

培育人才 引領精準醫學

Nurturing Talent for the Genomics Era



Annual Report

With genomic medicine essential to contemporary healthcare and science, Hong Kong Genome Institute (HKGI) has made significant strides in cultivating a sustainable talent pool to harness its potential and open up new therapeutic possibilities for the broader community.

Driven by the dedication of its professional team, HKGI has achieved remarkable milestones in advancing genomic medicine during 2024-25. With a strong focus on talent development, HKGI has empowered healthcare professionals, scientists, and researchers while inspiring patients, the younger generation, and the general public with the life-changing benefits of genomic medicine.

This commitment to nurturing talent is vividly reflected in the cover's energetic and vibrant design, encapsulated by the tagline "Nurturing Talent for the Genomics Era". The visuals compellingly illustrate HKGI's achievements in expanding Hong Kong's genomic talent pool and its aspirations to create a healthy future where precision medicine benefits everyone.

Centred in the design is a double-stranded DNA, depicted as a symbolic key that unlocks the promise of genomic medicine and opens the door to unprecedented medical breakthroughs. The DNA, rendered in HKGI's corporate colours, represents HKGI's unwavering commitment to realising its vision of "availing genomic medicine to all for better health and well-being".

At the head of the key, healthcare professionals collaborate and share experience. Above them rises a bustling Hong Kong cityscape, where individuals from all walks of life thrive in good health. Interwoven with an array of medical icons and engaging visuals, the cover design underscores HKGI's dedication to nurturing talent and building an ecosystem that drives innovation, delivers tangible health benefits, transforms healthcare services, and creates value for Hong Kong.

基因組醫學為現今醫療與科學研究的基石,香港基因組中心(基因組中心)正致力引領此領域的發展。為此,基因組中心專注於培育本地基因組醫學人才,並已取得顯著進展,以充分發揮基因組醫學的潛力,開拓更多惠澤社群的創新醫療方案。

憑藉專業團隊的努力,基因組中心於2024-25年度在推動基因組醫學發展上達到重大 里程碑。基因組中心以培育人才為重心,致力 提升醫護人員、科學家及研究人員在基因組 醫學領域的專業知識和技能,同時向包括 病人、家屬和年輕一代等社會各界,展示基因 組醫學改變生命的裨益。

本年度年報以「**培育人才·引領精準醫學**」為主題,封面設計色彩鮮明且充滿活力。整體構圖緊扣兩大核心:既展現基因組中心擴大香港基因組人才庫的成果,也象徵以精準醫學守護大眾健康的堅定承諾。

封面中央的雙鏈 DNA 化身為一條鑰匙,象徵 其能夠開啟基因組醫學的巨大潛力,引領 醫學發展邁向新突破。 DNA 長鏈與基因組 中心標誌的色系一脈相承,寓意基因組中心 矢志實現「普及基因組醫學,共享健康福樂」 的願景。

鑰匙頂端描繪了醫學和研究人員緊密協作的 場景,延伸至上方呈現出象徵市民樂享健康 的繁華都市景觀。整個設計結合多個象徵 醫療的標誌和生動圖像,彰顯基因組中心以 培育頂尖人才為基礎,致力推動創新發展, 從而帶來實質健康效益,革新醫療服務, 為香港創造長遠價值。

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Our Genomic Advocates

基因組醫學新力量

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Our Year at a Glance 年度大事速覽



Expanding the Hong Kong Genome Project

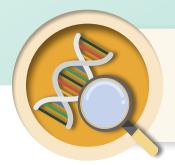
擴展香港基因組計劃

50,000+

HKGP participants recruited, with recruitment channels expanded to 12 public hospitals

香港基因組計劃參加者,招募渠道 擴展至12間公立醫院 9,100+TB

Genomic data processed 基因組數據處理完成



Advancing Genomic
Applications and Research

積極推動基因組醫學應用及研究

Rapid Sequencing Workflow

快速測序流程

Established Rapid Whole Genome Sequencing workflow to benefit critically ill patients in the Intensive Care Unit

建立快速全基因組測序流程,支援深切治療部病情危急的患者

High-Impact Research Papers

具影響力研究論文

Published eight papers in renowned journals to facilitate knowledge and experience exchanges

於國際權威期刊發表八篇論文, 促進知識及經驗交流



Connecting with Stakeholders

連繫各界持份者

4,300+

Healthcare professionals, students and patients engaged through over 50 talks, events and visits

醫護專業人員、學生及病人參與逾50場 基因組中心舉辦的講座、活動及探訪 2,000+

LinkedIn followers, expanding reach to local and global professionals

LinkedIn 用戶關注基因組中心專頁, 加強聯繫本地及國際專家



Garnering Awards and Recognitions

屢獲殊榮

Outstanding Gold Award

卓越金獎

Privacy-Friendly Awards 2025 私隱之友嘉許獎 2025



Gold Award

金獎

Annual Report Competitions

國際年報大獎

LACP Vision Awards 2024



Mercury Excellence Awards 2024/25

2024|25 WINNER

MERCURY

EXCELLENCE AWARDS

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, the Hospital Authority, medical schools of local universities, and various stakeholders to accelerate the development of genomic medicine in Hong Kong along four strategic foci: integrate genomics medicine into clinical care, advance research, nurture talents, and enhance public genomic literacy and engagement.

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. These 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.

To implement HKGP, the Institute has set up partnering centres at the Hong Kong Children's Hospital, Prince of Wales Hospital, and Queen Mary Hospital, while continuously expanding its collaborations with other public hospitals and various stakeholders to recruit eligible participants. The results of the sequencing analysis will be fed back to the respective clinical leads and patients to aid diagnoses and clinical services. As of 2025, in addition to the three partnering centres, nine other public hospitals have been added to the network to support patient recruitment for HKGP. These include Alice Ho Miu Ling Nethersole Hospital, Grantham Hospital, North District Hospital, Pok Oi Hospital, Princess Margaret Hospital, The Duchess of Kent Children's Hospital at Sandy Bay, Tin Shui Wai Hospital, Tuen Mun Hospital, and Tung Wah Hospital.

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和參與,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,以包括未能確診病症、與遺傳有關的癌症,以及組劃是本港首個大型基因組測序計劃,扮演人型基因組測序計劃,投入人工產,應對香港長遠醫療需要,與大眾同創健康未來。

為推行計劃,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, 並持續與其他公立醫院及相關持份者開展 合作,以招募合資格參加者;而相關測序分析 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。截至2025年,除了上述三間 夥伴中心,招募網絡已擴展至另外九間公立 醫院,包括雅麗氏何妙齡那打素醫院、 葛量洪醫院、北區醫院、博愛醫院、瑪嘉烈 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。

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。

一 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

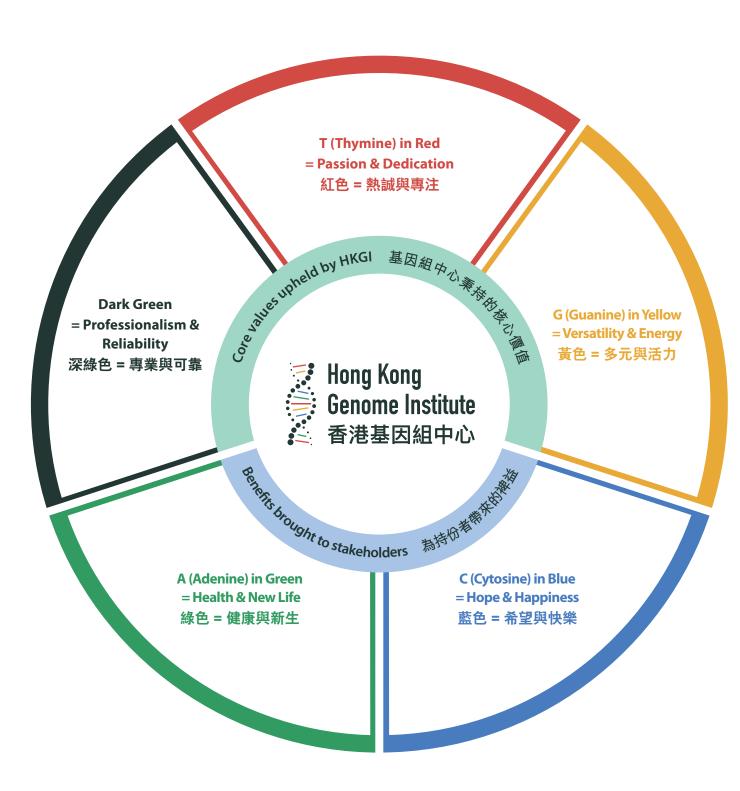
鋭意推動基因組醫學的臨床應用、科學研究、人才培育及公眾教育,加快基因組學 與醫學的融合。

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 multinational groups, as well as local and overseas listed clients in a wide range of industries.

Mr Tsai is 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 in England and Wales. He is actively involved in the development of the CPA profession and contributes his efforts in various government, community and social services organisations.

Mr Tsai is a Past President of the HKICPA, 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 ICAC Complaints Committee of the Independent Commission Against Corruption, a Member of the Registration Committee of the Hong Kong Gold Exchange, a Member of Para Athletes Career and Education Programme Committee of the China Hong Kong Paralympic Committee, a Member of Business and Finance Committee of Hong Kong Palace Museum 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.

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.

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

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。

他現為香港會計師公會、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,並為政府、社區和社會服務機構盡心盡力。

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。

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.

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.

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。

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。

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) in March 2021. As the Chief Executive Officer, 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.

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.

Currently, Dr Lo is a member of the Steering Committee on Health and Medical Innovation Development under the Health Bureau of the HKSAR Government. He also held a number of senior positions both locally and overseas previously. 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.

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 首個大規模基因組測序項目「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。

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。

羅醫生現為香港特區政府醫務衞生局轄下醫療創新發展督導委員會委員。此前,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廸夫衞生局採購總監(專科照護服務)。

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。

Professor Allen CHAN Kwan-chee 陳君賜教授

Non-official Director 非官方董事



Professor Chan is currently the Associate Vice-President (Knowledge Transfer) and the Chairman of the Department of Chemical Pathology at the Faculty of Medicine at Chinese University of Hong Kong (CUHK). He is also the Chief of Service for Chemical Pathology at the Prince of Wales Hospital. He graduated from the Medical School of the University of Hong Kong and received training in internal medicine and gastroenterology. In 2001, he started his PhD training at CUHK.

Professor Chan's main research interest focuses on the development of new diagnostic approaches based on circulating DNA analysis. He is a co-inventor of over 140 inventions in the fields of noninvasive prenatal testing and cancer detection, with an impressive 1,800 patents granted worldwide. He was named the "Top 20 Translational Researchers of 2020" by the world-renowned scientific journal *Nature Biotechnology* in 2021. Professor Chan has led a prospective trial involving over 20,000 subjects to investigate the use of liquid biopsy for the screening of early nasopharyngeal carcinoma (NPC). This work was published in the top journal the *New England Journal of Medicine* and was selected as that journal's ten most notable articles in 2017. In recognition of his contributions, Professor Chan received the esteemed "Annual Achievement Award" from the Chinese Society of Clinical Oncology in 2018 and he has been endowed with the "Tony Mok Shu Kam Professorship in Medicine" by CUHK in 2024.

(Appointment commenced on 5 November 2024)

陳教授現任香港中文大學協理副校長 (知識轉移)及化學病理學系系主任。他同時擔任威爾斯親王醫院化學病理科主管。 陳教授畢業於香港大學醫學院,並接受內科和腸胃科的培訓。2001年,他在香港中文 大學開始攻讀博士學位。

陳教授的重點研究集中於開發基於循環 DNA 分析的新診斷方法。他在無創產前測試和癌症檢測領域擁有超過140項發明,並在全球擁有1,800項專利。他於2021年獲世界權威科學期刊《自然生物科技》評選為「2020年全球二十位頂尖轉化研究科學家」。陳教授領導了一個研究項目,為逾20,000名對象進行檢測,研究液體活檢在早期鼻咽癌篩查中的應用,這項研究發表在全球頂尖醫學前應用,這項研究發表在全球頂尖醫學期人《新英倫醫學雜誌》,並被選為「2017年度最受矚目研究文章」。為表彰陳教授在醫學創新和轉化研究方面的卓越成就,他於2018年獲得中國臨床腫瘤學會頒發「年度成就大獎」,2024年獲香港中文大學授予「莫樹錦教授醫學教授」。

(任期自2024年11月5日)



The Board 董事局

Mr Ray CHAN Chin-ching 陳展程先生

Non-official Director 非官方董事



Mr Chan is the Chairman and Chief Executive Officer of MemeStrategy (HKEX: 2440), Asia's first publicly listed digital asset venture focused on building and investing across Al, blockchain, and culture. He is also the Co-founder of Memeland, a Web3 venture studio, and 9GAG, one of the world's largest social media platforms in the humor category, with a mission to make the world happier.

9GAG reaches a global audience of more than 200 million users across major social media platforms, including Instagram (54 million), Facebook (40 million), X (16 million), Threads (7 million), Pinterest (4 million), TikTok (3 million), and WhatsApp (2 million).

Mr Chan was recognised as one of CoinDesk's 50 Most Influential People in Crypto (2024) and was included in NFT Now's NFT 100 (2023), Prestige's 40 Under 40 (2021), and Tatler's Gen.T Leaders of Tomorrow (2018), among other accolades.

He currently serves as an Honorary Advisor to World Vision Hong Kong and as a Non-official Member of the HKSAR Government's Steering Committee on the Prevention and Control of Non-Communicable Diseases.

Mr Chan graduated from the University of Hong Kong with a Bachelor of Laws degree.

陳先生為 MemeStrategy (HKEX: 2440)的主席兼行政總裁。 MemeStrategy 是亞洲首家公開上市的數位資產創投公司,專注於人工智慧、區塊鏈及文化領域的建設與投資。他同時也是 Web3 創投工作室 Memeland 及全球最大幽默類社交媒體平台之一9GAG的共同創辦人,致力於以「讓世界更快樂」為使命。

9GAG目前於主要社交媒體平台擁有逾二億名全球用戶,包括Instagram(5,400萬)、Facebook(4,000萬)、X(1,600萬)、Threads(700萬)、Pinterest(400萬)、TikTok(300萬)及WhatsApp(200萬)。

陳先生於 2024 年獲《CoinDesk》評選為「加密貨幣領域最具影響力50人」之一,並先後入選《NFT Now》的「NFT 100」(2023年)、《Prestige》雜誌「40位40歲以下精英」(2021年),以及《Tatler》雜誌「Gen.T明日領袖」(2018年)等多項榮譽榜單。

陳先生現為香港世界宣明會榮譽顧問,並為 香港特別行政區政府非傳染病防控督導委員 會非官方成員。

陳先生畢業於香港大學法律系。

Professor CHAN Wai-yee 陳偉儀教授

Non-official Director 非官方董事



Professor Chan served as the Pro-Vice-Chancellor (Strategic Developments)/Vice President of The Chinese University of Hong Kong (CUHK) from 2018 to 2025. He is now the Research Professor at the School of Biomedical Sciences, 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 Grant Council, a former 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.

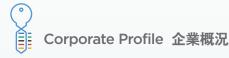
(Appointment completed on 4 November 2024)

陳教授於2018至2025年擔任香港中文大學 (中大)副校長(策略發展),現為生物醫學 學院研究教授。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、醫院管理局前非官方 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。

(任期至2024年11月4日)



The Board 董事局

> Ms Ivy CHEUNG Wing-han 張頴嫻女士

Non-official Director 非官方董事



Ms Cheung is the Vice Chairman of KPMG China and Senior Partner with KPMG in Hong Kong.

She is the past president of the HKICPA and serves as board member of Hong Kong Cyberport Management Company Limited, the Insurance Authority, the Consumer Council and The Hong Kong Mortgage Corporation Limited.

In terms of public service, she has also held multiple committee member positions, including the Advisory Committee of the Accounting and Financial Reporting Council, the Standing Commission on Civil Service Salaries and Conditions of Service, the Standing Committee on Company Law Reform and Exchange Fund Advisory Committee.

Ms Cheung had previously 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 Occupation Retirement Schemes Appeal Board, the Standing Committee on Disciplined Services Salaries and Conditions of Service, the Securities and Futures Appeals Tribunal and the Transport Advisory Committee.

張女士是畢馬威中國副主席及香港區首席 合夥人。

她曾任香港會計師公會會長,並且擔任香港 數碼港管理有限公司、香港保險業監管局、 消費者委員會及香港按揭證券有限公司董事 局成員。

在公共服務方面,她也擔任多個委員會委員 職務,包括會計及財務匯報局諮詢委員會、 公務員薪俸及服務條件常務委員會、公司法 改革常務委員會及外匯基金諮詢委員會。

她曾任空運牌照局、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、紀律人員薪俸及 服務條件常務委員會、證券及期貨事務上訴 審裁處委員及交通諮詢委員會。

Professor Herbert CHIA Pun-kok 車品覺教授

Non-official Director 非官方董事



Professor Herbert Chia is an Independent Non-executive Director of Hong Kong Exchanges and Clearing Limited, a listed public company in Hong Kong. He has around 15 years of practical experience in big data strategy and application with unique insights into the future trends of e-commerce. He joined Alibaba in 2010 and served as the Vice President of Alibaba (China) Co., Ltd. and the President of Data Committee. During his tenure with Alibaba, the data team of Alibaba was awarded "China Excellent IT Team" in the "Excellent Chinese CIO" selection in 2014. Professor Chia was rated as "China Top 10 Most Influential Big Data Entrepreneurs" by the State Information Center of China in 2017 and garnered Outstanding Achievement Award in 2021 Al Golden Goose Awards of China. He is also a former Venture Partner of Sequoia Capital China and a former member of the Board of Directors of Hong Kong Science and Technology Parks Corporation.

