a seasoned professional in public health and administrative medicine, bringing with him a wealth of knowledge in public healthcare system, service provision and relevant policies. He also has a strong blend of experience in corporate affairs, strategic planning, talent development, research and so on. Prior to his current role, Dr Lo had served in the Hospital Authority (HA) for over 20 years during which he had held various senior management positions, including Director of Strategy and Planning in the HA Head Office and Cluster Chief Executive of the New Territories East Cluster.

羅醫生為資深公共衞生及行政醫學專家，對本地醫療體系、公共服務及相關政策認識深厚，在機構事務、發展規劃、人才培育及調查研究等範疇，均具豐富經驗。出任現職前，羅醫生於醫院管理局（醫管局）服務逾20年，曾擔任不同管理職位，其中包括醫管局總辦事處策略發展總監及新界東醫院聯網總監。

In addition to his extensive experience with the HA, Dr Lo also held a number of senior positions both locally and overseas. These included being the Head of Research Office in the former Food and Health Bureau (currently the Health Bureau) of the HKSAR Government, and the Director of Purchasing (Specialist Care Services) with the Cardiff Health Authority of the National Health Service in the United Kingdom.

羅醫生亦先後於本地及海外擔任不同要職，包括香港特區政府前食物及衞生局（現為醫務衞生局）研究部主管及英國國民保健服務卡迪夫衞生局採購總監（專科照護服務）。

Professionally, Dr Lo is a practitioner in Public Health and Administrative Medicine. He had served as a Part I and II examiner of the Faculty of Public Health, and a censor and examiner of the Royal Australasian College of Medical Administrators.

羅醫生持有公共衞生及行政醫學專業資格，並曾於澳洲皇家醫務行政學院公共衞生學院擔任考核員（甲部及乙部）、審查員及考試委員。

Mr Ray CHAN Chin-ching
陳展程先生

Non-official Director
非官方董事

Mr Chan is the Chief Executive Officer and co-founder of 9GAG, a global multi-platform community for viral content and interests. Founded in 2008, 9GAG's mission is to make the world happier.

9GAG has a global audience of 200 million, including 56 million followers on Instagram, 42 million followers on Facebook, and 16 million followers on Twitter.

Mr Chan graduated from The University of Hong Kong with a degree in Law.

陳先生為9GAG的行政總裁及共同創辦人。他於2008年成立了國際跨平台創意社群9GAG，以「令世界更快樂」為目標，讓用戶能輕易分享新穎有趣的內容和認識志同道合的朋友。

9GAG的每月觀眾逾2億人，包括逾5,600萬Instagram粉絲、逾4,200萬Facebook粉絲和逾1,600萬Twitter粉絲。

陳先生畢業於香港大學法律系。

The Board
董事局

Professor CHAN Wai-yee
陳偉儀教授

Non-official Director
非官方董事

Professor Chan is the Pro-Vice-Chancellor/Vice President and Li Ka Shing Professor of Biomedical Sciences at the Chinese University of Hong Kong (CUHK). He obtained his BSc (Hon. 1st Class) in Chemistry from CUHK in 1974 and PhD in Biochemistry from the University of Florida in 1977.

In June 2009, Professor Chan established CUHK's School of Biomedical Sciences and served as the Founding Director and Chair Professor of Biomedical Sciences. He was appointed Pro-Vice-Chancellor/Vice President of CUHK in August 2018 and endowed Li Ka Shing Professor of Biomedical Sciences in May 2020.

Professor Chan is very active in the scientific community, both locally and internationally. He has served as President of the Association of Chinese Geneticists in America and a Member of the Development Committee of the Society for the Study of Reproduction in the US. Besides being a Director of the Board of the Hong Kong Genome Institute, he is also the immediate past President of Hong Kong Institution of Science, Council Member of the Shaw Prize Foundation, a Member of the Research Grants Council, a Member of the Hospital Authority Board, Chair of Hospital Governing Committee of North District Hospital, and a Specialist for the Hong Kong Council for Accreditation of Academic and Vocational Qualifications.

陳教授為香港中文大學(中大)副校長及李嘉誠生物醫學講座教授。他於1974年在中大化學系一級榮譽畢業，並於1977年在美國佛羅里達大學取得哲學博士。

陳教授於2009年6月創立了中大生物醫學學院，擔任首任院長及生物醫學講座教授，並於2018年8月起出任中大副校長。在2020年5月獲授予李嘉誠生物醫學講座教授。

陳教授積極參與香港及海外多個專業組織的工作，曾任美洲華人遺傳學會主席及美國生殖學會發展委員會委員。除擔任香港基因組中心董事局成員外，他亦是香港科學會前任主席、邵逸夫獎理事會成員、研究資助局成員、醫院管理局非官方成員、北區醫院管治委員會主席、香港學術及職業資歷評審局專家等。

Ms Ivy CHEUNG Wing-han
張穎嫻女士

Non-official Director
非官方董事

Ms Cheung is the Senior Partner of KPMG Hong Kong. She was the Past President of the Hong Kong Institute of Certified Public Accountants. She currently serves as member of various public service committees, including the Standing Commission on Civil Service Salaries and Conditions of Service, the Standing Committee on Company Law Reform, the Consumer Council and the Transport Advisory Committee. Apart from being a member of the Advisory Committee, the Honorary Advisory Panel and the Inspection Committee of the Accounting and Financial Reporting Council, she is the Director of Hong Kong Cyberport Management Company Limited and Insurance Authority.

Ms Cheung had served as Member of the Air Transport Licensing Authority, the Financial Reporting Review Panel, the Independent Commission on Remuneration for Members of the District Councils of the HKSAR, the Non-local Higher and Professional Education Appeal Board, the Occupational Retirement Schemes Appeal Board, the Securities and Futures Appeals Tribunal and the Standing Committee on Disciplined Services Salaries and Conditions of the Service.

張女士為畢馬威香港區首席合夥人。她是香港會計師公會前會長，目前於多個公共服務委員會擔任委員，其中包括公務員薪俸及服務條件常務委員會、公司法改革常務委員會、消費者委員會和交通諮詢委員會。張女士亦為會計及財務匯報局諮詢委員會、名譽顧問團及查察委員會成員。她也是香港數碼港管理有限公司及保險業監管局之董事局成員。

張女士以往曾擔任空運牌照局、財務匯報檢討委員團、香港特別行政區區議會議員薪津獨立委員會、非本地高等及專業教育上訴委員會、職業退休計劃上訴委員會、證券及期貨事務上訴審裁處及紀律人員薪俸及服務條件常務委員會委員。

The Board
董事局

Professor LAU Chak-sing, BBS, JP
劉澤星教授, BBS, JP

Non-official Director
非官方董事

Professor Lau is the Dean of Medicine and Chair and Daniel CK Yu Professor in Rheumatology and Clinical Immunology of the Li Ka Shing Faculty of Medicine at the University of Hong Kong (HKUMed).

Professor Lau graduated with MBChB from the University of Dundee in 1985. In 1992, he joined HKUMed as Lecturer in Medicine and successfully rose through the ranks to his current position as Chair and Daniel CK Yu Professor in Rheumatology and Clinical Immunology.

Professor Lau has been a major player in rheumatology in Hong Kong and beyond. Locally, he was President of the Hong Kong Society of Rheumatology (1997-2001) and Founding Chairman of the Hong Kong Arthritis & Rheumatism Foundation (2001). He was also the President of the Hong Kong Academy of Medicine (2016-2020), a statutory body for medical and dental specialist training in Hong Kong which is also a key advisory body to the HKSAR Government on health-related policies. In addition, Professor Lau sits on numerous strategic committees/working groups of the Health Bureau, Hospital Authority and Department of Health.

Regionally, Professor Lau was President of the Asia Pacific League of Rheumatology Associations (APLAR) between 2006 and 2008 and co-founder of the Asia Pacific Lupus Collaboration – a multi-national, multi-centre research collaboration.

Beyond the Asia Pacific region, he was a Member of the Outcomes in Rheumatology (1999-2002), European Alliance of Associations for Rheumatology (EULAR) Task Force on Rheumatoid Arthritis Treatment Recommendations (2019) and EULAR Scientific Committee (2019-2023). Furthermore, he was selected as an Honorary Member of EULAR in 2022, and a member of the Academia Europaea in 2023.

劉教授為香港大學李嘉誠醫學院(港大醫學院)院長、講座教授暨於崇光基金教授(風濕及臨床免疫學)。

劉教授於1985年畢業於英國鄧迪大學內外全科醫學士課程，其後於1992年加入港大醫學院擔任內科學系講師，並晉升至風濕及臨床免疫學主任、講座教授暨於崇光基金教授(風濕及臨床免疫學)。

劉教授是本港以至海外的風濕病學權威，由1997至2001年擔任香港風濕病學學會主席，並於2001年成為香港風濕病基金會創會主席。他亦由2016至2020年擔任香港醫學專科學院主席。該機構是本港醫學及牙醫專科培訓的法定機構，也是香港特別行政區政府在衞生政策上的重要諮詢機構。劉教授同時為醫務衞生局、醫院管理局及衞生署多個策略委員會及工作小組的成員。

在亞太地區，劉教授於2006至2008年間擔任亞太風濕病學協會聯盟主席；並為亞太狼瘡合作組織的共同創辦人，致力促進多地域、多中心的研究合作。

在亞太地區以外，劉教授亦擔任多個專業組織的成員，包括Outcomes in Rheumatology成員(1999至2002年)、歐洲風濕病學協會聯盟(EULAR)類風濕性關節炎治療建議工作小組成員(2019年)及該聯盟科學委員會顧問成員(2019至2023年)，並於2022年獲選為該聯盟的榮譽會員。2023年，劉教授獲選歐洲科學院院士。

Dr Shawn LEUNG Shui-on
梁瑞安博士

Non-official Director
非官方董事

Dr Leung is the founder, Chairman and Chief Executive Officer of SinoMab BioScience Limited. Currently, he is also a Member of the Biotech Advisory Panel of The Stock Exchange of Hong Kong Limited.

Dr Leung has over 30 years of experience in the field of molecular immunology and therapeutic monoclonal antibodies. He was the first scientist who successfully developed humanised anti-CD22 antibody and introduced the concept of "Functional Humanisation". Dr Leung currently also serves as an Adjunct Professor at The Hong Kong University of Science and Technology. He held positions as the Executive Director of a leading US antibody-drug conjugate company as well as the Managing Director of The Hong Kong Institute of Biotechnology Limited.

Dr Leung obtained his BSc and MPhil in biochemistry, as well as EMBA from CUHK. He earned his DPhil in molecular biology from the University of Oxford in the UK in May 1989. He was also a postdoctoral fellow at Yale University in the US from July 1989 to June 1991.

梁博士為中國抗體製藥有限公司創辦人、主席兼首席執行官，現時亦為香港聯合交易所有限公司生物科技諮詢小組的成員。

梁博士在分子免疫學及治療單克隆抗體領域擁有逾30年經驗，為首位成功開發人源化抗CD22單抗及提出「功能人源化」概念的科學家。梁博士現時為香港科技大學客座教授，他亦曾任美國免疫醫學公司行政總監，以及香港生物科技研究院院長。

梁博士於中大取得生物化學學士及碩士學位，以及高級管理人員工商管理碩士學位。他於1989年5月在英國牛津大學取得分子生物學博士學位後，在1989年7月至1991年6月在美國耶魯大學從事博士後研究。

The Board
董事局

Dr Isabella LIU Fang-chun
劉芳君博士

Non-official Director
非官方董事

Dr Liu is the Head of Baker McKenzie's Asia Pacific Intellectual Property (IP) and Technology Group. She advises clients on matters relating to the creation, exploitation and protection of IP rights. She is also responsible for the local IP Group's China and Hong Kong patent prosecution matters. Previously, Dr Liu was the Head of the Firm's Asia Pacific Healthcare and Life Sciences Industry Group for three years, leading a team of legal experts in this field across multiple practices in the region.

Dr Liu is ranked as a leading lawyer in her field by top legal directories such as *Chambers Asia Pacific* for the Life Sciences category and *IAM Patent*. She has been complimented by clients that she possesses "a superb ability to understand the most complex technologies" and was noted for "advis[ing] in a way that is very commercial and strategic."

劉博士是貝克•麥堅時律師事務所亞太智慧財產權和科技業務部的負責人，為客戶提供有關智慧財產權的創建、運用和保護的諮詢服務，並負責在華智慧財產權的專利起訴事務。她的執業領域主要涉及廣泛的知識產權問題，包括專利和商標起訴、智慧財產權許可、技術轉讓、品牌收購以及智慧財產權的行政和民事執法。劉博士也曾擔任事務所亞太醫療保健產業組的負責人三年，領導跨法律專業的團隊在該領域發展，也為醫療保健行業的客戶提供與該行業有關監管問題的建議。

在頂級法律目錄（例如《*錢伯斯亞太*》和《*IAM Patent*》）中，劉博士被評為該領域的領先律師。客戶稱讚她擁有「理解複雜技術的精湛能力」，並因「以商業化和戰略性的方式提供諮詢」而聞名。

Professor Dennis LO Yuk-ming, SBS, JP
盧煜明教授, SBS, JP

Non-official Director
非官方董事

Professor Lo is the Li Ka Shing Professor of Medicine of the Chinese University of Hong Kong (CUHK) and the President of the Hong Kong Academy of Sciences. His research interests focus on the biology and diagnostic applications of cell-free nucleic acids in plasma. In particular, he discovered the presence of cell-free fetal DNA in maternal plasma in 1997 and has since then been pioneering non-invasive prenatal diagnosis using this technology. This technology has been adopted globally and has created a paradigm in prenatal medicine. He has also made many innovations using circulating nucleic acids for cancer detection, including the screening of early stage nasopharyngeal cancer.

In recognition of his research, Professor Lo has been elected as Member of the Chinese Academy of Sciences (CAS), Founding Member of the Hong Kong Academy of Sciences, Fellow of the Royal Society and Foreign Associate of the US National Academy of Sciences. Professor Lo has won numerous awards, including the 2014 King Faisal International Prize in Medicine, the 2016 Future Science Prize in Life Science, the 2019 Fudan-Zhongzhi Science Award, the 2021 Breakthrough Prize in Life Sciences, the 2021 Royal Medal, the 2021 ESHG Mendel Award, the 2022 ISPD Pioneer Award, the 2022 Lasker~DeBakey Clinical Medical Research Award, the 2023 inaugural Tengchong Science Prize and the 2024 Jiménez Díaz Lecture Award.

盧教授現任香港中文大學醫學院李嘉誠醫學講座教授及香港科學院院長。他的重點研究集中於血漿內游離DNA的生物學及診斷應用。於1997年，盧教授成為第一位科學家發表有關於孕婦血漿內發現胎兒游離DNA之研究，自此他一直處於這個嶄新研究領域的最前線。有關技術已被全球廣泛應用，並成為了產前胎兒醫學的範例。盧教授亦利用血漿游離核酸就癌症檢測作出了開創性的貢獻，特別是對於鼻咽癌的早期發現和監察有重大裨益。

盧教授的研究成果對全球醫學及科學界影響深遠，屢獲國際殊榮，當中包括2014年費薩爾國王國際醫學獎、2016年未來科學大獎生命科學獎、2019年復旦－中植科學獎、2021年科學突破獎－生命科學獎、皇家獎章、歐洲人類遺傳學會孟德爾獎、2022年國際產前診斷學會先鋒獎、拉斯克獎－臨床醫學研究、2023年首屆騰衝科學大獎及2024年希門尼斯－迪亞斯講座獎。他亦被選為中國科學院院士、香港科學院創院院士、英國皇家學會院士以及美國國家科學院外籍院士。

The Board
董事局

Professor Alfonso NGAN Hing-wan
顏慶雲教授

Non-official Director
非官方董事

Professor Ngan is currently Kingboard Professor in Materials Engineering and Chair Professor of Materials Science and Engineering at the University of Hong Kong (HKU). He previously held administrative positions including Senior Advisor in the President's Office, Acting Pro-Vice Chancellor (Research), Head of Department of Mechanical Engineering and Associate Dean of Engineering. He obtained his BSc(Eng) degree from HKU in 1989, and PhD from the University of Birmingham in the UK in 1992. After a year of postdoctoral training at the University of Oxford, he joined HKU in 1993, and was promoted through the ranks to Chair Professorship in 2011.

Professor Ngan's interests include novel stimuli-responsive materials, material defects and their modelling, and nanomechanics including applications to biological systems. His research-related honours include the Rosenhain Medal from the Institute of Materials, Minerals and Mining in the UK, DSc from the University of Birmingham, Croucher Senior Research Fellowship, International Fellow of the Royal Academy of Engineering (FREng), Fellow of the Hong Kong Academy of Engineering Sciences (FHKEng), and Guanghua Engineering Science and Technology Prize. He is currently Senior Vice President of the Hong Kong Academy of Engineering Sciences, a Trustee of the Croucher Foundation, and is serving on a number of advisory/management boards in the HKSAR Government.

顏教授現為香港大學(港大)建滔材料工程教授及材料科學與工程講座教授。他曾擔任的行政職務包括校長辦公室高級顧問、署理副校長(研究)、機械工程系系主任和工程學院副院長。他於1989年獲港大學士學位、1992年獲英國伯明翰大學博士學位，並在牛津大學從事博士後工作，於1993年加入港大，2011年晉升為講座教授。

顏教授的研究興趣涵蓋新型刺激響應材料、材料缺陷及其機理，以及納米力學，包括在生物系統中的應用。其研究相關的榮譽包括英國材料、礦物和採礦學會Rosenhain獎章、伯明翰大學理學博士(D.Sc.)、Croucher高級研究員、英國皇家工程院外籍院士(FREng)、香港工程科學院院士(FHKEng)、光華工程科學技術獎等。他目前是香港工程科學院高級副院長及裘槎基金會董事局成員，並在香港特別行政區政府的數個顧問和管理委員會擔任委員。

Mr Tim PANG Hung-cheong
彭鴻昌先生

Non-official Director
非官方董事

Mr Pang is a registered social worker dedicated to protecting and advocating patients' rights. He works as Community Organizer in Society for Community Organization. He has been a Member of the Hospital Authority (HA) Review Steering Committee, a Member of the Patient Focus Group of the Hospital Accreditation Project under HA, a Member of the Working Group on Implementation of Modified Referral System for Physiotherapy Services under the Physiotherapists Board, and a Member of the Committee on Promoting Acceptance of People Living with HIV/AIDS under Hong Kong Advisory Council on AIDS.

Mr Pang is now a Member of the Working Group on Oral Health and Dental Care, and a Member of the Working Group on Electronic Health Record Partnership of the Steering Committee on eHealth.

彭先生是一名註冊社工，於香港社區組織協會擔任社區組織幹事，一直致力維護及倡議病人權益。他曾任醫院管理局(醫管局)檢討督導委員會委員、醫管局轄下醫院認證計劃病人焦點小組成員、物理治療師管理委員會轄下實施物理治療服務更新轉介系統的工作小組成員，及香港愛滋病顧問局轄下接納愛滋病者促進委員會委員。

彭先生現為口腔健康及牙科護理工作小組成員，以及醫健通督導委員會轄下電子健康紀錄協作工作小組成員。

The Board
董事局

Mr Stephen WONG Kai-yi
黃繼兒先生

Non-official Director
非官方董事

Mr Wong is currently a practising barrister, an arbitrator of Shanghai Arbitration Commission and a qualified dispute resolver of Academy of Experts (London). He had graduated from the University of Hong Kong before he was awarded with a Government Legal Scholarship to further his studies and professional training in the United Kingdom. Mr Wong obtained his Master in Laws (Intellectual Property, Marine Business and Insurance, Civil Litigation) from the London School of Economics and Political Science, as well as the qualification of a practising solicitor from the Supreme Court of England and Wales.

黃先生現為香港執業大律師、上海仲裁委仲裁員，以及倫敦專家學院紛爭調解員。於香港大學畢業後，黃先生獲政府法律獎學金往英國深造和接受專業訓練，並考獲倫敦政經學院法學（知識產權、海商、海險、民事訴訟）碩士學位及英國最高法院執業律師資格。

Upon his return to Hong Kong, Mr Wong joined the then Attorney General's Chambers as a Crown Counsel, and assumed various posts including Assistant Director of Public Prosecutions, Head of China Law and Basic Law, Deputy Solicitor-General, Secretary-General of the Law Reform Commission and Privacy Commissioner. Since 2020, he has been a Barrister-at-Law in private practice, focusing on International Public Law, Data and Information Law, Innovation, Communications and Technology, Civil and Commercial Law, Company, Trust and Economic Criminal Law by providing professional legal advice and court advocacy services to local, the Mainland and overseas public, private and multi-national organisations, as well as small and medium-sized enterprises.

1986年回港後，黃先生加入當時的律政司署擔任檢察官，亦曾任助理刑事檢控專員、內地法律及基本法主管、副律政專員、法改會秘書長、私隱專員等。2020年開始私人執業至今，主要範疇包括國際公法、數據及信息法、創科、民商法、公司、信託及經濟刑法，為本地、內地及海外公營、私營、跨國機構和中小企提供專業法律意見和法庭訟辯服務。

Current community services Mr Wong undertakes include Member of the HKSAR Election Committee (Legal), Director of China Law Society, Expert Member of Shenzhen Municipal Law Compliance Commission, Expert Member of FinTech Committee of Asian Financial Cooperation Association, Adjunct Law Professor of Beijing Normal University, Chairman of the Independent Vetting Committee of Hong Kong Institute of Big Data, Executive Committee Member of Hong Kong International Law Association and Honorary Adviser of Hong Kong Institute of Bankers.

黃先生現任的公職包括香港特區選舉委員會（法律界）選委、中國法學會理事、深圳市依法治市合規專家委、亞洲金融合作協會金融科技專家委、北京師範大學特邀法學教授、香港大數據治理公會獨立審批委主席、香港國際法會執委、香港銀行學會榮譽顧問等。

Mr Wong's publications include two works on Hong Kong Privacy Law (one published in English and the other in Chinese), and chapters on data-related issues in international medical and health journals.

黃先生的著作包括兩本有關香港私隱法的書籍（一本以英文出版，另一本以中文出版），以及在國際醫護刊物發表與數據有關的文章。

Dr Michael WONG Lap-gate
黃立己醫生

Non-official Director
非官方董事

Dr Wong is currently the Director of Quality and Safety of the Hospital Authority (HA). Under his leadership, the Quality and Safety Division oversees the quality standards, patient safety, clinical incident management, patient relations management, healthcare technology assessment, disasters response and infection control for the public hospitals under HA.

Dr Wong is a specialist in haematology & haematological oncology, and has also attained fellowship qualification in pathology. Prior to his current appointment, he has been the Chief Manager (Cluster Performance) in Head Office, Chief Manager of Kowloon West Cluster, Deputy Hospital Chief Executive of the North Lantau Hospital and Deputy Hospital Chief Executive (Operation) of Princess Margaret Hospital.

黃醫生現任醫院管理局(醫管局)質素及安全總監，督導該局轄下公立醫院的質素及標準、病人安全、醫療事故管理、病人關係管理、醫療科技評估、災難應變以及感染控制等工作。

黃醫生是血液及血液腫瘤科專科醫生，並獲得病理科院士資格。他在出任現職前，曾出任總辦事處總行政經理(聯網運作)、九龍西醫院聯網總行政經理、北大嶼山醫院副行政總監及瑪嘉烈醫院副行政總監(運作)。

The Board
董事局

Professor WONG Yung Hou
王殷厚教授

Non-official Director
非官方董事

Professor Wong is the Dean of Science and Chair Professor of Life Science at the Hong Kong University of Science and Technology (HKUST). He also serves as the Director of the Molecular Neuroscience Center, and as an Associate Director of the Biotechnology Research Institute and the Center for Aging Science at HKUST.

Professor Wong obtained his PhD in Pharmacology from the University of Cambridge and conducted postdoctoral training at the University of California San Francisco. Since joining HKUST, his research has been focused on the delineation of the mechanisms of cell signalling, particularly those involving drug receptors. Professor Wong has integrated his scientific endeavours into drug discovery and development in collaboration with pharmaceutical companies.

As an accomplished researcher, he has published over 220 scientific articles and received a number of awards, including the Croucher Senior Research Fellowship and the Medal of Honor. Over the years, Professor Wong had served as a member of the Medical Council of Hong Kong, the Consumer Council of Hong Kong, and the Research Grants Council of Hong Kong (Biology and Medicine Panel).

He is currently serving on the Sir Edward Youde Memorial Fund Council and the Advisory Board of Hong Kong Life Sciences Society. Professor Wong is also a consultant for The Hong Kong Science and Technology Parks Corporation, multinational companies, and local secondary schools to promote biotechnology.

王教授是香港科技大學(科大)的理學院院長兼生命科學講座教授。他同時擔任科大分子神經科學中心主任，以及生物技術研究所副所長和老齡科學研究中心的副主任。

王教授在劍橋大學獲得藥理學博士學位，並在加州大學三藩市分校進行博士後培訓。自加入科大以來，其研究主要專注於細胞信號傳導機制的描述，尤其是涉及藥物受體的信號傳導機制。王教授將其科研成果融入到與製藥公司合作的藥物開發中。

作為一名卓有成就的研究人員，王教授發表了220多篇科學文章，並獲得了多項獎項，包括裘槎高級研究獎和榮譽勳章。多年來，王教授曾擔任香港醫務委員會、香港消費者委員會和香港研究資助局(生物及醫學委員會)的成員。

王教授目前服務於尤德爵士紀念基金理事會和香港生命科學學會顧問委員會，亦為香港科技園公司、跨國公司及本地中學推廣生物科技的顧問。

Professor YIP Shea-ping
葉社平教授

Non-official Director
非官方董事

Professor Yip has been the Head of the Department of Health Technology and Informatics at the Hong Kong Polytechnic University since 2016. He is also the Chair Professor of Diagnostic Science and Molecular Genetics. He is a medical laboratory technologist and a human geneticist by training. He obtained his PhD in human genetics from University College London in 1997.

After working for 10 years in the Pathology Department of United Christian Hospital in Hong Kong, Professor Yip joined the then Hong Kong Polytechnic in 1990 and has since been dedicated to the medical laboratory science education. His research interests focus on the genetics and genomics of complex diseases such as shortsightedness. He is also interested in molecular diagnostics and keen to transfer developed novel technologies to relevant healthcare and testing industries for widespread frontline use.

Professor Yip is one of the founders and council members of the Hong Kong Society for Molecular Diagnostic Sciences.

葉教授自2016年起出任香港理工大學(理大)醫療科技及資訊學系系主任，他亦是理大診斷科學及分子遺傳學講座教授。葉教授是專業醫務化驗師和人類遺傳學家。他於1997年在倫敦大學學院取得人類遺傳學哲學博士學位。

葉教授曾在香港基督教聯合醫院病理科工作10年，其後於1990年加入理大前身香港理工學院，一直致力於醫療化驗科學的教育工作。葉教授的研究涵蓋複雜疾病所涉及的遺傳學和基因組學，例如近視的成因。葉教授對分子診斷的研究亦深感興趣，熱衷於將嶄新研發的技術轉移到相關醫療護理領域和測試行業，並進行產業測試，冀能於前線廣泛應用。

葉教授是香港分子生物診斷學會創辦人之一及其會董會成員。

The Board
董事局

Professor YIU Siu-ming
姚兆明教授

Non-official Director
非官方董事

Professor Yiu is currently a professor and the Deputy Head at the Department of Computer Science of the University of Hong Kong (HKU). He is also the Director of the Department's FinTech and Blockchain Laboratory and the Deputy Executive Director of HKU-Standard Chartered Hong Kong FinTech Academy. He was selected three times by Clarivate Analytics as one of the Highly Cited Researchers in the world in 2016, 2017 and 2019, and one of the top 1% researchers in HKU for 11 consecutive years (2011-2021).

Professor Yiu's research areas include bioinformatics, cybersecurity, privacy technology, and FinTech. In the areas of bioinformatics, he served as the conference chair in Hong Kong for RECOMB 2017, one of the flagship conferences in the field and as the area programme chair for other prestigious bioinformatics conferences such as ISMB. In addition to academic research, Professor Yiu has been a consultant to various companies in the areas of cybersecurity and data privacy.

姚教授現任香港大學(港大)計算機科學系教授、副系主任及金融科技區塊鏈實驗室主任，同時為港大－渣打香港150週年慈善基金金融科技學院副行政總監。他曾於2016、2017和2019年獲Clarivate Analytics評為全球最廣獲徵引的研究人員之一，亦是港大連續11年(2011-2021年)排名前1%的研究人員之一。

姚教授的研究領域包括生物信息學、安全和密碼學以及金融科技。在生物信息學方面，他曾主持著名旗艦會議RECOMB 2017。除科研外，姚教授亦為不同企業擔任金融技術和網絡安全領域的顧問。

Dr Libby LEE Ha-yun, JP
李夏茵醫生, JP

Official Director
官方董事

Dr Lee is the Under Secretary for Health. Her major duties include assisting the Secretary for Health in the setting of public health policy objectives and priorities, handling Legislative Council business and strengthening the working relationship with Legislative Council, as well as engaging and liaising with all stakeholders to explain and solicit support for government policies and decisions.

Dr Lee was the Commissioner for Primary Healthcare of the Health Bureau. She joined the executive team of the Hospital Authority in 2008 and was promoted to Director of Strategy and Planning in 2016. Dr Lee has served on various professional bodies including as Council Member for the Hong Kong College of Community Medicine and the Hong Kong College of Anaesthesiologists.

Dr Lee holds a medical degree and a master's degree in public health from the University of Hong Kong as well as a number of professional qualifications. She is trained as an anaesthesiologist and a practitioner in administrative medicine.

李醫生為醫務衞生局副局長，主要職責包括協助醫務衞生局局長訂定公共衞生政策的目標和優次；處理立法會事務和加強與立法會的工作關係；以及與各持份者溝通聯繫，以解釋政府的政策和決定，並爭取他們的支持。

李醫生曾任醫務衞生局基層醫療健康專員。她於2008年加入醫院管理局行政管理團隊，2016年晉升為策略發展總監。她曾為多個專業組織服務，如擔任香港社會醫學學院及香港麻醉科醫學院委員會成員。

李醫生畢業於香港大學醫學院，亦為香港大學公共衞生碩士，同時擁有多項專業資歷，包括香港麻醉科醫學院及香港社會醫學學院（行政醫學）專業資格。

The Board
董事局

Mr Sam HUI Chark-shum, JP
許澤森先生, JP

Official Director
官方董事

Mr Hui is currently the Deputy Secretary for Health, responsible for formulation of policies on medical services and healthcare system and infrastructure, including matters relating to public health, prevention of communicable diseases, operation and development of public and private hospitals, healthcare financing (including Voluntary Health Insurance Scheme), research and health data as well as genomic medicine development.

Prior to this appointment, Mr Hui was the Deputy Representative of the Hong Kong Economic and Trade Office in Brussels from 2016 to 2020, and the Deputy Secretary for Financial Services and the Treasury (Financial Services) from 2020 to 2023.

許先生現為醫務衞生局副秘書長，負責制定醫療服務與醫療衞生系統及基建的政策，涵蓋公共衞生、預防傳染病、公營及私營醫院服務和發展、醫療融資（包括自願醫保計劃）、研究及醫療衞生數據、以及基因組醫學發展等。

出任現職前，許先生曾於2016至2020年出任香港駐布魯塞爾經濟貿易辦事處副代表；2020至2023年出任財經事務及庫務局副秘書長（財經事務）。

Dr Teresa LI Mun-pik, JP
李敏碧醫生, JP

Official Director
官方董事

Dr Li is a specialist in Public Health Medicine and currently the Deputy Director of Health. She oversees areas related to health services and administration including elderly health, family and student health, specialised services, administration and policy, finance, health administration and planning, and health information and technology.

李醫生是公共衞生醫學專科醫生，現任衞生署副署長，專責管理與衞生服務及行政相關的範疇，當中包括長者健康服務、家庭及學生健康服務、專科服務、行政及政策、財務、衞生行政及策劃，以及衞生資訊與科技的工作。

Management Team
管理團隊

Dr LO Su-vui 羅思偉醫生

Chief Executive Officer 行政總裁

MB Bch (Wales), FHKCCM, FHKAM (Community Medicine), FFPHM, MRCP (UK), FRACMA

英國威爾斯大學內外全科醫學士、香港社會醫學學院院士、香港醫學專科學院院士(社會醫學)、英國皇家內科醫學院公共衛生醫學科院士、英國皇家內科醫學院院士、澳洲皇家醫務行政學院院士

Dr Lo leads the Hong Kong Genome Institute in its formulation of strategies and development plans. With the aspiration to benefit the wider community, Dr Lo drives the team to propel clinical application of genomic medicine and its long-term development in Hong Kong.

Dr Lo is a seasoned professional in public health and administrative medicine. Having held a number of senior positions both locally and overseas, Dr Lo brings with him a strong blend of experience in corporate affairs, strategic planning, talent development, research and so on. Prior to his current role, Dr Lo had served in the Hospital Authority (HA) for over 20 years during which he had held various senior management positions, including Director of Strategy and Planning in the HA Head Office and Cluster Chief Executive of the New Territories East Cluster.

羅醫生領導香港基因組中心制訂發展策略，帶領團隊推動基因組醫學在香港的臨床應用及長遠發展，實現為社會大眾帶來裨益的願景。

羅醫生為資深公共衛生及行政醫學專業人員，先後於本地及海外擔任不同要職，在機構事務、發展規劃、人才培育及調查研究等範疇均具豐富經驗。出任現職前，羅醫生於醫院管理局(醫管局)服務逾20年，曾擔任不同管理要職，包括醫管局總辦事處策略發展總監及新界東醫院聯網總監。

Dr Brian CHUNG Hon-yin 鍾侃言醫生

Chief Medical and Scientific Officer 首席醫務及科學總監

MBBS (HKU), MSc (Genomics and Bioinformatics, CUHK), MD (HKU), DCH (Ireland), MRCPCH (UK), FHKAM (Paediatrics), FRCPCH (UK), FCCMG (Clinical Genetics, Canada)

香港大學內外全科醫學士、香港中文大學基因組學及生物信息學碩士、香港大學醫學博士、愛爾蘭皇家醫學院兒科文憑、英國皇家兒科醫學院院員、香港醫學專科學院院士（兒科）、英國皇家兒科醫學院榮授院士、加拿大醫學遺傳學專科學院院士

Dr Chung manages the scientific and clinical matters of the Hong Kong Genome Institute. He supervises the genomic laboratory and works closely with Partnering Centres to promote genomic medicine.

Dr Chung was trained in Hong Kong and Canada, specialising in Paediatrics and Clinical Genetics. He was a founding fellow of the subspecialty of Genetics & Genomics (Paediatrics) of Hong Kong Academy of Medicine (HKAM) and was also actively involved in the drafting of respective postgraduate curriculum. With his excellence in research and teaching, Dr Chung has received a number of awards and honours over the years. He is active in international collaborations and is currently the President of the Asia Pacific Society of Human Genetics.

鍾醫生管理香港基因組中心的科學及醫學事務，監督基因組實驗室的運作，並與夥伴中心緊密合作，推動基因組醫學的發展。

鍾醫生在香港及加拿大完成專科訓練，專注於兒科及臨床遺傳學科，曾協助香港醫學專科學院成立遺傳學及基因組學專科（兒科），及草擬相關研究生課程。他在研究及教學方面亦屢獲殊榮，並活躍於業界事務，現為亞太人類遺傳學會主席。

Mr Richard TSE Kin-pang 謝建朋先生

Chief Administrative Officer 首席行政總監

FCPA, FCA (Aus), FCG, HKFCG

香港會計師公會資深會員、澳洲資深特許會計師、特許秘書及公司治理師

Mr Tse oversees corporate services and external affairs of the Hong Kong Genome Institute to enhance its corporate governance and operational efficiency, while raising public awareness on genomic medicine.

Mr Tse has extensive experience in finance and administration, spanning financial and operations management, corporate services and governance. He held various senior management positions in established public bodies and multi-national corporations, including the Chief Financial Officer of the West Kowloon Cultural District Authority. Mr Tse is also active in professional and community services. Currently, he serves as the President of Hong Kong Public Sector Accountants Association and a member of Branding and Communication Committee of the Hong Kong Institute of Certified Public Accountants.

謝先生負責管理香港基因組中心的行政及對外事務，並專責持續優化企業管治及營運效益，深化市民大眾對基因組醫學的認識。

謝先生為資深財務及行政專業人員，在財務及營運管理、機構事務和公司管治等方面擁有豐富經驗。他曾於多間大型公營機構及跨國企業出任管理要職，包括西九文化區管理局首席財務總監。謝先生亦積極參與專業和社會服務，現為香港公共服務機構會計師協會會長和香港會計師公會推廣及傳訊委員會成員。

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核數師

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Principal Banker

Bank of China (Hong Kong) Limited

主要往來銀行

中國銀行(香港)有限公司

Legal Adviser

Howse Williams

法律顧問

何韋律師行

Company Secretary

Howse Williams

公司秘書

何韋律師行

Chairperson's Statement
主席報告

Our flagship initiative, the Hong Kong Genome Project, has served as a wellspring of insights and inspiration. This pioneering endeavour, designed to establish a genome database of the Southern Chinese, is pivotal to understanding our population's genetic makeup and delivering on the promise of genomic medicine. The extraordinary accomplishments achieved in 2023-24 represent a culmination of our ongoing efforts from previous years.

香港基因組計劃是我們首個重點項目，為本地基因組醫學發展提供重要基礎和啟發。我們期望透過這個甚具前瞻性的項目，建立以華南地區人口為主的基因組數據庫。這對了解本地人口的基因組特性，以及實現基因組醫學可帶來的益處，均至關重要；而我們在2023-24年度就推展基因組計劃所取得的成果，正是團隊積累數年，努力不懈的最佳見證。

Chairperson's Statement
主席報告

It is my great honour to present the 2023-24 Annual Report of the Hong Kong Genome Institute (HKGI). This year has been a remarkable journey as we continued to forge ahead in pursuit of our vision of making genomic medicine available to all for better health and well-being. Thanks to the steadfast support of the Health Bureau, patients, partners, and various stakeholders, we have achieved steady growth and significant gains, sparking genomic innovations for precision health through a number of strategic initiatives.

Driving Paradigm Shift with Genomic Medicine

Genomics is a rapidly evolving field, with each year bringing exciting breakthroughs. By integrating genomic knowledge and discoveries into clinical care, we can harness the information decoded from a person's genome – the complete set of DNA codes that determines how the body is built and functions – to tailor healthcare plans effectively. Fuelled by this visionary approach, the HKSAR Government established HKGI to unlock the transformative potential of genomic medicine for more accurate diagnosis, personalised treatment, and disease prevention. Ever since the Institute came into full operations in 2021, our dedicated team has made significant strides towards these goals, laying a strong foundation for the long-term development of genomic medicine in Hong Kong.

Through relentless efforts over the past year, we have empowered success stories that underscore the broad applications and immense prospects of genomic medicine in delivering impactful outcomes, not only for patients and their families but also for the wider community. From rare disorders to common diseases, and from solving patients' diagnostic odysseys to enabling bespoke treatments tailored to individual genomic profiles, we have successfully spearheaded a paradigm shift in medical practices, reshaping healthcare services and unveiling novel therapeutic possibilities.

我非常榮幸與大家分享香港基因組中心（基因組中心）2023-24年報。過去一年，我們在醫務衞生局、病人、合作夥伴，以及各界持份者鼎力支持下，朝着「普及基因組醫學，共享健康福樂」的願景繼續邁步向前，透過一系列策略措施啟發基因組學創新，推動精準醫學，帶領機構穩步成長，並取得顯著成就。

革新醫療　廣澤社群

基因組學發展一日千里，每年均帶來振奮人心的科研突破。基因組是指人體內整套DNA代碼，是決定身體特徵和功能結構的重要元素。透過拆解基因組訊息，並將相關知識和發現融入臨床護理，便可有效地為病人度身制訂治療方案。為實現這宏大願景，特區政府遂成立了基因組中心，旨在發揮基因組醫學的龐大潛力，為社會大眾帶來更準確診斷、個人化治療及預防疾病的方案。自基因組中心於2021年全面運作以來，我們團隊上下一心，致力實現目標，為香港基因組醫學的長遠發展奠下穩固基礎。

年內，我們全力履行使命，透過成功案例，充分展現基因組醫學的廣泛應用及巨大潛力。這不但惠及病人和家屬，更廣澤社會大眾。從罕見病到常見病，從為病人結束漫長的求醫之路，到按照個人基因組特徵制訂精準治療方案，我們成功引領醫學革新，重塑醫療服務，並開闢更多嶄新治療的可能。

Pioneering Genomic Innovations through HKGP

Our flagship initiative, the Hong Kong Genome Project (HKGP), has served as a wellspring of insights and inspiration. This pioneering endeavour, designed to establish a genome database of the Southern Chinese, is pivotal to understanding our population's genetic makeup and delivering on the promise of genomic medicine. The extraordinary accomplishments achieved in 2023-24 represent a culmination of our ongoing efforts from previous years.

Following the launch of the HKGP pilot phase in 2021 and the subsequent main phase in 2022, more than 30,000 patients and their family members have joined the HKGP as of mid-2024. This impressive participation has been made possible by the dedicated efforts of clinicians, scientists, and healthcare professionals from the HKGI team, partnering hospitals, and many other collaborators. By leveraging cutting-edge whole genome sequencing technology and collaborative efforts, we have ensured the smooth implementation of the HKGP, bringing life-changing impacts and hope to those in need.

Expanding our focus from undiagnosed disorders and hereditary cancers during the pilot phase to cases related to genomics and precision health in the main phase has further amplified our personalised healthcare endeavours. We are well on track to achieve our initial target of recruiting 40,000 to 50,000 HKGP participants by 2025. The progress we have made is a testament to the sustained momentum and enthusiastic responses from patients, and above all, the perseverance and commitment of everyone involved.

基因組計劃　啟發創新

香港基因組計劃(基因組計劃)是我們首個重點項目，為本地基因組醫學發展提供重要基礎和啟發。我們期望透過這個甚具前瞻性的項目，建立以華南地區人口為主的基因組數據庫。這對了解本地人口的基因組特性，以及實現基因組醫學可帶來的益處，均至關重要；而我們在2023-24年度就推展基因組計劃所取得的成果，正是團隊積累數年，努力不懈的最佳見證。

隨着我們於2021及2022年分別開展基因組計劃的先導階段和主階段，截至2024年中旬，已有超過30,000名病人及家屬參與計劃，成績令人鼓舞。能夠獲此佳績，除了基因組中心的同事，亦有賴各夥伴醫院及合作機構的醫生、科學家和不同醫護專業人員齊心協力。我們運用頂尖的全基因組測序技術，加上多方通力合作，得以順利推行基因組計劃，成功為更多病人燃點希望，為生命帶來改變。

為了加快實踐個人化治療，我們將基因組計劃覆蓋的範疇，從先導階段的未能確診病症及遺傳性癌症，擴展至主階段與基因組學及精準醫學相關的個案。我們的初始目標是在2025年為基因組計劃完成招募40,000至50,000名參加者。在病人積極響應和支持下，我們正朝着該目標穩步前進，進度非常理想，這亦是對每位參與其中的持份者堅持不懈的肯定。

Chairperson's Statement
主席報告

Delivering Impact with Strong Corporate Governance

Along our journey in propelling the frontiers of medicine and science, we are committed to upholding robust corporate governance standards that are crucial for maintaining public trust, integrity, and effective operations at HKGI. As a government-owned organisation entrusted with the mission of advancing public health, adhering to stringent governance principles is of paramount importance to us. To this end, we take pride in our rigorous governance structure. In addition to a Board of world-renowned experts and heavyweights from various fields, six functional committees led by industry leaders have also been established under the Board to ensure the effective implementation and monitoring of HKGI's key operations.