Professor Chia has been making significant contributions in helping to bring China's big data industry to a new level and has actively promoted Hong Kong to become the big data pilot city in The Greater Bay Area and The Belt and Road. In Hong Kong, he serves as a co-opted member of the Information Technology Services Committee of the Hospital Authority of Hong Kong Special Administrative Region, a non-official member of the Education Commission and the Digital Economy Development Committee and Vice President of GBA International Information Technology Association.

Professor Chia is the Adjunct Associate Professor of The University of Hong Kong (Institute for China Business) and Professor of Practice of the Hong Kong Management Association. He is also the author of various best-selling books including *The Big Data* and *The Nature of Big Data*. He holds an Executive Master of Business Administration (EMBA) Degree from Tsinghua University and an EMBA Degree from the Institut Européen d'Administration des Affaires (INSEAD).

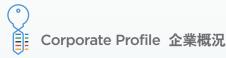
(Appointment commenced on 5 November 2024)

車品覺教授為香港上市公眾公司香港交易及結算所有限公司獨立非執行董事。他在大數據策略和應用方面擁有近15年實戰經驗,對電子商務未來趨勢有獨到見解。他於2010年加入阿里巴巴,曾擔任阿里巴巴(中國)有限公司副總裁和數據委員會會長。在其任職期間,阿里巴巴數據團隊在2014年獲《中國優秀CIO》評選為「中國最佳信息化團隊」。車教授於2017年獲中國國家信息中心選為「中國十大最具影響力大數據企業家」,並榮獲2021中國AI金雁獎的卓越成就獎。車教授亦是紅杉資本中國基金前專家合夥人及香港科技園公司前董事會成員。

車教授作出良多貢獻,協助中國大數據產業水平提升至新高度,並積極推動香港發展成為中國大灣區和「一帶一路」的大數據試點城市。在香港方面,他是香港特別行政區醫院管理局資訊科技服務委員會成員、教育統籌委員會和數字化經濟發展委員會的非官方委員,及大灣區國際信息科技協會副會長。

車教授是香港大學中國商業學院客席副教授 和香港管理專業協會專業實務教授。他也是 《大數據》和《數據的本質》等多本暢銷書的作 者。車教授持有清華大學高級工商管理碩士 學位和歐洲工商管理學院高級工商管理碩士 學位。

(任期自2024年11月5日)



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 Vice-President & Pro-Vice-Chancellor (Health) and Dean of Medicine at the University of Hong Kong (HKU).

He graduated with MBChB from the University of Dundee in 1985 and in 1992, he joined HKU's medical faculty 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 Outcome Measures 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). He was selected as an Honorary Member of EULAR in 2022, a member of the Academia Europaea in 2023, and conferred the degree of Doctor of Science honoris causa by the University of Glasgow in 2024. Professor Lau is Honorary Fellow of the American College of Physicians; the Academy of Medicine, Singapore; Singapore College of Physicians; Royal College of Physicians of Thailand; Academy of Medicine of Malaysia; the Royal College of Physicians of Ireland; and the Hong Kong Academy of Medicine.

劉教授為香港大學副校長(健康)、香港大學 李嘉誠醫學院(港大醫學院)院長。

劉教授於1985年畢業於英國鄧迪大學,獲授內外全科醫學士學位,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Outcome Measures 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,劉教授獲選為歐洲科學院院士,並於2024年獲蘇格蘭格拉斯哥大學授予名譽科學院、對加坡醫學專科學院、新加坡內科醫學院、新加坡醫學專科學院、馬來西亞醫學專科學院、愛爾蘭皇家內科醫學院以及香港醫學專科學院的榮譽院士。

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 ("SinoMab"). 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 to successfully develop humanised anti-CD22 antibody and introduce the concept of "Functional Humanisation".

Prior to founding SinoMab, he held positions as the Executive Director of a leading US antibody-drug conjugate company, and the Managing Director of The Hong Kong Institute of Biotechnology Limited. Dr Leung currently also serves as an Adjunct Professor at The Hong Kong University of Science and Technology.

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 received a Howard Hughes Medical Institute fellowship at Yale University in the US for his postdoctoral training in molecular immunology from July 1989 to June 1991.

梁博士為中國抗體製藥有限公司(「中抗」)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。

在創立中抗之前,他擔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。 梁博士現時亦為香港科技大學客座教授。

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。在1989年7月至1991年6月期間,他在美國耶魯大學從事分子免疫學博士 後研究,並獲得了霍華德·休斯醫學研究所 (Howard Hughes Medical Institute)的獎學金。



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的起調。 主權問題,包括專利和商標起訴、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,領醫時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《IAMPatent》)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 Dennis Lo is the ninth Vice-Chancellor and President and the Li Ka Shing Professor of Medicine of The Chinese University of Hong Kong (CUHK). He is also 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 shift 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, Foreign Associate of the US National Academy of Sciences and Foreign member of the Academia Europaea. 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, the 2024 Jiménez Díaz Lecture Award and the 2025 Richard B. Johnston, Jr., MD Prize in Developmental Biology by March of Dimes.

(Appointment completed on 30 November 2025)

盧煜明教授現任香港中文大學第九任校長亦為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,盧教授及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,自此他一直處於這明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。當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 一中植科學獎、2021年科學突破獎一生命科學獎、2021年科學突破獎一生命科學獎、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 一臨床醫學研究、2023年「展於上獎」。他亦被選為中國科學院院士、香港科學院創院院士、英國國家科學院外籍院士及歐洲科學院外籍院士。

(任期至2025年11月30日)



The Board 董事局

Professor Alfonso NGAN Hing-wan 顏慶雲教授

Non-official Director 非官方董事



Before joining the University of Birmingham in the UK in March 2025, Professor Ngan served at the University of Hong Kong for more than three decades, rising through the ranks to endowed and chair professorship (2011), in capacities including department head (2017-20), associate dean of engineering (2014-17; 2022-24), and acting and interim pro-vice chancellor for research (2020-21) and global engagement (2024). He held a Changjiang Chair Professorship from the Chinese Ministry of Education (2019-22) and was awarded Guanghua Prize in Engineering Science and Technology (2020). He served as Senior Vice-President of the Hong Kong Academy of Engineering until 2024, Deputy Chair of HKIE's Accreditation Board until 2025, and advisor/board member in various HKSAR bodies (Water Supplies Department, Hong Kong Genome Institute, Prince Philip Dental Hospital). He is a Trustee of the Croucher Foundation since 2022, and is a Fellow of the Royal Academy of Engineering in the UK, the Hong Kong Academy of Engineering, Hong Kong Institution of Engineers, and Institute of Materials, Minerals and Mining in the UK. At the University of Birmingham, he was appointed as the first 125th Anniversary Chair in the College of Engineering and Physical Sciences and awarded a prestigious Wolfson Fellowship from the Royal Society to support his research work. He has been appointed as the new Director of the University's Institute of Advanced Studies (IAS).

(Appointment completed on 4 November 2024)

顏教授於2025年3月加入英國伯明翰大學。 在此之前,顏教授在香港大學任職三十 餘年,歷任講座教授(2011年)、系主任 (2017-20年)、工程學院副院長(2014-17年; 2022-24年)、代理及暫委副校長主管研究 (2020-21年)及全球事務(2024年)。他榮獲 中國教育部長江講座教授(2019-22年)、光 華工程科技獎(2020年)。曾擔任香港工程院 高級副院長(至2024年)、香港工程師學會 學術評審委員會副主席(至2025年),以及 香港特區多個機構(水務署、香港基因組 中心、菲臘牙科醫院)的顧問/董事會 成員。他自2022年起擔任裘槎基金會信託人, 並為英國皇家工程院、香港工程院、香港 工程師學會,以及英國材料、礦物及礦業 學會之院士。在英國伯明翰大學,他被任命 為工程與物理科學學院之首任125週年紀念 講座教授,並獲得了皇家學會頒發的著名 沃爾夫森獎學金以支持他的研究工作。他並 被任命為該大學高等研究院(IAS)的新院長。

(任期至2024年11月4日)

Mr Tim PANG Hung-cheong 彭鴻昌先生

Non-official Director 非官方董事

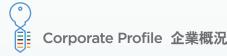


Mr Pang is a registered social worker dedicated to protecting and advocating patients' rights. He works as Community Organizer in Society for Community Organization. He has been a Member of the Working Group on Oral Health and Dental Care, a Member of the Hospital Authority (HA) Review Steering Committee, 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 Community Engagement Committee of the Primary Healthcare Commission, Oral Health Group under the Primary Healthcare Committee of the Primary Healthcare Commission, Working Group on eHealth Partnership, Steering Committee on eHealth, a Member of the Grant Review Board, Health and Medical Research Fund, and a Member of the Steering Committee of the Joint Research Centre for Primary Health Care, Hong Kong Polytechnic University.

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。他曾任口腔健康及牙科護理工作小組成員、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。

彭先生現為基層醫療署社區參與委員會 成員、基層醫療署基層醫療委員會口腔健康 小組成員、數碼健康督導委員會轄下數碼 健康協作工作小組成員、醫療衞生研究基金 評審撥款委員會委員,及香港理工大學基層 健康聯合研究中心督導委員會成員。



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.

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, mainland and overseas public, private and multi-national organisations, as well as small and medium-sized enterprises.

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.

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。

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。

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。

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。

Professor Ian WONG Chi-kei 黃志基教授

Non-official Director 非官方董事



Professor Wong holds the Regius Chair in Pharmacy at Aston University in England, a position established by the late Queen Elizabeth II to mark her 90th birthday. He joined the University of Hong Kong in 2011 and was the Head of the Department of Pharmacology and Pharmacy. His expertise lies in using healthcare big data research to investigate the safety and optimal use of medications for treating various conditions, specifically neurological and psychological conditions. His spin-off companies from UCL and the University of Hong Kong have developed several marketed paediatric medicines in Europe and Hong Kong, which are widely used by children. In recognition of his contributions to medicines for children, he was awarded an honorary fellowship from the Royal College of Paediatrics and Child Health.

Professor Wong has advised the Departments of Health in England and Hong Kong, the World Health Organization, the European Medicines Agency, and the pharmaceutical industry on various issues related to medication safety. He has more than 700 peer-reviewed papers published in prominent journals and was a highly cited researcher in 2024.

During the pandemic, Professor Wong was commissioned by the Hong Kong SAR Government to monitor the safety of COVID-19 vaccines on behalf of the Department of Health. In 2022, the Chief Executive of the Hong Kong SAR Government awarded him a Commendation for Community Service for his contributions to the fight against the pandemic.

(Appointment commenced on 5 November 2024)

黃教授現任英國阿斯頓大學(Aston University) 皇家藥學講座教授(Regius Chair),這個職 位是由已故英國女王伊莉莎白二世為紀念她 90歲生日而成立。他於2011年加入香港 大學,曾擔任藥理及藥劑學系系主任。他的 專長在於利用醫療大數據研究,探討藥物的 安全性及最佳使用方法,特別針對神經及心理 疾病的治療。他由倫敦大學學院(UCL)和 香港大學分拆出的公司已研發出多種在歐洲及 香港上市的藥物,並被廣泛用於兒童。因其 在兒童用藥領域的貢獻,他獲得英國皇家兒 科與兒童健康學院頒發榮譽院士。

黃教授曾就藥物安全相關議題,向英國和香港的衞生部門、世界衞生組織、歐洲藥品管理局和製藥行業提供專業建議。他在知名期刊上發表了超過700篇經同行評審論文,並在2024年被評為全球高被引科學家。

在疫情期間,黃教授受香港特別行政區政府 委託,代表衞生署監測新冠疫苗的安全性。 因其在抗疫的貢獻,他在2022年獲得香港 特別行政區行政長官頒發社會服務獎狀, 以示嘉許。

(任期自2024年11月5日)



The Board 董事局

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)。

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 和香港生命科技青年會諮詢委員會,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。



The Board 董事局

Professor YIP Shea-ping 葉社平教授

Non-official Director 非官方董事



Professor Yip is the Chair Professor of Diagnostic Science and Molecular Genetics in the Department of Health Technology and Informatics at The Hong Kong Polytechnic University. He was the Head of this Department during the period from January 2016 to December 2024. 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.

葉教授現為香港理工大學(理大)醫療科技及資訊學系診斷科學及分子遺傳學講座教授,並於2016年1月至2024年12月期間擔任該系系主任。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。

Professor YIU Siu-ming 姚兆明教授

Non-official Director 非官方董事

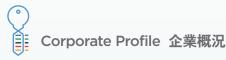


Professor Yiu is currently a professor and The Master Programme Director of the School of Computing and Data Science at the University of Hong Kong (HKU). He is also the Director of the School's FinTech and Blockchain Laboratory. He was selected three times by Clarivate Analytics as one of the Highly 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)計算與數據科學學院教授、碩士課程總監及金融科技區塊鏈實驗室主任。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。



The Board 董事局

> Dr Libby LEE Ha-yun, 』 李夏茵醫生, 』

Official Director 官方董事



Dr Lee served as the Under Secretary for Health from 2022 to 2025 and her major duties included 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.

(Appointment completed on 13 July 2025)

李醫生於 2022 至 2025 年出任醫務衞生局副局長,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。

(任期至2025年7月13日)

Dr Cecilia FAN Yuen-man,』 范婉雯醫生』。

Official Director 官方董事



Dr Fan 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.

Prior to this appointment, Dr Fan served as the Consultant Family Medicine (Elderly Health Service) of the Department of Health (DH). As a specialist in Family Medicine, Dr Fan had been the Head of Professional Development and Quality Assurance Service of the DH since 2014. Apart from administering the operation of family medicine clinics and elderly health centres, as well as professional training, she took part in coordinating medical posts at quarantine centres during multiple epidemics, including the severe acute respiratory syndrome, human swine influenza and coronavirus disease 2019, demonstrating extensive experience in public health management.

In 2023, Dr Fan led the DH's medical team to join the search and rescue team deployed by the HKSAR Government in the frontline search and rescue work at the quake-stricken areas in Türkiye. She was recognised with the National Outstanding Individuals in the Foreign Medical Aid commendation by the National Health Commission.

Dr Fan holds a medical degree from the University of Hong Kong and a master's degree in public health from the Chinese University of Hong Kong, as well as a number of professional qualifications.

(Appointment commenced on 15 July 2025)

范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。

出任現職前,范醫生為衞生署家庭醫學顧問醫生(長者健康服務)。范醫生為家庭醫學專科醫生,於2014年開始出任衞生署專業發展及質素保證服務主管。她除了管理家庭醫學診所和長者健康中心的運作和醫護培訓,亦多次參與抗疫工作,包括在嚴重急性呼吸系統綜合症、人類豬型流感及2019冠狀病毒病爆發期間,負責檢疫中心醫療站的統籌工作,擁有豐富公共衞生管理經驗。

2023年,范醫生帶領衞生署醫護小隊,聯同香港特區救援隊到土耳其地震災區投入前線救援工作,榮獲國家衞生健康委員會「全國援外醫療工作先進個人」表彰。

范醫生於香港大學醫學院畢業,亦為香港 中文大學公共衞生碩士,同時擁有多項專業 資歷。

(任期自2025年7月15日)



The Board 董事局

Mr Sam HUI Chark-shum, 』 許澤森先生, 』

Official Director 官方董事



Mr Hui served as the Deputy Secretary for Health from 2023 to 2025, 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 the Voluntary Health Insurance Scheme), research and health data as well as genomic medicine development.

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.

(Appointment completed on 1 July 2025)

許先生於 2023 至 2025 年出任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。

許先生於2016至2020年曾任香港駐布魯塞爾 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)。

(任期至2025年7月1日)

Mr Raymond WU Wai-man,」即 胡偉文先生,」P

Official Director 官方董事



Mr Wu 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 the Voluntary Health Insurance Scheme), research and health data as well as genomic medicine development.

Prior to this appointment, Mr Wu was the Principal Assistant Secretary of the Development Bureau from 2018 to 2021, and the Deputy Director of the Environmental Protection Department from 2021 to 2025.