Throughout the year, over 20 board and committee meetings were held to discuss a wide range of strategic and operational topics, from the implementation progress of HKGP to HKGI's administrative matters and future planning. Valuable insights and advice were provided to the HKGI team across different areas such as medical practice, scientific research, data management, cybersecurity, law, accounting, and public communication. The wise counsel from members has been essential in ensuring HKGI's work plans, priorities, and resources remain aligned with corporate objectives and strategies while meeting the highest governance benchmarks.

企業管治　嚴謹有道

我們在推動醫學和科學發展的同時，亦恪守嚴謹企業管治標準，以維持機構的公信力和誠信，並確保團隊高效運作。基因組中心作為特區政府全資擁有的機構，肩負着促進公共醫療服務發展的使命，對遵循嚴格的企業管治準則極為重視。為此，我們建立嚴謹的管治架構，成效卓著。我們的董事局匯聚不同領域的國際知名專家和社會賢達，為基因組中心的發展出謀獻策；董事局之下亦設有六個專責事務委員會，由業界翹楚領導，有效地監督基因組中心主要運作和項目進度。

過去一年，董事局和各個委員會合共舉行了超過20次會議，商討基因組中心的發展策略和運作事宜，包括基因組計劃的進度、機構行政事務及未來發展規劃等，並就多個範疇如醫學應用、科學研究、數據管理、網絡安全、法律、會計及公眾教育等提供寶貴意見和建議。各成員的真知灼見，確保了基因組中心的發展方針、工作優次及資源運用，均與機構的目標和策略保持一致，並符合最嚴謹的管治標準。

Thanks to members' exemplary dedication and contributions, we have established HKGI as the key driving force of genomic medicine in Hong Kong and the region. This empowers us to work hand in hand with relevant authorities to create impactful outcomes for all.

Elevating Excellence through Collaborations

In our pursuit of excellence, we continue to embrace collaborations that transform ideas into knowledge and drive research into groundbreaking innovations. During the year, we actively hosted and participated in local and regional stakeholder engagements, fostering the exchange of insights and strengthening ties beyond geographical boundaries. These initiatives have not only expanded HKGI's access to global expertise but have also solidified our international standing in the dynamic field of genomic science.

Among all events and visits organised, the study mission to Shenzhen stands out as one of the most significant. Recognising the Greater Bay Area's vital role as a hub of opportunities, we had the privilege of co-leading a one-day visit to our neighbouring city with the Health Bureau in September 2023. This inspiring engagement allowed us to delve into the latest medical advancements and genomic technologies alongside our Mainland counterparts. The delegation, which included representatives from the Department of Health, the Hospital Authority, and the University of Hong Kong, explored key scientific and medical facilities such as the China National GeneBank, the University of Hong Kong-Shenzhen Hospital, and the Shenzhen Children's Hospital.

董事局和委員會成員的無私付出和貢獻，有助基因組中心在推動香港，以至亞太地區的基因組醫學發展中，擔當起更為關鍵的角色，促進團隊與業界交流協作，攜手造福廣大市民。

推動合作　協同增效

我們秉持着力求卓越的精神，持續與各方協同合作，致力將創新意念轉化為知識，啟發科研突破。年內，團隊舉辦及參與了多項本地和地區盛事，藉此加強跨地域的知識傳承，以及連繫各地業界夥伴。透過一系列合作和交流，團隊不但擴展了接觸全球專家的渠道，亦進一步鞏固了基因組中心在相關專業領域的國際地位。

在去年舉辦的眾多活動中，深圳考察團無疑是我們獲益最多的活動之一。為進一步認識大灣區的醫療服務發展，我們有幸與醫務衞生局共同率領考察團，於2023年9月到深圳進行為期一日的訪問。考察團由衞生署、醫院管理局和香港大學代表組成，參觀了深圳重點科學及醫療機構，包括國家基因庫、香港大學深圳醫院及深圳市兒童醫院，並與當地同業就最新醫學發展和基因組學技術交流切磋，收穫甚豐。

Chairperson's Statement
主席報告

These interactions, along with the strong connections we have fostered in the global scientific and medical community, sparked productive discussions on genomic research and clinical applications, paving the way for transformative collaborations that will shape the future of genomic medicine.

Deepening Connections with the Community

While collaborations with the industry are crucial, forging strong connections within our community is equally important. We value the support of the public and legislative councillors, and we remain committed to keeping them closely engaged to promote genomic medicine and its profound impact on society.

With invaluable support from the Health Bureau, we organised a visit and laboratory tour for members of the Legislative Council Panel on Health Services (LegCo HS Panel) in May 2024. The eventful occasion allowed us to showcase HKGI's achievements in mastering whole genome sequencing technology and bringing the benefits of the HKGP to more patients. This engaging experience was followed by a formal LegCo HS Panel meeting, where we had the opportunity to provide further updates on our work and accomplishments.

Through these proactive engagements, we have successfully built meaningful rapport with lawmakers and garnered their support. The overwhelmingly positive feedback and encouragement we received have been a tremendous source of inspiration, affirming our commitment to push the boundaries of genomic innovation to transform lives and build a healthier future for all.

透過與各地專家頻繁互動，團隊成功與全球科學和醫學界別建立緊密連繫，不但為基因組學研究和臨床應用帶來更多交流和深入討論，亦為未來合作創造契機，共同引領基因組醫學蓬勃發展。

心繫社區　積極溝通

除了與業界合作，我們同樣重視與社會大眾建立聯繫。公眾及立法會議員的支持，一直是我們奮力向前的原動力。我們持續連繫各方，合力推動基因組醫學發展，以發揮其潛能，惠及社會大眾。

在醫務衞生局大力支持下，我們於2024年5月接待了到訪的立法會衞生事務委員會委員，並安排了實驗室參觀，向委員展示全基因組測序技術的應用，以及基因組計劃如何讓更多病人受惠，互相交流討論。我們亦在隨後的立法會衞生事務委員會會議，進一步匯報最新工作進度和成果。

我們積極透過不同交流活動，與立法會議員建立良好關係，並爭取他們的支持。議員們給予正面評價和鼓勵，讓我們深受鼓舞，進一步堅定我們的目標，致力推動基因組學創新，以期改變生命，為社會大眾創建更健康的未來。

Empowering the Next Generation

Understanding that the success of a new profession or industry hinges on talent, nurturing the next generation of genomic professionals has always been one of HKGI's top priorities. Over the past year, we have worked closely with leading professional bodies and academic institutions to provide comprehensive support through research grants, overseas training grants, scholarships, and placement opportunities at HKGI, all geared towards informing, inspiring, and empowering more professionals to advance the field.

We are excited to witness a burgeoning enthusiasm for genomic medicine among healthcare professionals and university students, as evident in the remarkable increase in applications for talent development programmes supported by HKGI this year. With applicants coming from diverse specialties and disciplines including medicine, bioinformatics, and data science, this progress bodes well for HKGI's mission to cultivate talent and enhance genomic literacy among aspiring professionals and the younger generation.

I was delighted to have the opportunity to meet and interact with the outstanding students receiving our scholarship prizes at the award ceremonies held by the Chinese University of Hong Kong (CUHK) and the University of Hong Kong (HKU). The inspiring dialogues I had with them further reinforced my belief in the immense potential that lies ahead – HKGI's commitment to this cause will not waver; we will continue to nurture talent and build a knowledgeable workforce to catalyse the integration of genomic medicine into clinical care and inspire scientific discoveries. Through these efforts, we are not merely pursuing our goals but also shaping a future where Hong Kong leads the way to a healthier tomorrow.

培育人才　啟迪未來

我們深信人才是發展新興專業的基石，故非常重視培育基因組學人才，並以此為機構的重點工作之一。過去一年，我們與業界權威機構和院校合作，透過設立研究獎、本地及海外培訓進修獎學金，以及提供實習機會等，提升年青一代對基因組學的認識、啟發他們的興趣，協助他們掌握最新知識和技能，全方位培育人才，促進基因組醫學發展。

本年度，申請參與香港基因組中心各項人才培訓計劃的人數顯著增加，可見醫護專業人員和大專學生對基因組醫學的熱誠和興趣與日俱增，我們為此深感雀躍。培訓計劃的申請者來自不同專業和學科，如醫學、生物信息學及數據科學等。他們的積極參與，進一步印證我們致力實踐使命，為培育醫護專業人員和年青一代，以及提升各界對基因組醫學的認識，創造有利條件。

其中，我特別高興能在香港中文大學（中大）及香港大學（港大）的頒獎典禮上，與獲獎的傑出學生會面交流。他們的分享，讓我更堅信基因組醫學的無限潛能。我們將繼續為業界培訓新血，建立精通基因組醫學的團隊，加快融合基因組醫學和臨床護理，啟迪科研創新。這不僅為實踐基因組中心的目標，更是引領香港開創更健康未來的重要一步。

Chairperson's Statement
主席報告

Uniting for a New Era of Precision Health

With concerted effort, we have, in 2023-24, made tremendous progress across our key strategic foci in integrating genomics into medicine, advancing research, nurturing talent, and promoting public genomic literacy. The groundwork laid and the successes accomplished have formed a solid foundation for HKGI to move forward with confidence and conviction.

While celebrating these milestones, we remain deeply grateful for the unstinting support of the Health Bureau, the Department of Health, the Hospital Authority, partnering centres, referring networks, the medical schools of CUHK and HKU, many other stakeholders, and, most importantly, our patients and their family members, without whom our work would not have been possible. I would also like to take this opportunity to extend my heartfelt appreciation to our Board members, committee members, the management team, and all HKGI colleagues for their professionalism and dedication to our shared vision of advancing genomic medicine, precision health, and patient care.

Let us continue to stay connected and collaborate to accelerate the development and applications of genomic medicine. This work is crucial to ensuring that life and health improve with each passing year, not only for individuals but for the entire society.

Together, we are defining a new era of precision medicine that will benefit generations to come.

Philip TSAI Wing-chung, BBS, JP
Chairperson

精準醫學　共譜新篇

在2023-24年度，我們與各方持份者群策群力，就推進基因組中心四大策略重點方面，取得了重大進展，包括加快融合基因組學和臨床護理、促進科學研究、培育人才及加強公眾對基因組學的認識。憑藉豐碩成果，基因組中心已為長遠發展穩奠根基，團隊亦當繼續堅定自信，昂首前行。

在邁向新里程之際，我們由衷感謝醫務衞生局、衞生署、醫院管理局、各夥伴中心和合作網絡、中大及港大醫學院，以及一眾持份者，尤其是病人及其家人不遺餘力的支持。全賴各方鼎力襄助，團隊方能順利履行使命。我亦希望在此向董事局和各委員會的成員、基因組中心的管理團隊，以及一眾同事致以摯誠謝意。大家願景一致，憑藉專業和熱誠，共同為推動基因組醫學、實現精準治療和病人護理而努力。

展望未來，我們將繼續與社會各界緊密連繫，並肩同行，加快基因組醫學發展和應用，為生命和健康帶來改變，為個人和社會帶來裨益。

讓我們攜手共進，以精準醫學開創未來，惠澤世代。

主席
蔡永忠, BBS, JP

Chief Executive Officer's Report
行政總裁報告

In our ongoing efforts to engage with more patients and introduce the transformative clinical applications of genomic medicine, we hosted our inaugural Patient Forum during the year. This initiative enabled us to proactively connect with patients, facilitating a deeper understanding of the subject while instilling hope through demonstrations of the significant potential and benefits of integrating genomics into healthcare services.

我們一直積極接觸病人，致力讓大家認識更多基因組醫學的臨床應用。年內，我們舉辦了首個病友共聚分享會，主動連繫病人和病人組織，透過病例分享，展示基因組學與醫療服務相互融合所帶來的巨大潛力和裨益。這不但有助深化病人對基因組醫學的認識，亦讓他們重燃希望，積極為生命帶來改變。

Chief Executive Officer's Report
行政總裁報告

It is with great honour that I present the third Annual Report of the Hong Kong Genome Institute (HKGI). The year 2023-24 marks yet another exciting chapter in our journey to accelerate the development of genomic medicine, driven by meaningful outreach and engagement with patients, partners, and a diverse array of stakeholders. From expanding patient recruitment and advancing research to nurturing talent and fostering closer ties with the community, it is a year characterised by connections and collaborations. We celebrate not only the noteworthy milestones we have achieved but, most importantly, the profound impact we have made in transforming patients' lives.

Leading the Charge in Genomic Medicine

Our vision to avail genomic medicine to all for better health and well-being is both vast and complex. Achieving this goal requires a shared belief and unwavering dedication, leveraging our collective strengths to drive medical innovations that translate into meaningful clinical applications. At the heart of this endeavour are our patients, whose experiences and resilience consistently inspire us and contribute to the advancement of genomic medicine. As such, patient engagement has remained our top priority throughout the year.

我很榮幸與大家分享香港基因組中心(基因組中心)第三份年報，回顧團隊在2023-24年度透過積極連繫病人、合作夥伴及各界持份者，致力推動香港基因組醫學發展所取得的卓越成就。過去一年，我們以「加強連繫、加深協作」為策略重點，從擴大病人招募、促進科研，到培育人才和聯繫社區，覆蓋全面。當中，讓我們深感自豪的，除了是為基因組醫學發展開拓新里程外，更重要的是為病人帶來盼望，助他們改寫生命篇章。

引領基因組醫學　提速發展

自基因組中心成立以來，我們堅守「普及基因組醫學，共享健康福樂」的願景，奮力前行。要實現這個宏大深遠的目標，既要團隊上下一心，推動醫學創新，將科研成果轉化為臨床應用，亦有賴社會各界同心同行、群策群力。一路走來，我們以病人的福祉為依歸。他們經歷艱辛卻永不言棄的精神，不但深深啟發着我們，更對推進基因組醫學發展有着重大貢獻。因此，與病人保持緊密連繫，繼續是我們過去一年的首要工作。

First and foremost, we have continued to strengthen our close partnership with the Department of Health, the Hospital Authority, and the medical schools of the Chinese University of Hong Kong (CUHK) and the University of Hong Kong (HKU) under the steer of the Health Bureau of the HKSAR Government to achieve remarkable progress in patient recruitment for the Hong Kong Genome Project (HKGP). As the city's pioneering large-scale whole genome sequencing initiative, HKGP represents a leap towards unlocking the full potential of genomic medicine in Hong Kong. Launched in two phases since 2021, HKGP focuses on diseases that stand to benefit from cutting-edge whole genome sequencing technologies, including undiagnosed diseases, hereditary cancers, and cases related to genomics and precision health.

We are pleased to report that, as of June 2024, over 30,000 HKGP participants have been recruited. We are on track to reach the initial target of collecting 40,000 to 50,000 samples for whole genome sequencing by 2025 as set forth by the HKSAR Government when HKGI came into full operation in 2021. As a nascent organisation, these accomplishments are a testament to the dedication and professionalism of every colleague, clinician, scientist, researcher, and collaborator involved.

首先，為持續推展香港基因組計劃（基因組計劃），我們在特區政府醫務衞生局的支持和領導下，進一步深化與衞生署、醫院管理局、香港中文大學（中大）及香港大學（港大）醫學院的合作，攜手擴大病人招募，並取得顯著進展。基因組計劃作為香港首個大型全基因組測序項目，開創先河，充分展現了本地基因組醫學發展的巨大潛力。項目自2021年起分兩個階段推行，涵蓋可受惠於全基因組測序技術的疾病，包括未能確診病症、遺傳性癌症，以及與基因組學及精準醫學相關的個案。

基因組中心於2021年開始全面運作，特區政府其時為團隊訂下的初始目標是於2025年完成收集40,000至50,000個樣本，以進行全基因組測序。就此，我們很高興匯報，截至2024年6月，團隊已成功為基因組計劃招募逾30,000名參加者，進度非常理想。基因組中心成立的日子雖短，但在每位同事、醫護人員、科學家、研究員及合作夥伴的專業專注和全程投入下，各項工作已有序推進，碩果纍纍。

Chief Executive Officer's Report
行政總裁報告

Driving Patient Recruitment with International Recognition

As patient recruitment is crucial to the success of HKGP, we have made significant strides in broadening our recruitment channels. To date, participants are being recruited through ten public hospitals across Hong Kong. In addition to the three existing partnering centres at the Hong Kong Children's Hospital, Prince of Wales Hospital, and Queen Mary Hospital, we have established four new referring networks in the year with another three soon coming on line. These include the Alice Ho Miu Ling Nethersole Hospital, Grantham Hospital, The Duchess of Kent Children's Hospital at Sandy Bay and Tung Wah Hospital which have already been recruiting patients for HKGP, as well as Pok Oi Hospital, Tin Shui Wai Hospital, and Tuen Mun Hospital which are starting patient referral in Q3 2024.

To ensure robust governance, effective communication, and efficient operations of the HKGP, we established a Hospital Operation Committee (HOC) for each partnering centre in 2023. Co-chaired by the respective hospital chief executives, medical faculty deans, and myself, the HOCs convene regularly to review operations, recruitment progress, and the planning of each centre and its referring networks. As of June 2024, a total of eight meetings have been held to discuss participant feedback and align operational practices for the optimal performance and success of HKGP.

運作流程　國際認可

招募病人是基因組計劃的成功關鍵。因此，我們持續擴展招募渠道，至今已與合共10間公立醫院建立合作關係，網絡遍布全港各區。除了香港兒童醫院、威爾斯親王醫院及瑪麗醫院三間夥伴中心外，我們於年內增設了四間合作網絡招募病人，包括雅麗氏何妙齡那打素醫院、葛量洪醫院、大口環根德公爵夫人兒童醫院，以及東華醫院；另外三間新增的合作網絡亦會於2024年第三季開始提供病人轉介服務，包括博愛醫院、天水圍醫院及屯門醫院。

為確保基因組計劃在穩健有效的管治和溝通下高效運作，我們於2023年為每間夥伴中心增設了「醫院運作委員會」。各委員會均由我聯同相關夥伴中心的醫院行政總監及醫學院院長共同領導，定期舉行會議，監察各夥伴中心及其轄下合作網絡的運作情況、病人招募進度和發展規劃等。截至2024年6月，三個委員會合共舉行了八次會議，討論基因組計劃參加者的意見，以及多項工作流程和安排，持續優化管理，為基因組計劃的成功奠下基礎。

Indeed, an independent evaluation conducted by the University of Cambridge (PHG Foundation) and the University of Hong Kong, commissioned by the Health Bureau, also recognised the team's great effort in implementing HKGP within a relatively short time span. In the Phase 2 report jointly submitted by the two esteemed institutions, HKGP was commended for adhering to international standards in overall planning, operation, patient recruitment, and informed consent mechanisms. Moreover, as reflected in the evaluation, nearly 90% of the interviewed HKGP participants rated their overall experience as "satisfactory" or "very satisfactory". All these recognitions are truly encouraging for us, reaffirming our commitment to excellence and patient-first spirit. The final report, focusing on the outcomes and impacts of the HKGP, is underway and expected to be completed in 2025.

Inspiring Patient-centric Genomic Innovations

The expansion of HKGP in both scope and scale, particularly with the addition of the theme of genomics and precision health, enables us to address more common diseases such as kidney, heart, and eye disorders, alongside rare diseases. This not only enhances our understanding of complex health challenges but also paves the way for innovative, personalised treatment plans that can revolutionise patient care.

As a case in point, HKGI successfully diagnosed a female HKGP participant with Kindler syndrome, a rare disease with only 400 cases worldwide, based on the sequencing results. This diagnosis not only ended the patient's diagnostic odyssey, which lasted for almost half a century, but also empowered her doctors to offer targeted disease management plan to prevent further disease progression. The insights and experience gained enabled the HKGP team to swiftly diagnose an infant displaying similar symptoms in another case, facilitating prompt treatment and sparing the family from a potential diagnostic odyssey. These life-changing outcomes strengthen our resolve to advance genomic medicine to benefit more patients and drive further innovations in precision health.

我們的專業嚴謹，成功為基因組計劃贏得國際認可。應醫務衞生局委託，英國劍橋大學PHG Foundation聯同香港大學公共衞生學院就基因組計劃的成效進行獨立評估，共分三個階段進行。他們對團隊能夠在相對短時間內順利推展基因組計劃，予以重大肯定，並在第二階段報告中讚揚基因組計劃的整體設計規劃、運作流程、病人招募及知情同意機制等各個關鍵元素，均符合相關國際標準。評估報告亦指出，就整體參與體驗而言，近90%受訪的基因組計劃參加者表示「滿意」或「非常滿意」。兩大國際權威機構的正面評價，再次肯定了我們追求卓越及以病人為先的決心和熱誠，讓我們深感自豪。最後階段的評估現已展開，聚焦檢視基因組計劃的整體成效和影響，預計於2025年完成。

醫學創新　病人為本

隨着基因組計劃的規模和覆蓋範疇日漸擴大，尤其是在主階段新增了「基因組學及精準醫學」的主題，讓我們能夠在罕見病以外，將腎病、心臟病和眼疾等更多常見病納入基因組計劃。這不但讓我們更深入了解複雜的健康狀況，亦有助團隊為病人制訂創新的個人化治療方案，推動醫療革新。

回顧過去一年，我們在推動基因組醫學臨床應用方面，已取得顯著成就。以基因組計劃其中一位參加者為例，我們透過為這位女病人進行全基因組測序及分析，成功確定她患有全球僅400宗病例的罕見病「金德勒綜合症」。這不僅為她找到病因，解開尋覓近半世紀的謎團，亦讓醫護團隊得以為她制訂針對性的疾病管理方案，有效控制病情。因應這位女病人的經驗，當團隊其後接獲出現類似症狀的嬰兒個案時，便能夠迅速作出診斷及提供治療，免卻有關家庭可能需長期求醫的苦況。這些成功改變病人生命的案例，豐富了團隊的基因組學知識和實踐經驗，既能惠及更多病人，亦進一步推動精準治療和醫學創新。

Chief Executive Officer's Report
行政總裁報告

In our ongoing efforts to engage with more patients and introduce the transformative clinical applications of genomic medicine, we hosted our inaugural Patient Forum during the year. This initiative enabled us to proactively connect with patients, facilitating a deeper understanding of the subject while instilling hope through demonstrations of the significant potential and benefits of integrating genomics into healthcare services.

At the Forum, we welcomed nearly 70 guests, including influential patient group leaders from Rare Disease Hong Kong and Hong Kong Alliance of Patients' Organization, as well as members from diverse patient groups representing conditions such as kidney disease, cancer, diabetes, and haemophilia. The feedback received was overwhelmingly positive, with attendees valuing the exchange of information and camaraderie, and expressing strong support for advancing HKGP and genomic medicine among other patients and their families. To further amplify these messages, we have included a special feature in this annual report to share the inspiring life-changing stories of HKGP participants.

我們一直積極接觸病人，致力讓大家認識更多基因組醫學的臨床應用。年內，我們舉辦了首個病友共聚分享會，主動連繫病人和病人組織，透過病例分享，展示基因組學與醫療服務相互融合所帶來的巨大潛力和裨益。這不但有助深化病人對基因組醫學的認識，亦讓他們重燃希望，積極為生命帶來改變。

分享會吸引了近70名嘉賓出席，包括香港罕見疾病聯盟及香港病人組織聯盟的資深領袖，以及來自腎病、癌症、糖尿病和血友病等不同病友組織的代表。參加者均對分享會給予極高評價，尤其欣賞互動環節和整體氣氛和安排。他們亦大力支持基因組計劃和基因組醫學，樂意向其他病人介紹和推廣。就此，我們特別在這份年報增設了專題篇章，分享基因組計劃參加者的生命故事，一起見證基因組醫學的重大影響力。

Fostering Dialogues with Legislative Council

Over the past year, we also prioritised engaging with members of the Legislative Council (LegCo), whose steadfast support has been instrumental since the inception of HKGI. Their invaluable guidance and backing have empowered us to pursue our vision with confidence and determination.

In May 2024, we had the privilege of further building rapport with lawmakers through two significant events. We hosted a visit for members of the LegCo Panel on Health Services (LegCo HS Panel) in the company of the Health Bureau to introduce HKGI's achievements in implementing HKGP and the benefits it has brought to patients and their families. A tour of our state-of-the-art genomic laboratory was also arranged, allowing members to gain a deeper understanding of whole genome sequencing technology and the clinical applications of genomic medicine in Hong Kong. This hands-on experience not only demonstrated our commitment to driving medical innovations but also highlighted the potential of genomic medicine in redefining patient care.

連繫議員　深化交流

自籌備成立基因組中心以來，立法會議員的鼎力支持實屬關鍵。我們非常重視與議員緊密溝通，以此為團隊年內重點工作之一。議員提出的寶貴意見和溫言鼓勵，更是我們堅定目標，實踐願景的一大動力。

我們很高興於2024年5月透過兩項年度重點活動，深化與立法會議員的交流。我們聯同醫務衞生局接待了蒞臨參觀的立法會衞生事務委員會委員，向他們簡介基因組計劃的成果，以及相關工作如何惠及病人和家屬。到訪期間，議員亦參觀了設備先進的基因組實驗室，深入了解全基因組測序技術，以及基因組醫學在香港臨床應用的情況。我們藉着該次會面，展現了團隊推動醫學創新的熱誠和決心，並凸顯了基因組醫學在革新病人護理方面的潛力。

Chief Executive Officer's Report
行政總裁報告

推行香港基因組計劃 Implementation of the Hong Kong Genome Project

Following the visit, we joined the Health Bureau at the LegCo HS Panel meeting, where we presented the implementation progress of HKGP, complemented by compelling patient stories that resonate with our mission. The lawmakers were notably impressed by our accomplishments over just a few years of establishment. Their enthusiastic response and recognition have greatly encouraged us, further solidifying our commitment to advancing genomic medicine in Hong Kong and benefitting our citizens through medical innovations.

在醫務衞生局帶領下，我們隨後亦出席立法會衞生事務委員會會議，向議員匯報基因組計劃的最新進度，並分享具代表性的病例。議員對基因組中心在短短數年間取得如此佳績，均表示欣賞和支持。他們的正面評價和肯定，讓我們深受鼓舞，更加堅定志向，致力推動香港基因組醫學發展，透過醫學創新造福社會大眾。

Cultivating Leaders for Precision Medicine

While legislative support lays a strong foundation, the future of genomic medicine hinges on cultivating a sustainable pipeline of talent and fostering continuous professional development. It is thus our year-round goal to empower current professionals while nurturing the next generation of talent.

Our multi-disciplinary team (MDT) meetings are a cornerstone of this initiative, providing a dynamic platform for physicians and healthcare professionals to collaborate on patient cases and leverage their diverse expertise to devise optimal treatment plans. Participants have praised the meetings as invaluable opportunities for ongoing professional education in genomic medicine. Since 2023, our MDT meetings have been officially accredited under the Continuing Medical Education Programme, allowing healthcare professionals to earn credits for their participation.

儲備人才　培育領袖

除了立法會議員的支持，這個新興專業的未來亦取決於人才培育。不論是建立永續和多元的人才庫，還是加強業界的持續專業發展，均至關重要。因此，持續支援醫護同儕提升專業能力，為業界培育未來領袖，這些都是我們的全年目標。

其中，跨專業團隊會議在人才培訓方面扮演着重要角色。會議為醫生和不同醫護專業人員提供互動平台探討病例，交流知識和經驗，並制訂適切的治療方案。與會者均盛讚會議為基因組醫學的持續專業發展，提供了寶貴的學習資源和渠道。自2023年起，我們的跨專業團隊會議更成功獲「延續醫學教育計劃」認證，讓醫護同儕可透過參加會議獲取學分，持續進修。

Our strategic partnerships with the Hong Kong Academy of Medicine (HKAM) and the Hong Kong College of Physicians (HKCP) have also yielded significant results. The "HKAM-HKGI Research Excellence Grants in Genomic Medicine", designed to inspire and support advancements in genetics and genomics research, have funded three innovative projects this year, covering research on eye disorders in children, association between movement disorders and antipsychotic treatments in the Chinese population, and transcriptomic atlas of nucleus pulposus from development to degeneration. We look forward to the findings of these studies, which will deepen our understanding of population-specific diseases and pave the way for personalised medicine.

On the other hand, our collaboration with HKCP has opened doors for overseas training opportunities for grantees and provided scholarships and training grants for attachments at HKGI, ensuring our talent continues to thrive and evolve. Through the "HKCP-HKGI Overseas Training Scholarship and Training Grant for Excellence in Genomic Medicine", two doctors, one specialising in cardiology and the other in haematology and haematological oncology, received financial support to attend a six-month training programme in the United Kingdom, while a specialist in nephrology had enrolled in a three-month attachment programme at HKGI to explore the subject further alongside our expert team.

在支援專業發展方面，除了跨專業團隊會議，我們與香港醫學專科學院（醫專），以及香港內科醫學院的策略性合作，成果同樣令人鼓舞。我們與醫專攜手推出的「基因組醫學卓越研究獎」，旨在鼓勵和促進遺傳學及基因組學研究。於2023-24年度，我們選出了三項創新研究項目並為其提供資助，包括兒童眼疾、華人服用抗精神病藥物與運動障礙的關聯性，以及椎間盤中髓核從發育到退化的轉錄組圖譜。這些研究成果有望加深我們對特定人口和病症特性的了解，並促進個人化治療的發展。

另一方面，我們與香港內科醫學院合辦「基因組醫學海外及本地進修獎學金」，為得獎者提供海外培訓資助及於基因組中心實習的機會，確保人才庫不斷茁壯成長。年內，共有三位醫生獲獎，其中兩位分別是心臟科醫生和血液及血液腫瘤科醫生，他們獲資助負笈英國，接受為期半年的培訓；第三位得獎者為腎臟科專科醫生，獲安排到基因組中心參與為期三個月的研習計劃，與我們的專家團隊共同探索基因組醫學的應用。

Chief Executive Officer's Report
行政總裁報告

Uncovering Young Talent to Carry the Torch

Apart from healthcare professionals, we also keep the young generation closely engaged. With nurturing talent as one of our strategic foci, we organise internship and attachment programmes each year to provide students with hands-on experience and inspire them to pursue careers in the dynamic field of genomic medicine.

For the 2024 summer term, we had the pleasure to welcome 12 bright young minds from local and overseas universities, majoring in diverse disciplines ranging from medicine, science, and engineering to journalism, languages, and business administration. By working alongside our scientists, researchers, bioinformaticians, as well as communication and administration experts, these students were able to gain deep insights into cutting-edge genomic technologies and their applications in redefining healthcare services.

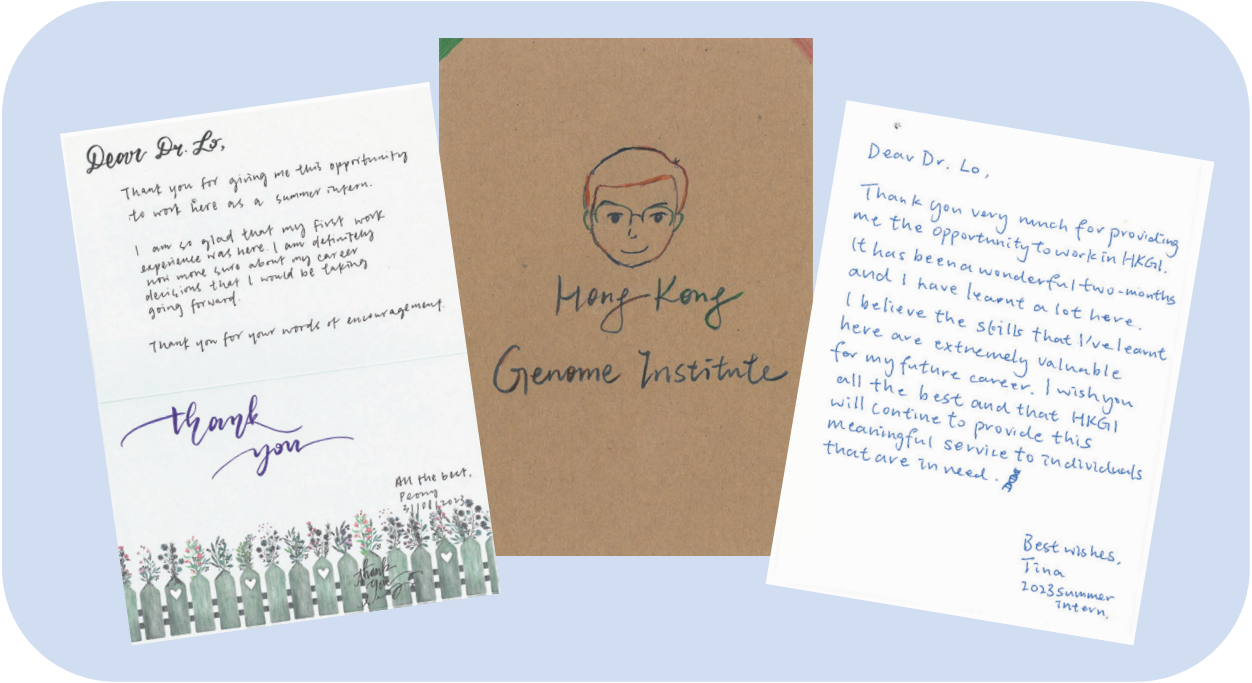
At the same time, we continued to partner with the medical schools of the Chinese University of Hong Kong and the University of Hong Kong to set up scholarship programmes to inspire the next generation in genomic medicine. In 2024, we awarded scholarship prizes to five outstanding undergraduate and postgraduate students for their exceptional academic performance in subjects related to genomic science and medicine. Encouraged by the enthusiastic response from students, we aim to expand similar collaborations with other local institutions.

啟發後學　薪火相傳

培育人才是基因組中心的策略重點之一，除了醫護專業人員，我們亦積極接觸年青一代，透過每年舉辦的實習計劃，為同學們提供在職培訓，汲取實務經驗，並鼓勵他們投身基因組醫學，探索這個機遇處處的新領域。

我們在2024年的暑假取錄了12名大學生，他們來自本地及海外大學，主修醫學、科學、工程學、傳播、語文及商業管理等不同學科。實習期間，同學們與我們的科學家、研究人員、生物信息學家、傳訊與行政專業人員一同工作，認識到先進的基因組測序技術和相關應用，了解其重塑醫療服務的龐大潛力，擴闊視野。

與此同時，我們繼續與中大及港大醫學院緊密合作，設立獎學金，啟發新一代探索基因組醫學。在2024年，共有五位本科生及研究生獲獎，表揚他們在基因組科學和醫學相關學科表現出色。我們樂見同學們對獎勵計劃反應熱烈，將與更多本地院校探討相類合作，為業界儲備人才。



Adopting a comprehensive approach, we have already engaged over 400 students to date through a number of initiatives ranging from internship and student visits to thematic seminars and career talks. We are proud to play a key role in nurturing a new cohort of talents who will propel genomic medicine forward in the years to come.

Affirming International Standing in Scientific Community

Advancing genomic research is another key priority that we have diligently pursued throughout the year. In 2023-24, our dedicated team published five high-impact research papers in renowned international journals, and we had the privilege of co-editing a special issue for the *Journal of Translational Genetics and Genomics* on "Genomics & Precision Health". In addition to showcasing HKGI's experiences, the team invited experts from around the globe to share the latest industry knowledge, clinical outcomes, and discoveries with a worldwide audience. Notably, one of our papers published in *Genetics in Medicine*, titled "Meta-analysis of the diagnostic and clinical utility of exome and genome sequencing in paediatric and adult patients with rare diseases across diverse populations", was honoured as Editor's Choice of Top Five Papers of 2023.

在培育年青一代方面，我們多管齊下，透過舉辦一系列活動，包括實習計劃、實驗室參觀、專題研討會及職業講座等，已廣泛接觸逾400名學生。他們均是引領未來基因組醫學發展的中流砥柱，我們能夠為培育新秀擔當重要角色，倍感自豪。

科學研究　享譽國際

培育人才以外，推動基因組醫學研究亦是我們年內另一重點工作。在2023-24年度，團隊於國際權威期刊發表了五篇具影響力的研究論文，並獲著名期刊*Journal of Translational Genetics and Genomics*邀請，為專題特刊「基因組學及精準醫學」(Genomics & Precision Health)擔任編輯，分享基因組中心的經驗，並邀請世界各地專家分享行業新知、研究成果及嶄新發現。團隊發表的論文中，題為「綜合分析外顯子測序及基因組測序對不同種族的兒童與成人罕見病患者的診斷與臨床治療成效」(Meta-analysis of the diagnostic and clinical utility of exome and genome sequencing in paediatric and adult patients with rare diseases across diverse populations)的研究，更獲頂尖期刊*Genetics in Medicine*選為2023年度五大推介論文之一，肯定了團隊的努力和科研成就。

Chief Executive Officer's Report
行政總裁報告

Through our collaborations with local and international researchers and scientists, we are cultivating a vibrant ecosystem of shared expertise. This collaborative approach deepens our understanding of diseases and catalyses groundbreaking scientific discoveries that promise to revolutionise healthcare outcomes for patients.

To further this spirit of collaboration, we launched the Synergistic Research Environment (SRE) in July 2024 with great excitement to support a wide range of research and cohort studies. This cutting-edge platform empowers vetted external researchers to securely access encrypted, de-identified, and aggregated clinical and genomic data for research and development purposes. By advancing research and accelerating discoveries in precision medicine, the SRE serves as a powerful catalyst for enhanced collaboration with industry partners, driving the development of new drugs and therapies and expediting clinical trials that will bring life-changing benefits to patients and their families.

我們透過與本地和國際研究人員及科學家合作，成功建立跨專業的生態圈，推動知識共享。這個協作模式加深了我們對不同疾病的認識，不但啟發科學創新，亦有望為病人帶來突破性的治療方案。

為進一步推動研究合作，我們於2024年7月推出了「協同合作研究平台」，以支援不同主題和疾病群組的研究。平台採用了先進技術，能夠讓基因組中心以外的合資格研究人員，在獲審批後透過指定裝置及安全網絡，取用已加密和去識別化的綜合臨床及基因組數據，作研發之用。這個平台在推動研究及促進精準醫學新發現方面，均發揮着重要的催化作用，不但加強我們與業界夥伴的協作和連繫，亦可加快新藥研發和臨床試驗，以期惠及病人及家屬，為他們燃點希望，重啟人生。

Fostering Global Exchanges and Collaborations

Hong Kong's long-standing strengths in life sciences and medical innovations, coupled with its prime location in the Greater Bay Area, present a unique opportunity to foster ties with the Mainland along our collective pursuit of a better and healthier future for everyone. We are also committed to leveraging the city's competitive advantages to enhance understanding and clinical applications of genomic medicine through exchanges with the international community.

Among various engagement events, we had the privilege of co-organising a one-day study mission to Shenzhen with the Health Bureau in September 2023. This visit allowed us to explore key scientific and medical facilities in the neighbouring city while engaging in meaningful discussions on the latest medical advancements and genomic technologies with our Mainland counterparts. The exchanges with esteemed experts from the China National GeneBank, the University of Hong Kong-Shenzhen Hospital, and the Shenzhen Children's Hospital were particularly enlightening.

擴展網絡　促進協作

香港在生命科學及醫學創新發展獨具優勢，加上位處大灣區，為我們與內地建立更緊密連繫，攜手創建更健康未來提供了絕佳條件。我們亦善用香港的競爭優勢，積極與國際醫學和科學界別交流，進一步普及基因組醫學及相關臨床應用。

在眾多交流活動中，我們很榮幸於2023年9月與醫務衞生局共同組織了一日深圳考察團，參觀當地重點科研設施及醫療服務機構，並與國家基因庫、香港大學深圳醫院及深圳市兒童醫院的專家學者，就最新的基因組醫學應用和測序技術交流討論，獲益良多。

Chief Executive Officer's Report
行政總裁報告

Continuing the momentum, we also welcomed a delegation from Peking Union Medical College Hospital led by Professor Zhang Shuyang, a distinguished expert in rare diseases in the Mainland, to exchange insights with us on the development of genomic technologies and patient cases. Through these fruitful exchanges, along with the strong connections established with other institutions and collaborators in the Mainland and around the world, we have gained insightful knowledge about new technologies, practices, research, and clinical applications, laying a solid foundation for future genomic innovations.

From time to time, our colleagues have also been invited to share HKGI's experience and achievements at international conferences, talks and seminars. So far, our team has joined more than 40 of such events, which were well attended by overseas experts, clinicians and academics alike. This allows us to conduct meaningful exchanges on the latest trends of genomic medicine in the international arena, while broadening our connections with talents and institutions in the field across the globe.

此外，我們亦接待了北京協和醫院代表團到訪參觀。該代表團由內地知名罕見病專家張抒揚教授率領，到訪期間與我們的專家就基因組技術發展及病人案例交流經驗，分享見解。透過與內地和國際夥伴的緊密連繫，以及一系列交流活動，團隊得以豐富自身的專業知識，成功掌握最新技術、實務流程、研究和臨床應用，為基因組醫學創新奠下堅實基礎。

在國際方面，我們的同事亦不時獲邀出席主題會議、講座和研討會，與業界同儕分享基因組中心的經驗和成果。年內，團隊參與了超過40場活動，與海外專家、醫生和學者就基因組醫學的最新發展交流討論，進一步拓展基因組中心的網絡，與全球各地的專家和機構建立連繫。

Staying Connected with the Public

In addition to exchanges on a professional level, public engagement is equally important on our agenda. Our proactive outreach to the community through various channels and platforms has been instrumental in enhancing public understanding and garnering support for HKGI. Our interviews with mass media outlets, for example, generated prominent news coverage online and offline to amplify our corporate messages to a wider audience.

This year, we also launched several publicity initiatives, including a corporate LinkedIn page that strengthens HKGI's digital presence and expands our connections within the international professional community. Additionally, we introduced a thematic page on local media platform, where we publish educational articles that showcase HKGI's impactful work and deepen public appreciation and recognition of the importance of genomic medicine.

Unremitting Teamwork Driven by Passion

Our ability to achieve all of the above is underpinned by both a dedicated team and ongoing effort to enhance our infrastructure, allowing us to maximise our capabilities and implement best practices to meet research needs and benefit patients.

In 2023-24, we added new sequencing devices and equipment for both long-read and short-read sequencing, as well as for single-cell analysis and multi-omics studies. We also deployed a number of initiatives to upgrade our hardware and data systems, while simultaneously enhancing our bioinformatics pipelines. These enhancements played a crucial role in strengthening our in-house sequencing and data processing capabilities.

Among our various initiatives, the launch of the Genome Curation Platform (CURA) and the Multi-disciplinary Team Meeting Management System (MDTMS) stand out as key milestones for the year. Genome curation is a key step in interpreting collected genome data, ensuring the quality and reliability of the database. CURA, the cloud-based system we developed in-house, is thus designed to expedite the process of genome curation and bolster our research effort. For MDTMS, it has been developed to streamline the review and approval workflow for MDT meetings, pro forma and whole genome sequencing research reports generation. Serving as a centralised hub, MDTMS enhances accuracy and consistency in clinical information management, which is vital for every step of patient engagement.