(Appointment commenced on 7 July 2025)

胡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,胡先生曾於2018至2021年出任 發展局首席助理秘書長;2021至2025年出任 環境保護署副署長。

(任期自2025年7月7日)



The Board 董事局

> Dr Teresa Ll Mun-pik,」P 李敏碧醫生,」P

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, FRCP (Lond), 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衞生醫學科院士、英國倫敦皇家內科醫學院榮授院士、澳洲皇家醫務行政學院院士



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



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、特許公司治理 公會資深會士、香港公司治理公會資深會士





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法律顧問

何韋律師行

公司秘書

何韋律師行

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Chairperson's Statement 主席報告

I am honoured to present the 2024-25 Annual Report (Annual Report) of the Hong Kong Genome Institute (HKGI), sharing the remarkable progress we have achieved towards our vision of availing genomic medicine to all for better health and well-being. With the unwavering support of the Health Bureau, patients, partners, and various stakeholders, we have successfully expanded the applications of genomic medicine in routine clinical care, fostered research, nurtured talent, and inspired the public about the transformative benefits this pioneering field brings to our community.

HKGP Powers Forward with Vigour

Since HKGI commenced full operations in 2021, the Hong Kong Genome Project (HKGP) has stood as our flagship initiative, addressing a diverse array of cases across three major categories: rare diseases, hereditary cancers, and disease cohorts related to genomics and precision health. We are encouraged to see that, by delivering accurate diagnoses, personalised treatments, and effective disease prevention, HKGP has become a beacon of hope for patients and their families.

Building on the momentum of previous years, we have successfully recruited over 50,000 participants for HKGP to date, supporting thousands of patients and their families who may have struggled along their diagnostic journey for years. This accomplishment represents more than just numbers – it embodies the growing recognition and appreciation of genomic medicine within our society. Most importantly, it demonstrates the strong public support for HKGI's efforts in establishing a unique genome database for the local population. This database, consisting primarily of Southern Chinese, will be a vital resource for research and development. It will not only foster medical innovations but also expedite clinical trials for new therapeutics, setting the stage for faster and more precise drug development that has the potential to transform the healthcare sector.

我非常榮幸與大家分享香港基因組中心 (基因組中心)2024-25年報,匯報團隊在過去 一年,就實踐願景「普及基因組醫學,共享 健康福樂」所取得的重大進展。在醫務衞生 局、病人、合作夥伴及不同持份者鼎力支持 下,我們成功擴闊基因組醫學於常規臨 護理的應用,並大力推動科研發展及培育 專業人才,向公眾展示這個創新醫學領域 帶來的變革力量。

香港基因組計劃 穩步前行

自基因組中心於2021年全面運作至今,香港基因組計劃(基因組計劃)一直是我們發展的重中之重,項目涵蓋三類疾病組群,包括未能確診病症、遺傳性癌症,以及與基因組醫學和精準醫學相關的個案。年內,基因組計劃繼續透過提供精準診斷、個人化治療和疾病預防方案,為病人及其家人帶來希望,我們深受鼓舞。

在過去數年的努力下,我們為基因組計劃 奠定了穩固根基,至今已成功招募逾50,000 參加者,為數以萬計竭力尋找病因及治的 方方為數以萬計竭力尋找病因及治的 方向的病人和家庭提供支援。一基因組成 這還不止數字上的增長一基因組因 題別推行,不僅體現了社會各界對基因 組數據庫的肯定和認同日漸加深;更重地人個數 計劃展現了大眾對我們建立本。這個 對題展現了大眾對我們建立, 過數據科 對題組數據科 ,不但促進醫學創新,亦有助加 領 療法的臨床試驗,帶動更快更精準物 研發,為革新醫療護理創造有利條件。

Talent as the Catalyst for Genomic Breakthroughs

In the intricate realm of genomic medicine, a diverse range of skilled professionals is essential to unlocking its full potential. While the ongoing expansion of HKGP remains central to our mission of advancing genomic medicine, the sustained advancement of the field hinges on a strong talent pipeline. In 2024-25, we prioritised resources towards the development of talent and the support of future practitioners at every stage of their genomic journey. This focus resonates with the theme of this year's Annual Report – Nurturing Talent for the Genomics Era.

Over the past year, our efforts to enrich Hong Kong's talent pool spanned the entire continuum of professional development. For healthcare professionals, we continued to strengthen our close partnerships with the Hong Kong Academy of Medicine and the Hong Kong College of Physicians, offering research grants, local and overseas training scholarships to practitioners of various specialties. From rare disorders to prevalent conditions such as kidney, eye, and heart diseases, these initiatives have been instrumental in motivating our clinical workforce to lead the charge in genomic applications, paving the way for groundbreaking medical and scientific discoveries.

培育人才 啟發突破

基因組醫學紛繁複雜,需要多元化的專業人才,方可充分發揮其潛藏力量。一方面,我們透過拓展基因組計劃,作為推動本地基因組醫學發展的核心策略;另一方面,我們着力建立強大的人才儲備,確保這個專業能夠持續發展。於2024-25年度,我們優先投入資源為業界培訓人才,支持有志者在學習基因組醫學的不同階段探真求知。這項核心工作,正與本年度年報主題「培育人才・引領精準醫學」相互呼應。

過去一年,我們致力擴大本地基因組醫學人才庫,涵蓋整體專業發展。就醫療專業人員而言,我們加強與香港醫學專科學院及香港內科醫學院的合作,為不同專科的醫醫同仁提供研究資助,以及本地和海外培護同仁提供研究資助,以及本地和海外培護學金。在這些獎勵計劃下,研習範疇涵蓋罕見疾病以至賢科、眼科及心臟科等常見病症,有效激勵臨床醫療人員更廣泛應用基因組醫學,為啟發更多嶄新醫學及科學突破作好準備。



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Equally important is our focus on nurturing future generations. In 2024-25, our efforts to cultivate young talent were amplified through strengthened collaborations with local universities, particularly their schools of medicine and biomedical science. We established scholarship prizes to recognise outstanding students in genomics-related disciplines. Meeting these bright minds during award presentation ceremonies was profoundly rewarding, reinforcing the meaningful work of the HKGI team in igniting a passion for genomic medicine.

Our Internship and Attachment Programmes for secondary school and university students during the summer had also proven to be immensely successful, providing the younger generation with opportunities to explore and gain invaluable hands-on experience in this dynamic field. The enthusiastic responses to these initiatives highlight the growing interests of Hong Kong's youth for education and career opportunities in genomic medicine.

Robust Governance as the Backbone of Our Success

As we celebrate the achievements of our outreach and engagement efforts, we remain dedicated to enhancing our internal operations. Our focus has been on aligning governance practices with the rapid evolution of emerging technologies such as artificial intelligence (AI). In a dynamic landscape where genomic medicine and technological innovations are advancing at an unprecedented pace, it is indispensable for HKGI to maintain a robust governance framework anchored by exceptional data security measures and cutting-edge technological infrastructure. This approach ensures operational resilience and fosters unwavering trust among our patients and partners.

除了現職醫療專業同仁,培育新一代基因組 醫學人才亦是我們的重點工作。於2024-25 年度,我們透過加強與本地大學合作,尤其 是醫學院及生物醫學院,加強培育年青 一代,包括繼續設立多個獎學金,以表揚於 基因組醫學相關學科中表現優秀的學生。 我非常高興能夠在頒獎禮上與獲獎學生認識 交流,感受他們對學習的熱誠,進一步印證 團隊在啟發後學的工作成果和意義。

此外,我們為中學生及大學生舉辦的暑期 實習和體驗計劃,同樣深受歡迎。同學們 透過實習,汲取寶貴的實務知識和經驗, 並建立志向,探索基因組這個機遇處處的 新領域。我們樂見同學們對實習和體驗計劃 反應熱烈,反映年青一代對認識基因組醫學 及發展相關事業興趣日漸濃厚。

管治嚴謹 成功基石

我們除了廣泛接觸社會各界,深化大眾對基因組醫學的認識,亦持續強化內部運作,確保企業管治與時並進,尤其是面對人工智能等新興科技的冒起和應用。今天,基因組醫學和科技創新正以前所未見的步伐急速發展;在這個日新月異的環境中,我們以嚴謹的數據安全措施和頂尖設備為本,堅守高水平的企業管治,成功確保機構運作穩健,並鞏固了我們與病人及合作夥伴之間的信任。





On data security, we introduced multiple initiatives to bolster our cybersecurity and enhance data governance frameworks. Protecting the invaluable data of HKGP participants and safeguarding institutional assets are not merely priorities; they are our pledge to the community we serve. A significant milestone on this front was the establishment of the Information Security Governance Committee comprising industry veterans and leading experts. Their insights and guidance have been pivotal in shaping HKGI's cybersecurity strategies, data governance, risk management, and alignment with government digital policies, building enduring trust in the Institute's operations and discoveries.

This proactive approach has garnered prestigious recognition for HKGI, reinforcing our belief that technological innovations and robust governance must go hand in hand. This year, HKGI received the "Outstanding Gold Award" at the Privacy-Friendly Awards 2025 from the Office of the Privacy Commissioner for Personal Data, and achieved "Platinum Tier" under the 2024/25 Cybersecurity Staff Awareness Recognition Scheme. These accolades stand as testaments to our commitment to fostering a culture of cybersecurity awareness among staff members and underscore the team's dedication to excellence in governance, setting a benchmark for the future.

In addition to addressing the latest technological advancements, over 20 board and committee meetings were held throughout the year to discuss a wide range of strategic and operational matters. The wise counsel of our members has been essential in ensuring that HKGI's work plans, priorities, and resources align with corporate objectives and strategies while adhering to the highest governance standards.

在數據安全方面,我們推行了多項措施 加強網絡安全,進一步完善數據管治框架。 保障基因組計劃參加者的私隱及機構的數 資產不但是我們的首要任務,亦是我們的 首要任務,亦資訊保 管治委員會」便是年內的重要里程碑之 該委員會由業界資深人士及權威專家組之一成 就基因組中心的網絡安全策略、數據管內 、以及遵循政府數字則和指導 、以及遵循政府數章見和指導, 協助團隊建立公信力,為機構運作和研究 成果奠定穩固基礎。

我們積極有為的企業管治方針,為基因組中心贏得業界肯定,印證了科技創新與穩健管治環環相扣。年內,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 2025」最高榮譽卓越金獎。此外,團隊在「共建員工防火牆嘉許計劃 2024/25」中獲頒白金級別認證。這些殊榮,足證我們致力建立良好企業文化、提升同事網絡安全意識,以及追求卓越管治的決心,為長遠發展樹立楷模。

除了緊貼科技發展以應對急速變化的環境, 我們的董事局及各委員會於年內合共舉行了 超過20次會議,商討基因組中心的發展策略 和運作事宜。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 符合機構的目標和策略,並遵從最嚴謹的 管治標準。



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Strategic Vision for a Healthier Future

Building on the strong foundation laid by the successful implementation of HKGI's Strategic Plan 2022-25, during the year, the Strategic Plan 2025-30 (Strategic Plan) had been formulated with endorsement from the Board to chart a clear course for the Institute's next stage of development.

This new framework not only refines HKGI's four strategic foci but also equips the team to capitalise on emerging opportunities and address future challenges. Among the key directions, our commitment to integrating genomic medicine into clinical care will be further strengthened through the continuous expansion of HKGP, the development of local polygenic risk scores, and the standardisation of data interoperability. We will accelerate research advancements by fostering closer collaborations with scientists and experts, both near and far. Our focus on talent development will be intensified through improved career pathways and strategic partnerships with distinguished local and international academic institutions, professional bodies, and industry leaders. Public engagement will also be deepened through proactive outreach and industry partnerships. Collectively, these strategic directions will position HKGI to play a crucial role in Hong Kong's evolution into an international health and medical innovation hub.

A pertinent illustration of the Strategic Plan includes the team's recent collaboration with esteemed institutions to co-host the International Genomic Medicine Symposium in November 2025. In partnership with Rare Diseases International and The Lancet Commission on Rare Diseases, this Symposium further reinforces the city's international standing by showcasing its unique capabilities in fostering knowledge exchange and collaborations on a global scale.

制訂策略 共享健康

在順利推行了基因組中心首份發展藍圖《2022-25年策略計劃》的基礎上,董事局通過了全新制訂的《2025-30年策略計劃》 (策略計劃),為機構下一階段的發展訂定清晰路向。

這一全新發展框架,不僅優化了基因組中心 的四大策略重點,更裝備團隊把握新興 機遇,應對未來挑戰。就核心方向而言, 我們將透過一系列重點項目,進一步將基因 組醫學融入臨床護理,其中包括持續擴展 基因組計劃、制訂本地多基因風險評分及 建立通用數據標準,便利互聯互通。我們亦 將繼續與海內外科學家及專家建立緊密 合作,加快科研進程。與此同時,我們將 通過完善職涯發展路徑,並與本地及國際 頂尖院校、專業機構及業界領袖建立策略 夥伴關係,強化人才培育。我們亦將一如 既往積極接觸社會各界,深化業界和公眾 參與,共同推動基因組醫學發展。透過多 管齊下,我們致力在推動香港成為國際醫療 創新樞紐的進程中擔當更重要的角色。

在各項重點工作中,於2025年11月圓滿舉行的基因組醫學國際會議便是團隊切實執行策略計劃的最佳例證。會議由基因組中心與國際罕見病協會及《刺針》罕見病專家委員會攜手合辦,充分展現了香港在促進全球知識交流及夥伴協作的獨特優勢和國際地位。

A Commitment to Collaborative Excellence

Achieving these ambitious strategic goals requires more than just vision. The accomplishments we made during 2024-25 reflect the collective effort of our extraordinary community of partners and stakeholders. I would like to extend my heartfelt gratitude to the Health Bureau, the Department of Health, the Hospital Authority, partnering centres, referring networks and hospitals for their unwavering support; and the medical schools of the Chinese University of Hong Kong and the University of Hong Kong for their dedication and expertise. These partnerships have been instrumental in the success of HKGP's patient recruitment, our talent cultivation efforts, and the translation of genomic discoveries into clinical applications.

My sincere appreciation also extends to the professional bodies that have joined us in our mission to promote genomic medicine across professional networks and the broader community. I am deeply grateful to our Board members and committee members, whose expertise and guidance continue to shape HKGI's strategic directions. The dedication, professionalism, and innovation of our exceptional management team and staff members remain the cornerstone of our success.

Above all, I would like to thank the patients and families who have participated in HKGP. Their confidence and courage in advancing genomic medicine for future generations exemplify the collaborative spirit that drives our mission forward.

攜手合作 共創佳績

要實現以上種種遠大目標,憑藉遠見以外, 更有賴各界群策群力,方有所成;而我們於 2024-25年度所取得的卓越成就,正是一眾 夥伴和持份者同心同行,不懈努力的成果。 我在此由衷感謝醫務衞生局、衞生署、醫院 管理局、各夥伴中心、合作網絡和醫院堅 不移的支持;同時感謝香港中文大學及香港 大學醫學院不遺餘力的付出和專業支援。 各合作夥伴的鼎力支持,對我們招募病人、 培育人才,以及將研究成果轉化為臨床應用 發揮了關鍵作用。

我亦衷心感謝各專業機構攜手參與,共同 推動本地基因組醫學發展,加深醫護同仁 和市民大眾的認識。此外,我希望在此向 基因組中心董事局及各委員會成員致以誠摯 謝意,他們的專業見解和指導一直引領團隊 制訂策略方向,目標明確,同心前行。管理 團隊和同事們的熱忱、專業和創新思維同樣 不可或缺,眾人的超卓表現和付出是機構 成功的基石。

最重要的是感謝所有參與基因組計劃的病人 及他們的家人。他們面對病患,卻不失信心 和勇氣,懷抱造福後代的遠見,着力推動 基因組醫學應用。這份堅毅和無私的精神, 正是推動我們奮力向前,實踐願景的重要 力量。





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Chairperson's Statement 主席報告

Charting New Frontiers with Genomic Medicine

With each passing year and numerous cases of successful diagnosis, treatment, and disease prevention, the vast potential of genomic medicine to transform Hong Kong's healthcare services becomes increasingly evident. The talent we nurture today will drive tomorrow's breakthroughs in precision medicine. The infrastructure we build and the partnerships we forge will determine how these advances reach those who need them the most.

HKGI is embarking on an exciting new chapter. Guided by our Strategic Plan, bolstered by a strengthened talent pipeline alongside the tremendous support from our partners, we are well-positioned to advance genomic medicine and accelerate Hong Kong's emergence as a global medical innovation hub.

Together, we are shaping a future in which genomic medicine becomes truly available to all for better health and well-being.

基因組醫學 開創新篇

隨着年復一年的發展,基因組醫學在診斷、 治療和預防病患的成功案例愈來愈多, 足證其革新本地醫療服務的龐大潛力。我們 今天培育的人才,將推動未來精準醫療 創新突破;而我們所建立的基礎設施和 夥伴網絡,亦將成為重要工具,確保醫學創新 能夠惠及社群,尤其是需求最殷切的受眾。

我們已為開啟新篇準備就緒。憑藉策略計劃,強大的人才儲備和夥伴的鼎力支持, 團隊將繼續致力推動本地基因組醫學發展, 鞏固香港作為國際醫療創新樞紐的地位。

讓我們同心協力,加快普及基因組醫學, 讓市民大眾同享健康快樂,共創美好未來。

Cinp sai

Philip TSAI Wing-chung, BBS, JP Chairperson



主席 蔡永忠, BBS, JP

Chief Executive Officer's Report 行政總裁報告



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Chief Executive Officer's Report 行政總裁報告

As we conclude another remarkable year in the Hong Kong Genome Institute (HKGI)'s journey, it gives me great pleasure to present the fourth Annual Report of HKGI. Throughout 2024-25, we made remarkable advances in genomic medicine for Hong Kong, unlocking meaningful clinical and research outcomes that benefitted patients and the broader community. We expanded talent development to foster a workforce capable of maintaining our momentum – shaping the future of genomic medicine in Hong Kong – and increased public engagement to promote genomic medicine understanding. After laying a solid foundation in our previous three years of operation, HKGI has now entered a phase of deepening impact, with our genomic insights increasingly translating into clinical applications that improve healthcare, enhance personalised treatment, and, in the most critical cases, save lives.

Strategic Plan Shows the Way Forward

The completion and publication of our Strategic Plan 2025-30 in 2025 marked a pivotal milestone in HKGI's development. Under the Board's strategic guidance, I led a working group involving senior HKGI staff members to conduct thorough analysis, extensive stakeholder consultation, and assessment of global genomic medicine trends. Through the collaborative efforts, we established a clear blueprint for enhancing the clinical integration of genomic medicine, accelerating research, intensifying talent development, and deepening industry partnerships. This ensures that our strategic directions align with Hong Kong's evolving healthcare landscape and long-term needs, and positions the city to capitalise on emerging opportunities, including contributing to Hong Kong's development as an international health and medical innovation hub.

我非常榮幸與大家分享香港基因組中心(基因 組中心)第四份年報,回顧團隊在過去一年 取得的卓越成就。於2024-25年度,我們在 推動本地基因組醫學發展方面繼續取得豐碩 成果,進一步帶動業界邁步向前,啟發臨床 應用和醫學研究,不僅惠及病人,亦廣澤社會 各界,意義深遠。與此同時,我們聚焦於 培育人才,並擴大人才儲備,與業界同仁協作 並進,引領本港基因組醫學蓬勃發展。我們 亦加強公眾教育和參與,提升市民大眾對 基因組醫學的認識。團隊於過去三年的深耕 細作,已成功為基因組中心奠定扎實根基。 今天,中心正邁向新階段,致力深化基因組 醫學的影響力,加快轉化新發現為臨床 應用,進一步優化公共醫療服務和實踐個人 化治療,並為更多生命帶來改變。

制訂藍圖 聚焦發展

秉持此遠大目標,我們於2025年制訂並發布了《2025-30年策略計劃》,標誌着基因組中心發展的重要里程碑。在董事局的策略指導下,我和團隊核心人員組成的工作小組就全球基因組醫學發展趨勢進行了評估和深入分析,並廣泛諮詢了各方持份者,合力為機構制訂出清晰的發展藍圖,內別為融合基因組醫學研究、加強人才,與瓦斯展業界合作。這份藍圖不但配合香港醫療體系的演變和長遠醫療需求,更有助把握機遇,推動香港成為國際醫療創新樞紐。





Genome Database a Significant Step Up

Building on this strategic foundation, HKGI's commitment to building a local genome database, advancing genomic discoveries, and enabling personalised medicine for Hong Kong citizens accelerated significantly in 2024-25. The Hong Kong Genome Project (HKGP), which was established to collect patient samples and enrich our understanding of the genetic makeup of the Southern Chinese population, has continued to exceed expectations. Over 50,000 participants have been recruited.

Beyond team dedication and stakeholder trust, this success was due in part to the strategic expansion of our recruitment networks, which improved access for patients and their families. In addition to the three well-established partnering centres, a total of nine public hospitals have been added to the networks to date, enabling more streamlined processes and efficient recruitment.

Rapid Whole Genome Sequencing Transforms Healthcare

The genomic insights gained from processing this wealth of data have begun to show transformative potential in clinical care. One of our most significant accomplishments in 2024-25 was the launch of our rapid whole genome sequencing (WGS) workflow, a breakthrough that has accelerated medical advancement by reducing diagnostic timelines. In Q3 2024, our team performed its first rapid WGS for a critically ill patient, opening the door for clinicians to make precise, life-saving diagnoses. With the most remarkable case achieving turnaround of less than 48 hours from sample collection to diagnostic report, rapid WGS demonstrated the clinical utility of genomic medicine in time-sensitive situations and critical care settings.

建數據庫 關鍵一步

基於上述策略,我們於 2024-25 年度繼續加快建設本地人口基因組數據庫,以促進基因組醫學創新和推動個人化醫療服務。透過香港基因組計劃(基因組計劃)收集的樣本和數據,我們能夠深入了解華南地區人口的基因組特性。我們欣悉計劃的參加者數目持續超越預期,至今已成功招募逾50,000人。

基因組計劃的成功,實有賴團隊的付出和各界持份者的信任和支持。同時,我們持續擴展合作網絡,增加招募途徑以便利病人及其家屬,相關策略亦有助推進計劃。現時,除了原有的三間夥伴中心外,我們已擴闊網絡至另外九間公立醫院,共同為基因組計劃招募參加者,大大精簡流程並提升招募效率。

快速測序 革新醫療

自基因組計劃推行以來,我們在浩瀚的數據中上下求索,就臨床應用探尋基因組醫學的一些不可以, 變革潛力。於2024-25年度,我們的努力漸見 成果。年內,團隊的重大突破之一,便是正 推展快速全基因組測序的工作流程, 經知知知,如快基因 縮短分析和診斷所需的時間,加快基因 經歷生能夠及時作出精準診斷,拯救生局。 這個具代表性的案例,從採集樣本到完定 這個具代表性的案例,從採集樣本到完定 這個具代表性的案例,從採集樣本到完定 這個具代表性的案例,從採集樣本可完 這個具代表性的案例,從採集樣本可完 這個具代表性的案例,從採集樣本可完 這個具代表性的素別序流程於48小時內完 環境 下,快速全基因組測序充分展現出基因組 醫學於臨床應用的重大價值。



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Talent Remains at the Core

Recognising that talent cultivation remains central to our advancement of genomic medicine, we broadened our efforts with comprehensive initiatives to encompass a wide range of individuals, targeting everyone from seasoned healthcare professionals to the young generation.

To enhance professional competency, we continued to hold multi-disciplinary team meetings across partnering centres facilitating case discussions, knowledge sharing, and collaboration among clinicians, healthcare professionals, scientists and researchers. These meetings resulted in improved treatment strategies and clinical decision-making.

At the same time, our network of genomic advocates grew significantly, with dedicated individuals from diverse clinical specialties acting as ambassadors, disseminating HKGP and genomic medicine knowledge across public hospitals and research institutions. The engagements also allowed us to form partnerships with university research groups at the University of Hong Kong (HKU) and the Chinese University of Hong Kong (CUHK), including those in ophthalmology, nephrology, and oncology, advancing research initiatives.

培育人才 重中之重

我們深明培育人才是促進基因組醫學發展 的關鍵,因此進一步加強工作,全方位培育 人才,涵蓋經驗豐富的醫護專業人員乃至 年輕一代。

為支持業界同儕持續提升專業能力,我們與 夥伴中心舉辦了多場跨專業團隊會議,匯聚 醫生、醫護專業人員、科學家和研究員等 討論病例、分享知識和加強協作,從而精進 治療方針和臨床決策。

同時,我們持續擴展基因組學倡導者網絡。 這個網絡由不同臨床專科並充滿熱誠的 醫療專業同仁組成,透過他們積極向公立 醫院和研究機構推廣基因組計劃和基因組 醫學知識。我們亦藉此與香港大學(港大)和 香港中文大學(中大)的研究團隊建立夥伴 關係,相互交流協作,共同推動多項研究 項目,包括眼科、腎臟科和腫瘤科等領域。 During 2024-25, we undertook extensive preparations to establish the GENE Club (Genomic Exchange for Nurturing Excellence), providing a platform for clinicians, scientists, researchers, academics, and other emerging talent to exchange knowledge and discuss the latest developments in genomic medicine every four to six weeks. These thematic talks feature prominent industry leaders and pioneering researchers, fostering an environment for continuous learning and professional growth.

Connecting world-renowned experts to Hong Kong audiences, our collaboration with the Asia Pacific Society of Human Genetics (APSHG) led to the launch of the "Distinguished Scholar Series" in September 2024. The series featured renowned experts from prestigious international institutions across Australia, the United Kingdom and the United States. Four online lectures drew nearly 300 live participants and generated over 40,000 views on HKGI YouTube channel as of mid-2025.

Bringing Up the Next Generation

Our dedication to inspiring the next generation also produced remarkable results. A 2025 Summer Internship and Attachment Programmes welcomed 14 students from disciplines ranging from medicine and bioinformatics to communication and finance. Participants appreciated the experience across HKGI's operations, as well as the introduction to genomic medicine and the varied roles available.

於 2024-25 年度,我們積極籌辦「基因組醫學匯研講堂」(GENE Club),每四至六周舉行一次主題講座,邀請業界翹楚現身説法,為醫生、科學家、研究人員和學者等提供交流互動的平台,共同探討基因組醫學的最新發展,支援醫療專業同儕持續進修和發展專業。

我們亦與亞太人類遺傳學會攜手合作,於2024年9月推出「傑出學者講座系列」,連繫本地業界與國際知名專家。截至2025年年中,我們合共舉辦了四場網上講座,邀請來自澳洲、英國和美國等地頂尖機構的權威學者主講。四場講座一共吸引了近300人觀看直播,亦在基因組中心YouTube頻道累積了超過四萬人次觀看。

年青一代 啟發志向

我們致力啟迪下一代對基因組醫學的興趣, 而過去一年的工作成果令團隊深感鼓舞。 以2025年度暑期實習和體驗計劃為例, 我們取錄了14名來自不同學系的學生,包括 醫學、生物資訊學、傳播和金融等領域。 同學們均十分珍視在基因組中心各部門的 實習機會,並深入了解到基因組醫學及其 多元化的職業發展路向。



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To inspire young minds, we organised career talks and visits for secondary school and university students, including hosting a group of secondary school students and their mentors from the HKSAR Government's Strive and Rise Programme. During the session, our board member piqued students' interest with a presentation on artificial intelligence (AI) and big data applications, while laboratory tours broadened their horizons.

Many participants in these programmes expressed genuine interest in pursuing careers in genomic medicine, reflecting the growing awareness among Hong Kong youth about the potential of genomic medicine. This response indicates a promising future for our talent pipeline and confirms the value of our outreach efforts.

Research Forms the Core of Our Efforts

HKGI's research has consistently served as a means for sharing Hong Kong's expertise with international counterparts while contributing to global genomic knowledge. Our research output reached new heights in 2024-25, with eight papers published in prestigious journals.

A highlight was our comprehensive paper summarising findings from the first 520 HKGP cases, which was published and featured as the cover story of *The Lancet Regional Health – Western Pacific*. Titled "The implementation of genome sequencing in rare genetic diseases diagnosis: a pilot study from the Hong Kong genome project", this paper showcased how HKGI and HKGP have enhanced care for patients with rare conditions.

Another paper, "Identification of technically challenging variants: Whole-genome sequencing improves diagnostic yield in patients with high clinical suspicion of rare diseases", published in *Human Genetics and Genomics Advances* became one of the journal's most-read articles within its first month. The significant interest in this paper underscores the relevance of our work to the global scientific community.

為啟發青年遠志,我們為中學和大學生舉辦職業講座和參觀,包括接待香港特區政府推行的「共創明『Teen』計劃」的一眾中學學員和友師。在活動上,我們的董事局成員透過講解激發同學們對人工智能和大數據應用的興趣,他們亦藉着參觀實驗室得以擴闊視野。

參與活動的同學們紛紛由衷表示有意投身 基因組醫學領域,這反映本地青年對基因組 醫學潛力的認識日益增強。他們的熱烈反應 不僅預示業界人才儲備的光明前景,亦肯定 了我們對外推廣的成效。

科研為基 學術深耕

基因組中心的研究工作是本港與國際同業 分享專業知識的中流砥柱,矢志精進全球 基因組學知識。於2024-25年度,我們的研究 成果再創高峰,在權威期刊發表了八篇論文。

其中一篇重量級論文發表於國際醫學期刊 The Lancet Regional Health – Western Pacific,並獲選為封面故事,全面總結基因組計劃首批 520 宗個案的研究成果。該文題為「罕見遺傳病診斷的基因組測序應用:香港基因組計劃先導研究」(The implementation of genome sequencing in rare genetic diseases diagnosis: a pilot study from the Hong Kong genome project),展示了基因組中心和基因組計劃如何有效改善對罕見病患者的照護。

另一篇論文題為「破解技術層面難以識別的變異:全基因組測序為臨床高度疑似患上罕見病的患者提高診斷成效」(Identification of technically challenging variants: Wholegenome sequencing improves diagnostic yield in patients with high clinical suspicion of rare diseases),獲刊登於 Human Genetics and Genomics Advances。論文於發表首月即成為該期刊瀏覽量最高的文章之一,各地研究人員對這篇論文的興趣和支持,充分説明了我們的研究在國際科學和醫學界的重要性。



International Networks Increase in Size and Strength

National and international collaboration and knowledge exchange remained a top priority, speeding up scientific discovery and promoting collective growth. In 2024-25, HKGI attended more than 50 international conferences, talks, and seminars, expanding our global research network.

Notable engagements included participation in the Opening of the Greater Bay Area International Clinical Trial Institute, as well as strategic meetings with healthcare enterprises such as Tencent Healthcare. These enabled us to explore partnership opportunities and share expertise across the Guangdong-Hong Kong-Macao Greater Bay Area.

We also received international delegations, including experts from the Asian Fund for Cancer Research and the Drug Information Association, a leading global life science membership association, to share expertise in cancer research and clinical applications. We held meeting with AstraZeneca, a global biopharmaceutical company, exploring potential research collaborations to advance clinical trials for new drugs and treatments. These collaborations underscore our commitment to turning cutting-edge genomic research into impactful healthcare solutions while showcasing HKGI's research capabilities.

擴展網絡 連繫全球

推動本地與國際間的合作和知識交流以加快 科研進程,促進共同發展,一直是我們的 重點工作之一。於2024-25年度,團隊參加了 逾50場國際會議、講座和研討會,積極拓展 全球網絡。

其中主要活動包括出席「粵港澳大灣區國際 臨床試驗所」開幕典禮,以及與騰訊健康 等醫療企業舉行策略會議,藉此探討合作 機會,並在粵港澳大灣區推動知識交流。

我們亦接待了多個國際專家代表團,包括亞洲癌症研究基金會和全球領先的生命科學會員組織「藥物資訊協會」,就癌症研究和臨床應用進行深入交流。此外,我們與全球生物製藥企業阿斯利康(AstraZeneca)舉行座談會,探討潛在的研究合作機會,以加快新藥和創新治療的臨床試驗。這些交流活動和會議,不僅體現了我們致力將嶄新的基因組研究轉化為具影響力醫療方案的決心,更彰顯了基因組中心的科研實力。



Management Reports 管理層報告

Chief Executive Officer's Report 行政總裁報告



Inspiring the Public is Essential

Effective public engagement is essential for fostering community trust and understanding of the benefits of genomic medicine. During the year, we expanded our media presence to reach a larger audience through diverse communication channels and new strategies.

We launched the "HKGI Interview Series" on Radio Television Hong Kong (RTHK)'s popular programme "Healthpedia", which aired live weekly on Radio 1 and TV Channel 31. The eight episodes featured HKGI's experts and research and training grant recipients introducing genomic medicine's applications, from basic genetics concepts and clinical applications of genomic medicine to life-changing patient stories. Similarly, our team promoted HKGP on the RTHK radio programme "Under the Sun", emphasising the importance of HKGI's pioneering work.

Our media presence also extended to Television Broadcasts Limited's "Vital Lifeline" rare disease series, where our experts discussed various rare conditions across four episodes, highlighting WGS's diagnostic capabilities for complex cases. These engagements enabled us to effectively communicate the value of genomic medicine in rare disorders and common diseases, from accurate diagnoses to personalised treatments and prevention strategies, enhancing public understanding of genomic medicine's practical application.

啟發公眾 深化認識

高效的公眾參與對凝聚社會信任和普及基因 組醫學至關重要。年內,我們透過多元化的 傳播渠道和媒體策略,大幅增加曝光率,更 廣泛接觸市民大眾。

我們在香港電台人氣節目《精靈一點》推出「香港基因組中心系列」,每周於香港電台第一台、港台電視31播出。在一連八集的節目中,基因組中心的專家、研究獎和進修獎學金得獎學者現身解説基因組醫學。內容涵蓋遺傳學基本概念、基因組醫學臨床應用,以及改變病人生命的故事。我們亦透過香港電台節目《太陽底下新鮮事》推廣基因組計劃,介紹基因組中心的前瞻性工作,深化大眾的認識。

Patients at the Heart of Our Mission

Patient engagement has always been the driving force behind our mission, as the voices and experiences of patients guide our priorities and validate our impact. We maintained ongoing relationships with patient groups, with senior management presenting HKGP's transformative impact through cases at the Patient Support Group Meeting at Queen Mary Hospital. We also participated in events such as the 10th Anniversary Gala Dinner of Rare Disease Hong Kong and appeared on patient group podcasts such as "The Rare Encounters", hosted by the Hong Kong Mucopolysaccharidoses & Rare Genetic Diseases Mutual Aid Group, to strengthen community connections and gather valuable feedback.