連繫社區　傳遞知識

除了在專業層面推動交流協作，我們亦非常重視公眾參與。團隊一直透過不同宣傳渠道及平台，例如報章、電視和網上媒體，向市民大眾解說基因組中心的願景和使命，提升他們對基因組醫學的認識和認同。

年內，我們繼續推行多項公眾教育和宣傳活動，例如開設基因組中心LinkedIn專頁，加強網上宣傳，並藉此擴大團隊與世界各地專業社群的連繫。此外，我們亦在本地主要網上新聞平台設立主題專頁，透過發布專欄文章，簡介基因組醫學的基本概念和基因組中心的工作，加深大眾對基因組醫學的認識，了解其重要性及發展潛力。

團結一致　提升實力

我們在過去一年成功取得眾多成果，實有賴團隊眾志一心，持續完善各項設施和系統，讓每位同事均能夠盡展所長，以最高標準履行職責，推展研究工作，造福病人。

在2023-24年度，我們添置了全新的測序儀器，以支援長序列和短序列測序，以及單細胞分析和多組學研究。同時，我們進行了一系列軟硬件提升工程，優化設備、數據系統及生物信息的分析管理流程，大大提高了團隊內部進行測序和處理數據的能力。

在眾多項目中，團隊於年內順利推出「基因組數據分析平台」(Genome Curation Platform，CURA)，以及「跨專業團隊會議管理系統」(Multi-disciplinary Team Meeting Management System，MDTMS)，絕對是重要里程碑之一。基因組數據分析是詮釋有關數據的關鍵步驟，關乎整個數據庫的質量和可靠性。為此，我們自行開發和建立CURA這個平台，採用雲端技術，有效加快基因組數據分析流程，以支援團隊的研究工作；而MDTMS則有效簡化跨專業團隊會議，以及相關全基因組測序報告的實務流程，從預備、審批到事項跟進，覆蓋各個環節。MDTMS作為一個中央流程管理平台，有助確保臨床資訊管理的準確性和一致性，對推動病人積極參與和建立醫患互信，至關重要。

Chief Executive Officer's Report
行政總裁報告

In parallel with our infrastructure advancements, data security remains a top priority in our operations. We have strengthened HKGI's robust data security by implementing stringent measures, including a comprehensive organisation-wide Security Risk Assessment and Audit exercise. An independent consultant has been engaged to conduct a thorough review of all operational systems, digital platforms, infrastructure, and relevant guidelines to ensure alignment with international standards and compliance requirements. This exercise is progressing well and is expected to be completed in early 2025. Through this initiative, we aim to identify further enhancement opportunities, reinforcing HKGI's data security in the ever-evolving cybersecurity landscape.

除了完善基礎設施，維護數據安全亦是我們工作的重中之重。我們推行了一系列嚴謹措施，以加強基因組中心的數據安全，包括進行全面的保安風險評估及審計。就此，我們委託了獨立顧問，全方位檢視機構所有運作系統、數碼平台、設施和相關指引，確保各個範疇均符合國際標準和合規要求。相關工作進展順利，預計於2025年初完成。我們期望透過是次評估，為機構識別可完善之處，以加強基因組中心的數據安全和應變能力，在日新月異的網絡安全領域中保持優勢。

Laying Solid Foundation for Ambitious Growth

After three years of full operations, HKGI is making impressive progress towards the milestones outlined in our first Strategic Plan – we have accelerated integration of genomics into routine clinical care, inspired genomic research, shared knowledge and experience, and nurtured the next generation of talent. We have also forged impactful collaborations and catalysed genomic innovations that propel precision health forward.

穩扎根基　飛躍成長

基因組中心已全面運作三年，在團隊齊心協力下，我們已有序落實首份策略計劃所訂定的目標，並在各個主要領域取得重大進展，包括加快融合基因組學與常規臨床護理、促進基因組學研究、交流知識和經驗，以及為業界培育新一代人才。我們亦積極連繫各界，與持份者建立具影響力的夥伴協作關係，持續啟發基因組醫學創新，推動精準醫學向前發展。

We take great pride in our accomplishments, all positioning HKGI to achieve new heights in the years ahead. Following the publication of our first Strategic Plan for 2022-25, we have commenced preparations for our new Strategic Plan that will guide us through the next five years, from 2025 to 2030. This plan will build upon our successes, address emerging challenges, and seize new opportunities in the rapidly evolving field of genomic medicine.

我們深感榮幸，成功帶領基因組中心屢創新猷，並為日後發展更上層樓奠下穩固基礎。繼早年發布了基因組中心首份發展藍圖《2022-2025年策略計劃》，我們現已着手制訂新的策略計劃，涵蓋2025至2030年，為未來五年作好準備。新一份策略計劃將引領團隊在迅速發展的基因組醫學領域中迎接挑戰，把握機遇，繼往開來。

Charting the Course for a Healthy Future

As we reflect on our journey, none of our accomplishments or future aspirations would be possible without the collective effort and support of all patients, our partners, and stakeholders. On behalf of the HKGI team, I would like to extend our heartfelt appreciation to all those who have contributed to our cause.

Sincere thanks must go to all HKGP participants, whose courage and persistence are always a source of inspiration. I am deeply grateful for the unwavering support from the Health Bureau, the Department of Health, the Hospital Authority, partnering centres, referring networks, the medical schools of the Chinese University of Hong Kong and the University of Hong Kong, as well as the Hong Kong Academy of Medicine, Hong Kong College of Physicians, and numerous others. I would also like to express my profound gratitude to the HKGI Board and committee members for their invaluable guidance and wise counsel, to the management team for their dedication, and to our staff members for their exceptional professionalism and pursuit of our shared vision.

The potential of genomic medicine is immense. Let us embrace this exciting journey with enthusiasm, determination, and a well-crafted strategy, shaping a healthier tomorrow for generations to come.

Dr LO Su-vui
Chief Executive Officer

昂首邁步　共享福樂

回顧我們推動基因組醫學發展的這段歷程，團隊能夠取得今天的卓越成就，實在有賴病人、夥伴，以及各界持份者鼎力支持，眾志成城，實現願景。我謹代表基因組中心整個團隊，向所有與我們並肩同行的各界友好致以由衷謝意。

我衷心感謝所有基因組計劃參加者的大力支持，他們的勇氣和毅力，一直是激勵團隊向前的最大動力。我亦希望在此向醫務衞生局、衞生署、醫院管理局、夥伴中心、合作網絡、中大和港大醫學院、醫專、香港內科醫學院，以及一眾持份者致以真誠謝意。此外，我非常感謝基因組中心董事局及各委員會成員的專業指導和精闢建言、管理團隊全心全意的付出，以及同事們恪守專業的精神，共同為實現機構願景努力不懈。

基因組醫學潛力無限，讓我們以熱忱、決心和精準策略，睿智開拓，同心前行，為新世代創建更健康未來。

行政總裁
羅思偉醫生

Key Moments in 2023-24

年 度 回 顧

Driving Genomic Medicine to Deliver Patient Benefits
推動基因組醫學　惠及病人

Implemented the Hong Kong Genome Project (HKGP) smoothly with support from the Health Bureau and various partners. As of June 2024, over 30,000 participants had been recruited, covering undiagnosed diseases, hereditary cancers, and cases related to genomics and precision health. In addition to the three established partnering centres at the Hong Kong Children's Hospital, Prince of Wales Hospital, and Queen Mary Hospital, seven new referring networks were added to expand patient recruitment networks, namely Alice Ho Miu Ling Nethersole Hospital, Grantham Hospital, Pok Oi Hospital, The Duchess of Kent Children's Hospital at Sandy Bay, Tin Shui Wai Hospital, Tuen Mun Hospital and Tung Wah Hospital.

在醫務衞生局及各合作夥伴大力支持下，香港基因組中心（基因組中心）繼續順利推展香港基因組計劃（基因組計劃）。截至2024年6月，團隊已招募超過30,000名參加者，涵蓋未能確診病症、與遺傳有關的癌症、以及與基因組學及精準醫學相關的個案。除了香港兒童醫院、威爾斯親王醫院和瑪麗醫院三間夥伴中心，基因組中心亦新增了七間合作網絡，包括雅麗氏何妙齡那打素醫院、葛量洪醫院、博愛醫院、大口環根德公爵夫人兒童醫院、天水圍醫院、屯門醫院及東華醫院，以擴大招募病人的工作。

30,000+
HKGP Participants
香港基因組計劃參加者

Patient Recruitment Booklets
招募病人資料冊

3 Partnering Centres
夥伴中心

- Hong Kong Children's Hospital
  香港兒童醫院
- Prince of Wales Hospital
  威爾斯親王醫院
- Queen Mary Hospital
  瑪麗醫院

7 Referring Networks
合作網絡

- Alice Ho Miu Ling Nethersole Hospital
  雅麗氏何妙齡那打素醫院
- Grantham Hospital
  葛量洪醫院
- Pok Oi Hospital
  博愛醫院
- The Duchess of Kent Children's Hospital at Sandy Bay
  大口環根德公爵夫人兒童醫院
- Tin Shui Wai Hospital
  天水圍醫院
- Tuen Mun Hospital
  屯門醫院
- Tung Wah Hospital
  東華醫院

Organised HKGI's first Patient Forum to interact with patients and introduce HKGP, the potential of genomic medicine, and application cases. The event brought together close to 70 patients and guests, including influential patient leaders from Rare Disease Hong Kong and Hong Kong Alliance of Patients' Organization, as well as members from various patient groups covering kidney disease, cancer, diabetes, haemophilia, and many others.

舉辦基因組中心首個病友共聚分享會，與病友們交流互動，介紹基因組計劃的詳情、發展基因組醫學可帶來的裨益和臨床案例。分享會有近70名病人和資深病人組織領袖參加，包括香港罕見疾病聯盟、香港病人組織聯盟、以及腎病、癌症、糖尿病、血友病等多個病友團體的代表。

Engaging with the Legislators for Dialogue
積極接觸立法會議員　建立聯繫

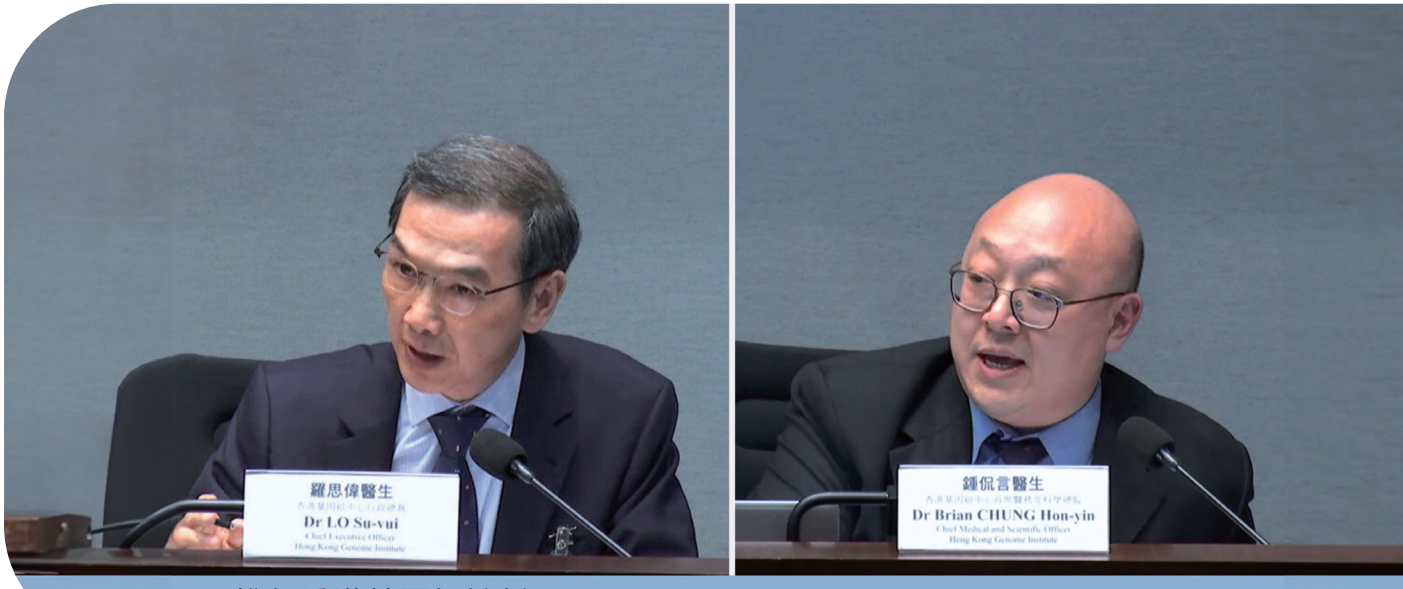
Hosted a visit for members of the Legislative Council Panel on Health Services in the company of the Health Bureau to introduce HKGI's achievements in implementing HKGP and the benefits brought to patients and their families. Seven members, including the Chairman and the Deputy Chairman, were present to receive briefing from HKGI. Through this engagement, HKGI successfully established rapport with the legislators, paving the way for fruitful exchanges in future.

聯同醫務衞生局接待到訪的立法會衞生事務委員會委員，向他們簡介基因組計劃及相關工作如何惠及病人和其家屬。七名議員包括委員會主席及副主席出席參觀活動，並聽取基因組中心的工作匯報。藉此會面，基因組中心與立法會議員建立緊密聯繫，為日後的交流奠定良好基礎。

Accompanied the Health Bureau and attended the Legislative Council Panel on Health Services meeting to report on the implementation progress and accomplishments of HKGP. Members were impressed by the positive outcomes and life-changing impacts the Project has brought about, commending HKGI's work and genomic medicine as "the future of medicine".

在醫務衞生局帶領下出席立法會衞生事務委員會會議，匯報基因組計劃的進度及成效。議員們正面評價基因組計劃，認為其切實改變病人生命，並讚揚基因組中心的工作和基因組醫學是「醫學的未來」。

推行香港基因組計劃 Implementation of the Hong Kong Genome Project



推行香港基因組計劃 Implementation of the Hong Kong Genome Project

Raising Public Awareness Online and Offline
多管齊下　加強公眾教育和認同

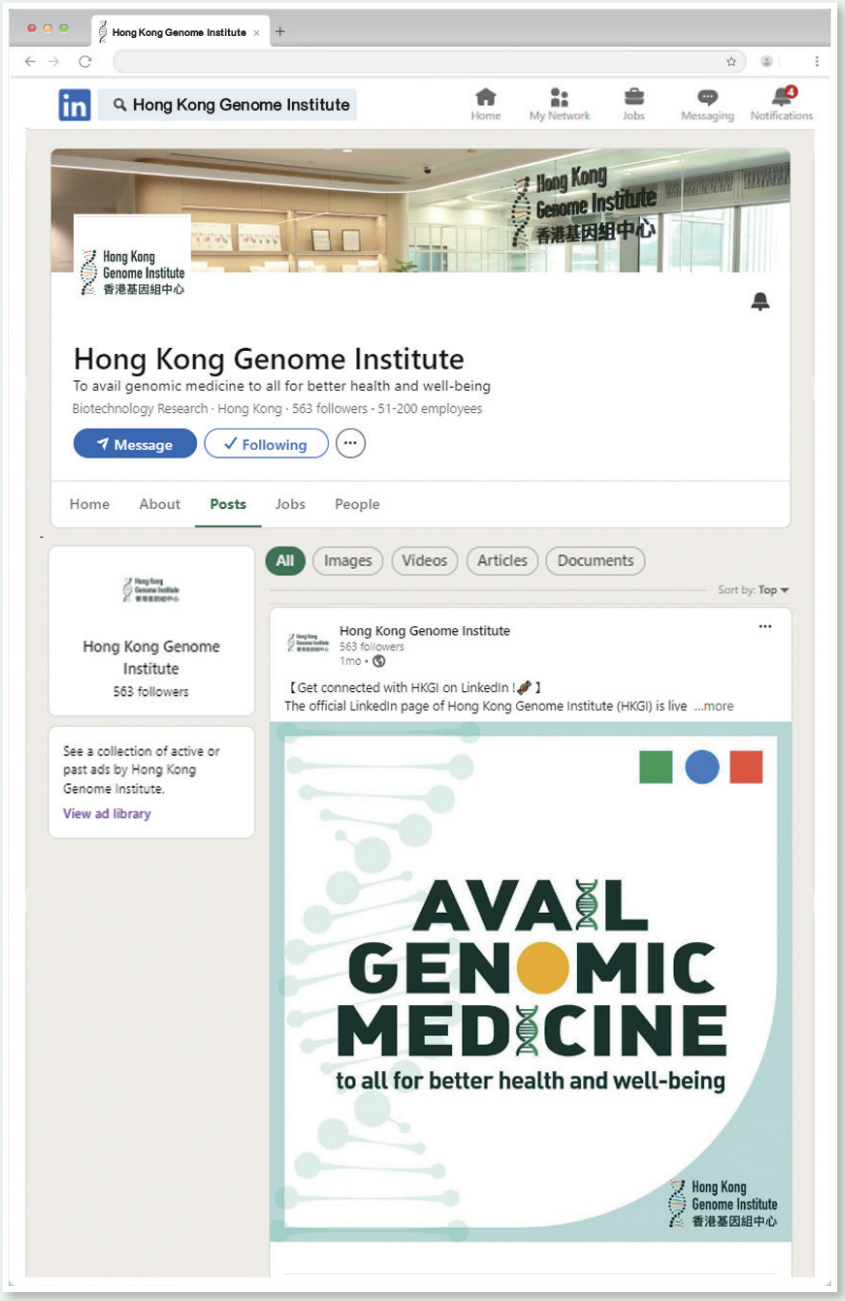
Engaged with local media proactively to raise public awareness of HKGI and the benefits brought by genomic medicine. The extensive coverage generated across print and electronic media has effectively increased public understanding and appreciation for HKGI's mission and achievements.

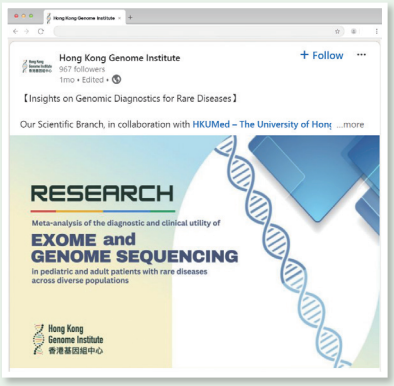
與本地傳媒保持緊密聯繫，推廣基因組中心的工作及基因組醫學的發展潛能。透過報章及電子媒體廣泛正面的報導，有效加深大眾對基因組中心的認識，並對團隊的使命和努力給予肯定。

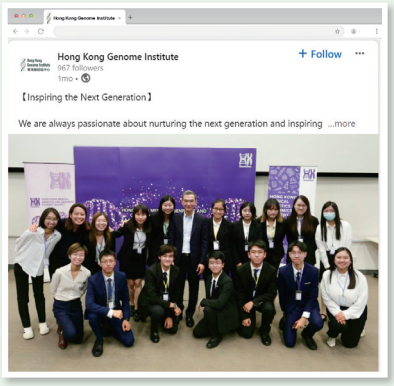
Image credits: Ming Pao Daily News, Hong Kong Economic Times, NowTV and Sing Tao Daily. 圖片來源：明報、香港經濟日報、NowTV及星島日報

Launched the corporate LinkedIn page to enhance HKGI's digital presence and extend its global connections with the professional community to advance its vision and mission. Online posts are published weekly to publicise HKGI's news, events, research, and publications.

開設LinkedIn專頁擴大宣傳網絡，並透過社交媒體加強與全球科學和醫學界建立連繫，以實踐基因組中心的使命及工作。團隊每周均會於專頁上分享基因組中心的最新動向、活動、研究報告和各類刊物，面向世界，持續地推廣基因組醫學。







Raising Public Awareness Online and Offline
多管齊下　加強公眾教育和認同

Rolled out a thematic page on HK01, a popular online media platform. Educational articles featuring basic concepts of genomics and HKGI's latest news and updates were published to promote HKGI's impactful work and deeper understanding of genomic medicine.

於高流量的網上新聞平台《香港01》推出專頁，以專欄文章簡介基因組醫學的相關知識和最新發展，藉此宣揚基因組中心深具意義的工作，並加深大眾對基因組醫學的認識。

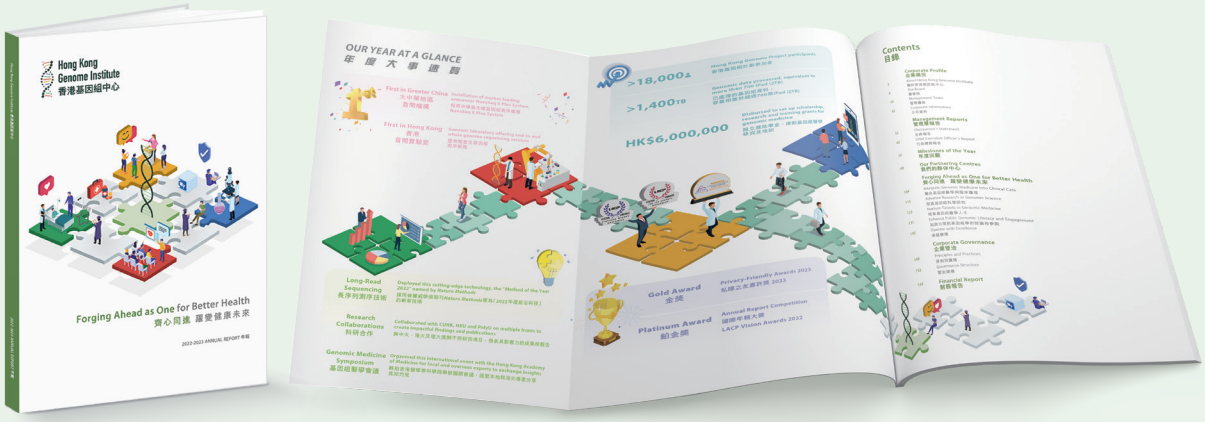
Produced award-winning corporate publications to elevate public awareness and enhance genomic literacy. These included HKGI's 2022-23 Annual Report and Video Series on Genomic Medicine, both of which were created with engaging and relatable content easy for public consumption.

製作宣傳教育刊物，以提升公眾對基因組醫學的興趣和認識。團隊編製的刊物簡明生動，編撰專業，屢獲國際殊榮，其中包括基因組中心2022-23年報及基因組醫學專家訪問短片系列，是公眾教育的重要素材。

2023|24 WINNER
MERCURY
EXCELLENCE AWARDS

LACP
VISION AWARDS
PLATINUM WINNER
WORLDWIDE

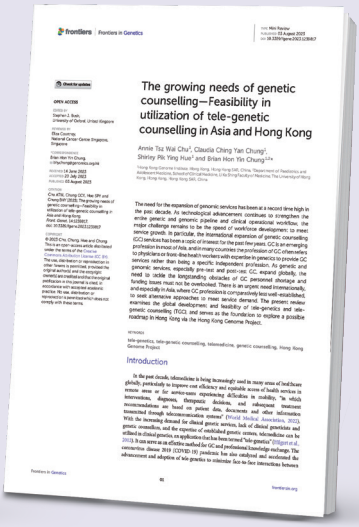
LACP
VISION AWARDS
TOP 100 REPORTS
WORLDWIDE



Exploring New Frontiers in Genomic Research
開拓創新　推動基因組醫學研究

Published five high-impact research papers in international journals to share HKGI's experience, clinical outcomes and discoveries in applying genomic medicine in Hong Kong. The team also co-edited a special issue on "Genomics & Precision Health", gathering experts from around the world to exchange insights on the subject.

於國際權威期刊發表了五篇具影響力的研究論文，就基因組醫學在香港的應用作仔細分享，包括基因組中心的經驗、臨床成果、醫學和科學發現。團隊亦獲著名期刊邀請，為題為「基因組學與精準醫學」的特刊擔任編輯，彙集來自全球各地專家的真知灼見。



Launched the Synergistic Research Environment to support genomic research initiatives. The platform allows eligible researchers to access de-identified and aggregated clinical and genomic data through designated machines and protected networks, empowering disease discoveries and development of new drugs and treatments.

推出「協同合作研究平台」，促進基因組醫學研究。透過這個平台，合資格研究人員可經指定裝置及安全網絡，存取已去識別化的臨床及基因組數據，藉此啟發創新，加快藥物研發。

Building Talent Pool for Genomic Medicine
培育人才　成就基因組醫學未來

Inspired the young generation to explore subjects related to genetics and genomics. Scholarship prizes were awarded to outstanding medical students from the Chinese University of Hong Kong and the University of Hong Kong, instilling in them an interest in genomic medicine, an up-and-coming professional.

鼓勵年輕一代探索遺傳學和基因組學相關領域，包括與香港中文大學及香港大學設立獎學金，頒發予表現出色的醫科生，以啟發他們對基因組醫學這門新興專業的興趣。

Organised the 2024 summer internship programme, hosting 12 students from local and overseas universities. Coming from different disciplines, the interns had the chance to work alongside HKGI's professionals and gained invaluable experience across a wide range of functions, from research and clinical practice to communications and finance.

舉辦2024年度暑期實習計劃，吸引了12位於本地及海外大學就讀的學生參加。他們主修不同學科，實習期間與基因組中心的專業團隊共事，參與研究、臨床實習、傳訊及財務等多個範疇的工作，汲取寶貴經驗。

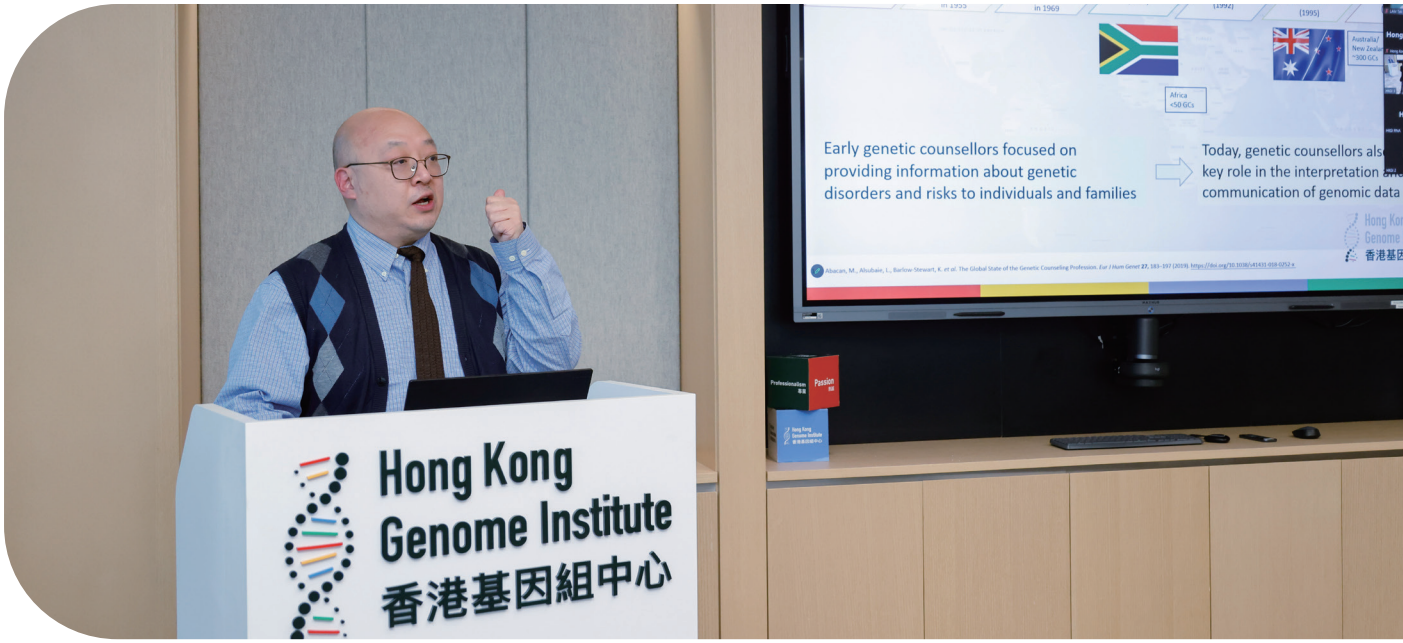
Building Talent Pool for Genomic Medicine
培育人才　成就基因組醫學未來

Hosted a series of visits and career talks for secondary and university students to inspire them about the exciting prospects of genomic medicine and guide them on career planning. Each visit was an eye-opening experience for the students as they learnt about the transformative power of genomic medicine and the impactful work of HKGI.

為中學和大學生舉辦一系列參觀和職業講座，鼓勵他們探索機遇處處的基因組醫學領域，助他們規劃事業發展。這些活動讓學生們大開眼界，有助他們了解基因組醫學的龐大潛力，以及基因組中心工作的深遠影響。

Engaged healthcare practitioners for continuing professional development through training and talks. For instance, an "Alignment of Practice and Refresher Course for Genetic Counsellors" was organised for relevant teams from HKGP partnering centres and Hospital Authority, keeping them abreast of latest updates and knowledge, while promoting the standardisation of genetic counselling practice.

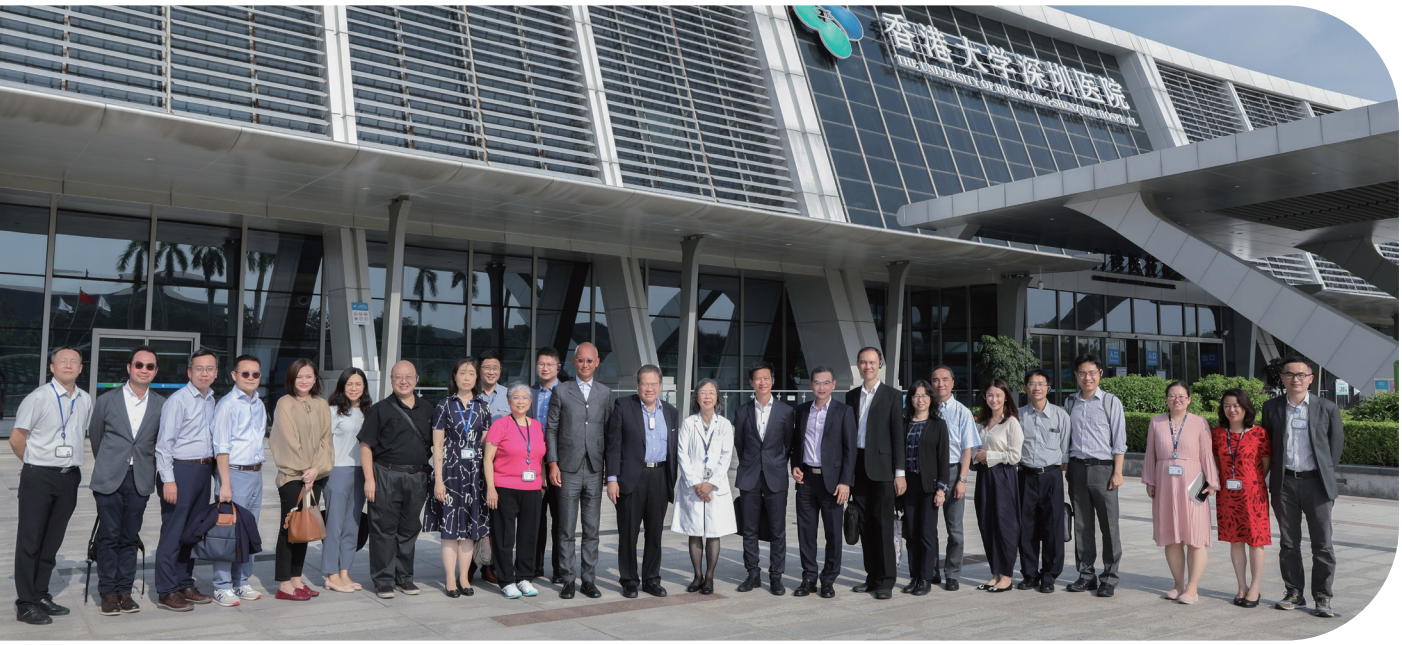
為醫護專業人員舉辦主題培訓和講座，促進持續專業發展，例如舉辦「遺傳輔導員實務守則及專業發展」講座，以助基因組計劃夥伴中心及醫院管理局相關醫護人員掌握最新資訊和知識技能，為遺傳輔導建立一致的實務標準。



Expanding Global Networks to Propel Exchanges and Collaborations
拓展網絡　促進國際交流協作

Co-organised with the Health Bureau a one-day visit to Shenzhen to gain insight into new technologies and practices of genomic medicine. Co-led by the Health Bureau and HKGI, and joined by representatives from the Department of Health, the Hospital Authority, and the University of Hong Kong, the delegation visited key scientific and medical facilities, and engaged in fruitful exchanges with counterparts on genomic research and clinical applications.

與醫務衞生局組織考察團，帶領衞生署、醫院管理局及香港大學代表前往深圳了解內地最新基因組醫學技術和應用。考察團探訪深圳重點科研設施及醫療服務機構，並就基因組醫學研究及臨床應用與各方交流討論，獲益良多。



Hosted a visit for the delegation from Peking Union Medical College Hospital led by Professor Zhang Shuyang, a renowned expert in rare diseases in the Mainland. Experts from both sides had the valuable opportunity to exchange insights on the development of genomic medicine and cutting-edge technologies.

接待北京協和醫院代表團。該代表團由內地著名罕見病專家張抒揚教授率領，到訪期間與基因組中心的專家相互交流，就基因組醫學發展及最新技術熱烈討論，分享見解。

Expanding Global Networks to Propel Exchanges and Collaborations
拓展網絡　促進國際交流協作

Participated actively in local and international events to drive exchanges with experts from around the world. The presence of HKGI senior executives as chairs of panel discussions and distinguished guest speakers at prestigious industry events enabled the team to maximise exposure, raise public awareness, and expand professional networks.

積極參與本地及國際會議，加強與世界各地專家交流。基因組中心的代表為業界盛事主持研討會及擔任講者，有助提升基因組中心的知名度，加深社會大眾對基因組醫學的認識，並擴展專業網絡。

Some of the signature events attended by HKGI to promote medical innovations and collaborations included the "Unlock The Life & Health Sciences Potential Through Innovation Summit" held by InvestHK, and the "Asia Summit on Global Health" organised by Hong Kong Trade Development Council.

基因組中心於年內參與眾多大型會議，包括由香港投資推廣署舉辦的「創新釋放生命與健康科學潛力」專題峰會，以及由香港貿易發展局舉辦的「亞洲醫療健康高峰論壇」，推動醫學創新和協作。

Engaging Staff Members for Operational Excellence
專業團隊　實踐卓越營運

Organised thematic training sessions on cybersecurity and data management to ensure staff members stayed current with latest trends and updates. For example, a lecture on DNA privacy was given by HKGI Board member Professor Yiu Siu-ming to equip staff members with the essential knowledge and skill sets in the subject matter.

就網絡安全及數據管理舉辦主題培訓，助同事掌握最新趨勢和資訊，其中包括邀請了基因組中心董事局成員姚兆明教授以DNA私隱為題，講解數據安全的相關知識和技能。

Organised staff engagement activities such as Christmas party, Chinese New Year lion dance, and staff luncheon to foster team bonding and cultivate an inclusive, supportive, and collaborative work environment that facilitates operational excellence.

舉辦多項員工活動，包括聖誕聯歡會、農曆新年醒獅活動，以及午間聚會，增強團隊精神，鼓勵同事們相互支持合作，創造和諧共融的工作環境，實踐卓越營運。

Hong Kong Genome Project

Our Life-changing Stories

香港基因組計劃

改變生命的故事

Case 個案 1

Unlocking the Mystery and Triumphing over Life's Trials

解開病因之謎 跨越人生障礙賽

Life has a way of challenging our resolve with unexpected twists and turns. Ka-ho (a pseudonym), a sports enthusiast, was thrown a curveball when he developed muscle weakness. Suddenly, the simple joys of running and jumping faded into distant memory, and he spent over a decade in search of answers. Fortunately, Ka-ho's physical limitations are no match for his inner strength. The resilience he has developed from sports training means he does not easily give in. Ultimately, the Hong Kong Genome Project (HKGP) confirmed he is suffering from a rare disease known as Limb-girdle Muscular Dystrophy (LGMD), putting an end to the deep-seated confusion and burden he has been carrying around for years. Now, he is able to seize every moment and plan his treatment and future with renewed determination.

老天總愛以生命的無常磨煉我們的意志。很多事情，總是意料之外。家豪（化名）熱愛運動，卻患上肌肉無力的頑疾，跑跳動彈成了他遙不可及的夢，更花上超過十年尋找患病原因。幸而身體上的囿限及不上他內心的強大，由運動鍛鍊出來的堅韌令他不輕易屈服，最後透過香港基因組計劃證實患上罕見的「肢帶型肌肉萎縮症」（Limb-girdle Muscular Dystrophy），既解開他沉積內心多年的困惑和包袱，亦讓他更珍惜當下，為治療和生活作更好的規劃和準備。

Ka-ho has always been a sports enthusiast, with a passion for sports that began at a young age, defining a life filled with dynamic movement. However, as he approached his 40th year while pursuing his ambitions, an unexpected health challenge crept up. At the age of 40, Ka-ho started experiencing weakness in his legs and pain in his back, while his walking pace gradually slowed. He dismissed these symptoms as muscle fatigue from exercise, but it was not until standing also became a struggle that he recognised the seriousness of his condition and sought medical attention. This marked the start of a decade-long quest to uncover the mysteries behind his condition.

Whole Genome Sequencing Unravels a Decade Mystery

Over the years, Ka-ho continuously sought medical advice and underwent numerous tests. Despite completing all relevant examinations, a definitive diagnosis remained elusive. Fortunately, Ka-ho remained undeterred. In 2021, 12 years after his symptoms first appeared, he was referred by his hospital to the newly launched HKGP. The dedicated HKGP team conducted whole genome sequencing (WGS), which finally revealed a genetic mutation, confirming that Ka-ho has a rare disease known as LGMD Type 2A.

This rare condition is a subtype of LGMD. The onset of the disease is unpredictable, with muscle weakness and atrophy affecting the shoulders, hips and torso, progressively worsening over time. Patients typically experience tightening of the Achilles tendon, leading to challenges in mobility.

家豪是一名運動健將，從小活潑愛動，沒有一刻定下來。然而，當他步入不惑之年，努力實踐抱負之際，頑疾卻悄然降臨。40歲的家豪起初發覺腿部無力、背部疼痛，走路越來越慢，本以為是運動後的肌肉勞損，並沒有特別在意；直至連站立也開始變得困難，他才意識到問題嚴重，需要求醫，自此展開了一場持續十數載的尋找病因之旅。

全基因組測序解開十年心結

這些年來，家豪不停見醫生，做檢查；只是，即使做遍所有相關測試和檢查，仍然無法確認他所患何病。幸而家豪未有輕言放棄，在發病後的第12個年頭，即2021年，他在醫院轉介下，參加了當時剛推行的香港基因組計劃。經計劃團隊安排，家豪進行全基因組測序，終於找到基因變異之處，證實患上名為「肢帶型肌肉萎縮症2A型」的罕見病。

此罕見病屬「肢帶型肌肉萎縮症」亞型，發病時間不固定，肌肉無力和萎縮情況集中出現在肩帶、腰帶肌肉群以及軀幹，並會隨著病情發展而逐步加重，病人一般會出現腳跟肌腱收縮變形，導致不良於行。

Ka-ho vividly recalled the moment when he received the explanation of the sequencing results. After the initial shock and intense emotion, he soon felt a profound sense of relief washing over him. At long last, he could put his inner turmoil behind him, emerging from the fog of doubt. Understanding the trajectory of his illness, Ka-ho had a clear direction for planning his future.

When it came to clinical care, with the analysis results from WGS, healthcare professionals were able to develop a personalised disease management plan for Ka-ho. Their primary goal was to slow the progression of his conditions while focusing on improving and preserving his mobility. In addition to physiotherapy, Ka-ho follows his therapist's advice by performing daily home exercises, such as leg stretches, to maintain muscle strength. He has also gained a better understanding of his disease's progression and potential challenges he may face. He proactively embraces the early adoption of various assistive tools, such as canes and wheelchairs, ensuring that his condition does not limit his future quality of life.

A Rocky Road, Yet Unshaken with an Unbreakable Spirit

Ka-ho's willpower and perseverance honed through his years of sports training carried him through his decade-long quest for answers. With the help of HKGP, he finally found the explanation he was looking for, allowing him to find peace and lift a heavy burden off his shoulders. He is now tackling his condition head-on, adhering to a personalised disease management plan designed by HKGP's team, in the hope of slowing the progression of his symptoms.

It is said: "When the mountain won't yield, the path must change. When the path is unyielding, one must adapt. And when adaptation seems impossible, it's time to shift one's mindset." With this change in perspective, Ka-ho has chosen to live fully in the present, plan for his future, and resolutely face life's hurdles.

醫生講解測序結果的一幕，家豪至今記憶猶新，一陣錯愕和激動過後，更多的是如釋重負，因為他終於可以解開多年心結，走出迷霧，知道自己病情的走向，對規劃未來也有方向和準備。

在臨床護理上，有著基因組測序的分析結果，醫護專業人員得以為家豪安排個人化的病情管理方案，助他延緩病情，以改善及保存行動力為首要目標。除了積極接受物理治療，家豪亦按照治療師的建議，每天進行居家運動，例如伸展腿部訓練肌力。同時，他亦深入了解到這個病的進程，以及自己將要面對的挑戰，因而及早了解和學習使用各種輔助生活的工具，例如拐杖和輪椅，不讓頑疾限制日後的生活。

路縱崎嶇　心更堅毅

從運動鍛鍊出來的意志和毅力，助家豪走過十多個寒暑的尋找病因之旅，最後在香港基因組計劃協助下覓得答案，得以釋懷，放下心中大石。他亦積極面對，努力配合計劃團隊為他設計的個人化病情管理方案，期望延緩病情惡化。

「山不轉路轉，路不轉人轉，人不轉心轉。」轉念之間，家豪選擇好好活在當下，規劃未來生活，勇敢面對人生障礙賽。

Learn About Limb-girdle Muscular Dystrophy
認識肢帶型肌肉萎縮症

Disease Incidence

Limb-girdle Muscular Dystrophy (LGMD) can be classified into more than 20 subtypes, including Type 2A. On average, there are only about one to nine cases per 100,000 individuals. The condition is caused by mutations in the *CAPN3* gene on chromosome 15, resulting in deficiencies in the calcium-activated protease (Calpain-3) within muscle cells, which affects the normal function of skeletal muscle.

發病率

「肢帶型肌肉萎縮症」可細分為20多種亞型，而「肢帶型肌肉萎縮症2A型」是其中之一，平均每10萬人中只有大約一至九個案例。致病原因為位於第15號染色體上的「*CAPN3*基因」發生突變，導致肌肉細胞內鈣離子活化的蛋白分解酶（Calpain-3）出現異常，進而影響正常骨骼肌肉功能。

Symptoms

Different types of LGMD may present various symptoms. However, a common feature among patients is weakness in the lower limb muscles, which causes frequent falls and difficulties in running, stairs climbing, and standing. As the disease progresses, mobility may become increasingly difficult, necessitating the use of wheelchairs and other assistive devices.

Currently, there is no specific treatment for LGMD, and care needs to be personalised to each patient's circumstances. The primary objectives of treatment focus on extending life expectancy and improving quality of life. These goals are achieved through weight management, physiotherapy, and stretching exercises to reduce the risk of muscle tightening, along with the use of supportive medications, respiratory support, and heart health monitoring.