Data Security is Integral to Our Commitment

Working at the forefront of medicine and science necessitates the continuous application of emerging technologies. This calls for ongoing data security and information technology infrastructure enhancements to ensure we optimise operational effectiveness while minimising potential risks.

心繋病患 履行使命

連繫病人,了解其所需一直是引領我們向前的核心價值。病人的意見和經歷不僅有助我們確立工作優次,亦是團隊努力不懈,以病人為先的最佳見證。我們與病友團體保好病人互助小組,並在會上分享個醫,解於人互助小組,並在會上分享個客,解說基因組計劃詳情及其如何為病友的說基因組計劃詳情及其如何為病友的影響來改變。此外,我們亦積極參與社區活動,如香港罕見疾病聯盟的十周年誌慶晚與香港如及病人互助小組的錄播節目,如參與香港如及病人互助小組的錄播節目,如參與香港。

數據安全 保障嚴謹

基因組醫學作為醫學和科學的前沿領域, 需要不斷引入新興科技,因此我們持續加強 數據安全及資訊科技基礎設施,在發揮最佳 營運效能的同時,亦確保將潛在風險降至 最低。



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Management Reports 管理層報告

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In Q4 2024, we engaged an independent consultant to conduct a comprehensive institute-wide Security Risk Assessment and Audit to verify that HKGI systems and platforms meet the most stringent international standards. Following this process, a formal reassessment confirmed that all recommendations had been fully implemented, providing robust assurance of our data security framework.

Our commitment to cybersecurity excellence was further demonstrated through a Cybersecurity Incident and Data Breach Tabletop Drill Exercise, which simulated scenarios such as ransomware attacks and data breaches. This comprehensive exercise helped us strengthen our incident response protocols and interdepartmental coordination.

Recognising Al's transformative potential, we launched our Al governance initiative in 2025 to develop frameworks for responsible technology adoption. Pilot projects included the local deployment of Large Language Models and the testing of an Al-driven framework for genomic interpretation in rare disease analysis, which will serve as practical test cases for developing our comprehensive Al governance framework.

為此,我們於2024年第四季委託了獨立顧問,為基因組中心進行全面的保安風險評估及審計,涵蓋所有部門的運作,以確保中心的系統和平台均符合最嚴謹的國際標準。審計流程完成後的覆檢亦確認團隊已全面落實所有建議,為中心的數據安全架構提供穩健保證。

此外,我們透過進行「網絡安全事故模擬 演習」,模擬機構遭受勒索軟件攻擊和資料 外洩等不同情境,以加強機構上下處理事故 的流程,以及跨部門的協作和應變機制, 展現我們對網絡安全的高度重視和維護數據 安全的決心。

同時,我們深明人工智能的變革潛力, 因此於2025年啟動人工智能企業管治籌備 工作,旨在為團隊如何適當應用相關技術 建立框架和規範。試行的項目包括使用大型 語言模型,以及測試中的人工智能基因組 分析模型,試用於分析罕見病。這些測試 項目,將為基因組中心日後建立全面人工智 能管治架構提供實證基礎。



The Next Chapter is Coming with Strong Anticipation

As we advance into our next strategic phase, we are dedicated to executing our four strategic priorities with greater depth. With HKGP having reached its initial recruitment targets ahead of schedule, we are concentrating on harnessing insights from our growing genome database to drive further breakthrough discoveries. This will be achieved through HKGI's research capabilities and partnerships with local and global research institutions.

We will strengthen these collaborations through formal frameworks, ensuring that research findings are effectively translated into clinical applications, while honouring the trust that patients place in us, and meeting the public's expectations of this effort to improve health and well-being through precision medicine and personalised care.

Our achievements reflect the dedication of our entire ecosystem. I am deeply grateful for the steadfast support from the Health Bureau, the Department of Health, the Hospital Authority, our partnering centres and hospitals in our referring networks, the medical schools of CUHK and HKU, and other academic institutes, as well as the Hong Kong Academy of Medicine and the Hong Kong College of Physicians. I would also like to express my genuine gratitude to our Board of Directors and committee members for their strategic guidance, and to our exceptional management team and colleagues for their unwavering commitment.

Most importantly, I thank the patients and families who have participated in HKGP, as well as those who support HKGI's mission. Your dedication to advancing genomic medicine for future generations, along with the talented individuals we continue to nurture, support, and collaborate with at all career stages, propels our mission forward, inspiring us to deliver increasingly meaningful healthcare solutions through the transformative power of genomics.

繼往開來 未來可期

隨着基因組中心踏入新的策略發展階段, 我們鋭意進一步落實四大策略。我們樂見 基因組計劃提前達成初始招募目標;而 隨着基因組數據庫日益擴大,我們將更積極 善用此寶貴資源及所得啟發,發揮團隊的 科研實力,繼續與本地和國際機構緊密 合作,促進醫學和科學突破。

我們將透過與夥伴建立正式的合作框架, 鞏固協作關係,確保研究成果有效轉化為 臨床應用,並不負病人所託,回應公眾的 期望,以精準醫學和個人化護理提升市民的 健康福祉。

我們今天取得的成就,實有賴各方夥伴鼎力支持與共同努力。我在此向醫務衞生局、衛生署、醫院管理局、我們各夥伴中心內合作網絡的醫院、中大和港大醫學院、和各學術機構,香港醫學專科學院,以及香港內科醫學院表達由衷謝意。我亦在此衷的感謝基因組中心董事局和各委員會成員的實貴建言和策略指導,以及一眾堅守崗位、努力不懈的同事。

最後,我在此向所有參與基因組計劃的病人 及家屬,以及一直支持基因組中心的各界 人士致以誠摯謝意。在推動基因組醫學的 路途上,你們的遠見和福澤後代的決心, 激勵我們懷抱使命,砥礪前行。未來,我們 將持續培育人才,扶掖後進,與大家攜手 同行,發揮基因組醫學的變革力量,為市民 大眾帶來更適時適切、意義深遠的創新醫療 服務。



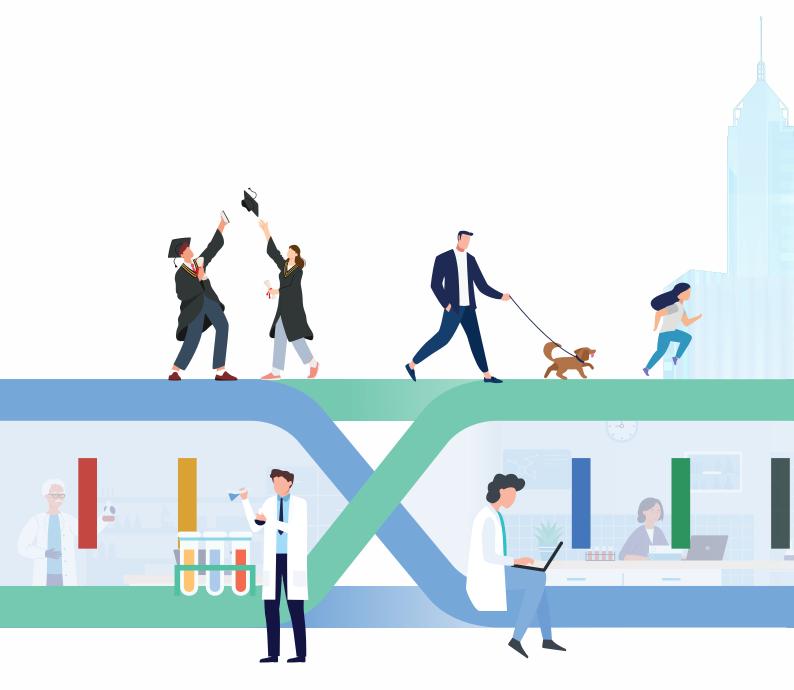
Dr LO Su-vui Chief Executive Officer



行政總裁 羅思偉醫生



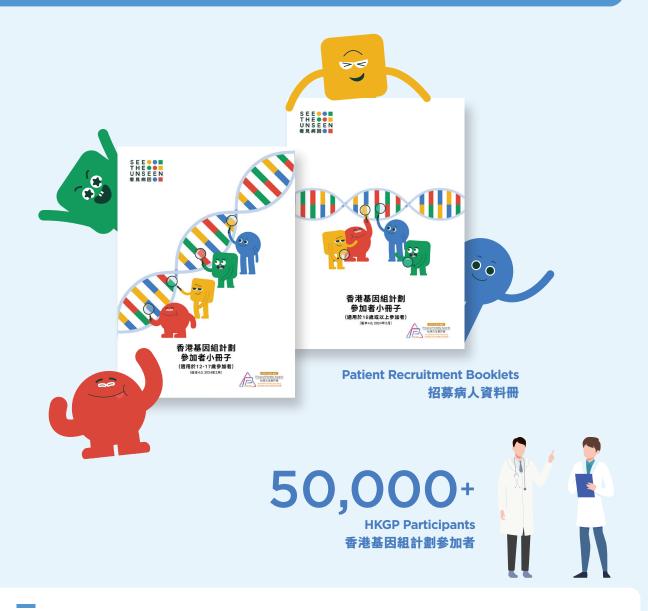
Key Moments in 2024-25 年度回顧







Advancing Patient Care Through Genomic Medicine 基因組醫學 促進病人護理



Drove forward the implementation of Hong Kong Genome Project (HKGP) with strong support from the Health Bureau and key partners. Achieved significant progress with over 50,000 participants, encompassing cases of undiagnosed diseases, hereditary cancers, and genomics and precision health applications. Enhanced service accessibility through three partnering centres at the Hong Kong Children's Hospital, Prince of Wales Hospital and Queen Mary Hospital, along with nine other public hospitals including Alice Ho Miu Ling Nethersole Hospital, Grantham Hospital, North District Hospital, Pok Oi Hospital, Princess Margaret Hospital, The Duchess of Kent Children's Hospital at Sandy Bay, Tin Shui Wai Hospital, Tuen Mun Hospital and Tung Wah Hospital.

在醫務衞生局和主要合作夥伴鼎力支持下,香港基因組計劃(基因組計劃)穩步推進,已招募超過50,000 名參加者,涵蓋未能確診病症、遺傳性癌症,以及基因組學及精準醫學有關個案的多項應用。招募網絡除了香港兒童醫院、威爾斯親王醫院及瑪麗醫院三間夥伴中心外,已擴展至另外九間公立醫院,包括雅麗氏何妙齡那打素醫院、葛量洪醫院、北區醫院、博愛醫院、瑪嘉烈醫院、大口環根德公爵夫人兒童醫院、天水圍醫院、屯門醫院,以及東華醫院,令服務的接觸面更加廣泛。



Demonstrated steadfast support for patients by actively engaging with patient communities to highlight the potential of genomic medicine. Through ongoing efforts, Hong Kong Genome Institute (HKGI) remains dedicated to benefiting more patients with more accurate diagnoses, personalised treatments and disease prevention plans.

積極與病友社群互動交流,彰顯基因組醫學的潛力,成為病人的堅實後盾。香港基因組中心(基因組中心)努力不懈,致力惠及更多病人,提供更精準的診斷、個人化治療和預防疾病方案。





Published a series of patient stories on HKGI's thematic page on HK01, a popular online news platform in Hong Kong, to showcase the transformative power of genomic medicine. These compelling stories raised awareness about the importance of genomic medicine in addressing rare diseases and enhancing patient care in Hong Kong's healthcare system.

於本港高流量網上新聞平台《香港 01》的基因組中心專頁刊載一系列病人故事,呈現基因組醫學改變生命的力量。這些動人故事不僅提升了公眾對罕見病的關注,亦有效推廣基因組醫學在加強本地醫療系統病人護理方面的重要角色。



Cultivating Talent to Accelerate Growth 積極培育人才 加速成長





Launched GENE Club – Genomic Exchange for Nurturing Excellence – an initiative designed to cultivate the next generation of genomic medicine professionals. Through GENE Club, HKGI provides a platform for clinicians, scientists, and researchers to exchange knowledge, inspire collaboration, and nurture excellence in genomic medicine through thematic seminars.

推出基因組醫學匯研講堂GENE Club(Genomic Exchange for Nurturing Excellence),旨在培育新一代基因組醫學人才。基因組中心藉由基因組醫學匯研講堂,為醫生、科學家及研究人員提供平台,透過專題研討會交流知識、促成合作並培育基因組醫學卓越人才。







Hosted the 2025 Summer Internship and Attachment Programmes, welcoming 14 talented students from local and international schools. They gained hands-on experience across multiple disciplines, including medicine, bioinformatics, communications, finance, information technology, and more. By working alongside HKGI specialists, they enriched their knowledge in genomic medicine and explored career opportunities in this exciting field.

舉辦 2025年度暑期學生實習及體驗計劃,取錄了來自本地及國際院校 14名優秀學生,讓他們於醫學、生物資訊學、傳播、金融、資訊科技等不同範疇汲取實戰經驗。在基因組中心的專家指導下,他們加深了對基因組醫學的認識,亦得以在這個富挑戰性的領域探索職涯發展機遇。



Cultivating Talent to Accelerate Growth 積極培育人才 加速成長



Faculty Prize Presentation Ceremony



Awarded scholarships to outstanding students from the Chinese University of Hong Kong and the University of Hong Kong. These prizes recognised academic excellence and encouraged students to pursue studies and careers in genomics, reinforcing HKGI's commitment to cultivating future leaders.

向香港中文大學及香港大學的優秀學生頒發獎 學金,以表彰其卓越的學術成就,並鼓勵他們 繼續深造並投身基因組學領域,展現基因組 中心培育未來領袖的決心。





Engaged young minds through career talks and company visits, sparking interest in genetics and genomics among secondary school and university students. These engagement sessions provided valuable insights into career pathways while highlighting HKGI's pioneering work.

透過職業講座和企業探訪活動,激發中學生和 大學生對遺傳學及基因組學的興趣,啟迪青年 思維。這些互動交流不僅向學生提供了探索 專業發展路向的寶貴見解,更凸顯基因組中心 在業界的前瞻性工作與領導角色。









Raising Public Awareness Across All Platforms 公眾教育 橫跨各大平台



Engaged the mass media to promote the fundamentals of genomics and the key milestones and impactful work of HKGI across prominent print and online platforms, including East Week, Headline Daily, HK01, Hong Kong Economic Journal, and The Standard. These news articles enhanced public understanding of genomic medicine and showcased HKGI's pioneering initiatives in healthcare advancement.

Featured in prominent TV and radio programmes, including Television Broadcasts Limited (TVB) "Vital Lifeline" (最強生命線) and Radio Television Hong Kong (RTHK) "Under the Sun" (太陽底下新鮮事), sharing emerging trends of genomic medicine and latest progress of HKGP as well as patient stories. These high-profile media appearances reached diverse audiences across Hong Kong, enhancing public understanding and establishing HKGI's leadership in the field.

積極接觸大眾傳媒,透過《東周刊》、《頭條日報》、《香港01》、《信報財經新聞》、《英文虎報》等報章及網上平台,推廣基因組學基礎知識、基因組中心的重要里程碑及意義深遠的工作。有關報道加深了大眾對基因組醫學的認識,並彰顯基因組中心推動醫療發展的創新與努力。

透過無綫電視《最強生命線》及香港電台《太陽底下新鮮事》等熱門電視及電台節目,分享基因組醫學的新興趨勢、基因組計劃的最新進展,以及病人故事。這些高曝光率的媒體報道成功觸及全港不同觀眾群,有效提升公眾對基因組醫學的認識,並鞏固基因組中心在此領域擔任推動者的角色。

HKGI Interview Series

精靈一點 RTHK Healthpedia



Launched the "HKGI Interview Series" on RTHK "Healthpedia" (精靈一點), a popular healthcare radio and TV programme in Hong Kong. Over the course of two months, interviews with HKGI colleagues, collaborators, genomic experts, and researchers supported by HKGI were broadcast, sharing their experiences and insights into the wide-ranging applications of genomic medicine.

於香港電台人氣健康資訊節目《精靈一點》 推出「香港基因組中心系列」,透過電台及 電視平台,加強市民對基因組醫學的認知。 為期兩個月的節目訪問了基因組中心的 代表、合作夥伴、基因組學專家及榮獲基因 組中心獎學金的研究學者,探討廣泛應用 基因組醫學的經驗和見解。



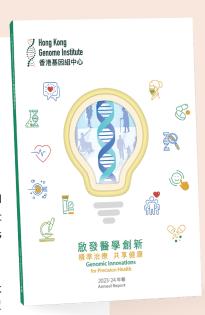






Created impactful publications, including the award-winning 2023-24 Annual Report, which articulated complex genomic concepts into accessible public information. These publications effectively communicate HKGI's achievements while enhancing public genomic literacy.

編製具影響力的刊物,包括得獎的2023-24年報,將複雜的基因組學概念轉化為淺白易明的資訊。各類刊物有效宣揚基因組中心的成果,並提升公眾對基因組學的認識。



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

















Published eight high-impact research papers in prestigious international journals, documenting HKGI's groundbreaking findings and clinical outcomes through the implementation of HKGP. These publications contribute valuable insights to the global scientific community and reinforce Hong Kong's position in advancing genomic research.

於國際權威期刊發表了八篇具影響力的研究論文,呈現基因組中心推行基因組計劃的突破性發現和臨床成果,為全球科學界貢獻真知灼見,並鞏固香港在推動基因組研究方面的地位。



Partnered with the Asia Pacific Society of Human Genetics to launch the "Distinguished Scholar Series". This collaboration brings together leading clinicians, scientists, and researchers worldwide, creating a platform for global exchanges on genomic science and clinical experience.

與亞太人類遺傳學會攜手推出「傑出學者講座系列」,匯聚全球頂尖醫生、 科學家及研究人員,打造促進基因組 科學及臨床經驗的國際交流平台。





Fostering Local and International Partnerships 凝聚力量 促進本地及國際協作





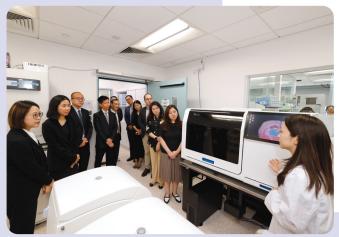


Engaged leading organisations and healthcare enterprises, such as the Greater Bay Area International Clinical Trial Institute, AstraZeneca and Tencent Healthcare to explore collaborations. These proactive initiatives strengthen HKGI's role in driving medical innovation and advancing the development of genomic medicine, especially across the Guangdong-Hong Kong-Macao Greater Bay Area.

與業界權威機構及醫療企業積極探索合作機會, 包括粵港澳大灣區國際臨床試驗所、阿斯利康及 騰訊健康,鞏固基因組中心推動醫療創新及促進 基因組醫學發展的關鍵角色,尤其在粵港澳大灣區 發揮重要作用。







Hosted visits to facilitate exchanges of genomic knowledge, paving the way for research collaborations that aim to deliver the promise of genomic medicine to patients and their families.

舉辦探訪活動,促進基因組學知識交流,為研究合作鋪路,實踐基因組醫學,為病人及家屬帶來裨益。





Participated in international conferences to publicise HKGI's work. Some of these events included the programme held by the International Cancer Genome Consortium and the Asia Summit on Global Health organised by the Hong Kong Trade Development Council. These engagements strengthened HKGI's networks with the scientific and medical community worldwide, while enhancing public awareness of HKGI's contributions to fostering medical innovations.

積極參與多項國際會議,展示基因組中心的工作成果,當中包括由「國際腫瘤基因組聯盟」舉辦的活動及由香港貿易發展局主辦的「亞洲醫療健康高峰論壇」。透過這些交流平台,基因組中心進一步拓展與全球科研及醫療界的合作網絡,同時讓公眾更了解中心在推動醫療創新方面的貢獻。

Empowering Staff for Operational Excellence 支援員工 實踐卓越營運





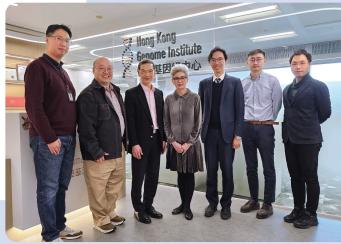
Received distinguished recognitions for HKGI's dedicated efforts in cybersecurity and data protection. These awards included the "Outstanding Gold Award" at the Privacy-Friendly Awards 2025 organised by the Office of the Privacy Commissioner for Personal Data, and the "Platinum Tier" under the Cybersecurity Staff Awareness Recognition Scheme 2024/25. All these recognitions reflect HKGI's commitment to maintaining the highest standards of cybersecurity awareness and operational excellence.

基因組中心在網絡安全及個人資料保障方面的持續努力獲得業界高度肯定,榮獲由香港個人資料私隱專員公署頒發的「私隱之友嘉許獎2025」最高榮譽一卓越金獎,並於「共建員工防火牆嘉許計劃2024/25」中獲得「白金級別」認證。上述殊榮充分反映基因組中心堅守最高標準的網絡安全意識及卓越營運。

Conducted thematic training sessions on cybersecurity, data management, and data curation to keep staff informed of the evolving industry standards and emerging threats. These training programmes provided staff with critical knowledge in data protection protocols and privacy safeguards, and best practices in curating high-quality genomic datasets.

就網絡安全、數據管理及分析舉辦主題培訓,協助員工掌握 業界最新標準及應對新興網絡威脅。培訓計劃為員工提供 資料保障規程及私隱保障的關鍵資訊,並講解有關分析基因 組數據的最佳作業流程。









Prioritised building a supportive workplace culture. HKGI hosted festive gatherings along with staff luncheons, creating meaningful opportunities for colleagues to connect beyond their daily responsibilities. These shared experiences fostered a collaborative spirit that contributed to operational excellence.

優先建構相互支持的職場文化。基因組中心舉辦 多項節日聚會及午間聚餐,為同事們創造寶貴 機會,在日常職務以外促進交流與聯繫,增強團隊 合作精神,實踐卓越營運。





Our Genomic Advocates

基因組醫學新力量



Nurturing Genomic Medicine Excellence for the Future

Encouraging more and more clinicians and researchers to engage in genomic medicine is a key priority in advancing precision medicine. Equally important is developing the next generation of professionals.

The stories you are about to discover showcase how HKGI's initiatives have galvanised medical professionals and young people to advance the horizons of genomic medicine, delivering meaningful patient outcomes while shaping the future of healthcare.

Three healthcare professionals will share new perspectives on diagnosis, treatment and prevention that genomic medicine brings to clinical practice. They are recipients of the "HKAM-HKGI Research Excellence Grants in Genomic Medicine" and "HKCP-HKGI Overseas Training Scholarship and Training Grant for Excellence in Genomic Medicine", which support their research and study in the clinical applications of genomic medicine.

Also spotlighted are three secondary and university students who participated in HKGI's internship and attachment programmes. They will share how these experiences allowed them to witness the immense potential of genomic medicine in clinical settings, and how these opportunities have inspired their future directions.

培育卓越人才 推動基因組醫學

鼓勵更多臨床及研究人員投身基因組醫學 領域,是推動精準醫學發展的關鍵所在。 與此同時,培育新一代專業人才同樣重要。

以下的專題故事展現基因組中心如何透過各項計劃,激勵醫療專業人士與年輕一代拓展基因組醫學疆界,不但為病人帶來實質療效,同時引領醫療服務的創新發展。

三位醫療專業人士將從「診斷、治療、預防」 方面分享基因組醫學在臨床上帶來的新視 野。他們分別獲得基因組中心與香港醫學 專科學院共同設立的「基因組醫學卓越研究 獎」,以及基因組中心與香港內科醫學院 共同設立的「基因組醫學海外及本地進修 獎學金」,支持他們深入研究基因組醫學的 臨床應用。

另外,專題亦會介紹三位曾參與基因組中心 實習及體驗計劃的中學生及大學生,他們將 分享如何透過這些計劃親身見證基因組醫學 在臨床上的無限潛力,以及這些經歷如何 啟發他們的未來發展方向。





Young Mind Bright Aspiration

青年遠志 點亮前路

This experience has solidified my desire to pursue genetics and genomics - as a career and as a way to change lives.

這段經歷更堅定了我將來投身遺傳學及基因組 學的志向。不僅以此為業,更盼能以生命改變 生命。

Natalie Wan 温曉滺 Participant of HKGI 2025 Student Attachment Programme 香港基因組中心2025年學生體驗計劃參加者

Natalie has always been drawn to the world of life sciences. Her fascination with genomics was sparked after undertaking a course in genomic technologies for treating acute blood cancer. After that, she joined the Student Attachment Programme at Hong Kong Genome Institute (HKGI), receiving the opportunity to explore genomics in action alongside other students. Her journey reflects HKGI's commitment to nurturing talent and cultivating scientific curiosity at every age.

At HKGI, Natalie was able to put theory into practice, gaining hands-on experience with cutting-edge genomic technologies with guidance from HKGI's experts. She witnessed the applications of genomic medicine and learnt how this new field of modern medicine is having life-changing impacts. Together with other students, she immersed herself in a research project on nonsense-mediated mRNA decay, exploring how genetic variants might align with patient symptoms. As part of the Attachment Programme, Natalie had the invaluable opportunity to shadow healthcare professionals and observe the collaborative environment at HKGI and its partnering centre.

Natalie 一直對生命科學領域充滿熱忱。她對基因組學的 興趣源於一次因緣際會下,接觸有關運用基因組技術治 療急性血癌的課程。其後,她參加了香港基因組中心 (基因組中心)的學生體驗計劃,與其他學員共同探索 基因組學的實際應用。她的學習歷程正正體現基因組 中心致力培育各年齡層的人才、激發新一代對科學熱誠 的堅定承諾。

在基因組中心,Natalie 有機會在中心專家的指導下認識先進的基因組技術。她不但見證基因組醫學如何應用於臨床護理,亦了解到這個現代醫學的新興領域如何為生命帶來深遠的影響。她與其他學員一同了解「無義介導的 mRNA 降解」研究項目,探討基因變異與病人症狀的關聯。作為計劃的一部分,Natalie 更獲得實貴的機會,跟隨專業醫護人員實地視察,親身體驗基因組中心及其夥伴中心的協作環境。



The Human Side of Genomic Medicine

Genetic counselling is a crucial part of clinical practice in genomic medicine, and for Natalie, attending these sessions was nothing short of transformative. During one particular session, she observed a mother discussing test results for her 13-year-old son with a genetic disease. The counsellor patiently broke down complex information and procedures into simple terms, empowering the mother to understand her son's condition and make informed decisions about his care. That moment crystallised Natalie's ambition.

"I was struck by the mother's determination to ask many complex questions. She conducted thorough research and gathered a wealth of information through her own initiative," Natalie recalled. "She was actively seeking potential clinical trials so her son could receive the best possible treatment."

The mother's wish for more breakthroughs in genomics to help children with similar conditions also left a profound impression on Natalie. "It was such a powerful reminder of the importance of public awareness surrounding genetic diseases. This whole session was incredibly inspiring, heartwarming and admirable – a truly unforgettable experience for me," she said.

Looking to the Future

Alongside gaining a comprehensive perspective on genomic medicine and its clinical applications, Natalie believed her experiences at HKGI have solidified her decision to pursue genetics and genomics in future. Although her journey in genomic medicine has just begun, her passion exemplifies how nurturing young scientific minds today fosters healthcare innovations tomorrow.

基因組醫學 以人為本

遺傳輔導是基因組醫學在臨床實踐的重要一環,對Natalie來說,參與遺傳輔導的觀摩環節,更是一次意義非凡的啟發。在一次輔導過程中,她觀察到遺傳輔導員與一位母親討論其13歲、患有遺傳病的兒子的檢測結果。當時,輔導員耐心講解,深入淺出地解說複雜的資訊與醫療程序,讓這位母親能透徹理解兒子的病情,從而為他的護理作出明智的抉擇。這次觀察經歷,讓Natalie的志向變得更為清晰明確。

Natalie 憶述道:「那位母親的求知精神讓我印象尤深。 為了替兒子尋找最佳治療方案,她不僅進行了深入的 資料搜集,還積極尋找有機會參與的臨床試驗,探索 各種可能性。」

這位母親期盼基因組學能取得更多突破,以幫助更多類似病童。這份盼望,同樣使Natalie深受觸動。「這讓我真切體會到加強公眾認識遺傳病的重要性。整個輔導環節充滿真誠的互動,亦令我對遺傳輔導員的專業更加敬佩,絕對是一次難忘的經歷。」Natalie回憶道。

展望未來

在基因組中心的體驗不但讓Natalie對基因組醫學及相關臨床應用有更全面的認識,更堅定了她未來投身遺傳學和基因組學的志向。Natalie在基因組醫學的旅程才剛起步,而她對這個範疇的熱忱,充分體現出悉心啟迪科研青苗對成就明日創新醫療的重要。



From Learning to Leading 承傳學識 凝聚力量





I was captivated by HKGI's detective-like work in genome curation. Learning how genomic medicine informs the diagnosis of rare diseases inspired me to establish a medical student association focusing on genetics and genomics, which acts as a platform for like-minded and passionate students to connect, learn, and advocate for those affected by rare conditions and other genetic disorders.

基因組中心在分析基因組數據方面如偵探般的工作深深吸引了我。了解到基因組醫學能為罕見病帶來診斷希望後,我決心創立一個專注於遺傳學與基因組學的醫學生組織,凝聚志同道合的同學交流知識,並為罕見病及其他遺傳病患者發聲。

Safari Chiu 銷敏玳 Medical Student at the Chinese University of Hong Kong 香港中文大學醫學院學生

HKGI 2023 Summer Intern 香港基因組中心2023年暑期實習生

Safari's fascination with genomics began back in secondary school when she first learnt that merely four simple letters – A, T, C, and G – underlie the complexity and uniqueness of all living organisms. From her medical studies, she understood that knowledge about clinical genetics and genomics is applicable and important in virtually all medical specialties in this era of personalised medicine. Thus, she was motivated to pursue an internship at HKGl in 2023, where she explored how genomic findings translated from bench to bedside. This aligns with HKGl's commitment in nurturing future healthcare practitioners, who understand both the science and human impact of genomic medicine.

When Textbooks Meet Clinical Application

This internship provided Safari a comprehensive exposure to genomic medicine, from hands-on lab experience to participation in genome curation meetings. A week-long shadowing at the Prince of Wales Hospital further allowed her to gain insight into complete patient journey in

Safari 對基因組學的熱忱,始於中學時期。當時,她初次了解到僅僅A、T、C、G四個代表DNA鹼基的字母,便奠定了生物世界的複雜多樣與獨一無二。及至修讀醫科,她了解到在個人化醫療時代,遺傳學和基因組學可廣泛應用於所有醫學專科,並具重要意義。這份認知驅使她於2023 年參加香港基因組中心的暑期實習計劃,親身探索基因組學的發現如何從實驗室科研轉化為臨床應用。而基因組中心正是透過這樣的實習體驗,致力培育下一代醫療專業人才,使他們不僅掌握扎實的科學知識,同時能體會基因組醫學對病人及其家庭的深遠意義。

臨床實踐 學以致用

這次實習為 Safari 提供了全面的基因組醫學視野,從實驗室的實際操作,到參與基因組數據分析的會議。其中,在威爾斯親王醫院為期一星期的實地跟隨觀察,更讓她進一步了解到香港基因組計劃(基因組計劃)中病人招募的完整流程,包括知情同意、收集樣本、分析以及結果

Hong Kong Genome Project (HKGP), from informed consent to sample collection, analysis, and results reporting. Moreover, through working on her group project on pharmacogenomics, she understood how precision medicine could advance treatment, not just for rare genetic diseases but also for common conditions. "This internship provided me the macroscopic view of how a large-scale population health project and biobank like HKGP is executed, as well as the microscopic view of how HKGP gives hope and treatment guidance for individual patients and their families," Safari reflected.

報告。此外,透過參與藥物基因組學的小組研究項目,她亦了解到精準醫學如何推動治療方案的進步,其應用不僅限於罕見遺傳病,更能惠及常見疾病。Safari表示:「這次實習既讓我從宏觀角度了解到像基因組計劃等全港性大型計劃如何運作,同時亦從微觀角度見證這個計劃如何為每位病人及其家庭帶來希望並提供治療方向。」

Bridging Science with Compassion

Inspired by the potential of genomic medicine and the dedication of HKGI experts to "orphan disease" advocacy, Safari co-founded the Hong Kong Medical Genetics and Genomics Student Society (HKGeneSoc) to create learning opportunities for medical students, such as hosting symposiums and clinical teaching sessions, as well as attending academic conferences in Chinese Mainland and overseas. Through this platform, Safari and her peers have also collaborated with NGOs and charities to support individuals and families navigating rare diseases, from public advocation on rare diseases in a podcast series to representing patients at clinics with visiting overseas experts, applying the patient-centred approach she observed during her time at HKGI.

Drawing wisdom from Hippocrates – "Cure sometimes, treat often, comfort always" – Safari viewed genomic medicine as a bridge between innovation and compassionate care. "While there may not always be a cure or even an answer for every case, we can reassure patients and families that we are allies on the same boat navigating the unknown waters with them. No matter how complex a case may be, always remember that we are treating people as a whole and not merely medical conditions," she concluded.

Future Visions

As Safari continues her journey to becoming a doctor, her experience at HKGl and understanding of genomic medicine continue to guide her approach to patient care and advocacy. Inspired by HKGl's vision of cultivating not only knowledgeable practitioners but also community leaders who extend its mission beyond their own practice, Safari is determined to carry these values forward.