病徵

不同類型的「肢帶型肌肉萎縮症」可能會呈現不同的臨床表徵。然而，病人的共同特徵是下肢肌肉無力，導致他們經常跌倒，難以跑步、上落樓梯或站立。隨著病情進展，病人行走可能變得更困難，需要依賴輪椅及助行工具。

「肢帶型肌肉萎縮症」目前尚未有特定的治療方案，而需要根據每位病人的情況度身訂做。治療的主要目標是延長壽命並提升生活質素，方法包括控制體重、透過物理治療和伸展運動減少攣縮的風險、使用輔助藥物、呼吸輔助器，以及監測心臟健康。

Case 個案 2

From Diagnosis to a Legacy of Love and Hope

病患以外 代代相傳的守護和盼望

Every mother hopes that her children will grow up healthy and happy. For Lai-kuen (a pseudonym), however, who endures the prolonged suffering caused by various symptoms of a rare disease, there is a lingering concern that her children may also encounter similar health challenges.

After years of living with an undiagnosed disease, Lai-kuen's life reached a turning point when she participated in the Hong Kong Genome Project (HKGP) in 2022. The results of whole genome sequencing (WGS) finally revealed that she has Fabry disease, a rare genetic disease. This long-sought diagnosis not only facilitates personalised treatment for her but also allows her asymptomatic daughter to take proactive preventive measures.

每一位母親，都希望孩子能夠健康快樂地成長，奈何患上罕見頑疾，身體長期承受各種病徵所帶來的苦楚，作為母親的麗娟（化名）難免擔憂家人會走上同一條患病崎嶇路。

經歷多年病因未明，她在2022年參加了香港基因組計劃，透過進行全基因組測序，終被診斷罹患罕見遺傳病「法布瑞氏症」(Fabry Disease)。這個尋覓多年的答案，除了讓她得以接受針對性治療，亦助其未發病的女兒及早預防。

As Lai-kuen entered the second half of her life, she remained dedicated to her family's well-being. However, having witnessed both her father and younger brother battle rare inherited disorders, a sense of uneasiness lingers in the back of her mind that she might not be spared.

進入人生下半場，麗娟努力為家庭打拼，惟目睹父親及弟弟先後患上罕見遺傳病，她內心一直忐忑不安，擔心自己亦無法倖免。

Upon turning 50, Lai-kuen's body began to show signs of trouble, with elevated levels of protein, potassium, and urine creatinine. As time passed, her condition gradually deteriorated. She found herself facing end-stage renal disease, further complicated by blood clotting in her lower legs.

果不其然，到「入五」之年，她的身體開始出現警號，蛋白質、鉀及尿液肌酐酸等指數水平升高。隨著時日轉移，她的身體狀況持續惡化，已進入腎病末期，小腿亦出現血管栓塞的跡象。

20 Years Later – Whole Genome Sequencing Unlocks Diagnosis

From her 50s to her 70s, Lai-kuen spent two decades searching for the cause of her illness. At the age of 71, under the attending doctor's referral, she joined the HKGP in 2022. Through the collaborative efforts of a multi-disciplinary team of healthcare professionals, scientists, and researchers, Lai-kuen underwent WGS. Following a thorough assessment and analysis, it was confirmed that Lai-kuen was diagnosed with the rare condition known as Fabry disease.

Fabry disease is primarily caused by mutations in the gene responsible for producing the enzyme α-galactosidase (a-GAL). Patients with this condition lack this crucial enzyme, which prevents the breakdown of fatty substances called "glycolipids" in the body, resulting in an accumulation of these substances in various organs, such as nerves, skin, kidneys, and heart, causing widespread dysfunction throughout the body.

Following the precise molecular diagnosis, Lai-kuen's doctors promptly arranged for her to begin Enzyme Replacement Therapy (ERT), supplementing the deficient enzyme and helping to alleviate her symptoms.

尋醫廿載 全基因組測序拆解患病因由

麗娟從半百人生，走到古稀之年，歷經20年，始終無法找到患病原因。及至71歲，她在主診醫生轉介下，於2022年參加了香港基因組計劃。計劃團隊的跨學科醫護專業人員、科學家和研究員等通力合作，為麗娟進行了全基因組測序和分析，終於確認她患上罕見病「法布瑞氏症」。

此病症主要是由身體內負責製造α-galactosidase（a-GAL）酵素的基因突變所引起，病人身體缺少此酵素，造成體內的「醣脂質」無法進行分解，堆積在神經、皮膚、腎臟及心臟等器官，導致身體各處功能出現問題，無法正常運作。

確定病因後，醫護人員隨即安排麗娟接受酵素替代療法（Enzyme Replacement Therapy），補充身體缺少的特定酵素，助她紓緩病情。

A Beacon for Family Health: Paving the Way for Prevention and Care

Given the hereditary nature of Fabry disease, Lai-kuen's daughter also participated in HKGP and underwent WGS. The analysis confirmed that she, like her mother, has the same rare disease. Fortunately, she has not yet developed symptoms, allowing healthcare professionals to intervene early with ERT to reduce the risk of heart and kidney damage. For Lai-kuen's family members who are considering pregnancy, this finding also underscores the importance of targeted prenatal testing. It can assist in early diagnosis and help mitigate potential disease risk.

Lai-kuen's experience has enlightened her daughter and future generations of her family about their health risks, strengthening their vigilance over their health and enabling them to make informed family planning decisions. Although Lai-kuen was diagnosed in her later years, she can still manage her health through personalised treatment and make the most of her time with her cherished family.

The efforts of the HKGP team have brought significant changes for Lai-kuen, her daughter, and their entire family. Not only did it help Lai-kuen find answers to her own medical condition, but it also made her a guiding light for her family. Her journey has become a legacy of love and hope, protecting her loved ones' health for generations to come.

為家人健康引路 及早預防和治療

考慮到「法布瑞氏症」帶有遺傳性質，麗娟的女兒亦一同參與香港基因組計劃，接受全基因組測序，分析結果確認她與母親一樣患上相同罕見病，猶幸尚未發病，讓醫護專業人員得以提前介入，以酵素替代療法，減低其心臟及腎臟因病受損的風險。若麗娟的家族成員於懷孕時進行針對性的產前檢查，亦將有助及早診斷和預防患病。

麗娟的經歷，讓女兒以至往後每一代的家族成員了解到自身的患病風險，從而加強監察個人健康，及早為家庭計劃作好打算。雖然麗娟於晚年才確診患病，但仍可透過針對性治療，以最大努力做好健康管理，珍惜與家人共聚的時光。

香港基因組計劃團隊的努力，為麗娟以至她的女兒和整個家族帶來重大改變，不但助麗娟找到患病原因，亦讓她成為家人最明亮的引路燈，將經歷化作代代相傳的愛和盼望，守護着摯愛的健康。

Learn About Fabry Disease
認識法布瑞氏症

Disease Incidence

Fabry disease is a rare genetic disease that affects approximately one in 40,000 to 60,000 males. While it is more prevalent in males, females can also inherit the genetic mutations associated with this disease and generally experience milder symptoms.

發病率

「法布瑞氏症」是一種罕見的遺傳性疾病，發病率約為每40,000至60,000名男性中便有一名病人。男性發病率較女性高，而即使基因變異發生在女性身上，其症狀一般較輕微。

Symptoms

Clinical symptoms of Fabry disease include periodic pain in the hands or feet, unexplained gastrointestinal discomfort, and decreased sweating. Most patients experience kidney complications, including declining kidney function that may necessitate dialysis. The disease can also cause irregular heartbeats or heart failure. Angiokeratomas may develop on the skin of the lower abdomen and thighs in patients, and cornea verticillata may be observed.

病徵

「法布瑞氏症」臨床症狀包括四肢末端出現間歇性疼痛、不明原因的腸胃不適、出汗能力減少等。大部份病人的腎臟都會受影響，出現腎功能退化，甚或需要洗腎，亦有機會心律不正或心臟衰竭。此外，病人的下腹、大腿等皮膚上或會出現血管角質瘤，眼睛亦可能出現角膜濁斑。

Currently, there is no complete cure for Fabry disease. However, various treatment options are available, including Enzyme Replacement Therapy and targeted treatments specific to the affected organs and symptoms.

目前「法布瑞氏症」仍無法徹底根治，但有各種治療方法，包括酵素替代療法，以及針對各器官及症狀而進行不同治療。

Case 個案 3

Enduring with Courage, Embracing Stern Challenges

以等待的勇氣 迎戰生命硬仗

Waiting can sometimes be an excruciating process, especially for those with end-stage illnesses who require an organ transplant. The uncertainty, with no end in sight, creates a unique burden that few can fully appreciate. Wai-ling (a pseudonym), a patient with Polycystic Kidney Disease (PKD), understands this plight all too well. Not only must she endure the pain of kidney failure, but she is also in a race against time to receive an organ transplant.

With help from the Hong Kong Genome Project (HKGP) team, Wai-ling received a precise diagnosis and gained access to targeted medication, which slowed the progression of her condition while affording her more time to wait for a suitable organ donor. At the same time, thanks to whole genome sequencing (WGS), the HKGP team was able to quickly and efficiently identify close relatives without the same disease-causing genes, thus increasing the chances of organ donation from family members.

等待，有時是一種難以形容的煎熬，尤其是對於等候器官捐贈的末期病人來說，看不見盡頭的無力感不足為外人道。慧玲（化名）不幸患上「多囊性腎病」（Polycystic Kidney Disease），深深明白等待的百般滋味。她既要承受腎衰竭所帶來的痛苦，亦要與時間競賽，等候器官移植。

香港基因組計劃團隊透過精準診斷，有助慧玲找到針對病因的特效藥延緩病情，為她爭取更多時間等待合適的器官捐贈者。同時，計劃團隊透過全基因組測序，為慧玲快速和有效地找出沒有致病基因的家人，提高近親捐贈器官的機會。

After experiencing frequent upper abdominal pain, Wai-ling, aged 36, underwent medical examinations and was diagnosed with hereditary Polycystic Kidney Disease (PKD). The disease was not new to her, as it had already claimed the lives of several family members. When Wai-ling learnt that she too had inherited this condition, the news deeply affected her, but she nevertheless summoned the strength to face the challenging journey ahead.

As time passed, Wai-ling's condition gradually deteriorated. Cysts first appeared in her kidneys, which then multiplied and began to erode her kidney tissue, ultimately leading to a decline in her kidney function. The cysts not only caused her abdomen to swell, but also led her enlarged kidneys to compress the surrounding organs. This compression made it difficult for her to sit, stand, eat, or even breathe. By the age of 54, her condition had deteriorated to kidney failure, and she needed dialysis to sustain her life. An organ transplant became her only hope.

36歲的慧玲，因經常感到上腹疼痛而接受檢查，被診斷出遺傳性的「多囊性腎病」。對於慧玲來說，這個病並不陌生，因為她家族中已有多位親人同患此病，不幸去世。當她得知自己亦難逃命運的安排，雖感到無奈，仍勇敢面對。

慧玲的病情隨著時間逐漸惡化，先是腎臟開始出現囊腫，其後囊腫日益增多並開始侵蝕腎臟組織，令她的腎功能逐漸下降。這些囊腫更使她的腹部脹大，而腫大的腎臟更擠壓其他器官，導致她坐立、進食，甚至呼吸都出現困難。及至54歲，她的病情已惡化至腎衰竭，需依賴洗腎維生，器官移植成為她重生的唯一希望。

Personalised Treatment Slows Disease Progression

Finding a suitable donor takes time. Amidst this uncertainty, WGS brought her hope. In 2022, at the age of 59, Wai-ling participated in the HKGP and underwent WGS. The analysis revealed a truncating mutation in her genes, confirming a diagnosis of Autosomal Dominant Polycystic Kidney Disease. With this critical information, the HKGP team determined that the targeted medication Tolvaptan could slow the progression of kidney cyst damage, thereby buying her more time to find an organ donor.

The HKGP team also recommended that Wai-ling's family undergo targeted examinations, such as kidney imaging, and identify relatives without the disease-causing gene, potentially increasing the chances of finding a suitable donor. On the other hand, it also allowed her family members to better understand their genetic risks, enabling them to proactively monitor their health, and engage in disease prediction and prevention.

Wai-ling is bravely facing the challenges ahead, finding hope along the way. Thanks to the collaborative efforts of the Hong Kong Genome Institute's professional teams and cutting-edge WGS technologies, Wai-ling was able to identify the cause of her illness and receive personalised, precision treatment that has effectively slowed the progression of her conditions.

個人化治療 延緩病情惡化

尋找合適的捐贈者需時，在充滿未知的等待中，全基因組測序為她帶來了希望。2022年，59歲的慧玲參加了香港基因組計劃，進行全基因組測序，分析結果揭示她的基因出現截斷突變，確診為「常染色體顯性多囊性腎病」（Autosomal Dominant Polycystic Kidney Disease）。根據這個關鍵資訊，計劃團隊確定了針對「多囊性腎病」的特效藥物「Tolvaptan」能夠助慧玲控制病情，延緩腎臟囊腫的破壞速度，為她爭取更多時間尋找器官捐贈者。

此外，計劃團隊亦建議慧玲的家人接受針對性的檢查，例如腎臟造影檢查，一方面嘗試尋找沒有致病基因的近親，期望提高覓得合適捐贈者的機會；另一方面，她的家族成員亦可了解自身的遺傳風險，及早監察身體狀況，進行疾病預測及防控。

慧玲勇敢面對生命的硬仗，在等待中尋找希望。有賴香港基因組中心專業團隊共同努力，透過嶄新的全基因組測序技術，讓慧玲最終可確定病因，得到個人化的精準治療，有效延緩病情惡化。

Learn About Polycystic Kidney Disease
認識多囊性腎病

Disease Incidence

Polycystic Kidney Disease (PKD) is the most common hereditary kidney disease, with Autosomal Dominant Polycystic Kidney Disease (ADPKD) accounting for approximately 90% of all cases. If either of the parents has the disease, their children have a 50% chance of inheriting it. Globally, one in every 400 to 2,500 individuals suffers from ADPKD. Based on Hong Kong's population of approximately 7.5 million, it is estimated that there are between 3,000 and 18,750 ADPKD patients.

發病率

「多囊性腎病」是最常見的遺傳性腎病，約90%病例屬於「常染色體顯性多囊性腎病」（ADPKD）。若父或母患病，其子女有50%機會遺傳此病。全球每400至2,500人中就有一人患有ADPKD。根據香港約750萬人口估算，約有3,000至18,750名ADPKD病人。

Symptoms

PKD is a condition characterised by the development of proliferative cysts in the kidneys, accompanied by high blood pressure and declining kidney function. PKD can affect both kidneys, and as the disease progresses, these cysts continue to grow, gradually replacing the normal kidneys and blood vessel tissues, leading to a deterioration in kidney function. Eventually, this can result in end-stage renal failure. PKD can also cause problems in other organs, such as the liver and pancreas. In some cases, it may even lead to bleeding in the brain, which can be fatal.

Currently, there is no cure for this rare disease; however, early diagnosis, coupled with effective blood pressure control, can significantly slow its progression. Medications are now available for clinical use that, when administered early, can help decelerate the growth of the cysts.

病徵

「多囊性腎病」又俗稱「泡泡腎」，病人腎臟會出現增生性囊腫，伴隨高血壓和腎功能衰退。此病可影響兩側腎臟，隨著囊腫不斷增大，更會逐漸取代正常的腎臟、血管組織，令腎功能逐漸衰退，最終導致末期腎衰竭。這個病亦會影響肝臟、胰臟等，更有機會引發腦出血，有致死風險。

這個罕見病目前尚無治癒方法，但及早診斷，加上有效控制血壓，可減慢病情惡化。現時已有藥物作臨床應用，如病人及早服用，有助減慢囊腫增長。

Case 個案 4

The Strength of a Mother Overcoming Breast Cancer for Her Children

為母則強 為子女奮戰癌魔

Love is the most powerful force in life. As she gazed at her children, Wing-sze (a pseudonym) was determined to defeat cancer for their sake, bravely embracing the necessary choices for their future, even if it meant she might never give birth again. A happy mother of two young children approaching her 40, she never expected that breast cancer would come uninvited during the prime of her life, forever altering her life. Wing-sze found the resilience to face the challenge head-on for her children. She joined the Hong Kong Genome Project (HKGP) and benefitted from whole genome sequencing (WGS) to identify disease-causing genetic variations. Upon learning that she was at risk of other cancers, she made the difficult but necessary decision to undergo surgery, removing her fallopian tubes and ovaries. This proactive measure allowed her to avoid future cancer risks and regain control of her health.

At the same time, WGS provided Wing-sze with valuable insights into the hereditary risks associated with her cancer, and she is now doing everything she can to protect her children from the threat she faces head-on.

愛，是人生最強大的後盾。穎詩（化名）凝視著子女的那一刻，已下定決心要為家人戰勝癌魔，即使以後無法生育，她亦勇於抉擇取捨。即將步入四十歲，擁有一對年輕子女的穎詩是一名幸福媽媽。她從沒想過，竟在人生的黃金階段遇上不速之客—乳癌，從此改寫了她的人生。為了孩子，穎詩積極面對，參加了香港基因組計劃，並透過全基因組測序精準地找到致病的變異基因。當她知道自己有患上其他癌症的風險時，便果斷地接受了輸卵管及卵巢切除手術，預防癌魔再襲，重拾健康主導權。

同時，穎詩亦了解到自己罹患的癌症的遺傳風險，盡其所能保護子女遠離威脅。

With no family history of cancer, Wing-sze never imagined she would face such a serious threat to her health. At age 39, cancer came knocking, throwing her life into turmoil. She was diagnosed with Invasive Ductal Carcinoma, an aggressive type of breast cancer in which cancer cells penetrate from the milk ducts into surrounding fatty tissue. It required prompt treatment to prevent the cancer spreading through her lymphatic system and blood vessels.

Understanding Unveils Precise Prevention and Treatment

The diagnosis came as a shock, but Wing-sze quickly found her footing and resolve. She decided to stay strong for her family, determined to witness her children's growth and to be there for their milestones. Alongside actively pursuing treatment, Wing-sze delved into her condition and its hereditary risks, hoping that this knowledge might help her children take preventive measures early on for a healthy future.

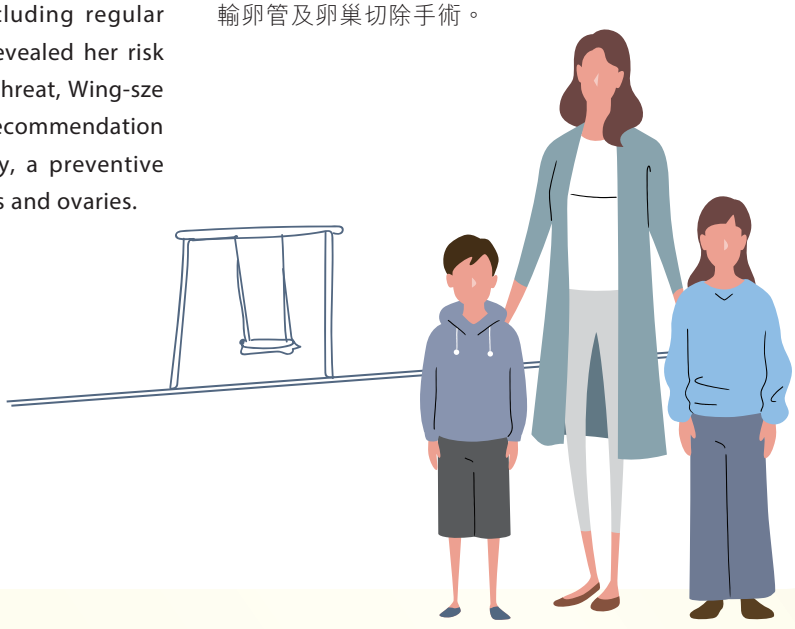
In 2022, just a year after being diagnosed with breast cancer, Wing-sze joined HKGP upon her attending doctor's referral. Through WGS and subsequent analysis, the HKGP team pinpointed a disease-causing genetic mutation related to breast cancer in her *RAD51C* gene. The result precisely explained the cause of her illness, allowing healthcare professionals to better understand her condition and develop a personalised treatment and management plan, including regular disease monitoring. The analysis also revealed her risk of ovarian cancer. Facing this potential threat, Wing-sze made the bold decision to follow the recommendation and undergo a salpingo-oophorectomy, a preventive surgery that removed her fallopian tubes and ovaries.

由於沒有家族癌症病史，穎詩從未想過自己會面臨如此嚴峻的疾病威脅，直至癌魔找上門，打亂了她的人生計劃。39歲那年，穎詩被證實患上「侵襲性乳管癌」(Invasive Ductal Carcinoma)，癌細胞從乳管穿透管壁，侵入至四周的脂肪組織，她必須及時接受治療，以防癌細胞進一步通過淋巴系統和血管擴散至身體其他部位。

透徹了解病症 揭示精準防治

面對癌症，大部份人都無法坦然面對，穎詩亦不例外；然而，震驚過後，她深明為了家人，為了見證子女的成長和人生重要時刻，必須振作起來。因此，除了積極接受治療，穎詩亦努力深入了解這個病症和遺傳予下一代的風險，期望子女可及早預防，健康成長。

2022年，即確診乳癌翌年，穎詩在主診醫生轉介下參加了香港基因組計劃。透過全基因組測序和分析，計劃團隊發現她的「*RAD51C*基因」帶有乳癌相關的致病性基因變異。測序結果精準地解釋了穎詩患病的原因，讓醫護專業人員更透徹了解她的病況，為她制定針對性的乳癌治療和管理方案，包括定期監測病情。此外，分析結果亦顯示她有罹患卵巢癌的風險。面對未知的癌症威脅，穎詩果敢地決定接受計劃團隊建議，進行預防性輸卵管及卵巢切除手術。



Stepping Beyond the Unknown and Regaining Control of Health

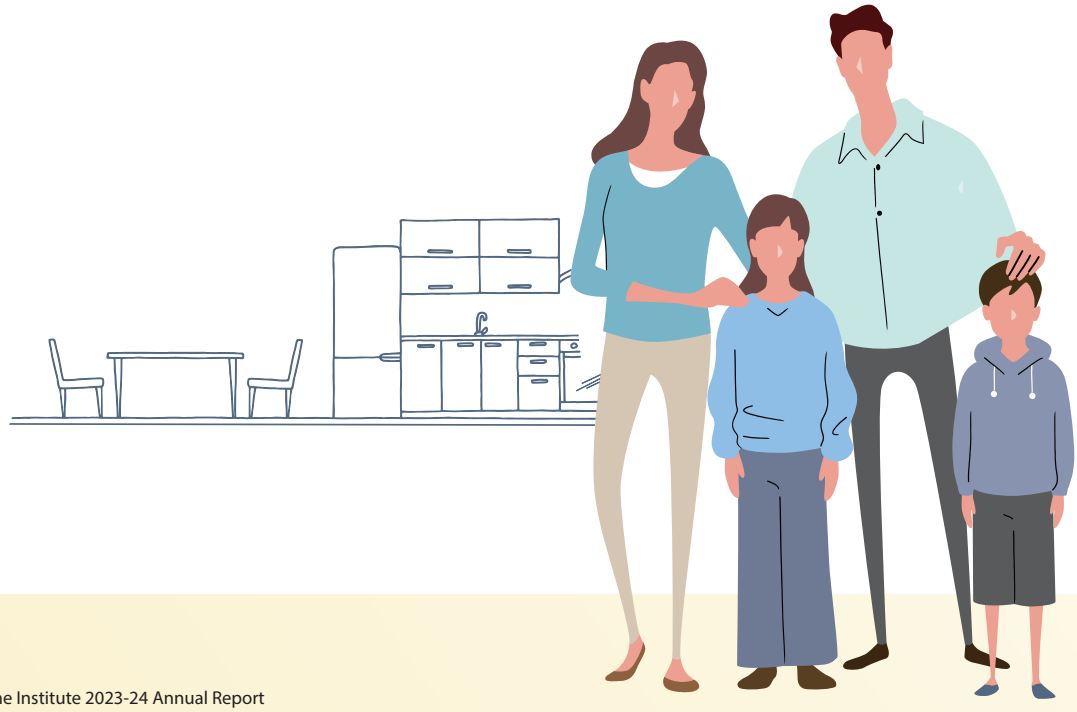
As the WGS results showed the hereditary nature of the genetic mutation, the HKGP team advised Wing-sze's daughter to take genetic testing once she reaches adulthood for early detection and prevention. They also recommended her son receive genetic counselling in the future to understand the hereditary risks and make informed family planning decisions.

A mother's strength knows no bounds. Despite facing the changes and impacts of cancer, this young mother fearlessly confronted the disease for the sake of her children and family. Through WGS, she regained control over her health and helped her family to understand their own health risks, allowing for more precise and effective disease prevention and management. With her positive attitude and courageous determination, Wing-sze has transformed her life story, ensuring her family can continue to live with love and happiness.

走出未知 重拾健康主導權

由於測序結果顯示相關的基因變異具有遺傳性，計劃團隊建議穎詩的女兒在成年後接受針對性的檢查，及早診斷和預防患病；而她的兒子未來亦可接受遺傳輔導，了解有關的遺傳風險，以助他有更好的家庭規劃。

為母則剛，這位年輕母親雖要奮力面對癌症所帶來的變化和影響，為著子女和家人，她無懼與癌魔一搏，透過全基因組測序的分析結果，重新掌握健康的主導權，並讓家人認識到自身的患病風險，從而更精準有效地預防管理。穎詩以她的正面積極、果斷勇敢，為自己的生命故事重新定調，亦讓一家人延續愛與幸福。



Learn About Invasive Ductal Carcinoma
認識侵襲性乳癌

Disease Incidence

Breast cancer has been the most common cancer among women in Hong Kong since 1994. It is estimated that one in every 13 women will face this disease in their lifetime, with Invasive Ductal Carcinoma (IDC) being the most common type, accounting for approximately 80% of all breast cancer cases. Early-stage breast cancer may develop without symptoms, and some patients are unaware of any changes in their breasts until a screening reveals the presence of cancer.

Research indicates that about 5-10% of breast cancer cases may be hereditary. Women with breast cancer gene mutations are 10 times more likely to develop breast cancer than the general population. As a result, understanding the hereditary risks of breast cancer and getting regular breast screenings can help in the early detection of hereditary breast cancer and increase the chances of a successful treatment.

發病率

乳癌自1994年起已成為香港女性中最常見的癌症，預計每13名女性就有一人在其一生中罹患此病。其中，「侵襲性乳癌」是香港女性最常見的乳癌，約佔所有病例的80%。早期乳癌可能毫無徵狀，有些病人從沒有察覺乳房有任何改變，直至接受乳房檢查才發現患上乳癌。

有研究顯示，約有5-10%的乳癌個案可能與遺傳有關。有乳癌基因變異的女性，罹患乳癌的機會比一般人高10倍。因此，了解乳癌的遺傳風險並定期進行篩查，有助於及早發現遺傳性乳癌，並增加治癒機會。

Symptoms

Current breast cancer treatments include surgery, radiotherapy, chemotherapy, hormone therapy, and immunotherapy. Patients with early-stage IDC typically undergo breast-conserving surgery, followed by radiation therapy or surgical removal of the entire breast. These treatments are effective, although some patients may require post-operative adjuvant chemotherapy or hormone therapy to prevent recurrence.

病徵

現時治療乳癌的方法包括外科手術、放射治療、化療、荷爾蒙療法、免疫治療等。「侵襲性乳癌」的早期病人通常會接受乳房保留手術及放射線治療，或乳房全切除手術，這些方法相當有效，部份病人則需接受術後輔助性化學治療或荷爾蒙治療，以預防復發。

Case 個案 5

Parents' Devotion Guides Their Angel through Adversity

父母以愛相伴 小天使逆境前行

Every child is a gift. For Ka-chun and Wing-sze (pseudonyms), the birth of their son was like an angel blessing their lives – a precious gift that they cherished dearly. As their son Chi-hin (a pseudonym) grew, the couple began to notice that his movements were not as agile as those of other children his age, and his speech development was somewhat delayed. They took Chi-hin to various doctors, yet even after years of consultation none could make a diagnosis. It was not until Chi-hin joined the Hong Kong Genome Project (HKGP) that the medical team, through whole genome sequencing (WGS), finally diagnosed him with Duchenne Muscular Dystrophy (DMD), a rare genetic disease. Confronted with life's uncertainties, Ka-chun and Wing-sze realised the importance of cherishing every moment. They wholeheartedly devoted themselves to Chi-hin's rehabilitation, joined a patient group, and with the encouragement and support of others in the same plight, they and their little angel faced this rare disease together, moving forward with determination and hope through adversity.

有人說，每個孩子都是天使。對家俊與詠思（化名）來說，兒子的出生便如天使下凡，是他們捧在手心的寶貝。隨著兒子梓軒（化名）日漸成長，兩人開始發現兒子日常走動不如同齡孩子般靈活，言語發展亦較遲緩。他們帶著梓軒四處求醫，輾轉數年仍然找不到病因；直至梓軒參加了香港基因組計劃，醫護團隊透過全基因組測序，終證實他患上罕見遺傳病「杜興氏肌肉萎縮症」（Duchenne Muscular Dystrophy）。面對世事無常，家俊與詠思明白珍惜當下的重要，盡心盡力陪伴梓軒進行復康訓練，並加入病友組織，與同路人相互扶持，以愛築路，帶領著梓軒在逆境中勇敢前行。

Chi-hin grew up in a loving and nurturing environment as the first child in the family. His first smile and cry were the most precious gifts for Ka-chun and Wing-sze. However, when Chi-hin took his first steps, his parents noticed a slight lack of co-ordination in his movements. His lower limbs appeared weak, particularly when he was playing in the park, leading to frequent falls. At the same time, Chi-hin's speech development was found to be delayed compared to his peers. Ka-chun and Wing-sze took Chi-hin through a series of medical consultations and tests, including genetic tests, yet they were only able to determine that he had a neuromuscular condition, without reaching a definitive diagnosis. When Chi-hin eventually turned five in 2022, his attending doctor referred him to HKGP. Following WGS and analysis, the HKGP team confirmed that Chi-hin has the rare disease DMD.

梓軒是家中第一個孩子，在充滿愛與關懷的環境中成長。他的第一個微笑，或是第一聲哭鬧，都是家俊與詠思最寶貴的禮物。然而，當梓軒開始蹣跚學步時，二人注意到孩子有點手腳不協調，在公園玩耍時，總是下肢無力，經常跌倒；而他在言語發展評估中，亦被評為發展較同齡兒童遲緩，二人遂帶著梓軒到處求診。數年間，雖然做遍不同檢查，包括遺傳疾病基因檢測，卻仍然無法斷症，只知道梓軒的情況與神經肌肉疾病有關。直至梓軒五歲時，即2022年，主診醫生轉介他參加香港基因組計劃，經全基因組測序分析後，計劃團隊終證實他患上罕見病「杜興氏肌肉萎縮症」。

In the early stages of DMD, symptoms start with the deterioration of hip and thigh muscles, which makes standing and stair climbing challenging. As time progresses, muscle wasting continues, often resulting in significant mobility limitations and the need for a wheelchair by adolescence. Moreover, hand muscles may also gradually decline in function, affecting self-care abilities and potentially leading to life-threatening complications. Typically, patients with DMD have an average life expectancy of 20 to 30 years.

此病初期病徵是臀部和大腿肌肉開始退化，導致病人站立和行樓梯變得困難。隨著年齡增長，肌肉會不斷萎縮；及至青春期開始，病人往往出現行動不便，需要依賴輪椅代步。同時，病人手部的肌肉活動能力亦會逐漸退化，因而影響自理能力，甚至可能出現致命的併發症。一般來說，此病病人的平均壽命大約為20至30歲。

Whole Genome Sequencing Illuminates the Path Forward

Upon learning the details of their son's condition, Ka-chun and Wing-sze inevitably felt a profound heaviness in their hearts. They are now faced with a daunting reality: frequent hospital visits and ongoing treatments for Chi-hin, and the emotional preparation for his condition worsening over time. Most heart-wrenching is the possibility that they might outlive their son. Despite the immense pressure, the sight of Chi-hin's innocent joy fortifies their resolve. Ka-chun and Wing-sze know they must stay strong for him. They work hard to adjust their mindset, standing by Chi-hin's side as they confront this monumental challenge together, cherishing every single day.

全基因組測序為未來覓得方向

家俊與詠思得知詳情後，內心難免沉重。他們除了要作好準備，照顧梓軒日常生活起居，不斷進出醫院和接受治療外，還要面對兒子病情將日漸惡化，甚或比他們更早離世的可能。縱然面對巨大壓力，看著天真爛漫的梓軒，家俊與詠思明白他們必須振作，於是努力調整心態，重排生活優次，決心堅強面對，珍惜每一天。

Based on the WGS results and clinical data, the HKGP team concluded that existing medications had limited efficacy for Chi-hin's condition. For this reason, they developed a personalised rehabilitation-focused treatment plan aimed at slowing the progression of his condition, enhancing his quality of life, and strengthening his self-care abilities. With the HKGP team's support, Ka-chun and Wing-sze devote themselves wholeheartedly to Chi-hin's exercise and rehabilitation training. Their efforts are rewarded by Chi-hin's determined smile, a beacon of warmth in these challenging times, inspiring them to press forward hand in hand with their child.

在香港基因組計劃下，醫護團隊根據全基因組測序結果以及臨床數據，仔細分析後認為現有藥物對梓軒的情況來說，治療成效有限，因此轉而為梓軒制定以復康為主的個人化治療方案，以延緩病情、提升生活質素和自理能力為目標。有了團隊的協助，家俊與詠思積極陪伴兒子進行運動和復康訓練，梓軒臉上堅定的笑容，便是二人在困難中最溫暖的回報，讓他們繼續奮力向前，與病同行。

Advancing Together and Contributing to Medical Research

Ka-chun and Wing-sze realised how important it is to connect with others in similar situations, leading them to join a DMD patient group. There, they met other families navigating similar challenges, and found a community of kindred spirits. Sharing experiences with others not only provided comfort but also inspired hope. Aware of the current limitations of medical technology in treating DMD, they have decided to contribute their genomic data to support medical research, in the hopes that it will pave the way for breakthroughs that will benefit future DMD patients.

同路人守望前行 貢獻醫學研究

家俊與詠思深感同路人支持的重要，於是加入了「杜興氏肌肉萎縮症」病友組織，認識了面對相同挑戰的家庭，大家互助互勉，保持信念和盼望。二人亦深明現今醫學技術對治療這個病的限制，因此期望透過提供個人相關資料和數據，支持醫學研究，日後幫助更多同路人。

Learn About Duchenne Muscular Dystrophy
認識杜興氏肌肉萎縮症

Disease Incidence

Duchenne Muscular Dystrophy (DMD) is a rare hereditary condition characterised by progressive muscle wasting that primarily affects males, occurring in approximately one in every 3,500 to 5,000 male newborns. The disease is caused by a genetic abnormality that impedes the body from producing a crucial functional protein called "Dystrophin", leading to the decay and eventual demise of skeletal muscle cells.

發病率

「杜興氏肌肉萎縮症」是一種罕見遺傳性肌肉萎縮疾病，主要影響男性，發病率約為每3,500至5,000名新生男嬰中有一名病人。疾病起因是由於基因異常，阻止身體製造一種重要的功能性肌肉萎縮(Dystrophin)蛋白，導致骨骼肌肉細胞萎縮及壞死。

Symptoms

Patients experience limb weakness due to muscle degeneration. The calf muscles often become abnormally enlarged as muscle tissue is replaced by fibrotic tissue. Symptoms such as an unsteady gait and frequent falls, typically appear in patients aged three to seven. As patients age, muscle degeneration and atrophy progressively worsen. By the ages of 10 to 12, patients usually require the use of a wheelchair. Abnormal muscle function can lead to joint deformities and impact heart and lung function. In severe cases, it can trigger irregular heartbeat and heart failure, necessitating ventilator support for breathing.

There is no cure for DMD. Treatment primarily focuses on physiotherapy and rehabilitation, which aim at strengthening muscles and preventing muscle tightening. These interventions seek to improve the quality of life for patients and slow the progression of the condition.

病徵

病人因肌肉病變而四肢無力，小腿肌肉通常會被硬化組織取代而異常腫大。病徵通常在病人三至七歲出現，如走路蹣跚和頻繁跌倒，隨著年齡增長，病人的肌肉病變和萎縮也變得越來越嚴重。10至12歲時通常需要坐輪椅。肌肉的異常活動能力也導致關節畸形，並影響心肺功能，嚴重情況下可引發心律不正和心臟衰竭，或需依賴呼吸器輔助呼吸。

此罕見病目前尚未有方法根治，治療以物理治療復健為主，透過增強肌肉力量和預防攣縮，以改善病人生活質素並延緩病情進展。

Genomic Innovations for Precision Health

啟發醫學創新 精準治療　共享健康

Integrate Genomic Medicine into Clinical Care

融合基因組醫學與臨床護理

Integrate Genomic Medicine into Clinical Care
融合基因組醫學與臨床護理

With an unwavering commitment to delivering benefits of genomic medicine to patients, their families, and the wider community, HKGI continued to embrace a holistic approach in 2023-24, making impressive strides in integrating genomic medicine into routine clinical care.

基因組中心致力推動基因組醫學發展，為病人、家屬及社會大眾帶來裨益。在2023-24年度，團隊繼續全方位推動基因組醫學與常規臨床護理的融合，並取得顯著成就。

Sustaining Momentum for HKGP

HKGI has remained steadfast in driving the implementation of the Hong Kong Genome Project (HKGP), the first large-scale whole genome sequencing initiative in Hong Kong. Since the launch of HKGP in mid-2021, over 30,000 participants have been recruited. As of June 2024, over 4,000 TB of genomic data has been processed, equivalent to the storage capacity of more than 2,150 iPads (2TB each).

This continuous expansion of HKGP, and subsequently the genome database of the local population, enables patients and the entire society to benefit from more precise diagnoses, personalised treatments, and disease prevention plans, paving the way for a new era of precision health.

推進有序　擴展規模

基因組中心全力推行香港基因組計劃（基因組計劃）。作為本港首個大型全基因組測序項目，基因組計劃自2021年年中推出以來，已成功招募逾30,000名參加者。截至2024年6月，獲處理的基因組數據已超過4,000 TB，相當於逾2,150部iPad（每部2TB）的儲存容量。

隨著基因組計劃的規模不斷擴展，本地人口基因組數據庫亦漸見規模，有助實現更精準的診斷、個人化治療和預防疾病方案，開創精準醫學新時代，造福病人及整個社會。

Opening New Channels for Patient Recruitment

To broaden patient outreach, additional recruitment channels were added during the year. Aside from the three existing partnering centres at the Hong Kong Children's Hospital, Prince of Wales Hospital, and Queen Mary Hospital, seven new referring networks were established. These include Alice Ho Miu Ling Nethersole Hospital, Grantham Hospital, Pok Oi Hospital, The Duchess of Kent Children's Hospital at Sandy Bay, Tin Shui Wai Hospital, Tuen Mun Hospital, and Tung Wah Hospital, allowing HKGP to recruit patients from across Hong Kong.

Building on the strong partnership with the Hospital Authority, HKGI will continue to actively explore collaborations with other hospitals to further scale up patient recruitment.

新增渠道　招募病人

為擴大基因組計劃的覆蓋範圍，基因組中心於本年度新增了招募參加者的渠道。除了香港兒童醫院、威爾斯親王醫院及瑪麗醫院三間夥伴中心外，亦增設了七個合作網絡，包括雅麗氏何妙齡那打素醫院、葛量洪醫院、博愛醫院、大口環根德公爵夫人兒童醫院、天水圍醫院、屯門醫院及東華醫院，以便團隊於香港各區招募病人。

基因組中心與醫院管理局已建立緊密夥伴關係，將繼續積極商討與其他醫院合作的機會，期望進一步擴展網絡，加快招募病人的進程。

Integrate Genomic Medicine into Clinical Care
融合基因組醫學與臨床護理

Delivering Patient Benefits with Genomic Medicine

While HKGP is still in the developmental stage, a number of fruitful results in clinical application have been achieved. Encouraging diagnostic yield has been recorded, one of the crucial measurements in determining the success of a genome project.

For cases of undiagnosed disorders, HKGP has achieved a diagnostic yield of 28% for identifying pathogenic variants, which is higher than the rate of around 25% from similar genome projects across the world. This has helped identify the cause of disease for some local patients after years of diagnostic odyssey, allowing professional healthcare teams to formulate clinical measures for respective patients to improve their health conditions, and benefitting other patients with similar disorders by effective and early identification of their diseases.

In one example, a female patient, who has suffered from skin fragility and acral blister formation since birth, gradually experienced difficulty in swallowing during adolescence and was diagnosed with skin cancer at the age of 47. The cause of the symptoms could not be identified after almost half a century of diagnostic odyssey. Having participated in HKGP and based on the sequencing results, this patient was eventually diagnosed with Kindler syndrome, a rare disease with only 400 cases worldwide. The attending clinician was thus able to offer targeted disease management tailored to her health conditions, such as better protection against sunlight to prevent skin damage by ultraviolet radiation, thereby preventing further disease progression.

Subsequently, HKGI received a case of an infant displaying similar symptoms. With the experience gained from the case of the female patient mentioned above, the healthcare team could identify the cause of the disease and provide early treatment, sparing the family from a potential diagnostic odyssey.

精準診斷　惠及病患

基因組計劃雖然仍處於發展階段，但在臨床應用方面已取得顯著成就，特別在成功識別致病基因的診斷率方面，表現尤其令人鼓舞，這也是評估基因組計劃成效的重要指標之一。

就未能確診病症方面，透過基因組計劃找到致病基因的成功率為28%，較國際間同類項目約25%為高，令一些本地病人在求醫多年後終能找到病因，讓專業醫護團隊可以制定相應臨床措施，改善其健康狀況，並更有效及早識別有關病症，惠及其他同類病人，為他們帶來裨益。

舉例而言，一位女病人的皮膚自出生以來便有起皺及出現水疱的症狀，踏入青少年時期逐漸出現吞嚥困難，47歲時更罹患皮膚癌。她求醫近半世紀，卻始終找不到病因。該位女病人參加基因組計劃後，透過全基因組測序，終獲診斷為患上「金德勒氏綜合症」，屬全球僅400宗病例的罕見病。主診醫生因此能針對她的情況進行有效的疾病管理，例如建議她加強防曬，以免皮膚受紫外線傷害等，成功防止病情惡化。

及後，基因組中心接獲出現類似症狀的嬰兒個案，因應上述女病人的經驗，醫護團隊得以更快找到病因，及早為病人治療，免卻有關家庭可能需長期求醫的苦況。

Apart from undiagnosed disorders, HKGI has also collaborated with research teams of local universities which enables HKGP to cover cases from various disease cohorts. Depending on factors like the progress of medical development of specific diseases, the HKGI team recorded a higher success rate for identifying pathogenic variants. For instance, the cohort of Retinitis Pigmentosa, which can cause loss of vision, demonstrated a diagnostic yield of 35%, while the yield for the cohort of Polycystic Kidney Disease, a hereditary disease which may lead to chronic kidney failure, was as high as 70%.

A high diagnostic yield could contribute to the creation of a comprehensive genome database for future clinical applications, benefitting other patients with similar disorders by effective and early identification of their diseases.

Driving Precise Diagnoses through MDT Meetings

HKGI regularly hosts multi-disciplinary team (MDT) meetings with the three partnering centres, providing a platform for the exchange of insights on complex patient cases. These meetings bring together healthcare professionals from many disciplines and expertise, including clinicians, clinical geneticists, genetic counsellors, genome curators, laboratory scientists, bioinformaticians, and researchers.

除了未能確診病症外，基因組中心亦與本地大學研究團隊合作，讓基因組計劃涵蓋多種疾病群組的個案。視乎有關病症的醫學發展進程等因素，團隊找到致病基因的機率可能更高。以可致失明的「色素性視網膜炎」為例，透過基因組計劃找到致病基因的成功率為35%；而可引致慢性腎衰竭的遺傳性疾病「多囊性腎病」，其成功率更高達70%。

基因組計劃在識別致病基因方面的高診斷率，有助建立完善的基因組數據庫，以加快基因組醫學的臨床應用，讓更多患有相類疾病的病人能夠及早獲得診斷和治療。

匯聚專家　問診解難

基因組中心定期與三間夥伴中心舉行跨專業團隊會議，匯聚不同領域的醫護專業人員，包括醫生、臨床遺傳科醫生、遺傳輔導員、基因組數據分析員、實驗室科學人員、生物信息學家，以及研究人員等，就複雜的病例交換意見。

Integrate Genomic Medicine into Clinical Care
融合基因組醫學與臨床護理

With the expansion of HKGP, MDT meetings have facilitated fruitful exchanges of views and clinical outcomes that have resulted in more precise and personalised treatments for patients and their families. Since May 2022, over 20 MDT meetings have been held. During these sessions, case sharing and whole genome sequencing results were discussed to review clinical decisions, make diagnoses, and formulate treatment plans, all in the spirit of collective wisdom. This collaborative approach integrates genomic discoveries into routine clinical care and enhances healthcare outcomes.

隨著基因組計劃規模不斷擴大，跨專業團隊會議發揮了重要作用。醫護專業人員透過交流意見和討論治療成效，能夠為病人及家屬提供更精準和個人化的治療方案。自2022年5月以來，基因組中心已舉行了超過20次跨專業團隊會議。與會者通過分享病例及討論全基因組測序結果，集思廣益，檢視臨床決策、診斷及制訂治療方案。這種協同創新模式成功將基因組醫學的最新研究成果，融入日常臨床護理，提升醫療成效。

In addition to productive meetings, a Multi-disciplinary Team Meeting Management System (MDTMS) has been developed to streamline the review and approval workflow for MDT meetings, pro forma and whole genome sequencing research reports generation. As a centralised hub, this system allows healthcare experts who attend MDT meetings to collaborate efficiently, ensuring seamless communication and coordination throughout the pro forma and report generation process.

基因組中心除了定期舉行會議外，亦建立了「跨專業團隊會議管理系統」，旨在簡化會議紀錄、分析報告及全基因組測序研究報告的審批及工作流程。該系統作為中央數據管理平台，有助促進醫護專業人員高效協作，確保在編撰分析報告及跟進病人狀況的過程中溝通暢順、合作無間。

The MDTMS is also an effective tool for ensuring accuracy and consistency in clinical information management by maintaining precise document versions. This allows for data integration and retrieval between the MDTMS and Clinical Frontend, a platform designed in-house by HKGI to support the intake of HKGP participants at partnering centres.

此外，該系統亦透過嚴謹的文件紀錄和管理，確保臨床資訊的準確性和一致性。該系統更可與基因組中心內部研發的「臨床資訊管理平台」互相配合，進行數據整合和互通，支援夥伴中心招募基因組計劃參加者，提高效率。

Upholding stringent standards for data management and cybersecurity, the MDTMS features a number of security measures such as multi-factor authentication, access control, and secure data transfer. It also supports robust auditing practices to ensure accountability and safeguard patient information.

在系統設置上，基因組中心遵循嚴謹的數據管理及網絡安全標準，實施了多項安全措施，包括多重認證、存取權限控制及安全數據傳輸等，確保該系統符合審計標準和問責原則，妥善保障病人私隱。

Maintaining Robust Governance with Partnering Centres

良好管治　高效運作

Starting in 2023, a Hospital Operation Committee (HOC) has been formed for each partnering centre. Each HOC is co-chaired by the Chief Executive Officer of HKGI, the Hospital Chief Executive of the partnering centre, as well as the Dean of the respective medical school to oversee the operations, recruitment progress, and planning of each centre and the referring networks it houses.

自2023年起，基因組計劃下每間夥伴中心均增設了「醫院運作委員會」。各委員會均由基因組中心行政總裁、所屬夥伴中心的醫院行政總監，以及相關醫學院院長共同領導，負責監察夥伴中心及其轄下合作網絡的運作情況、病人招募進度和發展規劃等。

As of June 2024, eight HOC meetings were held to discuss and review the progress and participants' feedback on HKGP, resource allocation, and financial position, as well as operational arrangements and workflow of each partnering centre. Through regular meetings and exchanges, HOC has been playing a crucial role in providing strategic guidance to all partnering centres and referring networks, ensuring robust governance, effective communication, and efficient operations, all of which are fundamental to the success of HKGP.

截至2024年6月，三個委員會合共舉行了八次會議，討論及檢視了基因組計劃的推行進度、參加者的意見、資源分配、財務狀況，以及夥伴中心的運作安排和工作流程。透過定期會議，各委員會為其所屬的夥伴中心和合作網絡提供策略性指導和建議，以確保管治穩健、溝通暢順和高效運作，為基因組計劃的成功奠定基礎。

Integrate Genomic Medicine into Clinical Care
融合基因組醫學與臨床護理

Optimising Sequencing Capabilities with Enhanced Infrastructure

As HKGP continues to expand in scale and scope, the surge of genomic data necessitates robust processing and analysis. One of HKGI's primary foci in 2023-24 centred around the enhancement of the team's capabilities and capacities in whole genome sequencing, bioinformatics, and data management.

Infrastructure is one of the key factors defining HKGI's success. In terms of hardware, HKGI's genomic laboratory is the first in Hong Kong to provide end-to-end whole genome sequencing services, from sample collection to data analysis and report issuance. It is equipped with state-of-the-art infrastructure and has been up and running since the end of 2021. During the year, the laboratory continued to play a pivotal role in facilitating genomic discoveries and making diagnoses for patients.

To accommodate the expansion of HKGP, new sequencing devices and equipment were added to increase HKGI's throughput in both long-read and short-read sequencing, as well as to support single-cell analysis and multi-omics studies. All of these are essential for bolstering HKGI's in-house sequencing and data processing capabilities, with the ultimate goal of advancing precision and efficiency in healthcare management.

完善設施　提升成效

隨着基因組計劃的規模及範圍持續擴展，團隊需要處理的基因組數據亦急劇增加，故強大的數據處理和分析能力尤為重要。因此，基因組中心在2023-24年度著重提升團隊在全基因組測序、生物信息學，以及數據管理方面的能力和效率。

基礎設施是基因組中心賴以成功的關鍵之一。在硬件配套方面，基因組中心的實驗室是全港首間提供整套全基因組測序服務的實驗室，涵蓋從收集樣本、分析數據，到撰寫報告的程序。實驗室擁有頂尖設備，自2021年年底開始運作。在過去一年，實驗室繼續在促進基因組研發工作，以及為病人診斷方面，發揮着舉足輕重的作用。

為配合擴展基因組計劃的需要，基因組中心增添了全新的測序設備和儀器，以提升長序列及短序列測序的處理量，同時支援單細胞分析及多組學研究，藉此加強團隊進行測序和處理數據的能力，實現精準治療和提升醫療護理的成效。

Expanding Data Analysis Toolbox for Long-read Sequencing

Regarding applications of sequencing technologies and bioinformatics support, while short-read sequencing is the most commonly used form of next-generation sequencing and has diverse diagnostic applications, it also has limitations and poses challenges in sequencing certain regions of the genome. This may impede the discovery of candidate genomic variations in patients with rare diseases.

In recent years, long-read sequencing has emerged as a more advanced technology that allows for more detailed analysis, accurate diagnoses, and effective patient care. Named "Method of the Year 2022" by the renowned international journal *Nature Methods*, long-read sequencing enables the study of complex and repetitive regions of the genome in unprecedented ways.

Staying on top of global developments, HKGI deployed this cutting-edge technology in 2022-23 and has been sparing no effort to fully leverage it ever since. Over the past year, HKGI developed an in-house bioinformatics pipeline to support the applications of long-read sequencing, including data quality assessment to identify potential issues, ensuring consistent and reliable use of data for scientific research and clinical applications.

The pipeline also facilitates the detection of small variants, copy number variations, repeat expansions, structural variations, and modifications that were hard to observe in the past using short-read sequencing. Furthermore, the pipeline provides valuable insights into the parental origin of modifications and variations, thereby increasing the likelihood of discovering candidate variants. It also enhances detection of DNA methylation, which aids in genome curation and analyses.

The ability to simultaneously obtain all of these valuable insights from long-read sequencing data has improved the diagnosis and guided treatment decisions for patients with rare diseases, paving the way for integrating the application of long-read sequencing into routine clinical care.

頂尖技術　優化測序

在測序技術應用和生物信息學支援方面，短序列測序是目前最廣為採用的新一代測序技術，可應用於多種疾病的診斷工作。然而，這種技術在特定的基因組區域進行測序時，仍然存在限制，或對識別罕見病患者的基因變異造成影響。

與此同時，另一更精準及先進的長序列測序技術，近年亦迅速冒起，其高解析度的分析能力，能有效提升診斷的準確性，並有助制訂成效更佳的病人護理方案。這項技術為研究和分析基因組中複雜及重複序列區域，帶來前所未有的突破，獲國際權威期刊*Nature Methods*評選為「2022年度前沿科技」。

基因組中心緊貼全球發展趨勢，於2022-23年度已經引入這項頂尖技術，並在應用上持續測試和優化，以發揮其最大潛能。過去一年，基因組中心制訂了內部生物信息分析管理流程，以支援長序列測序的應用，當中包括評估數據質量，以識別潛在問題，同時確保科研和臨床應用的數據一致和可靠。

該分析管理流程能有效偵測過往採用短序列測序時難以觀察的細微變異、拷貝數變異、重複序列擴展、結構變異及基因變化。此外，該流程可追溯基因變化及變異的家族來源，從而增加發現潛在基因變異的可能性。它亦加強了偵測DNA甲基化（DNA methylation）的功能，有助進行基因組數據整理和分析。

從長序列測序數據所獲得的寶貴資訊，不但有助優化診斷，亦為罕見病病人提供更清晰的治療方向，為融合長序列測序技術及常規臨床護理開闢新路徑。

Integrate Genomic Medicine into Clinical Care
融合基因組醫學與臨床護理

Empowering Genome Curation with Advanced Platforms

Another milestone HKGI accomplished during the year was the launch of a genome curation platform, CURA. Genome curation is a key step in interpreting collected genome data, ensuring the quality and reliability of the database. This multifaceted process integrates a vast amount of genomic data with experimental evidence and literature from numerous databases. To facilitate the complex task of interpreting the sequencing results, enhancing bioinformatics capabilities is critical.

CURA, the cloud-based system developed in-house by HKGI, is designed to expedite the process of genome curation and bolster research endeavours. By de-identifying patient data and connecting various biological databases and analysis tools, CURA provides users with a user-friendly and centralised interface for case interpretation and variant analysis.

Phase 1 was rolled out in May 2024, while Phase 2 and Phase 3 enhancement plans are in the pipeline to further boost system capabilities, focusing on areas such as integrating guidelines from the American College of Medical Genetics and Genomics, and conducting whole genome sequencing analysis using Genomiser (version 14). More advanced tools for genetic and genomic data analysis will be integrated into the platform to provide deeper insights into the search for genetic variations, accelerating the overall curation process and supporting impactful research outcomes.

構建平台　精進分析

基因組中心於年內推出的「基因組數據分析平台」(Genome Curation Platform，CURA)是機構發展的重大里程碑之一。基因組數據分析是詮釋基因組數據的關鍵步驟，關乎整個數據庫的質量和可靠性。分析過程涉及整合大量附帶實驗室測試結果的基因組數據，以及眾多資料庫的研究文獻。為了有效詮釋複雜的測序結果，提升團隊處理生物信息學的能力尤其重要。

CURA是基因組中心內部開發的系統，以雲端技術加快基因組數據分析流程及加強研究工作為重點目標。CURA透過為病人的數據進行去識別化處理，並連結多個生物數據庫和分析工具，為使用者提供簡易操作的中央介面，方便進行個案詮釋及基因變異分析。

CURA第一期於2024年5月啟用，基因組中心正積極籌備第二及第三期優化計劃，以進一步提升系統效能。優化計劃重點包括整合美國醫學遺傳與基因組學學會的指引，以及使用Genomiser(第14版)進行全基因組測序分析。此外，系統會引入更多先進的遺傳及基因組數據分析工具，以提升識別基因變異的能力，加快整體數據分析過程，務求獲得具影響力的研究成果。

With this platform, clinicians, genome curators and researchers are empowered to uncover the genetic underpinning of diseases, facilitating the development of more precise and effective screening, diagnostic, and therapeutic methods, a critical step towards realising the promise of precision health.

Building a Southern Chinese Genome Database

With enhanced capabilities and capacities, HKGI is dedicated to building a genome database comprising predominantly the Southern Chinese population riding on its first flagship initiative – the implementation of HKGP.

At present, international human genome databases are largely European-based, accounting for over 70% of all data. Given the variations in genomes and disease conditions across different races, HKGP will, by collecting data from local patients and family members, build a genome database comprising predominantly the Southern Chinese population, which is extremely rare among the existing databases worldwide. This will provide valuable information to inspire researchers and enterprises in their further exploration during the research and development of new medical products and drugs, particularly those which are more suitable for Chinese users.

該平台讓醫生、基因組數據分析員及研究人員能更有效地揭示致病的遺傳因素、加速發展更精準有效的篩查、診斷和治療方案，為實現精準治療的願景邁進重要一步。

建數據庫　聚焦華南人口

隨着團隊的專業能力和基礎設備持續提升，基因組中心致力透過其首個重點項目 — 基因組計劃，建立一個以華南地區人口為主的基因組數據庫。

現時國際通用的人類基因組數據庫，大多以白種人為主，佔全部資料超過70%。鑑於不同種族的基因組及疾病情況並不相同，基因組計劃透過採集本地病人和家屬的數據，著力建立以華南地區人口為主的基因組數據庫，成為世界各地現存數據中極為少見的珍貴資料，啟迪科研人員和企業進一步探索研發新的醫療產品和藥物（尤其是更適合華人使用者）。

Integrate Genomic Medicine into Clinical Care
融合基因組醫學與臨床護理

The establishment of the project database will not only bring clinical benefits, but also complement the development of Hong Kong into a Health and Medical Innovation Hub as mentioned in the Chief Executive's 2023 Policy Address. A large multinational pharmaceutical company has already approached HKGI to explore the feasibility of using the project database and initiating collaboration. HKGI will facilitate the development of related industries under the principles of fairness, safety, and professionalism.

建立基因組計劃數據庫不僅能帶來臨床效益，亦配合《行政長官2023年施政報告》中提出發展香港成為醫療創新樞紐的目標。有大型跨國醫藥公司已主動接觸基因組中心，了解數據庫的應用和展開合作的可行性，基因組中心會秉持公平、安全和專業的原則，助力相關業界發展。

Validating HKGP's Effectiveness with Independent Evaluation

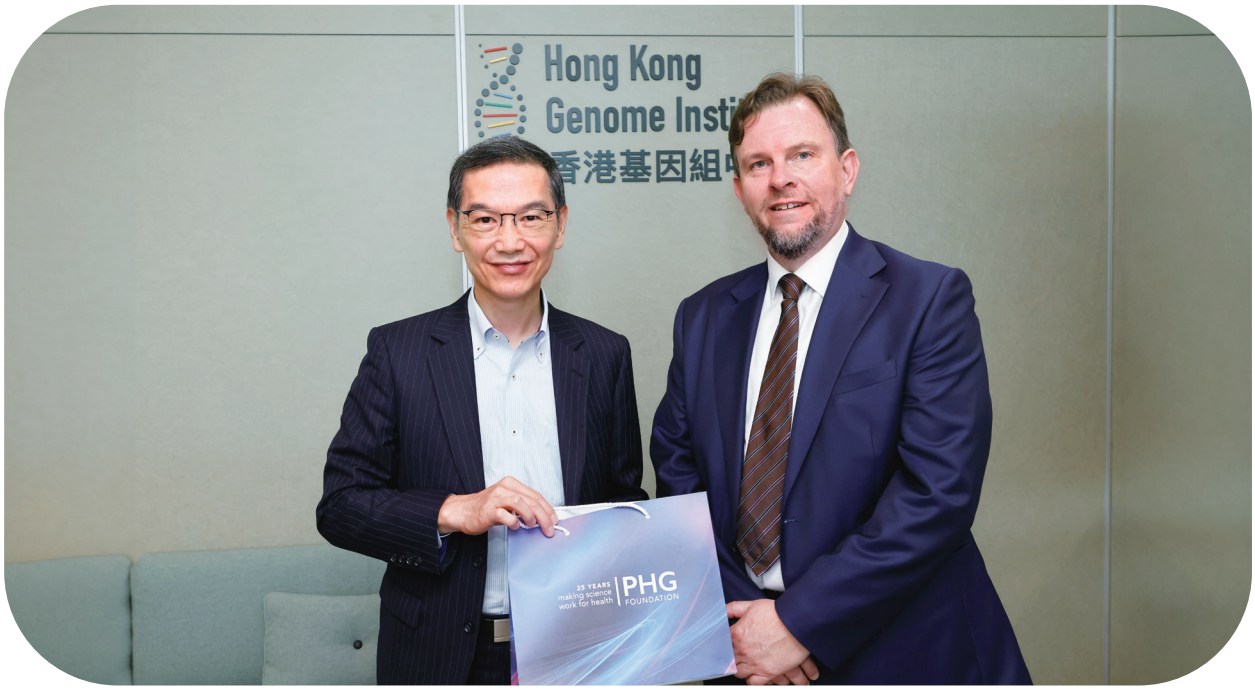
獨立評估　評價正面

HKGI's commitment to the highest standards has been recognised by authoritative third-party evaluation. Commissioned by the Health Bureau, an independent study to assess the effectiveness of HKGP was jointly conducted by the PHG Foundation of the University of Cambridge, and the School of Public Health of the University of Hong Kong.

基因組中心在各項工作一直恪守最高標準，團隊的努力亦獲權威獨立研究機構認可。劍橋大學PHG Foundation聯同香港大學公共衛生學院應醫務衛生局委託，就基因組計劃的成效進行獨立評估。

The study is being carried out in three phases. Following positive feedback from Phase 1, which focused on HKGP's structure and infrastructure, Phase 2 evaluation was completed in December 2023 with encouraging results. The Phase 2 assessment focused on HKGP's overall objectives, governance, patient journey workflow, participant experiences, whole genome sequencing's clinical impact, as well as stakeholder engagement and international comparative analysis.

該評估共分三個階段進行，首階段聚焦基因組計劃的架構與基礎設施，評估結果正面；第二階段亦已於2023年12月完成，評估範圍涵蓋基因組計劃的整體目的、管治情況、病人的診治歷程、參加者體驗、全基因組測序的臨床效益、持份者參與度，以及國際比較分析等多個層面，評價同樣令人鼓舞。



According to the PHG report, HKGI has made a commendable and thorough start towards achieving its recruitment targets and conducting whole genome sequencing testing. HKGI has already achieved significant milestones, laying a solid foundation for world-leading genomic research and the development of genomic medicine in Hong Kong.

At the project implementation level, PHG acknowledged that HKGP is fully operational in all of its complex elements and produces research report results in a relatively shorter timeframe than similar international genome projects. Appropriate governance infrastructure and processes have been established, and key elements of the HKGP workflow meet suitable standards. As reflected in the evaluation, nearly 90% of the interviewed HKGP participants rated their overall experience as "satisfactory" or "very satisfactory".

These positive results reaffirmed HKGP's dedication to comprehensive excellence. The Phase 3 evaluation, focusing on the outcomes and impacts of the HKGP, is expected to be completed by Q3-Q4 2025.

PHG Foundation的報告表示，基因組中心在招募參加者及全基因組測序方面，進度良好，已達成預定目標。團隊成功完成重大里程，為引領全球基因組學研究，以及推動香港基因組醫學發展，奠下了堅實基礎。

在執行運作方面，PHG Foundation認為基因組計劃全面，相比國際間其他同類計劃，團隊成功在相對較短的時間內，順利開展各個繁複環節，並完成測序研究和分析。此外，基因組計劃擁有穩健的管治架構和運作程序，重要工作流程均符合相關國際標準。評估報告亦指出，就整體參與體驗而言，近90%受訪的基因組計劃參加者表示「滿意」或「非常滿意」。

PHG Foundation給予的正面評價，再次肯定了基因組中心追求卓越的決心。第三階段評估將聚焦基因組計劃的整體成效和影響，預計在2025年第三至四季完成。

Integrate Genomic Medicine into Clinical Care
融合基因組醫學與臨床護理

Integrating Genomic Medicine into Clinical Care

HKGI will continue its efforts to actively explore collaborations with various stakeholders, especially with other hospitals, while expanding its outreach to benefit more patients. With the Hospital Authority taking up the Clinical Genetic Service previously provided by the Department of Health since July 2023, HKGI is exploring further clinical collaborations with the Authority to strengthen support for patients and their families. Leveraging its experience and expertise in services such as screening and treatment of rare diseases, genetic disorders, and cancers, HKGI is well poised to bring genomic medicine closer to the healthcare sector and the wider community.

HKGI will also actively analyse the healthcare needs in Hong Kong, such as the impact of an ageing population, to determine the feasibility of adopting a wider use of genomic medicine for risk assessment of chronic diseases as a primary goal. Additionally, HKGI will continue to review the need for expanding HKGP's recruitment target under the advisement of the Health Bureau, in order to construct a robust genome database for the Southern Chinese population.

With its ongoing efforts in various areas, HKGI aspires to drive the integration of genomic medicine into routine clinical care in Hong Kong through continued advancements in genomic diagnosis, personalised treatment, as well as prediction and prevention of disease risks.

多管齊下　融合醫學

基因組中心將繼續拓展與各界持份者的合作，尤其是與其他醫院建立夥伴關係，以擴大服務範疇，讓更多病人受惠。自2023年7月醫院管理局接辦衞生署轄下的醫學遺傳服務後，基因組中心已著手與醫管局探討深化臨床合作的可能性，為病人及其家屬提供更全面支援。基因組中心憑藉團隊在罕見病、遺傳病及癌症篩查與治療等方面累積的豐富經驗和專業知識，致力推動更廣泛應用基因組醫學，造福社會大眾。

基因組中心亦會積極分析香港的醫療需求，例如面對人口老化，是否應考慮以基因組醫學作慢性疾病風險評估為目標等。此外，基因組中心在醫務衞生局的指導下，將持續檢視擴大基因組計劃招募目標的需要，以建立更全面的華南地區人口基因組數據庫。

基因組中心在多個領域努力不懈，致力在基因組診斷、個人化治療、疾病風險預測和預防等方面持續進步，加快本港融合基因組醫學與日常臨床護理的步伐。

Advance Research in Genomic Science
促進基因組科學研究

Advance Research in Genomic Science
促進基因組科學研究

HKGI's dedicated efforts in driving genomic research have culminated in the publication of a stellar body of research papers, alongside significant achievements in collaborations and engagements with experts in the scientific community. These collective endeavours have yielded deeper insights into disease cohorts, accelerating breakthroughs and discoveries that drive advancements in genomic medicine, which will ultimately be translated into better clinical outcomes and benefits for patients.

基因組中心在促進基因組研究方面不遺餘力，除了發表一系列具影響力的研究論文，亦積極與科學界別的專家緊密合作，並取得顯著成就。在各方齊心協力下，相關研究項目不但加深了團隊對疾病群組的理解，更帶來突破和新發現，對推動基因組醫學有莫大助益，加快將科研成果轉化為更佳的治療成效，造福病人。

Driving Research Excellence with Scientific Publications

Building on the strides made in implementing HKGP and developing genomic medicine and multi-omics studies in the past few years, HKGI continued to drive genomic research by sharing its experience, insights, and findings with the scientific community through high-impact publications.

During the year, the HKGI team published five research papers in eminent journals, covering a wide range of topics such as insights drawn from launching HKGP, the needs for genetic counselling in Hong Kong and Asia, review of cases and clinical findings, as well as applications of omics studies and personalised treatments in shaping healthcare services. These papers underscore HKGI's commitment to promoting knowledge exchange, which is essential to empower faster and more accurate diagnoses, and more precise management plans.

發表論文　推動科研

過去數年，基因組中心一直積極推行基因組計劃、發展基因組醫學及多組學研究，已建立穩固基礎。為持續推動相關研究，團隊於年內繼續在多份國際期刊發表具影響力的論文，與業界分享寶貴經驗、專業見解及研究成果。

在2023-24年度，基因組中心於權威學術期刊發表了五篇研究論文，內容涵蓋多個主題，包括推行基因組計劃的經驗、遺傳輔導在亞洲及香港的發展需求、病例分享和臨床發現，以及多組學研究和個人化治療在醫療服務的革新應用。團隊所發表的研究論文體現了基因組中心致力促進知識交流，以期為病人帶來更快更準的診斷，並制訂更精準的醫療護理方案。

Title of Research Paper 研究論文	Journal 期刊
The growing needs of genetic counselling – Feasibility in utilization of tele-genetic counselling in Asia and Hong Kong 遺傳輔導需求日增－亞洲及香港實行遙距遺傳輔導的可行性	*Frontiers in Genetics*
The Hong Kong Genome Project: building genome sequencing capacity and capability for advancing genomic science in Hong Kong 香港基因組計劃：建立基因組測序能力，推動香港基因組醫學和科學發展	*Journal of Translational Genetics and Genomics*
Personalised genomic medicine is shaping the future of healthcare 個人化基因組醫學開創醫療未來	*Journal of Translational Genetics and Genomics*
A review on trends in development and translation of omics signatures in cancer 癌症組學特徵的發展和轉化趨勢分析	*Computational and Structural Biotechnology Journal*
Revealing the role of SPP1+ macrophages in glioma prognosis and therapeutic targeting by investigating tumor-associated macrophage landscape in grade 2 and 3 gliomas 研究第二及第三級膠質瘤中與腫瘤相關的巨噬細胞分布，揭示SPP1+巨噬細胞在膠質瘤預後及標靶治療中的作用	*Cell & Bioscience*

Affirming Global Standing with High-impact Research

HKGI's unwavering efforts have garnered widespread recognition, solidifying its reputation. Two papers, in particular, have received exceptional attention and acclaim. The paper titled "Meta-analysis of the diagnostic and clinical utility of exome and genome sequencing in paediatric and adult patients with rare diseases across diverse populations" was named "2023 Editor's Choices" of the top five papers by *Genetics in Medicine*, a leading journal in the field.

In the paper, the HKGI team, in collaboration with the Faculty of Medicine of the University of Hong Kong, conducted a landmark meta-analysis evaluating the diagnostic and clinical utility of exome sequencing versus genome sequencing across over 50,000 patients with rare diseases spanning 31 countries/regions. The research findings provided valuable insights into the evolving role of genome sequencing as a significant diagnostic tool for rare diseases with a higher clinical utility in paediatric and adult patients across diverse populations, underpinning HKGI's commitment to scientific excellence and innovation.

研究成果　蜚聲海外

憑藉團隊的不懈努力，基因組中心的研究成果獲廣泛認同，其中兩篇論文，尤其備受國際關注及讚譽。第一篇是題為「綜合分析外顯子測序及基因組測序對不同種族的兒童與成人罕見病患者的診斷與臨床治療成效」（Meta-analysis of the diagnostic and clinical utility of exome and genome sequencing in paediatric and adult patients with rare diseases across diverse populations）的論文，獲頂尖期刊*Genetics in Medicine*選為2023年度五大推介論文之一。

該項開創性的綜合分析由基因組中心及香港大學醫學院共同進行，研究對象涵蓋31個國家／地區，超過50,000名罕見病病人，評估外顯子測序及基因組測序的診斷及臨床成效。研究結果揭示，隨著技術不斷進步，基因組測序已成為診斷罕見病的重要工具，並可為不同種族的兒童及成年病人帶來更佳的臨床治療效果。有關結論進一步印證基因組中心在推動科研創新精益求精的精神和努力。

Advance Research in Genomic Science
促進基因組科學研究

Another notable paper "Potentials and challenges of launching the pilot phase of the Hong Kong Genome Project", which was published in the *Journal of Translational Genetics and Genomics*, garnered substantial attention and emerged as one of the most viewed and downloaded papers of the renowned journal in 2022-23. This paper provided an in-depth review and sharing of the team's experience in launching HKGP, covering the planning, infrastructure setup, challenges, and prospects in rolling out Hong Kong's first large-scale whole genome sequencing initiative. The paper has become a key source of reference for other genomic projects across the globe, underlining HKGI's remarkable contributions to the field.

另一篇享譽國際的論文題為「推行香港基因組計劃先導階段的潛力與挑戰」(Potentials and challenges of launching the pilot phase of the Hong Kong Genome Project),發表於著名期刊*Journal of Translational Genetics and Genomics*,總結了團隊推行基因組計劃的經驗,並深入探討香港首個大型全基因組測序項目的籌備工作、設施配置、挑戰以及發展前景。論文刊出後獲廣泛關注,成為該期刊2022-23年度瀏覽及下載量最高的論文之一,是全球其他基因組項目的重要參考資源,足見基因組中心在國際基因組研究領域的重大貢獻。

Building upon its international standing, HKGI's Chief Medical and Scientific Officer and Head of Operations of the Scientific team were also invited to co-edit a special issue for the *Journal of Translational Genetics and Genomics* with the theme "Genomics & Precision Health". The issue consisted of 10 papers contributed by experts and researchers from around the world, sharing knowledge, experience, and clinical applications of genomic medicine. Among those papers, four were from HKGI, serving as a noteworthy accomplishment that affirms HKGI's international standing in the research community.

隨着基因組中心在國際醫學和科學界別嶄露頭角,機構的首席醫務及科學總監及科學事務營運主管獲國際期刊*Journal of Translational Genetics and Genomics*邀請,共同為專題特刊「基因組學及精準醫學」(Genomics & Precision Health)擔任主編。該特刊收錄了來自全球各地專家和研究人員所撰寫的10篇研究論文,促進基因組醫學知識、經驗及臨床應用互相交流。特刊中,共有四篇論文出自基因組中心,確立了團隊在國際醫學和科研界別的領先地位。

The high-impact publications demonstrate HKGI's substantial contributions to the advancement of genomics research. HKGI remains committed to inspiring research and innovation, driving the development of genomic medicine both locally and internationally.

基因組中心在多份國際權威期刊發表創新研究,對發展基因組醫學建樹良多。展望未來,團隊將繼續啟發科研創新,致力在本地及國際層面,促進基因組醫學發展。

Scan QR code to view the full collection of HKGI scientific publications
掃描二維碼閱覽基因組中心研究論文

Expanding Research Cohorts from Rare to Common Diseases

Apart from scientific publications, during 2023-24, HKGI made substantial achievements in establishing disease-focused research networks and expanding collaborations globally. Dedicated efforts were devoted to broadening research and application cases to both rare and common diseases.

During the year, new disease cohorts and research initiatives were added to HKGP's scope of research, such as nephrotic syndrome, atypical femoral fracture, and childhood myopia. At the same time, the team spared no effort to continue working on established research initiatives covering a diverse range of common and complex health conditions, such as haematological cancers (childhood and adult), childhood solid tumours, childhood neurodevelopmental disorders, diabetes mellitus (young-onset adult and paediatric), aortic dissections, ophthalmology, adult polycystic kidney disease, adult renal diseases, congenital heart diseases, osteoporosis, primary brain cancers, glaucoma, spondyloarthropathy, short stature, 1997 Birth Cohort, and adult B-cell acute lymphoblastic leukaemia.

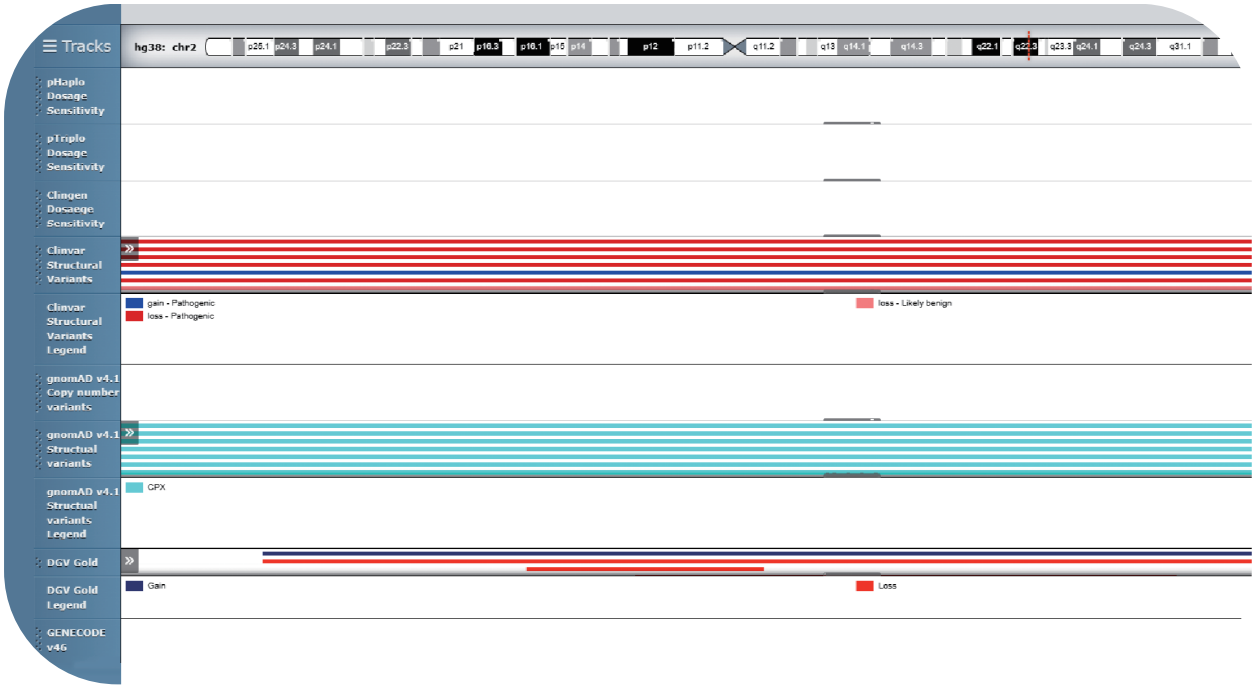
Regular meetings were held with respective collaborators to prepare applications to the Institutional Review Board, discuss research progress, as well as exchange views on data analysis. By working closely with local academic and clinical partners, HKGI ensures the research projects stay relevant and yield fruitful results.

疾病組群　覆蓋更廣

2023-24年度內，基因組中心除了在發表科學論文方面取得佳績，就建立疾病主導的研究網絡及拓展國際合作亦邁出了重要一步。團隊尤其重視擴展研究及應用範疇，務求覆蓋更多罕見和常見病。

年內，團隊就基因組計劃所覆蓋的範疇，新增了更多疾病群組及研究項目，例如腎病綜合症、非典型股骨骨折，以及兒童近視。與此同時，團隊亦繼續推展各項進行中的研究，涉及多種常見及複雜的健康狀況，包括兒童及成人血液腫瘤、兒童腫瘤、兒童神經發展障礙、早發性成人及兒童糖尿病、主動脈撕裂、眼科疾病、成人多囊性腎病、成人腎病、先天性心臟病、骨質疏鬆症、原發性腦癌、青光眼、脊椎關節病變、矮小症、1997年香港出生隊列，以及成人B細胞急性淋巴白血病。

基因組中心定期與合作夥伴舉行會議，共同籌備提交予研究倫理委員會的申請、檢視研究進度，以及就數據分析交換意見。透過與本地學術及臨床夥伴緊密合作，基因組中心確保研究項目與時俱進，並展現成效。



Advance Research in Genomic Science
促進基因組科學研究

Advancing Research through Collaborations

HKGI sees collaborations and experience sharing as the key to advancing the development of genomic medicine. In 2023-24, the team significantly expanded its connections to foster research collaborations and drive knowledge exchange. For instance, HKGI has been partnering with researchers at the Chinese University of Hong Kong, the University of Hong Kong, and the Hospital Authority for multi-institute collaborative studies. Preparatory work to study the clinical utility of whole genome sequencing in different disease cohorts in the local population has also been underway. By establishing partnerships with healthcare professionals, researchers and scientists across disciplines and institutes, HKGI has strengthened its research alliances and enhanced its capability to accelerate the integration of genomics into routine clinical care.

Apart from facilitating research and collaborations at home, HKGI has actively engaged with counterparts in the Mainland to explore latest genomic technologies and clinical applications. HKGI has been conducting fruitful exchanges with the University of Hong Kong-Shenzhen Hospital through discussions and analyses on rare diseases and complex cases, and collaborating with the Shenzhen Clinical Medical and Research Centre for Rare Diseases to provide data analysis support.

國際協作　相得益彰

合作和交流經驗是推動基因組醫學發展的重要一環。在過去一年，基因組中心大力擴展業界網路，以促進科研合作及知識交流，包括與香港中文大學、香港大學及醫院管理局的研究人員緊密合作。此外，團隊亦已就研究全基因組測序技術在診斷本地人口疾病組群的臨床成效，展開籌備工作。基因組中心已成功與不同機構和醫護專業人員、研究員及科學家建立夥伴關係，透過強大的科研網絡，提升團隊實力，加快融合基因組學及常規臨床護理。

在促進本地研究與協作之餘，基因組中心亦積極與內地同業探索最新的基因組醫學技術及臨床應用，如與香港大學深圳醫院保持聯繫，討論及分析罕見病與複雜個案，相互增進知識經驗。團隊亦與深圳市罕見病臨床醫學研究中心建立合作關係，提供數據分析支援。

In addition, with Hong Kong Polytechnic University having obtained a Strategic Topics Grant of the University Grants Committee, HKGI has also been in collaboration with the University to initiate research projects with various Mainland institutions, including the Affiliated Brain Hospital of Guangzhou Medical University and the First Hospital of China Medical University in Shenyang, Liaoning Province. All these efforts underpin HKGI's dedication to driving genomic research and advancements in Hong Kong and beyond.

Launching Secure Platform to Drive Genomic Research

With the smooth implementation of the main phase of HKGP, especially the variety of cases recruited under the newly added theme of genomics and precision health, HKGI launched a series of initiatives to build and enhance systems and platforms in 2023-24 with the aim to support the expansion of cohort studies and inspire genomic discoveries. Among the most significant milestones was the launch of the Synergistic Research Environment in July 2024.

此外，因應香港理工大學（理大）獲大學教育資助委員會轄下「策略專題研究資助金」支持，基因組中心已與理大開展研究項目，邀請內地不同機構共同參與，包括廣州醫科大學附屬腦科醫院，以及位於遼寧省瀋陽市的中國醫科大學附屬第一醫院，進一步深化跨境科研協作。

嶄新平台　促進研發

於2023-24年度，隨着基因組計劃主階段已順利推行，特別是擴大疾病組群至與基因組學及精準醫學相關的個案，基因組中心遂推出一系列措施強化系統和平台，以支援更廣泛的疾病組群研究，冀為基因組學研究帶來突破。在眾多里程碑當中，於2024年7月推出的協同合作研究平台便是重中之重。

Advance Research in Genomic Science
促進基因組科學研究

The Synergistic Research Environment is a virtual Linux platform with bioinformatics tools and pipelines pre-installed in a user-friendly graphical interface. Different datasets have been included in the platform, including the de-identified data collected from HKGP, which accounts for over 30,000 participants as of June 2024. These valuable datasets encompass genomic data generated by different powerful tools, including short-read sequencing, long-read sequencing, and multi-omics pipelines. With a unique variety of datasets, this platform is a valuable resource for in-depth disease-correlated research studies.

該研究平台採用Linux虛擬作業系統，內建了生物信息工具和流程設定，並配以方便易用的用戶介面。平台內儲存了多組來源不同的數據，其中包括已去識別化的基因組計劃數據；而截至2024年6月，相關數據組別已涵蓋超過30,000名參加者。各組數據經過短序列測序、長序列測序及多組學分析等先進技術處理後，便綜合而成具規模的基因組數據庫。其數據來源多樣的獨特性，讓研究平台成為深入研究基因組及疾病關係的珍貴資源。

Taking reference from Genomics England's Trusted Research Environment, this closed platform operates within a secure, isolated network to prevent unauthorised access and inadvertent data transfer. User applications and research projects will be reviewed and approved by a panel of authoritative experts. Only eligible researchers can register for access to de-identified clinical, phenotypic and genomic data through dedicated machines.

基因組中心在構建研究平台時，參考了英國Genomics England相類平台的設置，採用了封閉式設計，以確保研究平台在安全獨立的網絡中運作，防止未經授權的數據存取及疏忽不慎的數據傳輸。就使用研究平台而言，所有用戶申請和研究項目均須經過專家小組審批，只有獲批的合資格研究人員方可透過指定裝置註冊使用，查閱已去識別化的臨床、表型及基因組數據。

Moreover, considering the needs of different research projects, approved researchers can bring their own data and tools, packaged in a "secure and approved container" format for seamless deployment and virtualisation. Only research results duly reviewed by HKGI could be obtained and exported, ensuring robust data security and responsible data sharing.

為配合不同研究項目的需要，研究平台亦允許獲授權的研究人員，透過匯入功能載入由指定格式安全封裝的個人數據和分析工具，以便他們進行分析工作；而相關研究結果，亦會由基因組中心進行審核，經批准後方可匯出平台，藉此確保數據安全及負責任的數據共享。

The roll-out of this collaborative research platform unlocks immense research values, empowering clinicians and researchers to uncover the genetic underpinning of diseases. It paves the way for more effective screening, diagnostic, and therapeutic methods, all of which are crucial steps towards realising the promise of precision health.

The platform also aligns with HKGI's well-established data policy, ensuring data access and usage align with the roles and intents of clinicians and researchers. These clear guidelines and controlled environments for accessing and analysing data reinforce HKGI's commitment to advancing research and accelerating discoveries in genomic medicine.

Propelling Genomic Innovations

The year 2023-24 saw a number of accomplishments in HKGI's attempts to foster genomic research. By broadening the spectrum of research cohorts, and building robust infrastructure, HKGI is extending the benefits of genomic medicine to a larger population. This comprehensive approach is laying the foundation for greater understanding of various diseases, more ground-breaking scientific discoveries, and ultimately, improved healthcare outcomes for both patients and the wider community.

Leveraging its expertise and extensive networks, HKGI will also remain committed to driving research and development in genetics and genomics, and supporting the HKSAR Government's policy to develop Hong Kong into a Health and Medical Innovation Hub.