科研為媒 醫者仁心

有見基因組醫學潛力無限,並受基因組中心專家對罕見病的關注所啟發,Safari與一眾志同道合的同學成立「香港遺傳學學生協會」,為醫學生創造更多學習機會,如舉辦專題研討會、臨床教學環節,以及參與內地與海外的學術會議等。透過這個平台,他們與非政府組織及慈善團體合作,支援罕見病患者和家庭。從製作網上電台節目提升公眾認知,到陪同病人會見訪港的海外專家,Safari在這些行動中處處實踐着從基因組中心實習時所學到的「以病人為本」理念。

Safari 從希波克拉底的智慧箴言「時而治癒,時常醫治,時刻安慰」中得到啟發,視基因組醫學為創新思維與人文關懷之間的橋樑。她總結道:「縱使並非每一個案都能夠找到治癒方法或答案,我們仍可讓病人與家屬感受到,我們是與他們同行的夥伴,一起探索未知領域。無論病情多複雜,我們都需時刻銘記,我們治療的是一個完整的人,而非單純疾病。」她總結道。

實踐理想 未來可期

如今 Safari 正逐步實現成為醫生的夢想,而她於基因組中心的學習及對基因組醫學的深刻理解,將繼續指引她向前邁進,實踐病人照護和倡導工作。基因組中心不但致力培育學識淵博的醫護人員,更期望他們將使命延伸至專業以外,成為惠澤社群的領袖。 Safari 亦深受啟發,決心身體力行,將這份信念延續下去。





Making a Difference

with Genomic Medicine

基因組醫學 惠及病人

The HKGI internship guided my career path towards becoming a clinician and making a difference for patients with undiagnosed diseases.

在基因組中心實習的經歷為我的職涯指明方向, 促使我投身臨床工作,致力協助未能確診病症的 病人。

Dr Ng Hoi Chak 吳鎧澤 Resident 駐院醫生

HKGI 2022 Summer Intern 香港基因組中心2022年暑期實習生

Dr Ng's journey into genomic medicine began during his fourth year of medical school when he encountered a baby suffering from an unexplained condition. Despite exhaustive investigations, no diagnosis emerged, until genomic testing supplied the pivotal answer that made targeted treatment possible. The family's relief deeply moved Dr Ng, and the episode convinced him of the power of genomic medicine to solve clinical mysteries.

Motivated by a desire to supplement what he learnt during his Master of Public Health, Dr Ng joined HKGI's internship in the summer of 2022 to explore the interplay between genomics, clinical medicine, and population health. The HKGI internship fostered his development into a clinician who not only understands genomic medicine but also its broader implications for healthcare.

吳醫生接觸基因組醫學的契機,始於他在醫學院四年級時,遇到一名罹患不明病症的嬰兒。即使經過詳盡檢查,醫療團隊仍然無法確診,直至基因組測序結果揭示病因,才得以為其制訂個人化治療方案。測序結果不但使嬰兒家屬如釋重負,更深深觸動了當時仍是醫科學生的吳醫生,讓他體會到基因組醫學在破解臨床確診疑難方面的龐大潛力。

為了將公共衞生碩士課程所學付諸實踐,並探索更深層次的知識,吳醫生於2022年夏天參加了基因組中心的實習計劃,深入鑽研基因組學、臨床醫學與人口健康三者之間的關係。這次實習,不僅加深了吳醫生對基因組醫學的認識,更助他了解到相關技術和臨床應用對整體醫療體系的深遠影響,為他從醫之路奠定了穩固基石。





A Deep Dive into Genomics

Through participation in HKGI research, Dr Ng gained deeper insight into HKGI's broader public health mission, understanding how HKGI's Southern Chinese database addresses the significant burden of undiagnosed diseases by filling critical knowledge gaps in predominantly European-based genomic data.

Through learning how PCSK9 inhibitors, a new cholesterol lowering drug, were developed from studies of the rare genetic condition familial hypercholesterolemia, Dr Ng discovered that research on rare diseases can unlock benefits for the wider population.

Dr Ng's HKGI experience encompassed far more than technical skills. In addition to mastering laboratory techniques, genomic data analysis, and variant interpretation, he learnt about genetic counselling principles, explaining uncertainty to patients, and managing family expectations. He came to appreciate that genomic testing is iterative: today's "no answer" can lay the groundwork for tomorrow's breakthrough. "I find it deeply rewarding when I successfully help patients and their families navigate the evolving process of genomic testing," Dr Ng said.

Effective scientific communication also became a central part of his training. "I learnt to explain scientific concepts to patients from diverse backgrounds." Dr Ng also assisted experts in developing advocacy materials for HKGP, translating complex genomic concepts for stakeholders with varying levels of understanding. In his clinical practice, he applies these skills to empower patients, offering clarity as they navigate the complexities of genomic testing.

Looking to the Future

As a clinician, Dr Ng actively identifies patients for HKGP and bridges genomics with routine patient care. His journey exemplifies HKGI's success in cultivating professionals who apply genomics technically, communicate it effectively, and understand its broader implications, bringing genomics and medicine together to transform healthcare. By continuing to integrate genomics into everyday practice, Dr Ng is helping to ensure that tomorrow's patients will encounter fewer diagnostic dead ends and far more targeted solutions.

深耕基因組學 洞察生命意義

實習期間,透過參與基因組中心的研究項目,吳醫生對基因組中心在公共衞生領域的願景有了更深刻的領會。 現時國際間的基因組數據以歐洲人為主,基因組中心建立以華南人口為基礎的基因組數據庫,致力填補這個缺口,有望為未能找到病因的患者帶來希望。

他亦從了解PCSK9抑制劑(一種新型降膽固醇藥物)的研究中獲得啟發,這項原本針對罕見遺傳病「家族性高膽固醇血症」的藥物研究,最終竟催生出治療常見高膽固醇問題的新療法。吳醫生因此領悟到,罕見病研究的成果同樣能為普羅大眾帶來福祉。

吳醫生在基因組中心實習所得,遠不止於技術層面的知識。他不僅掌握了實驗室技術,亦學習到如何分析基因組數據及詮釋基因變異,更學會遺傳輔導的基本原則,即如何向病人解釋病症的不確定性,並妥善管理家屬的期望。他亦體會到基因組測序技術是一個不斷演進的過程,今日暫無答案的疑難,或者會為未來的突破埋下伏筆。他表示:「能夠陪伴病人與家屬逐步走過基因組檢測的各個階段,令我感受到這份工作的非凡意義。」

有效的溝通技巧亦是他實習中不可或缺的一環。「我學會如何向不同背景的病人,講解深奧的科學概念。」實習期間,吳醫生協助基因組中心為基因組計劃撰寫推廣資料,學習如何將晦澀的基因組學知識,轉化為不同知識背景的持份者都能明白的內容。如今在臨床工作中,他善用這些技巧,在病人面對複雜的基因組測序流程時,為他們提供清晰指引,讓他們更有信心地應對。

開創未來

吳醫生的職業歷程,是基因組中心致力培育人才的最佳證明。在臨床上,他不僅積極識別有需要的病人並轉介他們參與基因組計劃,更致力將基因組學的知識融入日常護理。他的實踐體現了醫療專業人員的核心特質:既能精準運用基因組學技術,又能有效傳達相關知識,並切實應用,為大眾健康帶來深遠影響。吳醫生將繼續結合基因組學與醫學,期望助病人擺脱診斷困境,開創個人化精準治療的新未來。



Genomic Medicine Unlocks New Horizons

in Kidney Disease Diagnosis and Treatment

基因組醫學 開拓腎病診治新視野



The scope of genomic medicine goes far beyond diagnosing rare genetic diseases. It has enormous potential for treating common conditions such as kidney disease.

Dr Becky Ma 馬銘遙醫生 Specialist in Nephrology 腎病科專科醫生

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「基因組醫學卓越海外及本地培訓獎學金及
助學金」得主

Awardee of the 2024/25 HKAM-HKGI
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「基因組醫學卓越研究獎 | 得獎學者

Kidney disease affects one in every 10 adults in Hong Kong, making it one of the most common chronic diseases. According to local data, approximately 12% of new end-stage kidney failure cases are attributed to genetic or unknown causes. "Genomic medicine helps us uncover the deeper origins of disease," explains Dr Becky Ma.

腎臟疾病是香港常見的慢性疾病之一,每十位香港成人中就有一位患有慢性腎病。本地數據指出,末期腎衰竭的新症中,約有12%由遺傳或不明病因所致。馬銘遙醫生解釋道:「基因組醫學有助我們找出更深層次的疾病根源。」

A Lifesaver as Precision Diagnosis Reveals Disease Origins

While current kidney disease diagnosis primarily involves clinical assessment, blood and urine tests, and tissue biopsy, whole genome sequencing (WGS) has unlocked crucial diagnostic support. "Through WGS, we can identify the specific genetic variants causing kidney disease, especially important for conditions where similar clinical presentations have entirely different underlying causes," Dr Ma noted.

The doctor recalled a case of a patient with stage-five kidney failure of unknown cause. When the patient was admitted, tissue biopsy was impossible because the kidneys had already severely atrophied. Through WGS, the patient was diagnosed with the rare hereditary condition Nephronophthisis, enabling targeted treatment. Understanding this disease led doctors to also identify the associated risk of eye complications, allowing for timely detection and treatment of retinal disease.

The Formidable Protection of Family Health Through Early Prevention and Monitoring

For families suffering from familial kidney diseases, WGS enables comprehensive prevention strategies. "Genomic sequencing helps us establish clear connections between genetic variants and kidney disease, allowing us to offer preventive monitoring for high-risk family members and intervene early to slow disease progression," Dr Ma explained.

揭示病源 生命轉機

現時腎病的診斷方法以臨床評估、血液與尿液化驗以及活組織檢查為主,而全基因組測序可突破現有診症限制,提供關鍵支援。馬醫生指出:「透過全基因組測序,我們可以找出引致腎病的特定基因變異,對於那些臨床表徵相似但成因不同的腎病,這一點攸關重要。|

馬醫生憶述一宗病例,該名患者患上第五期腎衰竭卻病因不明,入院時由於兩邊腎臟已嚴重萎縮,無法抽取腎組織化驗。而透過全基因組測序,患者最終確診罕見遺傳病「腎消耗病」(Nephronophthisis),得以展開針對性的治療。同時,因了解此病引致的眼部併發症風險,臨床團隊及時轉介患者治療視網膜病變,使患者得到全面診治。

及早預防監測 守護家人健康

對患有家族遺傳性腎病的家庭而言,全基因組測序技術可助他們制訂周全的預防性策略。馬醫生解釋道:「基因組測序有助我們釐清基因變異與腎病之間的明確關聯,從而為高風險家庭成員提供預防性監測,並及早介入,以延緩病情。」







She used Polycystic Kidney Disease as an example, a relatively common hereditary condition affecting approximately one in every 1,000 to 2,500 individuals. According to Dr Ma, WGS can diagnose this condition before symptoms appear. "Early diagnosis means we can immediately prescribe targeted medications such as Tolvaptan to slow cyst growth and preserve kidney function," she explained. "We can implement early prevention measures for complications such as hypertension and kidney infections, significantly improving long-term outcomes."

她以多囊性腎病為例子,這種遺傳性腎病相對常見,約每1,000至2,500人中就有一名患者。馬醫生表示,全基因組測序可在病徵出現前診斷病情。她解釋道:「及早診斷意味着我們可以立即處方特效藥物如Tolvaptan,延緩囊腫的生長速度,並保存腎臟功能。我們可及早採取預防措施,應對高血壓和腎臟感染等併發症,這將大幅改善患者的長遠預後。」

Advancing Local Genomic Medicine Research is a **Gamechanger**

Precise diagnosis requires robust genomic data, and population-specific data is indispensable. "Different ethnic groups have distinct genetic profiles, so Western research findings don't always apply to our local patients. For this reason, building a local genome database is essential for advancing precision medicine," Dr Ma emphasised. "The Hong Kong Genome Project provides genomic data specific to the Southern Chinese population, revealing unique genetic variants that help us better serve local patients' needs."

Dr Ma said the practical experience she gained at HKGI was transformative: "I've seen firsthand how genomic data translates into clinical applications. Through my research into genetic associations in kidney transplant medications, I've witnessed the genuine hope that genomic medicine brings to kidney disease patients. I believe that by advancing WGS capabilities, we are building a foundation for precision medicine that will benefit not only kidney transplants but also potentially extend to other fields and complex disease treatments."

本地研究 開創新局

精準診斷需要穩健的基因組數據,而特定人口的數據 更是不可或缺。馬醫生強調:「不同族群的基因圖譜 各異,西方研究成果未必完全適用於本地患者。因此, 建立本地基因組數據庫是推動精準醫學發展的重要 一環。基因組計劃正正為我們提供聚焦華南地區人口的 基因組數據,揭示本地特有的基因變異,有助我們針對 本地患者所需。」

馬醫生分享她在基因組中心積累的寶貴經驗:「我親身見證基因組數據如何轉化為臨床應用。透過積極研究 腎臟移植藥物與基因的關聯,我看到基因組醫學為腎病患者帶來真正的希望。我堅信推動全基因組測序技術的發展,能夠為精準醫學奠下穩固基礎,其效益不僅限於腎臟移植,更有望擴展至其他領域及複雜疾病的治療。」

Precision Medication Improves Kidney Transplant Success 精準用藥提升腎臟移植成功率

For patients with end-stage kidney disease, transplantation offers the best hope. However, demand far exceeds supply. More than 2,000 patients in Hong Kong are currently awaiting kidney transplants, with fewer than 100 donors becoming available each year. Dr Ma's research focuses on personalised medication regimens that reduce rejection and side effects, thereby improving transplant outcomes.

According to Dr Ma, post-transplant patients require long-term use of the anti-rejection drug Tacrolimus (FK506). Current standard dosage has been developed primarily based on research data from Western populations, but Hong Kong patients exhibit significant genetic differences. Getting the balance right is critical, as insufficient drug levels result in rejection whereas excessive levels cause side effects such as hand tremors and diabetes.

WGS can identify the key genes that affect drug metabolism, enabling clinicians to predict individual patient responses and provide optimal dosage from the start. Dr Ma's research promises to provide evidence-based prescribing guidelines for kidney transplant medications, advancing precision medicine in organ transplantation and improving outcomes for every valuable transplant opportunity.

對於末期腎病患者來說,腎臟移植是最佳 選擇。然而,全港目前有超過2,000名患者 輪候腎臟移植,而每年可進行移植的捐贈者 卻不足百人。馬醫生的研究聚焦於為腎臟 移植患者提供個人化用藥方案,旨在減少排 斥反應和副作用,從而提升器官移植的成效。

馬醫生指出,移植患者術後需要長期服用抗排斥藥物 Tacrolimus(FK506),現行標準劑量主要基於西方人口的研究數據,但本港患者存在明顯的基因差異。用藥關鍵在於精確控制藥物濃度,濃度不足會導致排斥反應;過高則引發手震、糖尿病等副作用。

全基因組測序可識別影響藥物代謝的關鍵基因,有助預測個別患者的藥物反應,繼而從治療初始階段便可處方最佳劑量。馬醫生的研究可望為腎臟移植藥物提供具實證支持的處方指引,促進器官移植方面的精準醫學發展,並提升每次寶貴移植機會的成效。





Genomic Medicine Good Transforms Childhood Myopia Care in Hong Kong

基因組醫學

改寫港童近視照護模式

Genomic medicine presents tremendous potential in childhood myopia research. By identifying specific risk genes, we can provide more precise prevention and management strategies for children.

基因組醫學在兒童近視研究中展現龐大潛力。 透過識別特定的風險基因,我們可為兒童制訂 更精準的近視預防及管理策略。

Professor Guy Chen 陳理佳教授

Specialist in Ophthalmology 眼科專科醫生

Awardee of the 2023/24 HKAM-HKGI Research Excellence Grants in Genomic Medicine 2023/24年度香港醫學專科學院 — 香港基因組中心「基因組醫學卓越 研究獎」得獎學者



Hong Kong has a high incidence of myopia. Prior to the pandemic, myopia rates among six-year-old children were approximately 12% to 15%. However, after the pandemic, the figures more than doubled to 25%, meaning that one in four Primary 1 students has myopia. "Myopia is a multifactorial disease involving both genetic and environmental factors," Professor Guy Chen explained. "Particularly for young children with myopia, genetic factors may play a more decisive role."

香港屬於近視高發病率地區,新冠疫情爆發前,六歲兒童的近視率約為12%至15%。但疫情過後,數字卻飆升一倍多至25%,即每四名小一學童中就有一人患有近視。陳理佳教授解釋道:「近視是遺傳與環境因素共同作用下的多因素疾病。對幼齡近視兒童而言,遺傳因素可能發揮更決定性的作用。」



Myopia primarily follows two inheritance patterns: single-gene and polygenic. "Single-gene inheritance can be dominant or recessive. When parents don't have myopia but a child develops severe myopia, this could be due to recessive inheritance. However, most myopia cases are a result of polygenic inheritance, where dozens or even hundreds of genes combine with environmental factors to cause myopia," said Professor Chen.