基因組中心順利推出研究平台，為交流協作提供莫大便利，極具科研價值，不但有助醫生和研究人員解構更多疾病和遺傳的關聯性，亦為實現更準確有效的疾病篩查、診斷和治療創造有利條件，有助發揮精準醫學的潛力。

除此之外，研究平台的設計和運作亦遵循基因組中心行之有效的數據政策，以確保數據存取及使用，與醫生及研究人員的職能和目的相符。一系列清晰指引及嚴謹安全的設定，進一步展現了基因組中心推動基因組醫學研究和嶄新發現的決心。

醫學創新　引領未來

基因組中心在2023-24年度，就推進基因組研究方面屢創佳績，透過擴大研究組群，以及構建重要研究平台，讓社會各界均可受惠於基因組醫學。團隊透過全方位的工作，為深入認識疾病機制奠定良好基礎，啟發更多前瞻性的科學發現，以期提升醫療成效，惠及病人與廣大市民。

基因組中心將繼續善用專業知識和龐大網絡，全力推動遺傳學及基因組學的研究與發展，支持特區政府發展香港成為醫療創新樞紐的施政方針。

Nurture Talents in Genomic Medicine
培育基因組醫學人才

Nurture Talents in Genomic Medicine
培育基因組醫學人才

Talent cultivation in genetics and genomics is indispensable for the robust development of scientific research and clinical applications of genomic medicine in Hong Kong. In 2023-24, HKGI continued to implement a number of strategic initiatives to nurture talent and support the career development of local healthcare professionals, young talent, and students in this dynamic field.

Driving Exchanges with MDT Meetings

Genomic medicine necessitates a wide spectrum of professionals – from scientists, clinical geneticists, genetic counsellors, bioinformaticians, and genome curators to laboratory professionals, medical technologists, researchers, clinicians, nurses, and many others. Cultivating a pool of talent from multiple specialties is essential.

Multi-disciplinary team (MDT) meetings hosted by HKGI serve as impactful platforms for knowledge exchange. Through in-depth case discussions, clinicians and healthcare professionals have the opportunities to share know-how, review the latest research findings, and collaborate to develop personalised treatment for patients.

Since May 2022, over 20 MDT meetings have been held, reflecting the frequent exchange and dissemination of genomic knowledge. Feedback from participants was all positive, acknowledging the meetings as an excellent channel for continuing professional education and training, empowering healthcare professionals to stay abreast of the latest developments.

培育遺傳學及基因組學人才是促進香港基因組醫學研究和臨床應用不可或缺的一環。基因組中心亦視之為重點工作，並於2023-24年度繼續推出一系列策略措施，為業界培育菁英，並支援本地醫護專業人員、年青人才和學生在這個發展迅速的領域中拓展事業。

專業多元　集思廣益

基因組醫學所涉甚廣，需要不同專業人員的參與，當中包括科學家、臨床遺傳學家、遺傳輔導員、生物信息學家、基因組數據分析員、實驗室專業人員、醫學技術人員、研究人員、醫生及護士等。因此，建立跨專業的人才庫是發展基因組醫學的關鍵。

基因組中心深明人才的重要，透過舉辦跨專業團隊會議，為醫生和醫護專業人員提供重要的交流平台，藉着深入討論個案，相互分享知識和研究成果，共同為病人制訂個人化的治療方案。

自2022年5月以來，基因組中心已舉辦超過20場跨專業團隊會議，頻繁地與不同醫護專業人員交流，分享基因組醫學知識。與會者均對會議評價正面，認為是持續專業進修及培訓的絕佳渠道，助業界人員掌握最新行業動態。

Nurture Talents in Genomic Medicine
培育基因組醫學人才

Cultivating Genomic Champions for Knowledge Sharing

To further spread genomic knowledge and facilitate the integration of genomic medicine into routine clinical practice, HKGI has formed a network of "genomic champions" across clinical specialties in public hospitals. These dedicated individuals serve as ambassadors and share their knowledge and experience acquired from HKGP with colleagues and working partners.

In 2023-24, more than 15 meetings were organised between HKGI and genomic champions of various specialties and research projects, including the ophthalmology research group, adult nephrology research group, osteoporosis research group, and brain tumour research group from the University of Hong Kong (HKU), as well as the paediatric and adult leukaemia research groups, young-onset diabetes research group, aortic dissection research group, and clinical oncology research group from the Chinese University of Hong Kong (CUHK).

These ongoing collaborations in knowledge sharing play a key role in nurturing talent for the development of genomic medicine in Hong Kong.

重點培訓　推而廣之

為加快普及基因組醫學知識，以及融合基因組醫學和常規臨床護理，團隊於公立醫院不同臨床專科設立了「基因組學傑出人員／團隊」網絡，由他們發揮示範作用，推而廣之，積極與同事及工作夥伴分享從基因組計劃所獲得的知識與經驗。

年內，基因組中心與多個專科及研究項目的基因組學傑出團隊舉行了逾15場分享會，交換研究資訊與心得。與會者包括香港大學（港大）眼科、成人腎科、骨質疏鬆症及腦腫瘤研究小組，以及香港中文大學（中大）成人及兒童白血病、早發糖尿病、主動脈撕裂及臨床腫瘤科研究小組。

基因組中心與各方保持緊密合作，傳遞知識，對培育人才及推動香港基因組醫學發展，有着舉足輕重的作用。

Facilitating Continuing Professional Development and Training

Continuing professional development and training are also essential for building a strong and sustainable talent pool, especially for professions in the rapidly evolving field of genomic medicine. Since its inception, HKGI has worked tirelessly to promote the subject among healthcare experts and allied health professionals.

In 2023-24, HKGI organised over 30 talks, seminars, symposiums, and lectures to promote knowledge and experience exchange. These events covered a wide range of topics, including sharing of HKGI's experience in implementing HKGP and its role in transforming healthcare, clinical applications of whole genome sequencing and genomic medicine, significance of developing precision medicine and driving genomic discoveries, and latest practices of genetic counselling in delivering patient care.

These initiatives enrich the knowledge and perspectives of healthcare professionals and nurture a workforce well-versed in genomic medicine, fostering the field's long-term development in Hong Kong.

持續進修　掌握新知

基因組醫學發展一日千里，醫護人員的持續專業發展及培訓，對建立優質充裕的人才庫至關重要。因此，基因組中心自成立以來，一直不遺餘力向醫療專家及專職醫護人員宣揚基因組醫學知識。

於2023-24年度，團隊為醫護專業人員舉辦了超過30場演講、座談會、研討會及講座等，涵蓋不同主題內容，包括基因組中心推行基因組計劃的經驗，以及在革新醫療服務中的角色；探討全基因組測序及基因組醫學的臨床應用、介紹發展精準醫學與推動基因組學創新的重要性，以及分享遺傳輔導在病人護理上的最新模式。

基因組中心的一系列工作不但讓醫護專業人員擴闊視野和增長知識，亦有助培育出精通基因組醫學的專業團隊，促進基因組醫學在香港的長遠發展。

Nurture Talents in Genomic Medicine
培育基因組醫學人才

Leading Genetic Counselling for Better Patient Communication

Genetic counsellors play a critical role throughout a patient's journey, acting as a liaison between patients, clinicians, and laboratory technologists. They provide vital guidance and support to patients and their family members as they navigate complex genetic and genomic information to make well-informed, life-changing decisions.

Recognising the paramount importance of genetic counselling, HKGI spearheaded the formation of the Hong Kong Genetic Counselling Practice Consortium (Consortium) in 2022, with significant support from the Health Bureau of the HKSAR Government. Bolstered by the guidance of a distinguished panel of genetic counselling and genomics experts, the Consortium made substantial progress in its first year of establishment.

In less than a year, the Consortium formulated the "Scope of Practice" and "Code of Ethics" with reference to latest international trends and standards in genetic counselling. The documents have established a clear framework and guidelines for professional standards and ethical principles for genetic counsellors in Hong Kong, promoting best practices and fostering the profession's long-term growth.

遺傳輔導　溝通所需

遺傳輔導員是連繫病人、醫護人員與實驗室技術員的重要橋樑，擔當着不可或缺的角色。他們與病人在求醫路上一直並肩同行，為病人及其家屬提供專業輔導和支援，講解複雜的遺傳學及基因組學資訊，協助他們在知情同意下，作出對生命影響深遠的決定。

鑒於遺傳輔導的重要性，基因組中心遂於特區政府醫務衞生局全力支持下，在2022年牽頭成立了「香港遺傳輔導專業發展聯席」（聯席）。在多位著名遺傳輔導及基因組學專家的指導下，聯席成立首年已取得顯著進展。

聯席於成立首年已參考國際遺傳輔導的最新趨勢和標準，制訂了遺傳輔導員「實務規範」及「倫理守則」，為本地遺傳輔導員就專業標準與倫理原則，提供清晰框架和指引，宣揚最佳實務標準，帶動行業長遠發展。

In addition to aligning genetic counselling standards with the evolving healthcare landscape through the Consortium, HKGI actively supports the genetic counselling community with talks, sharing sessions, and training initiatives. For instance, in December 2023, HKGI hosted "An Alignment of Practice and Refresher Course for Genetic Counsellors" for practitioners from all three partnering centres and the Hospital Authority with the aim of ensuring consistent and continuous provision of exemplary services.

To further promote this important profession, HKGI also participated in the "9th Nursing Symposium on Cancer Care cum 1st Genomic and Genetic Nursing Forum" organised by CUHK Nethersole School of Nursing in May 2024. At the symposium, HKGI representatives were invited to be the guest speakers for the session themed "Genomic and Genetic Nursing Forum II: Translation of Genomic and Genetic Sciences into Nursing Practice", sharing insights on the applications of genetic counselling in cancer care and the development of genomic medicine in Hong Kong.

基因組中心透過聯席的工作，確保遺傳輔導的標準與時並進，配合醫療服務所需。與此同時，團隊亦透過舉辦講座、交流會及培訓班等，積極支援業界，例如於2023年12月舉辦了「遺傳輔導員實務守則及專業發展」講座，協助基因組計劃三間夥伴中心及醫院管理局相關醫護人員掌握最新知識技能，持續為市民大眾提供優質的醫療服務。

為進一步推動遺傳輔導的發展，基因組中心積極參與中大那打素護理學院於2024年5月舉辦的「第九屆癌症護理研討會暨第一屆遺傳學護理論壇」。機構代表以嘉賓講者身份，在「遺傳學護理論壇II：融合遺傳科學與護理工作」環節中，分享如何把遺傳輔導應用於癌症護理，以及對香港發展基因組醫學的見解。

Nurture Talents in Genomic Medicine
培育基因組醫學人才

Nurturing Professionals Through Partnerships

As part of its unwavering commitment to nurturing talent for advancing genomic medicine, HKGI is proactive in establishing partnerships with accredited professional bodies and educational institutes. In May 2023, HKGI joined forces with the Hong Kong Academy of Medicine (HKAM) to roll out the "HKAM-HKGI Research Excellence Grants in Genomic Medicine", with the objective to inspire young genomic talent and support cutting-edge research projects.

In its first year, three projects were awarded, covering research on eye disorders in children, association between movement disorders and antipsychotic treatments in the Chinese population, and transcriptomic atlas of nucleus pulposus from development to degeneration. These diverse research projects demonstrate the broad applications of genomic medicine, as well as its enormous potential to bring about impactful outcomes for patients of all ages and disease types.

Building on the success of the partnership in raising awareness and interest in genomic medicine among healthcare professionals, applications for the 2024 intake were accepted between May and August 2024. The entries are being reviewed by a panel of leading experts, while award results are expected to be announced by early 2025.

協力同心　孕育專才

作為培育人才和推動基因組醫學的重要一步，基因組中心一直積極與專業機構及院校建立合作關係。2023年5月，團隊與香港醫學專科學院（醫專）攜手推出「基因組醫學卓越研究獎」，旨在啟發後學，並為前瞻性研究項目提供支援。

首屆獲獎項目共有三個，研究主題覆蓋廣泛，包括兒童眼疾、華人服用抗精神病藥物與運動障礙的關聯性，以及椎間盤中髓核從發育到退化的轉錄組圖譜。這些涵蓋不同領域的研究項目，充分反映基因組醫學的廣泛應用，並展現了其無分年齡及病患，造福病人的龐大潛力。

基因組中心與醫專的合作成功加深了醫護專業人員對基因組醫學的認識和興趣；2024年度的「基因組醫學卓越研究獎」已於2024年5月至8月期間接受申請，各研究項目正由權威專家小組評審，得獎結果預計於2025年年初公布。

Apart from the collaboration with HKAM, HKGI also partnered with the Hong Kong College of Physicians (HKCP) in 2023 to launch the "HKCP-HKGI Overseas Training Scholarship and Training Grant for Excellence in Genomic Medicine". This award programme aims to enhance knowledge, skills, and experience of local healthcare professionals in genomic medicine by providing financial assistance for overseas training in genetics and genomics as well as local placement opportunities at HKGI.

除了與醫專合作外，基因組中心亦在2023年與香港內科醫學院合辦「基因組醫學海外及本地進修獎學金」，旨在提升本地醫護專業人員的基因組醫學知識、技能和經驗，透過為他們提供遺傳學及基因組學的海外培訓資助，以及在基因組中心內的實習機會，培育人才。

The first year of the scholarship and grant was successfully launched with awardees named. Two doctors, one specialising in cardiology and the other in haematology and haematological oncology, received financial support to attend a six-month training programme in the United Kingdom. This opportunity allowed them to broaden their experience and bring the latest clinical practices back to Hong Kong, fostering the development of genomic medicine. Additionally, a specialist in nephrology enrolled in a three-month attachment programme at HKGI, during which valuable opportunities to meet the HKGI expert team and explore the fascinating applications of genomics were offered.

首屆獎學金已順利完成招募和評審，合共三位醫生獲獎，其中兩位分別是心臟科醫生和血液及血液腫瘤科醫生，他們獲資助前往英國接受為期半年的培訓，學習最新臨床應用知識，並將累積到的經驗帶回香港，以促進本地基因組醫學發展。第三位得獎者為腎臟科專科醫生，獲安排到基因組中心參與為期三個月的研習計劃，與專家團隊交流切磋，共同探討基因組學的應用，汲取寶貴經驗。

Continuing the strong partnership with HKCP to nurture talent, the 2024 intake was open for applications from June to October 2024. Interviews will be conducted with applicants while results are expected to be released by early 2025.

在基因組中心和香港內科醫學院緊密合作下，2024年度的進修獎學金已於2024年6月至10月接受申請。申請者將陸續獲邀出席面試；而遴選結果預計將於2025年年初公布。

Nurture Talents in Genomic Medicine
培育基因組醫學人才

Advising on Curriculum Design to Raise Awareness

To meet the growing needs of healthcare professionals specialised in genomic medicine, HKGI continued to collaborate with local universities to develop and promote academic programmes in genomics, biomedical science, bioinformatics, and genetic counselling.

HKGI has worked closely with HKU Li Ka Shing Faculty of Medicine to introduce genomic medicine to both undergraduate and postgraduate students. For example, the Chief Medical and Scientific Officer of HKGI is the course director of the Master of Medical Sciences (Genetic Counselling) Programme, providing constructive advice to enhance the programme to better align with the needs of the healthcare and medical sector. Moreover, the study of genomic medicine has been added to the Year 1 curriculum of the Bachelor of Medicine and Bachelor of Surgery (MBBS), inspiring students to learn and explore the subject in a structured manner.

The HKGI team also organised consultation meetings with experts from HKU School of Biomedical Sciences and the Department of Pathology, and the School of Nursing and Health Studies of the Metropolitan University of Hong Kong to exchange views and explore potential collaborations in nurturing talent. All these efforts reinforce HKGI's commitment to building a sustainable talent pool for developing genomic medicine in Hong Kong.

規劃課程　加深認識

隨着基因組醫學發展，業界對相關醫護專業人員需求日漸增加。有見及此，基因組中心在過去一年繼續與本地大學合作，共同籌劃並推廣基因組學、生物醫學、生物信息學及遺傳輔導相關的課程。

年內，基因組中心與港大李嘉誠醫學院通力合作，透過課程設計向本科生及研究生介紹基因組醫學。以港大醫學碩士（遺傳輔導）課程為例，基因組中心首席醫務及科學總監為其擔任課程總監並給予具體建議，讓課程內容更貼合醫療界別所需。同時，基因組醫學亦獲納入內外全科醫學士的一年級課程，啟發學生有系統地學習及探索這個學科。

基因組中心亦與港大生物醫學學院和病理學系，以及香港都會大學護理及健康學院的專家保持緊密聯繫，會面交流，就培育人才探討可行合作。團隊積極連繫各方，致力建立可持續發展的人才庫，推動香港基因組醫學的發展。

Recognising Talented Youth with Scholarships

Apart from contributing to curriculum design, HKGI has collaborated with the medical schools of CUHK and HKU to set up scholarship programmes since 2023 to inspire the next generation in genomic medicine.

In 2024, the scholarship prizes were awarded to five outstanding undergraduate and postgraduate students for their excellent academic performance in subjects related to genomic science and medicine. HKGI representatives, including the Chairperson, Chief Executive Officer, and Chief Administrative Officer attended the prize presentation ceremonies in February and June 2024 to congratulate and interact with these promising young students.

Encouraged by the enthusiastic response from the students, HKGI continues to expand similar collaborations with other local institutions, such as the Hong Kong Polytechnic University, aiming to encourage more students to explore subjects related to genetics and genomics.

設立獎項　嘉許精英

除了協助規劃課程，基因組中心自2023年起，與中大及港大醫學院合作推出獎學金計劃，啟發下一代基因組醫學人才。

在2024年，共有五位在基因組科學及醫學相關學科表現傑出的本科生及研究生獲頒獎學金。基因組中心代表，包括主席、行政總裁，以及首席行政總監出席了於2024年2月及6月舉行的頒獎典禮，恭賀各位出色的年輕學子，並與他們交流互動。

基因組中心樂見學生們對獎學金計劃反應熱烈，並已接觸其他本地院校如香港理工大學，商討同類合作，期望吸引更多學生投身遺傳學和基因組醫學相關領域。

Nurture Talents in Genomic Medicine
培育基因組醫學人才

Inspiring the Next Generation

Among various efforts in nurturing talent, experiential learning and on-the-job training are key areas that HKGI places much emphasis on in order to foster the next generation's interest in genomic medicine.

Throughout 2023-24, HKGI hosted a number of visits, laboratory tours, and career talks for secondary school and university students, such as HKU's medical students and postgraduate students from the Master of Science in Bioinformatics, as well as CUHK's postgraduate students from the Master of Science in Genomics and Bioinformatics programme. Over the past year, more than 400 students attended these seminars and activities during which they were given the chance to acquire valuable insights into HKGI's work, as well as latest advances, opportunities, and applications of genomic medicine.

The internship programme is another area that HKGI focuses on as one of its key initiatives in grooming talent for tomorrow as it provides valuable learning and growth opportunities for the next generation. During the 2024 summer term, HKGI welcomed 12 university students from a variety of disciplines, including medicine, bioinformatics, communications, finance, and computer science.

體驗實踐　啟發熱誠

在眾多培育人才舉措當中，基因組中心尤其重視實踐學習和在職培訓，藉此培養年輕一代對基因組醫學的興趣。

在2023-24年度，基因組中心為中學及大學生舉辦了多場到訪活動、實驗室參觀，以及職業講座。參加者包括港大醫科生和生物信息學碩士研究生，以及中大基因組學及生物信息學碩士研究生等。過去一年，這些活動吸引了超過400名學生參加，除有助他們認識基因組中心的工作外，亦讓他們深入了解基因組醫學的最新發展、機遇和應用情況。

暑期實習計劃為年青一代提供難能可貴的學習機會，是基因組中心培育未來棟樑的重點項目之一。在2024年的暑期，基因組中心共取錄了12名大學生，他們主修不同學科，包括醫科、生物信息學、傳播、金融，以及計算機科學等。

The interns worked alongside HKGI professionals and gained hands-on experience and insights into genomic medicine, piquing their interest in potential career paths in this exciting and rapidly evolving profession. Feedback from the interns was overwhelmingly positive, with many expressing a strong interest in the subject and a desire to contribute to HKGI's meaningful work in the future.

Cultivating Future Leaders for Genomic Medicine

A robust pipeline of talent is pivotal to advancing personalised healthcare, disease diagnostics, and cutting-edge discoveries and applications. Buoyed by the positive responses from healthcare professionals and students on its diverse talent development programmes, HKGI will continue to stay proactive in nurturing talent, providing more opportunities for the medical community and the young generation to gain practical experience and latest knowledge necessary for integrating genomic medicine into clinical care. With steadfast commitment, HKGI will keep contributing to society by cultivating future genomic leaders for the delivery of precise and personalised patient care services.

實習期間，同學們與基因組中心的專業團隊共同工作，不但從中汲取實戰經驗和鞏固所學，亦啟發他們思考事業路向，探索投身基因組醫學這個發展迅速、機遇處處的專業領域。同學們對實習計劃評價非常正面，各人均展現對基因組醫學的濃厚興趣，並期望日後有機會為基因組中心意義深遠的工作出一分力。

薪火相傳　成就未來

建立穩健的人才梯隊是推動個人化治療、疾病診斷，以及促進創新研發應用的關鍵。基因組中心各項人才培育措施均獲醫護專業人員及年青學子高度評價，團隊將繼續努力，為醫學界及年輕一代創造更多機會，助他們積累實戰經驗和行業新知，加快將基因組醫學融入臨床護理。基因組中心憑藉堅定不移的信念，定當繼續為基因組醫學培育未來領袖，透過提供精準及個人化醫療服務，貢獻社會。

Enhance Public Genomic Literacy and Engagement
加強公眾對基因組學的認識和參與

Enhance Public Genomic Literacy and Engagement
加強公眾對基因組學的認識和參與

HKGI recognises that public literacy and engagement are vital for raising awareness of the potential and significance of genomic medicine. During the year, HKGI implemented a number of publicity initiatives to engage diverse stakeholders, expanding its reach across a variety of channels to bring the subject closer to the community.

公眾認識和參與，對加深社會大眾了解基因組醫學的發展潛力和重要性至關重要。有見及此，基因組中心年內舉辦了一系列宣傳教育活動，多管齊下接觸不同持份者，將基因組醫學推而廣之，深入社區。

Staying Connected with Patients

The success of HKGI in integrating genomics into routine clinical care and delivering on the promise of genomic medicine hinges on the trust of patients and their families. In December 2023, HKGI hosted its first Patient Forum, bringing together close to 70 patients and guests to foster meaningful dialogue. Attendees included influential patient group leaders from Rare Disease Hong Kong and Hong Kong Alliance of Patients' Organization, as well as members from diverse patient groups representing conditions such as kidney disease, cancer, diabetes, and haemophilia.

連繫病人　攜手同行

基因組中心能夠成功將基因組醫學融入臨床護理，惠及病人，實有賴病人及家屬的信任。為加強彼此聯繫，基因組中心於2023年12月舉辦了首個病友共聚暨「香港基因組計劃」分享會，吸引了近70名病人和嘉賓出席。與會者包括香港罕見疾病聯盟及香港病人組織聯盟的領袖，以及腎病、癌症、糖尿病和血友病等病友組織代表。

At the Forum, apart from HKGI executives, an expert from the Prince of Wales Hospital, one of the HKGP partnering centres was also present to lead interactive sharing sessions. They introduced the applications of genomic medicine, presenting real-life HKGP patient cases to highlight the benefits of integrating genomics into medicine. Guided tours to HKGI's genomic laboratory were also arranged to promote better understanding of the technology and workflow involved in conducting whole genome sequencing.

在分享會上，除了基因組中心的管理層，基因組計劃夥伴中心之一威爾斯親王醫院的專家亦有出席，與參加者交流互動，介紹基因組醫學的應用情況，並透過不同案例展示基因組醫學融入臨床護理所帶來的裨益。活動期間，基因組中心亦安排了實驗室參觀環節，讓參加者進一步了解全基因組測序的技術和流程。

Enhance Public Genomic Literacy and Engagement
加強公眾對基因組學的認識和參與

Feedback on the Forum was overwhelmingly positive. As reflected by the post-event questionnaire, over 90% of respondents expressed satisfaction with the event and acknowledged the importance of genomic medicine. They also indicated strong willingness to support and promote HKGP to other patients.

In addition to face-to-face engagement events, recognising the importance of effective communication in building trust and facilitating patient recruitment, HKGI also kept updating the HKGP Information Kit during the year. The Information Kit, comprising an introductory HKGP leaflet, booklet, and souvenirs, continued to be HKGI's essential tool for patient engagement. Latest updates on HKGP were added to the printed materials, such as details of the new referring networks, ensuring that patients are fully informed in a timely manner about project updates before participating in HKGP and providing consent.

參加者對分享會給予極高評價，活動後的問卷調查顯示，逾90%受訪者對分享會表示滿意，認同基因組醫學的重要性，大力支持並十分樂意將基因組計劃的資訊帶給其他病人。

基因組中心深明溝通是與病人建立互信，以及為基因組計劃招募參加者的重要一環。因此，團隊於年內除了舉辦實體活動，亦持續更新基因組計劃資料冊，當中包括基因組計劃宣傳單張、小冊子及紀念品等，是團隊與病人溝通互動的重要工具。基因組中心已更新資料冊的內容，包括為招募參加者而新增的公立醫院合作網絡等資訊，確保病人在作出知情同意參加基因組計劃前，已全面了解整個計劃的最新發展。

Promoting Dialogue with Legislative Councillors

Support from various stakeholders, particularly lawmakers, is the key to HKGI's smooth operations. To promote dialogue and exchange, HKGI hosted a visit for members of the Legislative Council Panel on Health Services (LegCo HS Panel) in May 2024 in the company of the Health Bureau to introduce HKGI's achievements in implementing HKGP and the benefits brought to patients and their families. Seven members, including the Chairman and the Deputy Chairman, were present to receive briefing from HKGI. They also visited HKGI's state-of-the-art genomic laboratory to better understand the whole genome sequencing technology and clinical applications of genomic medicine in Hong Kong. Through this engagement, HKGI successfully established rapport with the legislators, paving the way for fruitful exchanges in future that saw strong support from members.

Following the visit, as led by the Health Bureau, HKGI senior management attended the LegCo HS Panel meeting in the same month to further update members on the implementation progress and accomplishments of HKGP.

接觸議員　交流互動

基因組中心得以順利運作，各界持份者的支持十分重要，立法會議員更是關鍵。為促進交流，基因組中心聯同醫務衞生局於2024年5月為立法會衞生事務委員會舉辦參觀活動，向到訪的議員介紹基因組計劃的成果，以及相關工作為病人和家屬帶來的裨益。共七名議員出席交流並聽取基因組中心的工作匯報，其中包括委員會主席及副主席。他們亦參觀了基因組中心內配備頂尖儀器的基因組實驗室，了解全基因組測序技術，以及基因組醫學在香港臨床應用的情況。藉着該次會面，基因組中心與立法會議員建立了緊密聯繫，為日後的交流奠下了良好基礎。

其後，基因組中心管理層在醫務衞生局帶領下，出席同月舉行的立法會衞生事務委員會會議，向議員匯報基因組計劃的最新進展和成果，並獲得大力支持。

Enhance Public Genomic Literacy and Engagement
加強公眾對基因組學的認識和參與

As a result of these proactive engagement efforts, members were impressed by the positive outcomes and achievements of HKGI, especially the team's exceptional commitment to building everything from scratch over the past three years. They also acknowledged HKGI's strategy in establishing a genome database for Southern Chinese, which would have a key role to play in redefining the healthcare landscape in Hong Kong. Notably, one of the members complimented HKGI's work and genomic medicine as "the future of medicine", expressing great appreciation for the professionalism and dedication HKGI demonstrated in delivering life-changing impacts to patients and their families.

基因組中心積極與議員接觸和交流，工作成果備受肯定，尤其是團隊在過去三年從零開始的堅持和努力。議員們對基因組中心致力建立華南地區人口基因組數據庫的策略給予高度評價，認為該發展方針對革新香港醫療服務有着舉足輕重的作用。有議員更形容基因組中心的工作及基因組醫學為「醫學的未來」，讚揚團隊的專業和無私奉獻，切實為病人和家屬的生命帶來改變。

Following the LegCo HS Panel visit and meeting, extensive positive coverage of over 40 clips across print and online were generated through news reports and social media posts that the LegCo HS Panel members shared on Facebook and YouTube, significantly raising HKGI's brand and public awareness of genomic medicine.

基因組中心與立法會衞生事務委員會的連串交流活動，除了獲多家報章及網上媒體廣泛報導，議員們亦於其Facebook及YouTube等社交媒體作分享，為機構帶來超過40篇正面報導，大大提升基因組中心的知名度，並加深公眾對基因組醫學的認識。

Strengthening Media Relations for Positive Exposure

Maintaining close communication with the media is vital for promulgating HKGI's messages and values to the public. By sharing latest developments and inspiring patient stories through the mass media, HKGI has effectively increased public understanding and support for its mission and achievements.

聯繫傳媒　報導正面

基因組中心非常重視與媒體的緊密聯繫，持續透過大眾傳媒分享最新發展和病人故事，藉此傳揚機構的核心價值，讓市民大眾深入了解基因組中心的使命和工作成果，爭取認同和支持。

Throughout the year, HKGI proactively engaged with local media to raise awareness and communicate the significance of genomic medicine and HKGI's initiatives in driving its development. For instance, in September 2023, an in-depth feature interview with HKGI's senior executives was published in renowned local newspaper Ming Pao Daily News, detailing HKGI's establishment, goals, the launch of HKGP, and its effectiveness in facilitating disease diagnosis that put an end to patients' decade-long diagnostic odysseys.

Moreover, in June 2024, riding on the momentum generated from the LegCo HS Panel visit and meeting, HKGI organised a group interview with top-tier local media outlets, including Ming Pao Daily News, Sing Tao Daily, and Hong Kong Economic Times. Given the outlets' long-standing credibility and track record in covering healthcare topics, especially novel subjects like genetics and genomics, this proactive media outreach allowed HKGI to share more updates on HKGP along with patient stories appealing to the general public to demonstrate the potential and benefits of genomic medicine. HKGI's soft launch of the Synergistic Research Environment was also highlighted in the interview to showcase HKGI's dedication to advancing genomic research.

過去一年，基因組中心積極接觸本地媒體，透過其龐大網絡宣揚基因組醫學的重要，以及團隊推動相關發展的努力。舉例而言，本地主要報章《明報》於2023年9月刊登了基因組中心管理層的深度專訪，詳細介紹基因組中心的成立背景、目標和基因組計劃的進度，以及相關工作在促進疾病診斷的卓越成效，助病人結束尋找病因的漫長過程。

此外，基因組中心亦緊貼時事脈搏，在接待立法會衞生事務委員會及出席委員會會議後，順應新聞熱話，於2024年6月舉辦傳媒小組訪問，邀請到本地主要媒體包括《明報》、《星島日報》及《經濟日報》出席。參與採訪的媒體在報道醫療事務方面均深具經驗和公信力，尤其擅長介紹如遺傳學和基因組學等相類的嶄新議題。透過主動聯繫傳媒，基因組中心得以宣揚基因組計劃的最新發展和病人故事，向廣大讀者解說基因組醫學的潛力及帶來的潛在好處。訪問期間，基因組中心亦重點介紹了「協同合作研究平台」(Synergistic Research Environment)的試行情況，展現團隊在促進基因組醫學研究的決心和努力。

Image credits: HK01, Ming Pao Daily News, and Sing Tao Daily 圖片來源：香港01、明報及星島日報

Enhance Public Genomic Literacy and Engagement
加強公眾對基因組學的認識和參與

This strategic media outreach resulted in prominent coverage on HKGI, including a front-page feature in Ming Pao Daily News, and more than half a page exposure in the other two newspapers. These news reports, published both in print and online, amplified HKGI's ongoing efforts in promoting public understanding and appreciation of HKGI's work, and how such work was closely related to the wider community.

該採訪活動成效顯著，獲邀的三家媒體均作大篇幅報道，其中《明報》更以頭版報道有關新聞，另外兩家傳媒的報道，篇幅亦各佔半版以上。這些線上線下的新聞報導，讓基因組中心的宣傳事半功倍，同時加深社會大眾對基因組中心的認識，了解到團隊的工作如何與市民息息相關。

To further this wave of publicity, an interview with Now TV was arranged for the chief officers in July 2024 to share more about HKGI's updates and aspiration to build a genome database for the Southern Chinese population which is fundamental to realising the potential of genomic medicine and creating a healthy future for all.

緊接報章訪問後，為進一步擴大宣傳成效，基因組中心管理層於2024年7月接受Now TV訪問，分享更多機構的最新動向，並講解建立華南地區人口基因組數據庫的願景，向公眾介紹數據庫的重大意義，發揮基因組醫學的潛力，與大眾共建健康未來。

The extensive and positive coverage, across both print and digital media platforms, has significantly heightened public awareness of HKGI's impactful work in advancing genomic medicine in Hong Kong.

透過報章及網上新聞平台廣泛正面的報道，讓市民大眾明白基因組中心致力推動本地基因組醫學，工作意義深遠，影響巨大。

Raising Awareness through Corporate Publications

In addition to proactive engagement with stakeholders, HKGI has consistently produced a wide range of communication collateral and educational materials to elevate awareness about HKGI and the importance of developing genomic medicine.

Among all publications, annual report has been an important tool to keep stakeholders engaged and informed of HKGI's latest developments and achievements. It also represents the team's commitment to robust corporate governance, transparency, and accountability. During the year, dedicated efforts were put into the production of the 2022-23 Annual Report which was distributed to various stakeholders including senior government officials, patients, healthcare professionals, and researchers. The e-book version was also published on the HKGI website for easy access by the public.

Themed "Forging Ahead as One for Better Health", the Annual Report provided a full account of key updates and milestones HKGI achieved during the year. Specifically, a gatefold "Our Year at a Glance" was added to the beginning of the book to give readers an overview of HKGI's top ten achievements. There was also a photo gallery "Milestones of the Year", recollecting all the memorable events. Another impressive section was the special feature "Our Partnering Centres", which covered interviews with HKGP partnering centres. By sharing their work and insights into patient care, the Annual Report not only provided a record of work progress but also served the dual function as an important education tool to enhance public literacy.

編製刊物　宣傳教育

除了積極與持份者接觸外，基因組中心亦製作內容多元化的刊物和教育素材，旨在加深公眾對基因組中心的認識及了解發展基因組醫學的重要性。

在眾多刊物當中，年報是基因組中心向持份者匯報工作的重要渠道，除了細述機構的最新發展和成就外，亦彰顯團隊對實踐嚴謹企業管治、保持透明度和問責性的高度重視。年內，基因組中心悉心編製了2022-23年報，並呈送予政府官員、病人、醫護專業人員及研究人員等不同持份者；年報的電子版亦於基因組中心的網站發布，以便公眾閱覽。

該年報以「齊心同進・躍變健康未來」為題，詳述了基因組中心年度內的重要發展和里程碑，在設計和內容上加入了不少新元素，例如於年報開首增設了「年度大事速覽」拉頁，以簡潔圖像概述基因組中心的十大成就。年報亦設有「年度回顧」的篇章，圖文並茂記載了多項重大活動；而新增的特別章節「我們的夥伴中心」，更收錄了基因組計劃三間夥伴中心的專訪，由各夥伴中心的負責人現身說法，分享工作點滴和專業見解。由此可見，該年報不僅記錄了基因組中心的發展進程，亦深具教育意義，有助提升公眾對基因組醫學的認識和支持。

Enhance Public Genomic Literacy and Engagement
加強公眾對基因組學的認識和參與

Designed with appealing graphics and engaging content, the Annual Report continued to earn multiple honours two years in a row at the prestigious "2023 Vision Awards" held by the League of American Communications Professionals, including the "Platinum Award" in both the Non-Profits and Government Organisations categories, and ranked 8th among "Top 100 Worldwide", leaping from 64th in the previous year. In addition, the Annual Report also won the "Silver Award" in the "Overall Presentation: Government Agencies & Offices" category at the "2023/24 Mercury Excellence Awards" hosted by MerComm, Inc., the industry leader in the United States who has been running the award programme for 37 years.

憑藉精巧設計和豐富內容，基因組中心的年報連續兩年於美國傳訊專業聯盟舉辦的國際年報大獎「2023 Vision Awards」中獲得多項殊榮，包括於「非牟利機構」及「政府相關機構」兩個組別榮獲鉑金獎，並在「全球最佳年報100強」中，由去年第64名躍升至第8名。該年報亦在美國「2023/24 Mercury Excellence Awards」比賽中報捷，於「年報整體表現 — 政府及公營機構」組別獲頒銀獎。該比賽由美國傳訊業翹楚MerComm, Inc.主辦，至今已有37年歷史，廣為業界推崇。

Enhancing Genomic Literacy with Award-winning Videos

Apart from printed materials, HKGI also maximises publicity effectiveness through the use of videos to translate complex genomic concepts into simple narratives.

HKGI's commitment to excellence in developing impactful multimedia content received industry accolades in global competition. The "Expert Video Series on Genomic Medicine" (Video Series) released in 2023 was named winner at the prestigious "The Communicator Awards 2024" (Awards), receiving the "Excellence Award (Gold)" in the Non-profit category and the "Distinction Award (Silver)" in the Interview category. The Awards is a leading international programme organised by the US Academy of Interactive & Visual Arts. With 30 years of history, the Awards celebrates excellence in communications and publicity campaigns, attracting thousands of entries worldwide each year.

獲獎影片　廣納受眾

除了印製刊物外，基因組中心亦透過多媒體影片，深入淺出詮釋複雜的基因組學概念，以深化宣傳教育的成效。

基因組中心製作影片精益求精的精神，助其於國際比賽贏得多項殊榮。團隊於2023年發布的「基因組醫學專訪系列」，在業界享負盛名的「The Communicator Awards 2024」中脫穎而出，於「非牟利團體」及「專訪」兩個類別中分別獲頒卓越獎（金獎）及榮譽獎（銀獎）。該比賽由美國Academy of Interactive & Visual Arts主辦，迄今已有30年歷史，旨在表揚傑出的傳訊及宣傳方案，每年均吸引來自世界各地數千份作品參賽。

The Video Series, featuring interviews with four esteemed scientists and clinical experts, including HKGI Board members Professor Raymond Liang, Professor Lau Chak-sing, and Professor Dennis Lo, as well as former Board member Professor Nancy Ip, adopts an engaging manner to introduce genomic medicine to the general public. The recognition received is a testament to the quality and impact of HKGI public education content.

During the year, the team also kicked off the preparation of producing a HKGI feature video at the invitation of Illumina, a market-leading provider of whole genome sequencing technology. Themed "Decoding a Healthy Future", the video aims to showcase the vast potential of genomic medicine and how HKGI is riding on such cutting-edge technology and state-of-the-art laboratory to drive the transformation of healthcare services.

該獲獎的短片系列，透過訪問四位備受尊崇的科學家與臨床醫學專家，包括基因組中心董事局成員梁憲孫教授、劉澤星教授、盧煜明教授，以及董事局前成員葉玉如教授，由淺入深向市民大眾介紹基因組醫學的應用和發展潛力。基因組中心所獲得的各個獎項，均是對團隊致力製作高質專業的公眾教育素材的一大肯定。

年內，基因組中心亦在國際知名全基因組測序技術公司Illumina的邀請下，合作籌備以「創建健康未來」(Decoding a Healthy Future)為題的專題影片，展示基因組醫學的龐大發展潛力，以及基因組中心如何運用頂尖科技和先進的實驗室，加快革新醫療服務。

Enhance Public Genomic Literacy and Engagement
加強公眾對基因組學的認識和參與

Amplifying Brand Visibility through Online Promotion

Keeping up with latest digital trends has always been one of the key communication strategies for HKGI. To utilise various mediums to promote the HKGI brand, search engine optimisation strategies, and promotional campaigns on YouTube were put in place throughout the year to reach out to a wider spectrum of audiences.

Harnessing the power of online media, HKGI launched a dedicated page "Get to know Genomics" in September 2023 on HK01, the most popular mass media platform in Hong Kong for both brand building and public education. Thematic articles covering a diverse range of topics were published, including basic concepts of genetics and genomics, highlights of HKGI's developments and events, introduction of HKGP, and the project teams of the three partnering centres. With relatable content designed for layman readers, this dedicated page has extended HKGI's reach to the general public, educating and informing them about genomic medicine and its far-reaching potential.

網上宣傳　推而廣之

緊貼網上宣傳趨勢是基因組中心的重點傳訊策略之一。為充分運用不同媒體提升機構知名度，團隊在過去一年繼續善用優化搜尋引擎（Search Engine Optimisation）策略，提升基因組中心網站在搜尋引擎的排名，及在YouTube加強宣傳，以接觸更多受眾。

為發揮網上傳播的優勢，基因組中心於2023年9月在本港最受歡迎的大眾媒體平台《香港01》開設「認識基因組」專頁，藉此提升機構形象並加強公眾教育。專頁刊載的文章涵蓋多個主題，包括遺傳學及基因組學的基本概念、基因組中心的最新動向和活動花絮、基因組計劃及三間夥伴中心的簡介等。透過深入淺出的內容，該專頁成功助基因組中心更廣泛接觸市民大眾，讓他們了解更多有關基因組醫學及其深遠影響。

During the year, HKGI also took a significant step towards expanding its digital presence and connections with the global professional community by setting up the HKGI LinkedIn page in June 2024. Since its launch, online posts have been published weekly on various topics such as HKGI's news, events, research findings, and job openings. Establishing a presence on the world's largest professional social media platform allows HKGI to raise its profile, while fostering meaningful engagement with professionals worldwide and boosting talent recruitment.

Apart from ongoing online promotion, HKGI also created thematic e-cards for sharing with stakeholders during festive seasons such as Christmas and Chinese New Year. These specially crafted greeting cards, all featuring a creative adaptation of the iconic double helix image, served the multiple purposes of spreading joy, engaging stakeholders, and promoting brand identity in an innovative way.

此外，基因組中心於2024年6月開設了LinkedIn專頁，為增加網上宣傳邁出重要一步，促進機構與各地醫學社群更緊密連繫。團隊自開設LinkedIn專頁以來，每星期均會發布貼文分享不同資訊，包括基因組中心的最新消息、活動、研究成果及工作機會等。藉著於全球最大專業社交媒體建立專頁，基因組中心成功提升知名度，加強與世界各地專家學者及社群互動交流，並有助招聘人才。

除了恆常的網上宣傳，基因組中心亦為節日設計電子賀卡，在聖誕節和農曆新年與持份者分享。賀卡設計均充滿巧思，將機構標誌性的雙螺旋圖案融入節慶主題，在傳達喜樂祝福的同時，亦加強與持份者的連繫，並以創新的方式推廣機構形象。

Enhance Public Genomic Literacy and Engagement
加強公眾對基因組學的認識和參與

Driving Exchanges with Global Experts

All-round outreach through active participation in industry events remained HKGI's priority in 2023-24, enabling the team to maximise exposure, raise public awareness, and expand professional networks.

As a trailblazer in the field of genomic medicine, HKGI has established itself as the authoritative voice on the subject. In 2023-24, HKGI senior executives were invited to share insights at a number of local and international events. In October 2023, at the invitation of InvestHK, the Chief Executive Officer (CEO) chaired a panel discussion themed "Unlock The Health & Life Sciences Potential Through Innovation", shedding light on the promising prospects of genomic medicine.

The CEO also led a panel discussion titled "Seeing the Unseen – Precision Medicine with Genomic Insight" at the Asia Summit on Global Health organised by the Hong Kong Trade Development Council (HKTDC) in May 2024. Leveraging HKTDC's extensive networks and channels, the CEO guided an inspiring exchange of knowledge and experience in applying genomic science to clinical care, while introducing HKGI's achievements and development of genomic medicine in Hong Kong to local and international audiences.

業界盛事　積極參與

2023-24年度，基因組中心繼續透過積極參與業界活動，廣泛接觸持份者，增加機構的知名度，深化公眾認知，並拓展專業網絡。

基因組中心作為推動基因組醫學的先驅，在相關範疇已確立了權威地位。年內，基因組中心管理層獲邀出席多項本地和國際會議，與業界交流，分享見解。基因組中心行政總裁於2023年10月應投資推廣署邀請，參與「創新釋放生命與健康科學潛力」專題峰會，並主持小組研討會，探討基因組醫學的發展前景。

行政總裁亦於2024年5月應邀參與香港貿易發展局（貿發局）主辦的亞洲醫療健康高峰論壇，並主持「洞察先機 — 精準醫學與基因組學新焦點」小組研討會。在活動上，行政總裁善用貿發局龐大的網絡和渠道，向與會者簡介了基因組中心的工作成果，以及基因組醫學在香港的發展情況。他亦帶領與會者交流知識經驗，就基因組醫學的臨床應用作深入討論。

In addition to the CEO, the Chief Medical and Scientific Officer (CMSO) also proactively represented HKGI at international conferences to share the team's experience in launching HKGP, Hong Kong's first city-wide whole genome sequencing project. For instance, in August 2023, the CMSO spoke at the "International Conference on AI in Medicine" in Singapore as a panel speaker, facilitating exchanges of insights among global experts on how AI would drive genomic innovations and research.

基因組中心的首席醫務及科學總監亦經常代表機構出席國際會議，分享推行香港首個大型全基因組測序計劃—香港基因組計劃的經驗。2023年8月，首席醫務及科學總監以專題講者身份，在新加坡舉辦的「醫學人工智能國際會議」(International Conference on AI in Medicine)中演說，與各地專家就人工智能如何推動基因組創新及研究互相交流。

Moreover, given the paramount importance of ethics in genomic medicine, the CMSO also joined the "Inaugural Asian Paediatric Ethics Conference" in Singapore in October 2023 to share HKGI's insights on patient engagement. At the panel discussion, the CMSO introduced HKGI's ethical principles and workflow of obtaining informed consent from underage participants as well as research practices that prioritise protecting participants' rights.

在基因組醫學領域中，倫理議題一直受到高度關注。基因組中心首席醫務及科學總監於2023年10月參加了新加坡「首屆亞洲兒科倫理學會議」(Inaugural Asian Paediatric Ethics Conference)，分享了基因組中心為基因組計劃招募病人的經驗，並介紹了基因組計劃的倫理原則、徵求未成年參加者知情同意的程序，以及在研究工作中優先保障參加者權利的各項措施。

With genomic medicine playing a key role in addressing the healthcare needs of Hong Kong in the long run, the CEO and CMSO also attended the academic seminar held in May 2024 by the Primary Health Care Academy of the University of Hong Kong Li Ka Shing Faculty of Medicine. Being the event's distinguished guests and speakers, they shared insights drawn from the implementation of HKGP and how the project catalysed the advancement of genomic discoveries and personalised medicine in Hong Kong.

基因組醫學在香港長遠醫療發展中，扮演着重要角色。有見及此，基因組中心行政總裁和首席醫務及科學總監於2024年5月，出席了香港大學李嘉誠醫學院基層醫療健康教研中心舉辦的學術研討會，分別以特別嘉賓和講者的身份，分享推行基因組計劃的寶貴經驗及見解，以及該計劃如何促進本地基因組學研究的突破、推動發展個人化精準醫學。

Enhance Public Genomic Literacy and Engagement
加強公眾對基因組學的認識和參與

All these efforts have strengthened HKGI's links with the medical and scientific community, and fostered potential collaborations with counterparts near and far, reinforcing HKGI's position as a prominent international player in genomic medicine.

Facilitating Ventures through Visits

To foster collaborations and advance the development of genomic medicine, HKGI has consistently hosted visits to get connected with experts around the world for exchanges. Among those organised in 2023-24, the one-day visit to Shenzhen held in September 2023 was among the most significant ones.

The delegation, co-led by the Deputy Secretary for Health of the Health Bureau and Chairperson of HKGI, comprised representatives from HKGI, the Health Bureau, the Department of Health, the Hospital Authority, and the University of Hong Kong. With the objectives of gaining insight into new genomic technologies and practices of genomic medicine, the delegates visited key scientific and medical facilities in Shenzhen, such as the China National GeneBank, the University of Hong Kong-Shenzhen Hospital and Shenzhen Children's Hospital, and engaged in fruitful discussions on genomic research and clinical applications.

全賴團隊努力不懈強化與醫學和科學界的連繫，促成基因組中心與本地及海外業界的合作機會，進一步鞏固基因組中心在國際基因組醫學界的重要地位。

拓展網絡　協同成長

基因組中心致力與世界各地專家保持緊密聯繫，積極舉辦各類參觀及交流活動，促進合作及推動基因組醫學發展。在2023-24年度眾多活動中，以2023年9月舉辦的深圳一日考察團最具代表性。

考察團由醫務衞生局副秘書長及基因組中心主席共同率領，成員包括來自基因組中心、醫務衞生局、衞生署、醫院管理局和香港大學的代表。考察團造訪了深圳國家基因庫、香港大學深圳醫院，以及深圳市兒童醫院等重點科研及醫療服務機構，深入了解最新的基因組測序技術及基因組醫學的實踐經驗，並與各單位的專家學者就基因組研究和臨床應用交流討論，收獲甚豐。

Continuing this cross-border engagement, HKGI hosted a visit in April 2024 for the delegation from Peking Union Medical College Hospital (PUMCH), which was led by Professor Zhang Shuyang, President of PUMCH and renowned expert in rare diseases in the Mainland. This visit provided a valuable opportunity for experts from both sides to share insights on genomic medicine's development and cutting-edge technologies.

為持續深化跨境交流，基因組中心在2024年4月亦接待了由北京協和醫院院長及內地權威罕見病專家張抒揚教授率領的代表團。該次參觀活動促進了基因組中心與北京協和醫院的聯繫和交流，雙方專家就基因組醫學發展及嶄新技術交換意見。

Apart from hosting outbound and inbound visits, HKGI maintains ongoing dialogue with international experts to broaden its global outlook. In February 2024, HKGI had the honour to invite Dr Shehla Mohammed, a Consultant Clinical Geneticist from Guy's and St Thomas' NHS Foundation Trust, to deliver an insightful lecture on "Building Services for Rare Genetic Diseases" to HKGI staff members, sharing valuable knowledge and experience in applying genomics in clinical setting.

除了考察及參觀活動，基因組中心亦致力連繫國際專家，以拓展協作網絡，如團隊於2024年2月邀請了來自英國Guy's and St Thomas' NHS Foundation Trust的臨床遺傳學顧問Shehla Mohammed教授到訪基因組中心，以「優化罕見遺傳病服務」（Building Services for Rare Genetic Diseases）為題，與基因組中心團隊分享基因組學臨床應用的寶貴知識與經驗。

By bringing together leading researchers and professionals from around the world, all these engagements enabled the sharing of views, insights, and intelligence on the developments of genomic medicine while charting the field's collective growth.

藉着舉辦各項活動，基因組中心成功匯聚全球頂尖研究及專業人員，就基因組醫學發展分享觀點及見解，交流最新行業資訊，共同規劃發展藍圖。

Enhance Public Genomic Literacy and Engagement
加強公眾對基因組學的認識和參與

Forging Ahead

Building upon the strong foundation, HKGI will continue its efforts in engaging with targeted stakeholders, promoting public genomic literacy and building the HKGI brand. This will be achieved through proactive outreach to patients, the general public, mass media, local and overseas academic, and professional communities. Deeper understanding of genomic medicine and more exchanges and partnerships are on the horizon.

準備就緒　邁步向前

基因組中心將在現有穩固基礎上，繼續透過廣泛接觸病人、社會大眾、傳媒、本地及海外學術及專業社群，與不同持份者加強協作，深化公眾對基因組醫學的認識，進一步提升機構知名度。展望未來，基因組中心已準備就緒，迎接更多交流合作機遇，穩步推展各項工作。

Operate with Excellence
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HKGI's comprehensive operational procedures, guidelines, office infrastructure and systems remain the cornerstones of its efficiency and success. Meticulously established and continually enhanced, these critical elements accommodate the expansion of HKGI's activities, and enable every team to remain focused on advancing genomic medicine. They also ensure rigorous checks and balances, strict quality control, and prudent management of public resources entrusted to HKGI for optimal operational effectiveness.

Scrutinising Systems to Ensure Data Security

Data security underpins the trust that patients and stakeholders place in HKGI. During the year, HKGI strengthened robust data security measures to protect the valuable data of the Institute and HKGP participants.

HKGI launched a comprehensive, organisation-wide Security Risk Assessment and Audit (SRAA) exercise as one of its most important initiatives in data and risk management. Given the rapid evolution of the digital environment, this exercise ensures all HKGI systems and platforms are designed, maintained, and updated in accordance with the most stringent international standards and compliance requirements.

The SRAA planning began in early 2024 and is expected to be completed in early 2025. An independent consultant has been engaged to conduct a thorough examination of all operating systems, digital platforms, infrastructure, and relevant guidelines. The goal is to identify potential areas for improvements and propose measures that will further strengthen HKGI's data security and ability to stay ahead of the ever-changing cybersecurity landscape.

完善的運作流程、指引和軟硬件配套是基因組中心有效運作及成功的基石。這些規程和措施均經過審慎考量及持續優化，不但配合基因組中心擴展需要，更讓團隊得以專注推動基因組醫學發展。基因組中心亦嚴謹監督和管理工作質素，並審慎運用撥予基因組中心的公共資源，以達致最佳營運效益。

維護系統　保障數據

病人及持份者對基因組中心的信任，建基於團隊維護數據安全的堅持和決心。過去一年，基因組中心持續強化數據安全措施，致力保護機構及基因組計劃參加者的重要數據。

基因組中心正進行全面的保安風險評估及審計（Security Risk Assessment and Audit），範圍涵蓋機構內所有部門，是管理數據及風險最重要的舉措之一。面對數碼環境瞬息萬變，該項評估及審計工作有助確保基因組中心所有系統和平台在設計、維護及更新各方面均符合最嚴謹的國際標準與合規要求。

保安風險評估及審計的籌備工作於2024年初展開，預計於2025年初完成。基因組中心委託了獨立顧問，徹底檢視所有運作系統、數碼平台、基礎設施和相關指引，識別可提升及改善的範疇，並建議一系列措施，進一步加強基因組中心的數據安全和應變能力，在日新月異的網絡安全領域中保持優勢。

Stepping Up Efforts on Data Access and Controls

In addition to conducting thorough review and assessment, HKGI continuously monitors and upgrades its information technology (IT) guidelines, software, and hardware to fortify data privacy and information security. Drawing reference from latest digital trends and cybersecurity best practices, HKGI's IT security policy was updated to include more stringent measures on data access and usage controls. For instance, multi-factor authentication login arrangement was implemented during the year to add an extra layer of protection to data hosted by HKGI, requiring additional authentication from users when accessing HKGI's systems. Enhanced endpoint security software was also deployed to prevent access to HKGI's networks from non-registered external devices.

Aside from routine server upgrade and system scanning, penetration tests were conducted on key operating platforms to enhance security and account management workflows. Stronger firewalls and new antivirus software with machine learning and behavioural analysis capabilities were installed to HKGI end-point networks to monitor and combat malware as well as suspicious or malicious activities.

Enhancing Infrastructure to Empower Growth

To ensure HKGI's technological capabilities align with its growth plan, HKGI completed data centre colocation as well as system relocation in April 2024. Such arrangements were crucial in further boosting the scalability and performance of HKGI's infrastructure and overall operations.

Several major enhancements were made during the project implementation, including the increase of server racks from 4 to 16, the expansion of data storage capacity from 5PB to 10PB, and a secure cage as well as cold aisle containment in the data centre with reduced energy consumption and optimised airflows to house advanced IT equipment and systems securely and power-efficiently. These were all essential upgrades to boost the management of extensive genomic data and computational power for data processing, facilitating not only clinical analysis but also the creation of a secure platform to support genomic research initiatives.

數據存取　權限分明

基因組中心在進行全面檢視和評估的同時，亦持續監察並更新有關資訊科技的指引及軟硬件配置，以加強保障資料私隱和信息安全。團隊在更新資訊科技保安政策時，參考了最新數碼趨勢及最佳網絡安全實務範例，就數據存取和使用採納了更嚴謹的措施監督管理，例如於年內實施了多重認證登入安排，要求用戶在登入系統時進行額外身份認證，為系統內的數據增添多一重保障。此外，基因組中心亦安裝了先進的終端安全軟件，防止未獲授權的外來裝置連接至機構的網絡。

除了定期更新伺服器及掃描系統，基因組中心亦在主要的運作平台進行滲透測試（penetration tests），以加強系統的安全性和帳戶管理流程。與此同時，團隊在終端網絡設置了堅固的防火牆，以及安裝了具備機器學習和行為分析功能的新型防毒軟件，以監察及打擊惡意軟件或任何可疑網絡活動。

加強設備　提升實力

為確保軟件設備與機構發展步伐一致，基因組中心新增了數據中心，並於2024年4月完成系統配置和測試，進一步強化基礎設施和提升整體營運效能。

執行項目期間，基因組中心同步完成了多項重大設備及技術提升工程，包括把伺服器機櫃由4個增至16個，數據儲存容量亦由5PB倍增至10PB。此外，團隊於數據中心設置了專屬機櫃區，加設了防護箱及密封的冷氣流通道（cold aisle containment），有助降低能源消耗並改善氣流，為先進的資訊科技設備和系統提供安全且高效的運作環境。各項重要的升級措施令基因組中心管理龐大基因組數據的能力獲大幅提升，其處理數據的運算能力亦顯著增強，不但有助進行臨床分析，更為支援基因組醫學的研究工作創造安全和有利的環境。

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Staying Current with Cybersecurity Trends

Training and awareness initiatives are crucial for maintaining data security. While it is mandatory for all new staff to complete an online cybersecurity training to understand and avoid potential cyber threats in daily operations, during the year, thematic training sessions on data management and bioinformatics were organised to reinforce relevant knowledge. For example, a lecture on "Introduction to DNA Privacy and Privacy Enhancing Technologies" was given by HKGI Board member Professor Yiu Siu-ming, who is an expert in computer science and cryptography, to equip staff members with the essential knowledge on the subject matter.

網絡安全　與時並進

加強培訓及提高同事的網絡安全意識，是維護數據安全的重要一環。因此，基因組中心要求所有新入職同事必須完成線上網絡安全培訓，以了解及防範日常工作中可能會遇到的網絡攻擊。年內，基因組中心亦舉辦了多個有關數據管理及生物信息學的專題講座，鞏固員工的相關知識，當中包括由基因組中心董事局成員姚兆明教授主講的「認識DNA私隱及強化私隱技術」（Introduction to DNA Privacy and Privacy Enhancing Technologies）講座；姚教授是計算機科學及密碼學專家，透過分享真知灼見，助同事們掌握保護私隱的最新知識。

Promoting ESG to Deliver Long-term Goals

When it comes to operational excellence, HKGI is committed to environmental, social and governance (ESG) principles, creating sustainable impact while contributing positively to the environment and society.

As part of its efforts to promote environmentally responsible practices, the HKGI office was designed with a number of energy-saving measures right from the beginning, such as the installation of auto-timers and motion sensors for office lighting, and use of energy-efficient LEDs instead of fluorescent bulbs. During the year, HKGI continued to enhance its workplace to promote sustainability and productivity. For instance, a card authentication system was introduced to office printers to ensure secure printing of documents and reduce paper waste. With the aim of maintaining the humidity and temperature of the laboratory for optimal performance of the advanced equipment, planning to install a high-efficiency air-conditioning system is also underway to control energy consumption.

HKGI's continued growth and success are built on the expertise and dedication of its staff members. As of June 2024, the HKGI team comprises more than 80 staff members, representing a highly dedicated team of experts from various disciplines, from medical and scientific to bioinformatics and a full range of administrative functions.

持續發展　實踐遠景

為確保機構高效運作，基因組中心致力遵循環境、社會及管治（ESG）原則，積極實踐可持續發展，為環境和社會作出貢獻。

就保護環境而言，基因組中心身體力行支持。以辦公室為例，於設計之初便已融入一系列節能元素，包括為照明裝置安裝定時開關和感應器，以及選用高能源效益的LED燈管取代傳統光管。過去一年，基因組中心亦不斷完善工作環境，促進可持續發展及提升生產力，例如為確保列印文件的保密度及節約用紙，辦公室的打印機設置了登入驗證。此外，為維持實驗室的濕度和溫度，確保先進的設備發揮最佳效能，基因組中心正籌備安裝高效能空調系統，以有效控制能源消耗。

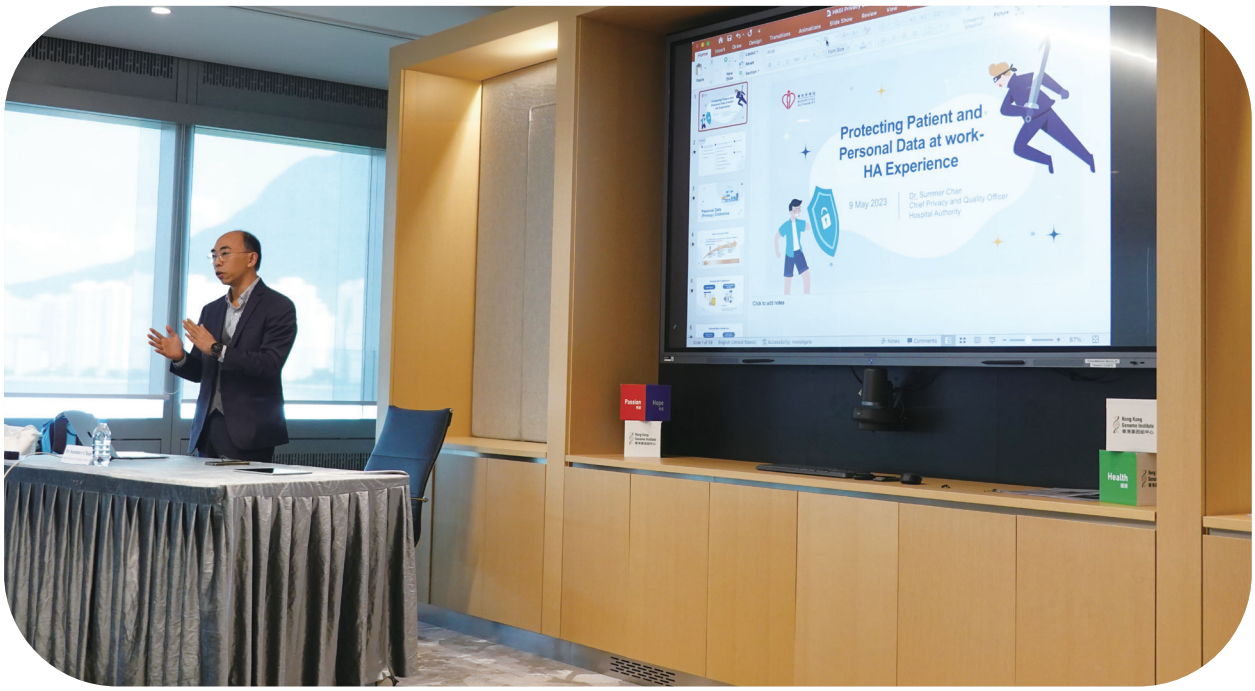
基因組中心能夠不斷成長、屢創佳績，全賴同事們的專業和努力不懈。截至2024年6月，基因組中心的團隊已超過80人，他們來自不同背景和領域，從醫學、科學及生物信息學專家，到不同範疇的資深行政人員，群策群力實現宏大願景。

Taking cues from ESG principles, HKGI is also committed to promoting employee well-being, diversity, equality, and inclusion in the workplace. HKGI offers competitive remuneration and benefits to employees while also ensuring fair treatment and equal opportunities for all staff members. To cultivate a strong sense of belonging and collaborative spirit among teams, a variety of staff engagement activities were held during the year, such as festive gatherings for Christmas and the Chinese New Year. These events allowed staff members to relax and get connected, building a supportive and inclusive environment that fostered teamwork.

Moreover, to promote personal and professional growth, HKGI offers opportunities for staff members to acquire and refresh industry knowledge and skills. During the past year, informative talks and training sessions were held to equip staff members with the latest industry updates and best practices on genomic medicine applications, cybersecurity and record management. HKGI also offers sponsored training programmes to encourage staff members to enhance their professional skills and knowledge.

基因組中心深明以人為本的重要，秉承ESG中恪守社會責任的原則，非常重視同事的福祉，不但推動多元、平等及共融的工作環境和文化，更提供具市場競爭力的薪酬和福利，並確保所有同事享有合理待遇和平等機會。年內，基因組中心舉辦了各式各樣員工活動，包括聖誕及農曆新年節日聚會，以培養團隊的歸屬感與合作精神。這些活動讓同事們在輕鬆愉快的氣氛下分享交流，建立互相扶持的共融環境，促進團隊精神。

除此之外，基因組中心亦十分重視同事的個人及專業發展，為他們提供學習機會以掌握行業新知和發展。年內，基因組中心舉辦了多場講座和培訓，內容涵蓋基因組醫學應用、網絡安全及檔案管理等不同範疇，協助同事掌握最新的行業動態和最佳作業流程。基因組中心更就相關培訓課程提供學費資助，鼓勵同事們持續提升專業技能和知識。



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The ESG metrics also guide HKGI in its corporate governance. Ever since HKGI came into full operations in 2021, a robust governing structure led by a Board of Directors comprising experts from various fields has been well established. With a stringent monitoring and supervision mechanism, and a set of comprehensive guidelines, HKGI adheres strictly to regulations and legal requirements in all aspects of its operations. In 2023-24, HKGI continued upholding the highest standards of accountability and transparency by integrating the ESG practices into its daily operations, cultivating a culture that values sustainability, innovation, and open-mindedness. Since December 2023, the Board also conducts annual self-assessments to enhance its effectiveness in governing sustainable development.

Strengthening Corporate Resilience through Risk Management

Proactive risk management is another strong emphasis HKGI places in maintaining operational excellence and resilience, and there has been no exception over the past year. As a matter of fact, to effectively identify and address potential risks which might impact HKGI's development, including factors related to ESG, an Enterprise Risk Management (ERM) mechanism has been put in place since HKGI commenced full operations in March 2021.

在企業管治方面，基因組中心同樣依循ESG的準則。機構自2021年全面運作以來，在不同領域專家所組成的董事會領導下，已建立了穩健的管治架構，成效卓越。透過嚴謹的監管機制，以及完善的指引和守則，基因組中心於不同範疇均嚴守法律法規。在2023-24年度，基因組中心將ESG元素融入日常運作，繼續保持高度問責及透明度，建立重視可持續發展、創新開明的文化。此外，自2023年12月起，董事局每年均會進行成效評估，藉此加強管治，推動機構的可持續發展。

管理風險　應對有方

在風險管理方面，基因組中心一直採取積極的策略，於過去一年亦繼續貫徹此方針，以維持機構穩健運作及緊急應變的能力。自機構於2021年3月全面運作後，團隊已實施覆蓋全面的企業風險管理機制，能夠有效識別和應對各類潛在風險，包括有關ESG的風險因素。

Under the ERM model, organisation-wide reviews of potential operational risks are closely managed by a Working Group formed by senior staff members under the leadership of the Chief Executive Officer. The Working Group reports to the Audit and Risk Committee (ARC), one of the key functional committees under the HKGI Board. The ARC meets regularly to convene on latest trends and industry practices on risk management and audit to ensure HKGI stays ahead of potential internal and external issues that may hinder the organisation's operations.

在相關企業風險管理相關機制下，在基因組中心由行政總裁帶領下並由高級行政人員組成的工作小組，負責密切審視整個機構的運作情況，識別潛在的營運風險，並向董事局轄下的審計及風險管理委員會匯報。該委員會定期召開會議，討論風險管理及審計的最新趨勢及行業慣例，以確保基因組中心為可能影響機構運作的內外風險作好準備。

Entrusted by the Board, the ARC supervises the ERM processes from planning and implementing to reporting and monitoring. It advises on a full-range of risk-related matters, such as continuous risk assessment, strategy formulation, progress tracking and evaluation to ensure the relevance, timeliness and effectiveness of risk management concerning the operations of HKGI and HKGP.

審計及風險管理委員會在董事局委託下，負責督導基因組中心企業風險管理的整個流程，包括策劃、實施、匯報及監察等各個環節。委員會就所有風險管理相關事宜，例如持續評估風險、制訂策略、監察進度及評估等不同範疇提供周全建議，確保基因組中心及基因組計劃的風險管理精準到位，適時且有效地落實執行。

The ERM model is reviewed and updated regularly to ensure that it stays current and relevant to HKGI's needs and operations, both of which keep growing in scale. As endorsed by ARC in meetings held during the year, HKGI has identified six categories of risks as top areas that require specific attention: "Laboratory Quality and Safety" as well as "Bioinformatics Platform and Genomic Technologies" pertain to potential obstacles in sustaining HKGI's operational stability and access that are essential for producing high-quality genomics analysis, research, and discovery; "Data Privacy, Loss, and Security" and "IT Security and Operations" target threats related to the confidentiality, integrity, and availability of sensitive genomic and personal data that concern HKGI's reputation; "Participant Recruitment" is associated with challenges in meeting the recruitment targets of HKGP; while "Talent Management" focuses on potential difficulties in attracting, developing, and retaining top talent in the genomic field.

隨着基因組中心持續發展，團隊會定期檢討並完善企業風險管理機制，務求與時並進，以配合營運所需。團隊亦於年內舉行的審計及風險管理委員會會議上，在委員會審議後，確定了六大需要優先關注的風險類別。首兩項分別為「實驗室運作流程和安全標準」，以及「生物信息平台和基因組測序技術」風險因素，兩者均與基因組中心能否持續穩定運作有關，亦是確保高質素基因組學分析及研究的重要因素；另外兩項風險因素是「數據私隱、遺失和安全」，以及「資訊科技保安和運作流程」，兩者均針對基因組及個人資料的機密性、完整性及可用性，是基因組中心維持良好聲譽的關鍵；最後兩項風險因素是「參加者招募」及「人才管理」，前者與落實基因組計劃的招募目標有關，後者則着眼團隊在基因組醫學領域吸引、培育和挽留人才的潛在挑戰。

Operate with Excellence
卓越營運

Moreover, HKGI also maintains a risk register recording the likelihood of occurrence, severity of impact, and mitigation measures of each risk, as well as a risk matrix showing the likelihood, movement and consequences of each risk along with a priority list.

Over the past year, these risks were thoroughly reviewed and effectively monitored, with appropriate prevention and mitigation strategies discussed and implemented with guidance from the ARC and the Board. As a result, for the majority of potential risks, their likelihood of occurrence has been successfully kept at a medium to low level. Specifically, given the growing importance of cybersecurity, HKGI will continue to upgrade its infrastructure, systems, and platforms, and enhance staff awareness to ensure its operations are conducted under the most stringent security and governance standards.

與此同時，基因組中心備存了一份風險優次列表，詳盡記錄每項風險的發生機率、影響程度，以及應對緩解措施，並配以綜合分析風險狀況的矩陣圖，全面展示各項風險發生的可能性、變化趨勢及影響。

過去一年，在審計及風險管理委員會及董事局的指導下，基因組中心已全面檢視並有效地監察各項風險，同時實施了適當的預防及應對措施，成功將主要潛在風險維持於可控的低至中等風險水平。隨著網絡安全日益重要，團隊將繼續提升基礎設施、系統及平台，加強員工的資訊保安意識，確保基因組中心的運作符合最嚴謹的安全和管治標準。

Ensuring Fiscal Responsibility

As a responsible organisation, HKGI maintains a strong commitment to financial stewardship, consistently implementing prudent financial measures and stringent controls to ensure resources are used appropriately and cost-effectively.

During the year, HKGI conducted a number of procurement exercises to support its development. These acquisitions encompassed a wide range of hardware, software, and services, including long-read sequencing systems to bolster the sequencing capabilities and functionality of HKGI's laboratory, as well as data centre and infrastructure expansions to augment the performance and capacity of the bioinformatics platform. Support services for communication and office administration were also covered to facilitate day-to-day operations of the Institute.

Charting Our Course Ahead

Clear goals and strategies are essential for any organisation, and HKGI is no exception. Following the publication of its first Strategic Plan 2022-2025 in 2021 when HKGI commenced full operations, the team has already initiated the process to outline HKGI's developmental blueprint for the coming five years. Under the guidance of the Board, the HKGI team has kickstarted the preparation work. As led by the Chief Executive Officer, a Working Group has been formed by senior staff members to conduct analysis, discuss insights, and formulate strategic directions for HKGI taking into account a wide range of factors, including the positioning of the Institute, healthcare needs of Hong Kong, advancements in science, medicine and technology, as well as global developments in genetics and genomics. With the effort underway, the HKGI Strategic Plan 2025-2030 is expected to be completed in 2025.

As HKGI continues to grow and expand, the team remains committed to refining and advancing its well-established infrastructure, guidelines, and workflows. This dedication to continuous improvement will not only enable HKGI to conduct its operations more effectively but also maximise the impact of public resources entrusted to it.

審慎理財　穩健發展

基因組中心恪守己任，一直履行嚴謹的財務管理守則，採取審慎理財的措施，嚴控開支，以確保資源運用得宜，符合成本效益。

年內，基因組中心進行了多項採購工作以配合機構發展所需。採購項目涵蓋各類硬件、軟件和服務，包括長序列測序技術系統，用以提升基因組中心實驗室的測序能力和功能；加設數據中心及基礎設備，以加強生物信息平台的效能和容量；採購了支援通訊和行政工作的服務，確保基因組中心的日常運作暢順。

制定策略　放眼未來

清晰的目標和策略是每間機構向前邁進的關鍵，基因組中心亦不例外。團隊繼於2021年全面運作後發布了《2022-2025年策略計劃》，現已着手為基因組中心制訂未來五年的發展藍圖。在董事局領導下，行政總裁已帶領高層人員組成工作小組，全力展開籌備工作，為基因組中心制訂策略方向。團隊從不同層面分析和討論，並考慮多項因素，包括機構定位、本地醫療需要、科學、醫學及科技發展進程，以及全球遺傳學和基因組學的發展趨勢等。在團隊同心協力下，預計基因組中心《2025-2030年策略計劃》將於2025年完成。

隨着基因組中心穩步發展，團隊將繼續致力完善基礎設施、實務指引和運作流程。這份力臻完美的專注與精神，不但促使基因組中心保持高效運作，更有助善用公共資源，發揮最大效益。

Corporate Governance
企業管治

Principles and Practices
原則與實務

A robust corporate governance system centred around the Board of Directors has been put in place to govern the operations of HKGI and the implementation of HKGP, observing the core corporate governance principles of accountability, transparency, fairness, responsibility, as well as environmental, social and governance (ESG).

基因組中心已建立以董事局為中心的健全企業管治制度，以管理機構的運作及基因組計劃的實施，並遵守問責、透明、公平、責任，以及環境、社會及管治(ESG)的核心企業管治原則。

Accountability

The Board of Directors of HKGI is accountable to various stakeholders, including the HKSAR Government, participants of HKGP, the general public, and a wide range of community groups. HKGI maintains close communication with the HKSAR Government. There are three public officers serving on its Board, namely the Under Secretary for Health, the Deputy Secretary for Health, and the Deputy Director of Health. The Chairperson and the Chief Executive Officer (CEO) of HKGI regularly meet with government officials to discuss issues relating to the work of HKGI. As and when appropriate, the CEO and relevant staff members attend meetings of the Legislative Council (LegCo) together with government officials to brief LegCo members on the operations, progress and plans of HKGI, and address queries as needed.

問責

基因組中心董事局對不同持份者負責，包括特區政府、基因組計劃參加者、公眾，以及不同社區組織。基因組中心與特區政府保持緊密溝通，共有三名公職人員參與董事局的工作，分別是醫務衞生局副局長、醫務衞生局副秘書長及衞生署副署長。基因組中心主席及行政總裁定期與政府官員會面，討論與基因組中心工作相關的事宜。此外，基因組中心行政總裁及機構相關人員，亦會適時與政府官員一同出席立法會會議，向立法會議員介紹基因組中心的運作、進度及工作計劃，並回應查詢。

In accordance with the Memorandum of Administrative Arrangements (MAA) signed with the HKSAR Government, HKGI shall furnish, as soon as practicable and in any case not later than six months after the expiry of a financial year, a report on the activities of HKGI, and not later than three months, a copy of the statement of accounts of HKGI together with the auditor's report for that year to the Permanent Secretary for Health (PSH). In this respect, an annual report, with the approval of the Board of Directors, will be published for each financial year. HKGI is also required to submit an Annual Plan cum Draft Estimates of Income and Expenditure for the coming financial year to PSH in the first quarter of each year, outlining the work it will carry out to achieve its strategic goals during the year.

根據與特區政府簽署的《行政安排備忘錄》，基因組中心須在切實可行的情況下，不遲於財政年度屆滿後六個月，盡快向醫務衞生局常任秘書長提交有關基因組中心的活動報告；並在不遲於財政年度屆滿後三個月，提交基因組中心的賬目報表副本及年度核數師報告。經董事局批准後，基因組中心會在每個財政年度刊發年度報告。基因組中心亦須於每年第一季度向常任秘書長提交下一財政年度的年度計劃及收支預算草案，概述其在年內為實現策略目標而將開展的工作。

HKGI recognises the importance of risk management as a systematic tool for identifying, analysing, assessing, and treating all types of risks attached to its activities and resources. It has adopted an integrated Enterprise Risk Management framework to provide a holistic view of the enterprise risks facing the organisation.

基因組中心明白風險管理作為系統工具，在識別、分析、評估及處理與活動及資源相關的各類風險中的重要性，並已採用一套綜合企業風險管理框架，以全面了解機構面臨的企業風險。

Principles and Practices
原則與實務

Reporting to the Board, the Audit and Risk Committee receives and considers internal audit reports on key enterprise-wide risks and the related mitigation strategies. It also monitors HKGI's financial and administrative control processes to ensure the safeguarding of assets, resource optimisation, and overall operational efficiency. This is achieved by reviewing HKGI's overall management and control framework, implementing measures to mitigate significant risks in its key business processes, and examining external audit reports.

審計及風險管理委員會代表董事局接收及審議有關主要企業風險及相關緩解策略的內部審計報告，並通過仔細審核基因組中心整體管理及控制框架、降低主要業務流程中重大風險的措施的報告以及透過外部審計報告，監察基因組中心的財務及行政控制流程，確保資源運用得宜及保障營運效率。

Transparency

Adequate degrees of transparency and disclosure of information about the organisation are important pillars of a good corporate governance system. HKGI has established various means and channels to enhance transparency, disclose information, and report the progress of work to its stakeholders. The HKGI Strategic Plan 2022-25 (Strategic Plan), as an overarching document for guiding all aspects of HKGI's development and planning in the specified three-year period, was approved by the Board of Directors at its meeting held in September 2021, and subsequently accepted by PSH for publication and promulgation to various stakeholders. The strategic priorities of HKGI's Annual Plans are guided by the strategic goals, directions, and strategies set out in the three-year Strategic Plan to channel resources to specific programmes for translating these strategies into actions.

透明

良好企業管治制度的重要支柱，包括高度透明及充分披露機構的資料。基因組中心已建立多種方式及渠道向持份者提高透明度、披露充足資料及報告工作進度。作為指導基因組中心未來三年各方面發展及規劃的總體文件，《2022-25年策略計劃》（策略計劃）已於2021年9月舉行的董事局會議上獲得通過，隨後經醫務衞生局常任秘書長同意發表後，頒布予各持份者。基因組中心年度計劃的策略優先事項以三年策略計劃所載的策略目標、方向及制訂的策略為指引，將資源用於具體項目，使有關策略轉化為行動。

For transparency and openness, the HKGI website provides up-to-date and comprehensive corporate information about HKGI in the form of texts, images, and videos. HKGI also maintains close dialogue with the media and other key stakeholders, particularly patients and relevant professional bodies. It issues press releases and holds media briefings to inform the media and the public on all current issues and important matters relating to its work.

為保持透明及公開，基因組中心網站以文字、圖像及影片形式提供有關基因組中心最新及最全面的信息。基因組中心亦與傳媒及其他主要持份者，尤其是病人及相關專業團體保持緊密聯繫，並發布新聞稿及舉行傳媒簡報會，向傳媒及公眾通報所有當前議題及與其工作有關的重要事項。

The six functional committees submit progress reports to the Board of Directors on a regular basis, informing the Board of the major deliberations and decisions made by individual committees. The HKGI management also submits to the Board regular reports on the implementation progress of HKGP, as well as the progress of relevant programmes and initiatives set out in the Annual Plans.

六個專責委員會定期向董事局提交進度報告，通報個別委員會的主要審議及決定。基因組中心管理層亦向董事局提交定期報告，匯報基因組計劃的進度和年度計劃中所載項目及措施的進展。

Fairness

HKGI embraces the principle of fairness and strives to treat all its stakeholders equally and ethically. It has involved medical and legal experts, as well as patient advocate on its Ethics Advisory Committee for the development and implementation of an ethically sound system for seeking patients' informed consent to participate in HKGP. Before the commencement of patient recruitment for HKGP in July 2021, HKGI successfully obtained ethical approval from the relevant Institutional Review Boards (IRBs) of its partnering centres. Following the launch of HKGP, progress reports are submitted to respective IRBs for ethical review on yearly basis. The first progress update on the implementation of HKGP was approved by the relevant IRBs in July, August and September 2022 respectively.

Responsibility

The Board of Directors accepts full responsibility for the powers that it is given and the authority that it exercises. It is responsible for overseeing and monitoring the management of HKGI's operations, activities, and performance. In this respect, it acknowledges its responsibility for establishing and ensuring the effectiveness of HKGI's internal control system, which is designed to provide reasonable assurance regarding the achievement of the objectives in the categories of effectiveness and efficiency of operations; reliability of internal and external reporting; and compliance with applicable laws, regulations, and internal policies/guidelines. This responsibility is delegated to the CEO of HKGI in daily operations.

Environmental, Social and Governance

HKGI prioritises ethical impacts and sustainability practices, integrating environmental, social and governance (ESG) considerations into its core strategy. Energy-efficient practices are implemented to promote circular economy principles. Fair employment standards, rigorous workplace safety, robust data security, ethical supply chain management, and regular training opportunities are upheld to address social responsibility. Stakeholder engagement informs strategic decisions. Its proactive Enterprise Risk Management system covers ESG-related risks. HKGI promotes diversity and inclusive practices at various levels including its Board. Since December 2023, the Board also conducts annual self-assessments to enhance its effectiveness in governing sustainable development.

公平

基因組中心奉行公平原則，也致力以平等及合乎倫理的方式對待所有持份者。倫理諮詢委員會成員包括醫學及法律專家，以及病人代表，共同制訂和實施合乎倫理的健全制度，尋求病人知情同意參與基因組計劃。在基因組計劃於2021年7月開始招募病人前，基因組中心已成功從夥伴中心的相關倫理審查委員會獲得批准；而在基因組計劃推行後，基因組中心每年度亦向各夥伴中心的倫理審查委員會提交進度報告，以供審查。首份有關實施基因組計劃的進度報告分別在2022年7月、8月及9月獲相關倫理審查委員會批准。

責任

董事局對其獲賦予的權力及行使的職權承擔全部責任。董事局負責監督及監察基因組中心的營運、活動及業績的管理。就此而言，董事局有責任建立及確保基因組中心的內部控制系統行之有效，確保合理地實現營運效能及效率的目標；內部及外部匯報的可靠性；並且遵守適用的法律、規例及內部政策／指引。相關的責任，在日常營運中會委派予基因組中心行政總裁。

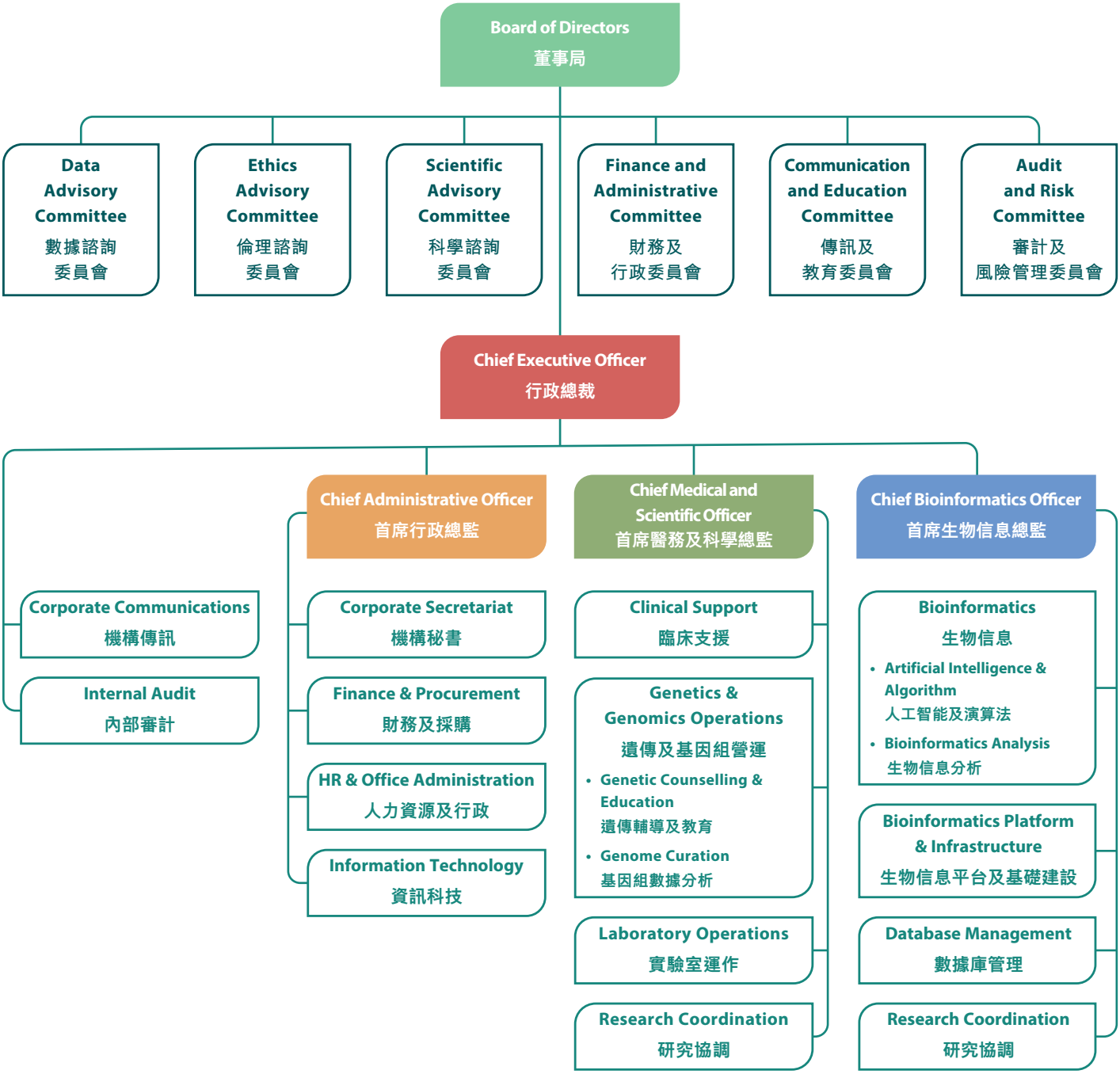
環境、社會及管治

基因組中心重視倫理道德，並以實踐可持續發展為優先要務，將環境、社會及管治(ESG)的因素融入核心策略。機構以循環經濟原則推行節能措施，並恪守公平僱傭標準、保持安全工作間、設立嚴密數據保安系統、採用符合道德的供應鏈管理方式，以及提供定期培訓機會予員工，以履行社會責任。基因組中心在作出策略性決定時，亦會充分考慮持份者的意見。其風險管理系統極具前瞻性，除了涵蓋ESG相關風險，於包括董事局在內的不同層面上，亦積極推廣多元化及宏觀周全的實務方針。自2023年12月起，董事局各成員每年均會進行自我評估，以提高落實可持續發展的成效。

Governance Structure
管治架構

HKGI has set up an effective corporate governance structure comprising the Board of Directors and six functional committees to provide policy directions and implementation guidance to the executive management.

基因組中心已建立有效的企業管治架構，由董事局及六個專責委員會組成，向管理團隊提供政策方向及實務指引。



Board

Board Functions

HKGI is a company limited by guarantee, established and wholly owned by the HKSAR Government to accelerate the development of genomic medicine in Hong Kong. It is accountable to the HKSAR Government through the Secretary for Health. According to Article 14 of the Articles of Association of HKGI incorporated under the Companies Ordinance (Cap.622), the operations and affairs of the Institute are managed by the Board of Directors, who may exercise all the powers of the Institute. Therefore, the Board of Directors is the highest authority in the governance structure of HKGI.

Board Diversity

Membership of the HKGI Board of Directors comprises 17 non-public officers and three public officers, engaging experts from different sectors, such as biomedical scientists, clinical professionals, data scientists, bioinformaticians, legal experts, accountants, and public educationalists etc. to promote the development of genomic medicine in Hong Kong.

董事局

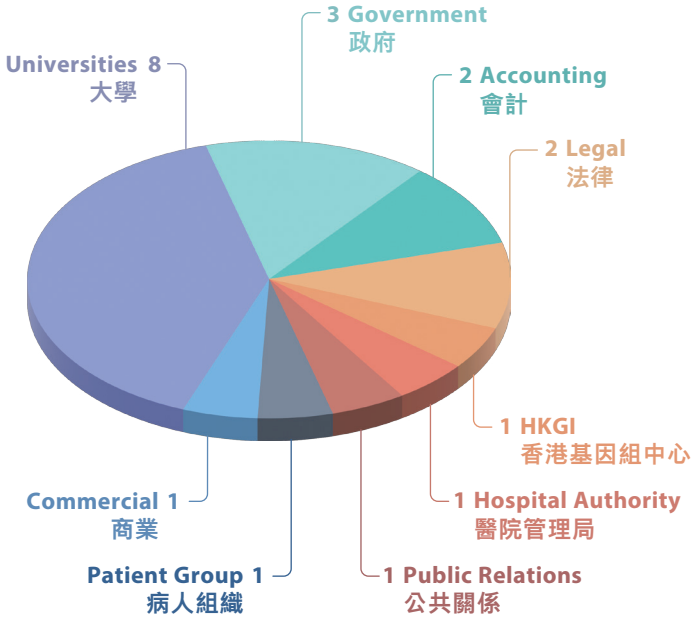
董事局職能

基因組中心是一家由特區政府成立並全資擁有的擔保有限公司，旨在促進香港基因組醫學的發展，透過醫務衞生局局長向香港特區政府負責。根據《公司條例》(第622章)註冊的基因組中心的《組織章程細則》第14條，基因組中心的運作及事務由董事局管理，董事局可對基因組中心行使所有權力。因此，董事局是基因組中心管治架構中的最高權力機構。

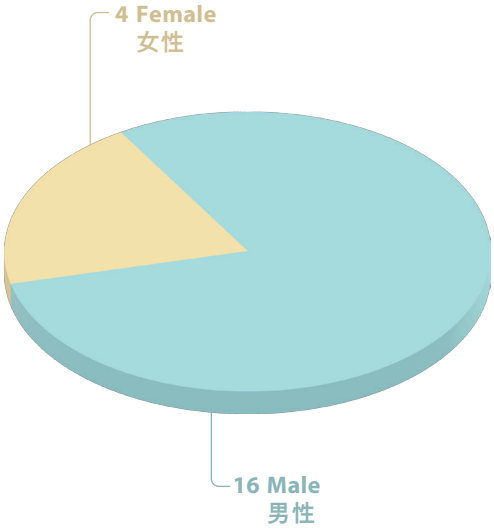
董事局多元化

基因組中心董事局成員由17名非官方董事及三名官方董事組成，當中包括來自不同領域的專家，例如生物醫學科學家、臨床醫療專家、數據科學家、生物信息學家、律師、會計師及公眾教育學家等，共同促進香港的基因組醫學發展。

PROFILE
背景



GENDER
性別



Governance Structure
管治架構

Board Meetings

The Board of Directors meets formally every three months and handles urgent matters via circulation between these meetings. In 2023-24, it considered an array of important matters in leading and managing HKGI, including the annual self-assessment of the Board for the year 2023, the 2022-23 Annual Report of HKGI, implementation progress of HKGP, half-yearly and annual reviews of the 2023-24 Annual Plan Programmes, the 2023-24 Audited Financial Statements and Financial Report of HKGI, the 2024-25 Annual Plan of HKGI, the 2024-25 Draft Estimates of Income and Expenditure, forecast of agenda items for Board meetings in 2024-25, contract extension for the provision of data centre colocation and telecommunication network services, award of contract for the provision of Genome Curation Platform, Synergistic Research Environment, and hardware equipment for infrastructure expansion, contract renewal/secondment arrangement of HKGI's senior staff, membership of committees under the Board, update of consultancy service for the organisational structure review of HKGI, and progress reports of functional committees. The meeting attendance rate of individual Board members for the period from April 2023 to June 2024 is shown on page 167.

To address the needs, challenges, and aspirations of developing the genetic counselling profession in Hong Kong, HKGI set up the Hong Kong Genetic Counselling Practice Consortium (Consortium) in June 2022 to gather a representative group of experts and stakeholders in the fields of genetics and genomics to enhance the development of genetic counselling in Hong Kong. During 2023-24, the Consortium met twice to review the landscape of genetic counselling development around the globe and to formulate a scope of practice and code of ethics for genetic counselling practice in Hong Kong.

董事局會議

董事局每三個月舉行一次正式會議；而在舉行正式會議之間，亦會以書面傳閱方式處理緊急事宜。董事局在2023-24年度審議了多項有關領導及管理基因組中心的重大事宜，包括：董事局2023年度自我評估、香港基因組中心2022-23年報、基因組計劃的進度、2023-24年度計劃的半年及全年檢討、2023-24年度基因組中心經審計的財務報表和財務報告、基因組中心2024-25年度計劃、2024-25年度收支預算草案、2024-25年度董事局會議的待議事項、數據中心託管場地租賃，以及電訊網絡服務供應的續約事宜；批出設立基因組數據分析平台、協同合作研究平台、供應擴充基礎設施所需的硬件設備合約；基因組中心高級職員的續約／借調安排、董事局轄下委員會的成員委任、更新檢討基因組中心組織架構的顧問服務，以及專責委員會的進度報告。在2023年4月至2024年6月期間，董事局成員於會議的出席率詳列於第167頁。

為應對社會需要及挑戰、以及實現在香港發展遺傳輔導專業的願景，基因組中心於2022年6月成立了香港遺傳輔導專業發展聯席（聯席），匯聚遺傳學及基因組學的專家和持份者，促進本地遺傳輔導專業的發展。在2023-24年度，聯席舉行了兩次會議，檢視全球遺傳輔導專業的發展概況，以及為本港的遺傳輔導專業擬訂實務範圍及倫理守則。

Attendance of Board Meetings 董事局會議出席率

Members 成員		Attendance rate 出席率(%)
Chairperson 主席	Mr Philip TSAI Wing-chung, BBS, JP 蔡永忠先生, BBS, JP	100
Deputy Chairperson 副主席	Professor Raymond LIANG Hin-suen, SBS, JP 梁憲孫教授, SBS, JP	100
Non-official Directors 非官方董事	Dr LO Su-vui 羅思偉醫生	100
	Mr Ray CHAN Chin-ching 陳展程先生	80
	Professor CHAN Wai-yee 陳偉儀教授	80
	Ms Ivy CHEUNG Wing-han 張潁嫻女士	100
	Professor LAU Chak-sing, BBS, JP 劉澤星教授, BBS, JP	100
	Dr Shawn LEUNG Shui-on 梁瑞安博士	60
	Dr Isabella LIU Fang-chun 劉芳君博士	60
	Professor Dennis LO Yuk-ming, SBS, JP 盧煜明教授, SBS, JP	60
	Professor Alfonso NGAN Hing-wan 顏慶雲教授	80
	Mr Tim PANG Hung-cheong 彭鴻昌先生	100
	Mr Stephen WONG Kai-yi 黃繼兒先生	100
	Dr Michael WONG Lap-gate 黃立己醫生	100
	Professor WONG Yung Hou 王殷厚教授	80
	Professor YIP Shea-ping[i] 葉社平教授[i]	100
	Professor YIU Siu-ming 姚兆明教授	80
Official Directors 官方董事	Dr Libby LEE Ha-yun, JP 李夏茵醫生, JP	100
	Mr Sam HUI Chark-shum[ii], JP 許澤森先生[ii], JP	100
	Dr Teresa LI Mun-pik, JP 李敏碧醫生, JP	100

Notes 附註：

i. Appointment commenced on 15 June 2023. 任期自2023年6月15日。

ii. Appointment commenced on 20 April 2023. 任期自2023年4月20日。

Governance Structure
管治架構

Committees

For optimal performance of its roles and exercise of powers, the Board of Directors of HKGI has formed six functional committees, namely, the Data Advisory Committee, Ethics Advisory Committee, Scientific Advisory Committee, Audit and Risk Committee, Communication and Education Committee, and Finance and Administrative Committee. The membership and focus of work of each committee for the period from April 2023 to June 2024 are listed in the following section.

Data Advisory Committee

Membership

Convenor:	Professor YIU Siu-ming
Non-official Members:	Professor Andrew CHAN Man-lok[i]
	Professor CHAN Ting-fung
	Dr Chris CHAN Tsun-leung
	Dr CHEUNG Ngai-tseung
	Dr Lucas HUI Chi-kwong
	Professor JIANG Pei-yong
	Dr Jacky LAM Wai-kei[ii]
	Mr Victor LAM Wai-kiu[ii]
	Professor Terrence LAU Chi-kong
	Dr Shawn LEUNG Shui-on
	Dr Isabella LIU Fang-chun
	Professor Ian WONG Chi-kei
	Professor Angela WU Ruohao
	Professor YANG Wan-ling
Official Member:	Representative from the Health Bureau

Terms of Reference

1. To advise on the overall architecture for storing and accessing data for HKGP.
2. To review and approve protocols related to the data access and transfer of HKGP.
3. To advise on the setup and operation of the genome database.
4. To advise on data-related issues surrounding genomic medicine, as requested by the Board.

委員會

為充分發揮最大作用及行使職權，基因組中心董事局成立了六個專責委員會，分別是數據諮詢委員會、倫理諮詢委員會、科學諮詢委員會、審計及風險管理委員會、傳訊及教育委員會，以及財務及行政委員會。各委員會於2023年4月至2024年6月期間的成員及工作重點匯報如下：

數據諮詢委員會

成員

召集人：	姚兆明教授
非官方成員：	陳文樂教授[i]
	陳廷峰教授
	陳俊良博士
	張毅翔醫生
	許志光博士
	江培勇教授
	林偉棋醫生[ii]
	林偉喬先生[ii]
	劉智剛教授
	梁瑞安博士
	劉芳君博士
	黃志基教授
	吳若昊教授
	楊萬嶺教授
官方成員：	醫務衞生局代表

職權範圍

1. 就基因組計劃整體的數據儲存及讀取權限提供意見。
2. 審視及批准與基因組計劃數據讀取及轉移有關的規程。
3. 就設立基因組數據庫及其運作提供意見。
4. 按董事局要求，就與基因組醫學數據相關的議題提供意見。

Focus of Work

During the period, the Data Advisory Committee conducted two meetings, with an average attendance rate of almost 80%, to discuss and advise on the strategies and implementation initiatives relating to the development of HKGI's bioinformatics platform services in support of HKGP. These updates covered participant recruitment, sample processing statistics, data processing, storage and management solutions, hardware and software expansion (including data centre relocation), security enhancements on infrastructure and system applications, as well as the development of two core projects: the HKGI Curation Platform and Synergistic Research Environment. The Committee also recognised the good practices identified in the Privacy Impact/Compliance Assessment exercises and noted the progress of the Security Risk Assessment and Audit.

Notes:
i. Appointment completed on 30 November 2023.
ii. Appointment commenced on 1 December 2023.

工作重點

數據諮詢委員會於期間舉行了兩次會議，平均出席率近80%，就基因組中心開發生物信息平台以支援基因組計劃的策略及執行細節進行討論，並提出意見。其中包括參加者招募工作、樣本處理統計數據；數據處理、儲存和管理解決方案、擴充軟硬件設備（包括搬遷數據中心）、加強基礎設施及應用系統的安全，以及兩個核心項目－基因組中心的基因組數據分析平台，以及協同合作研究平台的發展。委員會亦對私隱影響／合規評估的良好做法予以肯定，並審視了保安風險評估及審計的進展。

附註：
i. 任期至2023年11月30日。
ii. 任期自2023年12月1日。

Governance Structure
管治架構

Ethics Advisory Committee

Membership

Convenor:	Dr Derrick AU Kit-sing
Non-official Members:	Dr Josephine CHONG Shuk-ching
	Dr Calvin HO Wai-loon
	Professor Stephen LAM Tak-sum
	Professor Pamela LEE Pui-wah[i]
	Professor LEUNG Suet-yi
	Mr Tim PANG Hung-cheong
	Dr Mary TANG Hoi-yin
	Mr Stephen WONG Kai-yi
	Professor Desmond YAP Yat-hin[i]
	Mr Henry YAU Kwong-chi[i]
	Mr James YIP Shiu-kwong
Official Members:	Representative from the Health Bureau
	Representative from the Department of Health

Terms of Reference

1. To provide ethical oversight for HKGP.
2. To consider, review, and approve the ethics protocol of HKGP with reference to local and international practices.
3. To advise on patient consent protocol and arrangement.
4. To identify, define, examine, and respond to ethical issues in HKGP to ensure its delivery is in the interests of the participants and the public.
5. To advise the Board on ethical issues related to genomic medicine, as requested by the Board.

倫理諮詢委員會

成員

召集人：	區結成醫生
非官方成員：	莊淑貞醫生
	何維倫博士
	林德深教授
	李珮華教授[i]
	梁雪兒教授
	彭鴻昌先生
	唐海燕醫生
	黃繼兒先生
	葉逸軒教授[i]
	游廣智先生[i]
	葉兆光先生
官方成員：	醫務衞生局代表
	衞生署代表

職權範圍

1. 監督實施基因組計劃的倫理問題。
2. 參考本地及國際慣例以考慮、審視及批准基因組計劃的倫理規程。
3. 就獲取病人知情同意的規程及相關安排提供意見。
4. 識別、界定、審查及回應實施基因組計劃所涉及的倫理問題，確保有關處理符合參加者及公眾的利益。
5. 按董事局要求，就基因組醫學的相關倫理問題提供意見。

Focus of Work

During the period, the Ethics Advisory Committee (EAC) conducted two meetings, with an average attendance rate of almost 90%. The EAC noted the key milestones and ethical considerations in relation to HKGP, including participant recruitment, withdrawal and re-enrolment cases, co-signing consent by child participants, re-consenting minor participants upon reaching adulthood, status of ethics approval from relevant IRBs, positive results of the commissioned evaluation study of HKGP, and the Gold Award of the "Privacy-Friendly Awards 2023" issued by the Office of the Privacy Commissioner for Personal Data, Hong Kong, to HKGI. The EAC also noted the sharing from two conferences, namely the "International AI in Medicine Conference 2023" and the "Inaugural Asian Paediatric Ethics Conference 2023", on patient autonomy and data confidentiality. Slight modification to HKGI's Data Sharing Policy following the prevailing practice in the clinical setting was also discussed and endorsed by the EAC.

Note:
i. Appointment commenced on 1 December 2023.

工作重點

倫理諮詢委員會於年內舉行了兩次會議，平均出席率近90%。委員會審視了基因組計劃的里程碑，以及相關的倫理考量，包括招募參加者的工作、退出並再次參與的個案，兒童參加者與父母共同簽署的同意書、未成年參加者於成年後再次同意參加計劃的安排、向研究倫理委員會申請倫理許可的進度及評估研究給予基因組計劃的正面評價；以及基因組中心獲香港個人資料私隱專員公署頒發「私隱之友嘉許獎2023」金獎。委員會亦知悉基因組中心在International AI in Medicine Conference 2023及Inaugural Asian Paediatric Ethics Conference 2023兩個國際會議上就病人自主權及數據保密性所作的分享。與此同時，委員會根據臨床護理及研究的既定原則，審議並通過基因組計劃數據共享政策的修訂。

附註：
i. 任期自2023年12月1日。

Governance Structure
管治架構

Scientific Advisory Committee

Membership

Convenor:	Professor Dennis LO Yuk-ming, SBS, JP
Non-official Members:	Professor Godfrey CHAN Chi-fung
	Professor LAU Chak-sing, BBS, JP
	Professor Danny LEUNG Chi-yeu[i]
	Professor LEUNG Tak-yeung
	Dr Edmond MA Shiu-kwan
	Professor Tony MOK Shu-kam, BBS
	Professor SHAM Pak-chung, JP
	Dr Venus SIU Wing-sze
	Professor WONG Yung-hou[ii]
	Professor Michael YANG Mengsu
	Professor YIP Shea-ping[ii]
Official Members:	Representative from the Health Bureau
	Representative from the Department of Health

Terms of Reference

1. To consider, advise, and approve the clinical, laboratory, and research protocols of HKGP.
2. To advise the Board on the latest science and technologies relevant to the effective implementation of HKGP.
3. To determine the research priorities of the main phase of HKGP.
4. To advise the Board on the scientific issues in genetics and genomics, as requested by the Board, with a view to promoting genomic medicine in Hong Kong.

科學諮詢委員會

成員

召集人：	盧煜明教授, SBS, JP
非官方成員：	陳志峰教授
	劉澤星教授, BBS, JP
	梁子宇教授[i]
	梁德楊教授
	馬紹鈞醫生
	莫樹錦教授, BBS
	沈伯松教授, JP
	蕭詠詩醫生
	王殷厚教授[ii]
	楊夢甦教授
	葉社平教授[ii]
官方成員：	醫務衞生局代表
	衞生署代表

職權範圍

1. 考慮、建議及批准基因組計劃的臨床、實驗室及研究規程。
2. 就有效實施基因組計劃所需的相關最新科技，向董事局提出建議。
3. 決定基因組計劃主階段的研究重點。
4. 按董事局要求，在遺傳學及基因組學方面的科學問題上提供意見，以促進基因組醫學在香港的發展。

Focus of Work

During the period, the Scientific Advisory Committee (SAC) conducted two meetings, with an average attendance rate of almost 90%. The SAC received reports on the implementation progress of HKGP, which included increased participant recruitment, enhanced sequencing technologies and capacities, productive strides made during multi-disciplinary team meetings, expanded disease cohorts under the new theme of "Genomics and Precision Health" in addition to cohorts of undiagnosed diseases and hereditary cancers, as well as the Gold Award of the "Privacy-Friendly Awards 2023" issued by the Office of the Privacy Commissioner for Personal Data, Hong Kong to HKGI. During the year, the SAC was also involved in providing input to the independent evaluation study of HKGP commissioned by the HKSAR Government and noted the positive results and conclusions of its Phase 2 evaluation completed in Q4 2023.

Notes:
i. Appointment completed on 30 November 2023.
ii. Appointment commenced on 1 December 2023.

工作重點

科學諮詢委員會於年內舉行了兩次會議，平均出席率近90%。委員會聽取了基因組計劃的進度報告，包括加強招募參加者的工作、提升測序技術和能力，以及跨專業團隊會議取得的豐碩成果；委員會亦欣悉「基因組學及精準醫學」新主題下的疾病群組，在未能確診病症及與遺傳有關的癌症外，得以進一步擴大，以及基因組中心獲香港個人資料私隱專員公署頒發「私隱之友嘉許獎2023」金獎。年內，特區政府就基因組計劃委託進行一項獨立評估研究，科學諮詢委員會亦就此提供意見；委員會察悉，第二階段評估已於2023年第四季完成，獲得正面評價。

附註：
i. 任期至2023年11月30日。
ii. 任期自2023年12月1日。

Governance Structure
管治架構

Audit and Risk Committee

Membership

Convenor:	Dr Isabella LIU Fang-chun
Non-official Members:	Dr KAM Pok-man, BBS
	Mrs Lesley WONG CHUI Yue-chue, SBS, JP
Official Member:	Representative from the Health Bureau

Terms of Reference

1. To review and monitor the overall effectiveness of HKGI's internal control procedures and risk management systems and make recommendations to HKGI as and when necessary.
2. To make recommendations to the Board on the appointment, reappointment, and removal of the external auditor.
3. To review the findings of the external auditor and oversee the implementation of their recommendations.
4. To consider the findings of major investigations of internal control matters as delegated by the Board or on its own initiative.
5. To consider any other audit matters of HKGI.

審計及風險管理委員會

成員

召集人：	劉芳君博士
非官方成員：	甘博文博士, BBS
	黃徐玉娟女士, SBS, JP
官方成員：	醫務衞生局代表

職權範圍

1. 檢視及監察基因組中心內部控制程序及風險管理系統的整體成效，並在需要時向基因組中心提出建議。
2. 就外聘、重新外聘及解聘外聘核數師向董事局提出建議。
3. 檢閱外聘核數師提交的帳目，並監察其建議實施情況。
4. 按董事局授權或主動審議有關內部監控事宜的主要調查結果。
5. 審視基因組中心任何其他審計事宜。

Focus of Work

During the period, the Audit and Risk Committee (ARC) conducted two regular meetings, achieving a 100% attendance rate, along with addressing some other major audit issues transacted by circulations. The ARC exercised active oversight of HKGI's internal audit functions, considered matters related to the audit of HKGI's financial statements, and oversaw the effectiveness of risk management and internal controls at HKGI.

Regarding HKGI's internal audit functions, the ARC considered and approved HKGI's Internal Audit Annual Plans for 2023-24 and 2024-25 and received progress reports on audit results of HKGI's operations. These included audits on Laboratory Operations Controls, Office and Miscellaneous Expenses, the Compliance of the Partnering Centre at the Hospital Authority/Hong Kong Children's Hospital with the Collaboration Agreement and Operations Controls, and System Access and Authority. For risk management, the ARC considered and approved HKGI's Enterprise Risk Management Plans for 2023-24 and 2024-25. The ARC was also updated on HKGI's IT Security and Data Protection Status, as well as the progress and results of the Privacy Impact Assessment and Privacy Compliance Audit conducted by an external consultant.

Additionally, two FAC-ARC joint meetings were held, with an average attendance rate of over 90%, reviewing and endorsing HKGI's audited financial statements and financial reports.

工作重點

審計及風險管理委員會於年內舉行了兩次定期會議，出席率達100%，並以書面傳閱方式商討重要審計事項。委員會積極監察基因組中心的內部審計職能，審議與基因組中心財務報表審計有關的事宜，並監察基因組中心風險管理及內部監控的成效。

就基因組中心內部審計職能而言，委員會審議及批准了基因組中心2023-24及2024-25年度內部審計計劃，以及有關基因組中心業務的審計結果及進度報告。其中完成的審計包括實驗室運作控制、辦公室和雜項開支、醫院管理局／香港兒童醫院的夥伴中心合作協議的營運控制，以及系統存取與授權的合規情況。在風險管理方面，委員會審議並通過基因組中心2023-24及2024-25年度企業風險管理計劃。此外，委員會亦審議基因組中心資訊科技安全及數據保障的最新狀況，以及由外聘顧問進行的私隱影響評估及私隱循規審計進度與結果。

除此之外，財務及行政委員會與審計及風險管理委員會於年內舉行了兩次聯席會議，平均出席率逾90%，審視並通過基因組中心經審計的財務報表和財務報告。

Governance Structure
管治架構

Communication and Education Committee

Membership

Convenor:	Mr Ray CHAN Chin-ching
Non-official Members:	Mr Stephen CHUNG Chun-kit
	Dr Wendy LAM Wing-tak
	Mr Tim PANG Hung-cheong
	Ms Leona WONG Nga-lai
	Mr Jackie YU Ka-kei[i]
Official Member:	Representative from the Health Bureau

Terms of Reference

1. To advise on the overall strategy and value proposition of HKGP relating to publicity and education matters of HKGI.
2. To make recommendations to the Board of Directors of HKGI on the appointment of the publicity and social media consultant(s).
3. To review and oversee HKGI's branding, communications, publicity activities, and key messages delivered to the public, including the awareness, clinical benefits, and data privacy issues of HKGP.
4. To review and oversee a dedicated website and social media platforms with creative design in the promotion and public education on HKGP.
5. To consider any other publicity and education matters of HKGI.

傳訊及教育委員會

成員

召集人：	陳展程先生
非官方成員：	鍾振傑先生
	藍詠德博士
	彭鴻昌先生
	黃雅麗女士
	余嘉騏先生[i]
官方成員：	醫務衞生局代表

職權範圍

1. 就基因組計劃與基因組中心宣傳及教育事宜有關的整體策略及價值定位，提供意見。
2. 就聘任宣傳及社交媒體顧問，向基因組中心董事局提出建議。
3. 檢視及監察基因組中心的品牌推廣、傳訊、宣傳活動及向公眾傳遞的主要信息，包括基因組計劃的認知度、臨床效益及資料私隱事宜。
4. 檢視及監察基因組計劃的創意設計、網站及社交媒體平台，以進行宣傳及公眾教育。
5. 審視基因組中心任何其他宣傳及教育事宜。

Focus of Work

The Communication and Education Committee (CEC) held two meetings during the period to advise HKGI on its publicity and public education initiatives, with an overall attendance rate of over 90%. The CEC reviewed and contributed comments on a wide range of initiatives to promote the work of HKGI as well as genomic medicine to a wide range of stakeholders, ranging from government officials and lawmakers to patients, healthcare professionals, and the media. These included the launch of the HKGI LinkedIn page and the publication of the HKGI 2022-23 Annual Report and online thematic columns on HK01.

The Committee also deliberated a number of engagement events at the meetings, such as HKGI's first Patient Forum and visits by members of the Legislative Council Panel on Health Services, and senior officials from the Health Bureau. Members also received updates and provided feedback on HKGI's active participation in various mass media interviews, industry events, and a delegation visit to Shenzhen's key medical and scientific infrastructure, as well as hospitals, to better understand the development of genomic medicine across the border.

Furthermore, the Committee endorsed HKGI's 2024-25 Publicity Plan and received operational updates on the implementation progress. Members also applauded the recognitions HKGI received for its outstanding communication efforts, including the "2022 and 2023 Vision Awards" and "2023/24 Mercury Excellence Awards", all hosted by renowned international industry organisations.

Note:
i. Appointment commenced on 1 December 2023.

工作重點

傳訊及教育委員會於年內舉行了兩次會議，就基因組中心的宣傳及公眾教育工作提供意見，整體出席率逾90%。委員會檢視了多項宣傳項目並提出寶貴意見，如推出基因組中心LinkedIn專頁、出版基因組中心2022-23年報，以及於《香港01》開設網上專欄刊載文章等，旨在向廣大持份者，包括政府官員、立法會議員、病人、醫護專業人員及大眾傳媒推廣基因組中心的工作，以及基因組醫學。

委員會在會議上亦積極討論基因組中心籌備舉辦的不同公眾活動，例如舉辦首次病友共聚分享會，以及立法會衞生事務委員會委員及醫務衞生局高級官員到訪參觀的安排。同時，傳訊及教育委員會亦聽取了各項宣傳工作的進度匯報並提供意見，包括基因組中心參與的多個新聞媒體採訪和業界盛事、以及帶領考察團到訪深圳主要醫療科學基地和醫院，增進對內地基因組醫學發展的了解。

除此之外，委員會通過了基因組中心2024-25年度的宣傳計劃，以及聽取了相關工作進度報告。眾委員欣悉團隊在傳訊和公眾教育方面表現出色，獲著名國際業界組織頒發獎項，包括年報大獎2022及2023「Vision Awards」，以及專家短片大獎「2023/24 Mercury Excellence Awards」。

附註：
i. 任期自2023年12月1日。

Governance Structure
管治架構

Finance and Administrative Committee

Membership

Convenor:	Ms Ivy CHEUNG Wing-han
Non-official Members:	Mr Andrew FUNG Hau-chung, BBS, JP
	Mr LAI Kam-tong
	Ms Adelaide YU Hoi-man
Official Member:	Representative from the Health Bureau

Terms of Reference

1. To advise on the overall policies and procedures relating to financial, human resources and administrative matters of HKGI.
2. To review and oversee the annual plan, budget and financial statements of HKGI.
3. To review and make recommendations on HKGI's organisation structure and level of staff compensation and benefits.
4. To advise on administrative matters, including procurement, legal, and insurance on HKGI's corporate services.
5. To consider any other finance and administrative matters of HKGI.

Focus of Work

During the period, the Finance and Administrative Committee (FAC) conducted five meetings, with an average attendance rate of over 95%. The FAC was responsible for ensuring proper stewardship and effective use of financial and manpower resources, and reviewing various finance and administration-related matters. The FAC considered and endorsed: estimates of HKGI's income and expenditure for 2024-25; quarterly HKGI financial reports; quarterly expenditure summary for HKGP of the three PCs; the latest staff recruitment progress and organisation structure; procurement/contract proposals for laboratory reagents and consumables as well as data centre colocation and telecommunication network services; bank accounts and investment guidelines; update of HKGI's "Guidelines and Procedures on Procurement" and other guidance notes; and implementation of the annual self-assessment of the Board. Additionally, two FAC-ARC joint meetings were held to review and endorse the HKGI's audited financial statements and financial reports, with an average attendance rate of over 90%.

財務及行政委員會

成員

召集人：	張潁嫻女士
非官方成員：	馮孝忠先生, BBS, JP
	黎鑑棠先生
	俞海珉女士
官方成員：	醫務衞生局代表

職權範圍

1. 就基因組中心有關財務、人力資源及行政事宜的整體政策及程序提供意見。
2. 檢視及監督基因組中心的年度計劃、預算及財務報表。
3. 檢視基因組中心的組織架構，以及員工薪酬和福利水平，並提出建議。
4. 就基因組中心企業服務相關的採購、法律及保險等涉及行政事宜提供意見。
5. 審視基因組中心任何其他財務及行政事宜。

工作重點

財務及行政委員會於期間舉行了五次會議，平均出席率逾95%。委員會負責確保妥善管理及有效運用財務和人力資源，並審視各項與財務及行政相關的事宜。於年內審議並通過的事宜，包括2024-25年度收支預算、季度財務報告、基因組計劃三間夥伴中心的季度開支摘要、員工招聘的最新情況及組織架構、採購實驗室試劑與消耗品、數據中心託管場地租賃，以及電訊網絡服務供應的採購／合約事宜；還有銀行戶口與投資指引；更新基因組中心的採購指引及程序、與其他指引文件；以及董事局年度自我評估的推行情況。除此之外，財務及行政委員會與審計及風險管理委員會於年內舉行了兩次聯席會議，審視及批准基因組中心經審計的財務報表及財務報告，平均出席率逾90%。

Executive Management

The executives are charged by the Board of Directors with the responsibility of managing and administering the day-to-day business and operations of HKGI. To ensure that the management can discharge its duties in an effective and efficient manner, the Board of Directors has set out clear delegated authority, directions, policies, and guidelines for the executives. Regular reports on the progress of agreed performance targets are presented to the Board.

管理團隊

董事局委派主管級人員負責掌管和管理基因組中心的日常業務及營運。為確保管理層能夠有效且高效率履行職責，董事局已為行政人員制訂清晰的授權、策略方向、政策及指引。管理層會定期向董事局提交議定目標的進度報告。

Financial Report
財務報告

The Hong Kong Genome Institute (HKGI) is a company incorporated in Hong Kong limited by guarantee and wholly-owned by the HKSAR Government. HKGI entered into a Memorandum of Administrative Arrangements (MAA) with the HKSAR Government in May 2021. The MAA provides the framework for the relationship between the HKSAR Government and HKGI, and sets out the responsibilities of both parties.

The principal activity of HKGI is to implement the Hong Kong Genome Project (HKGP), which is a catalyst project to establish a genome database of the local population, a talent pool, as well as infrastructure and protocol for genetic and genomic testing. In February 2021, HKGI entered into Memorandum of Arrangements with each of the three Partnering Centres (PCs) operated by the Hospital Authority at the Hong Kong Children's Hospital, the Chinese University of Hong Kong at the Prince of Wales Hospital and the University of Hong Kong at the Queen Mary Hospital to provide HKGI with clinical support for the implementation of HKGP. In 2023, HKGI has signed new Collaboration Agreements with each of the three PCs with funding allocation from the non-recurrent subvention for the implementation of the main phase of HKGP.

For the financial year 2023-24, the highlights were as follows:

(a) Recurrent subvention of HK$108,953,000 was received for the funding of personal emolument and other operating charges. In addition, HK$24,192,361 of the recurrent subvention for the PCs included in deferred income in previous years was recognised as income which corresponded with the related expenditure of the PCs during the financial year.

(b) Non-recurrent subvention of HK$171,064,650 was received for the bioinformatics services, sequencing services and PCs network, and HK$107,648,534 was recognised as income during the financial year when the related non-recurrent expenditure was expensed. The balance of non-recurrent subvention was recorded as deferred income in the statement of financial position.

(c) Capital subvention of HK$9,934,747 was received for the procurement of laboratory equipment and peripheral items in 2022, and HK$1,987,784 was recognised as income which represented the depreciation charge on those assets during the financial year. The balance of capital subvention was recorded as deferred income in the statement of financial position.

香港基因組中心(基因組中心)為一家於香港註冊成立的擔保有限公司，由特區政府全資擁有。基因組中心於2021年5月與特區政府訂立《行政安排備忘錄》，為特區政府與基因組中心之間的關係提供框架，並載列雙方的職責。

基因組中心的主要工作為推行香港基因組計劃(基因組計劃)，該計劃為建立本地人口的基因組數據庫、人才庫，以及基因組測序設施和規程的催化劑項目。於2021年2月，基因組中心與醫院管理局／香港兒童醫院、香港中文大學／威爾斯親王醫院及香港大學／瑪麗醫院的三家夥伴中心分別訂立《安排備忘錄》，為基因組中心推行基因組計劃提供臨床支援。於2023年，基因組中心已分別與三家夥伴中心簽署新的《合作協議》，並以非經常性補助撥款推行基因組計劃的主階段。

2023-24財政年度概要如下：

(a) 就支付人員薪酬及其他營運費用收取經常性補助108,953,000港元。此外，過往年度計入遞延收入的24,192,361港元的夥伴中心經常性補助於本年度確認為收入，與財政年度內的夥伴中心相關開支一致。

(b) 就生物信息學服務、測序服務及夥伴中心網絡收取非經常性補助171,064,650港元，其中107,648,534港元於本財政年度確認為收入，相關非經常性開支則入賬為支出。非經常性補助結餘金額於財務狀況表入賬為遞延收入。

(c) 2022年就採購實驗室設備及周邊設備收取資本補助9,934,747港元，其中1,987,784港元已確認為收入，為該等資產於本財政年度的折舊費用。資本補助結餘金額於財務狀況表入賬為遞延收入。

(d) After netting off the expenditure items and depreciation charges, the surplus and total comprehensive income for the year ended 31 March 2024 was HK$2,123,499.

(e) As at 31 March 2024, the non-current assets of property, plant and equipment and right-of-use assets were HK$71,934,491 and HK$18,944,590 respectively. The net current assets included inventories of HK$14,885,766, bank balances of HK$36,828,454 and payables and accruals of HK$28,411,051. The accumulated fund was HK$83,042,066.

The financial statements of HKGI for the year ended 31 March 2024 had been prepared in accordance with Hong Kong Financial Reporting Standards issued by the Hong Kong Institute of Certified Public Accountants, accounting principles generally accepted in Hong Kong and the Companies Ordinance (Cap.622). They were approved by the Board of Directors of HKGI on 28 June 2024 and audited by the independent auditors, Ernst & Young with unqualified audit opinion. An extract of the Statement of Income and Expenditure and Other Comprehensive Income and the Statement of Financial Position are set out on pages 183 – 184.

(d) 經扣除開支項目及折舊費用後，截至2024年3月31日止年度的盈餘及全面收益總額為2,123,499港元。

(e) 於2024年3月31日，非流動資產內物業、廠房及設備和使用權資產分別為71,934,491港元及18,944,590港元。流動資產淨額主要包括存貨14,885,766港元、銀行結餘36,828,454港元，以及應付款項和應計費用28,411,051港元。累計資金為83,042,066港元。

基因組中心截至2024年3月31日止年度的財務報表乃根據香港會計師公會頒佈的香港財務報告準則、香港公認會計原則及《公司條例》(第622章)編製。該等財務報表已於2024年6月28日獲基因組中心董事局批准，並經由獨立核數師安永會計師事務所審核，及獲發無保留審計意見書。收支及其他全面收益表，以及財務狀況表的摘錄載於第183至184頁。

Note:

The financial information relating to the years ended 31 March 2024 and 31 March 2023 included on pages 183 – 184 to this annual report is not the Company's statutory annual financial statements for the years. Further information relating to those statutory financial statements required to be disclosed in accordance with section 436 of the Companies Ordinance (Cap.622) is as follows:

The Company has delivered those financial statements to the Registrar of Companies as required by section 662(3) of, and Part 3 of Schedule 6 to, the Companies Ordinance (Cap.622).

The Company's auditor, Ernst & Young, has reported on those financial statements. The auditor's reports were unqualified; did not include a reference to any matters to which the auditor drew attention by way of emphasis without qualifying its reports; and did not contain a statement under sections 406(2), 407(2) or (3) of the Companies Ordinance (Cap.622).

附註：

本年報第183至184頁所載有關截至2024年3月31日及2023年3月31日止年度的財務資料，並非本公司於該年度的法定財務報表。有關該等法定財務報表須根據《公司條例》(第622章)第436條作進一步披露的資料如下：

本公司已根據《公司條例》(第622章)第662(3)條及附表6第3部的規定，向公司註冊處處長遞交財務報表。

本公司的核數師安永會計師事務所已就財務報表作出匯報。該核數師報告並無保留意見；並不包括核數師在不作保留意見的情況下，以強調方式提述需予注意的任何事宜；亦無載有按《公司條例》(第622章)第406(2)、407(2)或(3)條所指的陳述。

Statement of Income and Expenditure and Other Comprehensive Income
收支及其他全面收益表

For the year ended 31 March 2024
截至2024年3月31日止年度

		2024 HK$ 港元	2023 HK$ 港元
INCOME	**收入**		
Recurrent subvention	經常性補助	**108,953,000**	108,953,000
Add: Release of deferred income	加：遞延收入撥回	**24,192,361**	24,301,515
		133,145,361	133,254,515
Non-recurrent subvention	非經常性補助	**107,648,534**	47,205,726
Capital subvention	資金補助	**1,987,784**	1,898,186
		242,781,679	182,358,427
Bank interest income	銀行利息收入	**1,815,603**	797,340
Other income, net	其他收入淨額	**–**	7,108
Total income	收入總額	**244,597,282**	183,162,875
EXPENDITURE	**開支**		
Recurrent expenditure	經常性開支		
Personal emoluments	人員薪酬	**(59,328,926)**	(46,931,689)
Partnering Centres expenses	夥伴中心開支	**(24,192,361)**	(24,301,515)
Other operating charges	其他營運費用	**(31,177,052)**	(19,126,151)
		(114,698,339)	(90,359,355)
Depreciation	折舊		
Property, plant and equipment	物業、廠房及設備	**(19,830,012)**	(16,374,672)
Right-of-use assets	使用權資產	**(6,169,754)**	(7,694,470)
Derecognition of lease liabilities	租賃負債終止確認	**(818,331)**	–
Modification of lease liabilities	租賃負債修訂	**–**	(1,109,343)
Finance cost on lease liabilities	租賃負債的融資成本	**(445,155)**	(250,984)
Non-recurrent expenditure	非經常性開支	**(100,512,192)**	(44,767,032)
Total expenditure	開支總額	**(242,473,783)**	(160,555,856)
SURPLUS AND TOTAL COMPREHENSIVE INCOME FOR THE YEAR	**年內盈餘及全面收益總額**	**2,123,499**	22,607,019

Statement of Financial Position
財務狀況表

As at 31 March 2024
於2024年3月31日

		2024 HK$ 港元	2023 HK$ 港元
NON-CURRENT ASSETS	**非流動資產**		
Property, plant and equipment	物業、廠房及設備	**71,934,491**	56,426,271
Right-of-use assets	使用權資產	**18,944,590**	25,114,344
Prepayments and deposits	預付款及按金	**61,147,648**	13,247,873
Total non-current assets	非流動資產總額	**152,026,729**	94,788,488
CURRENT ASSETS	**流動資產**		
Inventories	存貨	**14,885,766**	12,637,823
Prepayments, deposits and other receivables	預付款、按金及其他應收款項	**99,560,136**	85,408,404
Bank balances	銀行結餘	**36,828,454**	42,256,054
Total current assets	流動資產總額	**151,274,356**	140,302,281
CURRENT LIABILITIES	**流動負債**		
Other payables and accruals	其他應付款項及應計費用	**28,411,051**	28,253,303
Deferred income – Recurrent subvention	遞延收入－經常性補助	**16,993,271**	41,185,632
Deferred income – Non-recurrent subvention	遞延收入－非經常性補助	**72,048,296**	48,426,499
Deferred income – Capital subvention	遞延收入－資本補助	**1,977,266**	1,987,784
Lease liabilities	租賃負債	**2,145,680**	2,334,707
Total current liabilities	流動負債總額	**121,575,564**	122,187,925
NET CURRENT ASSETS	**流動資產淨額**	**29,698,792**	18,114,356
TOTAL ASSETS LESS CURRENT LIABILITIES	**資產總額減流動負債**	**181,725,521**	112,902,844
NON-CURRENT LIABILITIES	**非流動負債**		
Deferred income – Non-recurrent subvention	遞延收入－非經常性補助	**90,353,731**	15,419,612
Deferred income – Capital subvention	遞延收入－資本補助	**3,852,530**	5,829,796
Lease liabilities	租賃負債	**334,204**	6,591,879
Provision for reinstatement costs	修復成本撥備	**4,142,990**	4,142,990
Total non-current liabilities	非流動負債總額	**98,683,455**	31,984,277
Net assets	資產淨額	**83,042,066**	80,918,567
FUNDS	**資金**		
Accumulated fund	累計資金	**83,042,066**	80,918,567

Hong Kong Genome Institute
香港基因組中心

www.hkgp.org

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Hong Kong Genome Institute