近視主要循單一基因與多基因兩種模式遺傳。陳教授表示:「單一基因遺傳有顯性或隱性之分。當父母雙方皆無近視,子女卻出現重度近視,便可能是隱性遺傳造成。但大部分近視個案源於多基因遺傳,即由數十至數百個基因與環境因素共同影響所致。」

Major Health Risks Associated with High Myopia

In addition to severely affecting vision, high myopia could trigger other serious eye diseases. "The risk of high myopia patients having retinal detachment is 100 times higher than normal people," Professor Chen said. Other common complications include macular degeneration, glaucoma, and early-onset cataracts. "High myopia patients may develop cataracts between 40 and 50 years old, 10 to 20 years earlier than average," Professor Chen added.

These complications also impact work and quality of life. Once the eyeball elongates to become myopic, it is essentially irreversible. Even after laser vision correction surgery, the risks associated with high myopia remain.

Making Childhood Myopia a Thing of the Past

Professor Chen and his team are dedicated to researching genes related to childhood myopia, collecting genetic data from nearly 40,000 Hong Kong children. Through genome-wide association study (GWAS), they discovered four new genes associated with childhood myopia. "These childhood myopia genes were never found in adult myopia research. Each gene variant increases myopia risk by 1.2 to 1.5 times. If a child carries all four gene variants, their myopia risk increases by more than three times."

高度近視 健康隱憂

高度近視除了嚴重影響視力外,更可能引發其他嚴重 眼疾。陳教授指出:「高度近視患者發生視網膜剝離的 風險比常人高出100倍。」其他常見的併發症包括黃斑 病變、青光眼及早發性白內障。陳教授補充:「高度近視 患者可能在40至50歲之間就出現白內障,比平均發病 年齡提早10至20年。」

這些併發症不僅嚴重影響視力,也會影響工作和生活質素。陳教授強調,眼球一旦拉長導致成為近視眼,基本上就無法逆轉。即使患者接受了激光矯正視力手術,也無法消除高度近視帶來的相關疾病風險。

兒童近視 畫下句點

陳教授與其團隊致力研究兒童近視相關基因,並收集了 近4萬名港童的基因數據。他們以全基因組關聯分析發現 了四個與兒童近視相關的新基因。陳教授説:「成人近視 研究從未發現這些兒童近視基因,每個基因變異都令 近視風險增加1.2至1.5倍。若一名兒童同時攜帶四種基因 變異,其近視風險將增加三倍以上。|



The research also found that children with high genetic risk scores and who engage in prolonged close-up work have a myopia risk increase of four to five times. "These findings enable us to formulate personalised myopia care strategies," Professor Chen said. "High-risk children's daily cumulative reading time should not exceed three hours, while low-risk children should not exceed four hours."

New Directions in Childhood Myopia Prevention Transform Care

For treatment, besides wearing appropriate glasses, atropine eye drops can effectively slow myopia progression. Some children even experienced myopia reversal after combining Atropine eye drops with red light therapy, according to another study conducted by Professor Chen's team: "Some children experienced complete reversal from 100 degrees of myopia after six months of treatment, no longer needing glasses, and their eye axis also shortens."

Professor Chen emphasised the importance of establishing local genomic databases, as different ethnic groups have varying genetic characteristics, and Western research findings may not necessarily apply to local patients. Having a local database offers valuable reference for precision medicine across specialties. "By analysing local children's genetic data, we can more accurately identify myopia risk genes and provide more precise prevention strategies for Hong Kong children. Genomic medicine enables us to identify high-risk children early. We can adjust reading habits, implement personalised treatment plans, and reduce the likelihood of high myopia," he said.

該研究同時發現,遺傳風險評分高的兒童如果長時間 進行近距離工作,其近視風險將增加四至五倍。陳教授 表示:「這些發現讓我們能夠制訂個人化的近視管理 方案。例如,高風險兒童每日累積閱讀的時間不應超過 三小時,而低風險兒童則不應超過四小時。」

防範近視 照護新方

治療方面,除了配戴合適的眼鏡外,使用阿托品(Atropine)眼藥水亦有效控制近視加深。陳教授團隊另一項研究指出,部分兒童在結合阿托品眼藥水與紅光治療後,甚至可以逆轉近視情況:「部分兒童接受六個月治療後,100度近視完全逆轉,不再需要配戴眼鏡,眼軸長度亦隨之縮短。」

陳教授強調建立本地基因組數據庫的重要性,因為不同 族群的遺傳特徵存在差異,西方研究成果未必適用於 本地患者。建立本地數據庫能為不同專科發展精準醫學 提供寶貴的參考價值。他表示:「透過分析本地兒童的 基因數據,我們能更準確地識別近視風險基因,為香港 學童提供更精準的預防策略。有賴基因組醫學,我們能 及早識別高風險兒童,進而調整他們的閱讀習慣、實施 個人化治療計劃,從而降低高度近視發生的可能性。」



Childhood Myopia and Genomic Analysis 兒童近視及基因組分析

As myopia often begins during school age when the eyeball is still developing, conducting paediatric myopia research reveals not only the disease's origins but also its developmental trajectory.

Professor Chen's research studies both the genetic and environmental factors of childhood myopia. His research team invites primary school students and their parents to participate in detailed ophthalmological examinations, including vision tests, eye pressure, and fundus examinations, while collecting oral mucosa or blood samples to gather genetic data from nearly 40,000 Hong Kong children.

With support from the HKAM-HKGI Research Excellence Grants in Genomic Medicine, Professor Chen's team conducted genomic study on approximately 6,000 children, with the goal of discovering new childhood myopia-related genes and developing genetic risk scoring models to identify high-risk children early. In doing so, doctors will be able to implement targeted prevention and management measures, reducing myopia's impact on the next generation.

由於近視通常在學齡期開始出現,此時眼球 仍處於發育階段,因此進行兒童近視研究 不僅能揭示病源,更能掌握其發展軌跡。

陳教授的研究旨在探討兒童近視的遺傳與 環境因素。他的研究團隊邀請小學生及其家長 參與詳盡的眼科檢查,包括視力測試、眼壓 測量及眼底檢查,並採集口腔黏膜或血液 樣本,至今已收集近四萬名港童的基因數據。

在香港醫學專科學院-香港基因組中心「基因組醫學卓越研究獎」的支持下,陳教授的團隊對當中約6,000名兒童進行全基因組研究,期望透過發現新的兒童近視相關基因,開發遺傳風險評分模型,以助盡早識別高風險兒童,並實施針對性的預防及管理措施,降低近視對下一代的影響。





Genomic Medicine Unlocks New Frontiers

in Psychiatric Treatment

基因組醫學 啟發精神科治療新方向



Genomic medicine is opening new possibilities for clinical psychiatry. Through whole genome sequencing, we can better understand the genetic factors that contribute to mental illness, with the hope of providing personalised diagnosis and medication strategies to patients while reducing medication side effects.

基因組醫學為臨床精神科帶來嶄新可能。透過全基 因組測序,我們能更深入了解導致精神疾病的遺傳 因素,希望將來為病人提供個人化診斷及用藥方案, 並降低藥物可能引起的副作用。

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「基因組醫學卓越研究獎」得獎學者

Mental Illness and the Genetic Connection

The causes of mental illness have long been an important area of medical research. As Dr Fong Chun-ho introduced, "The vast majority of mental illnesses relate to both genetic and environmental factors. These conditions are typically influenced by multiple genes rather than a single gene."

精神疾病 基因關聯

精神疾病的成因一直是醫學研究的重要領域。方醫生指出:「絕大部份精神疾病均與遺傳及環境因素息息相關。從遺傳角度而言,這些疾病通常受多個基因共同影響,而非單一基因所引致。」

Through genome-wide association study (GWAS), researchers have identified an increasing number of genetic variants associated with mental disorders. "For example, schizophrenia maybe connected to genes that affect the immune system and neurotransmission, while bipolar disorder is associated with genes that control how brain cells communicate. Understanding these genetic variants helps us predict disease mechanisms and enriches our knowledge of these conditions," explained Dr Fong.

透過全基因組關聯分析,研究人員已發現越來越多與精神疾病相關的基因變異。方醫生解釋道:「舉例而言,思覺失調有可能與影響免疫系統及神經傳導的基因有關;躁鬱症則與控制腦細胞間通訊的基因相關。了解這些基因特性及變異,有助我們推測發病機制並增加對疾病的認知。|

Genomic Breakthroughs in Psychiatric Diagnosis

The rapid development of genomic medicine in recent years has the potential to open new pathways for the diagnoses of mental disorders. "Genetic screening allows us to identify high-risk population before symptoms appear," Dr Fong said. "We now know that chromosomal and genetic conditions such as Fragile X syndrome, Down syndrome, and DiGeorge syndrome are associated with increased risks of autism, Alzheimer's disease, and schizophrenia respectively. These discoveries enable us to conduct disease screening, diagnoses, and treatments more efficiently."

This is only the start of realising the potential of genomic medicine. Dr Fong added, "Leveraging advancements in medical technologies, scientists have already been assessing the combined impact of hundreds of genetic variants alongside environmental risk factors to develop screening models for mental illnesses. In time, the establishment of polygenic risk scores will enable more accurate prediction of risks of developing mental disorders, facilitating early intervention or even prevention."

醫學進步 診斷突破

基因組醫學有望於未來為精神疾病診斷另闢新徑。 方醫生指出:「基因篩查有助我們在症狀出現前,識別 出高風險組群。目前,我們已知的染色體與遺傳疾病, 如脆性 X 綜合症、唐氏綜合症和迪喬治症候群,分別與 自閉症、阿茲海默症和思覺失調的風險增加有關。這些 發現有助我們更有效地篩查病患、作出診斷及提供 治療。|

這僅僅是發揮基因組醫學潛力的起步。方醫生續指: 「隨着醫學技術日新月異,科學家正努力透過綜合數百種 基因變異的影響,配合環境風險考量,從而為精神疾病 開發篩查模型。未來,透過建立多基因風險評分,我們 有望能夠更準確預測患者罹患精神疾病的風險,實現 早期干預,甚至預防發病。」







Personalised Medicine Becoming Reality

With its valuable insights into the genetic foundations of mental health disorders, genomic medicine is also driving new momentum in disease treatment and patient care. Pharmacogenomics, which studies how genes affect drug responses, has become an essential tool in transforming future psychiatric medication strategies, allowing doctors to predict both medication effectiveness and potential adverse reactions based on a patient's genetic profile. Dr Fong explained, "For example, before prescribing the mood stabiliser Carbamazepine, we must conduct genetic screening for the HLA-B*1502 variant. Patients carrying this gene face high risks of developing severe, potentially fatal skin reactions like Stevens-Johnson syndrome when taking this medication, with symptoms including widespread skin peeling and tissue death."

Dr Fong believes that as this new sphere of modern science and medicine continues to flourish, such approach of personalised medicine can be further expanded. The goal of pharmacological research in genomic medicine is to analyse patients' genetic profiles to predict their responses to different psychiatric medications, thereby optimising treatment outcomes while minimising side effects. It is anticipated that in the near future, applications of genomic medicine will further enhance the precision of psychiatric treatments and inspire research and development of new drugs, bringing benefits to patients.

"Although mental illnesses are often associated with environmental and social factors such as childhood trauma and stress, and we still have much to learn about the relationship between genetics and mental health, genomic medicine holds tremendous promise," Dr Fong concluded. "It will enable more effective diagnoses and treatments for psychiatric patients, ultimately enhancing their quality of life. This is the belief that drives me as a clinician and researcher."

個人化用藥 落地應用

基因組醫學助我們了解精神疾病與遺傳的關連,為臨床治療和護理帶來嶄新啟示。就此而言,研究基因如何影響藥物反應的「藥物基因組學」便是革新精神科用藥的關鍵工具,讓醫生能夠根據患者的基因圖譜,預測藥物效用和潛在副作用。方醫生舉例説:「譬如在處方情緒穩定劑卡馬西平(Carbamazepine)前,我們必須為患者進行HLA-B*1502基因篩查。這是由於攜帶此基因的患者服用此藥物後,有較高機率出現嚴重皮膚過敏反應,包括誘發可能致命的史蒂芬-約翰遜症候群,出現廣泛性皮膚脱落及壞死等。」

方醫生深信隨着基因組醫學迅速發展和普及,這種個人化的用藥方式定將進一步擴展。基因組醫學的藥物研究志在透過分析患者的基因組特徵以預測病人對不同精神科藥物的反應,期望藉此提升治療成效及減少副作用。基因組醫學的應用不僅有望於不久的將來提高精神科治療的精準度,同時有助啟發新藥研發,為病人帶來裨益。

方醫生總結道:「儘管精神疾病受童年創傷、壓力等環境和社會因素影響,但病患與基因遺傳之間的關係仍然是重要的醫學領域,充滿未知和可能,有待我們研究探索。我深信基因組醫學蘊藏巨大潛力,隨着這個專業不斷發展,將可實現精準診斷和個人化治療,提升患者的生活質素。作為醫生和研究人員,這也是我努力向前的信念和動力。」

Genomics Research on Tardive Dyskinesia and Antipsychotic Medications 基因變異及抗精神病藥物與遲發性運動障礙的研究

Dr Fong's research focuses on tardive dyskinesia (TD) caused by antipsychotic medications. TD is a serious and often irreversible medication side effect affecting approximately 10% – 20% of antipsychotic drug users. Symptoms include uncontrolled movements of muscles in the mouth, tongue, or other body parts. The pathological mechanisms of this condition remain incompletely understood.

Dr Fong's research explores the association between IL-10 genetic variations and the risk of developing TD. IL-10 is an important anti-inflammatory cytokine that helps regulate the immune and antioxidant systems. Through this research project, Dr Fong aims to examine three specific genetic variants of IL-10, and compare the differences between 160 patients and non-patients to gain a deeper understanding on the relationship between IL-10 and the mechanisms underlying TD.

For patients who need antipsychotic medications, tailored prescriptions could alleviate symptoms, reduce the risk of side effects, and enhance medication adherence, thereby improving their quality of life and facilitating progress towards recovery. This research is anticipated to deepen our understanding of applications of genomic medicine in mental health care, from predicting disease risk to enhancing diagnostic accuracy and ultimately enabling personalised treatment plans.

方醫生的研究聚焦抗精神病藥物引起的遲發性運動障礙。遲發性運動障礙是一種嚴重且通常不可逆轉的藥物副作用,約有10%-20%的抗精神病藥物使用者有機會出現此病症。症狀包括口、舌或身體其他部位的肌肉不受控制地蠕動。目前醫學發展仍未完全釐清此病症的病理機制。

方醫生的研究旨在探討IL-10基因變異與遲發性運動障礙風險的關聯性。IL-10是重要的抗炎細胞因子,有助調節免疫系統及抗氧化機制。他希望透過檢驗IL-10的三種特定基因變異,比較160名患者與非患者的差異,從而了解更多IL-10和遲發性運動障礙致病機制的關係。

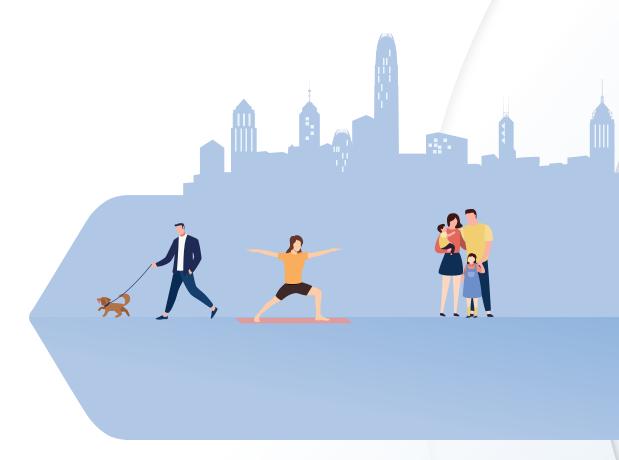
對於需要使用抗精神病藥物的患者而言, 精準用藥能有效改善症狀,降低出現副作用 的風險,並提升藥物依從性,助他們改善 生活質素,踏上康復之路。藉着這項研究, 我們有望加深認識基因組醫學在精神健康 領域的應用,從預測疾病風險到精準診斷, 以及實現個人化治療,讓病人受惠。





Nurturing Talent for the Genomics Era

培育人才 引領精準醫學







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

Since its inception, Hong Kong Genome Institute (HKGI) has adopted a holistic approach to genomic medicine. By implementing the Hong Kong Genome Project (HKGP), forming strategic clinical partnerships, and leveraging whole genome sequencing, HKGI has fostered an ecosystem integrating genomic medicine into routine clinical care.

Utilising innovative bioinformatics initiatives that enhance genomic capabilities, HKGI is firmly committed to unlocking the multifaceted benefits of genomic medicine: delivering accurate diagnoses, personalised treatments, and effective disease prevention strategies for patients, their families, and the community.

Building Momentum for HKGP and Southern Chinese Genome Database

HKGP is the cornerstone of HKGI's endeavour to build a comprehensive genome database for the local and Southern Chinese populations. Launched in October 2021, the project addresses a critical gap in genomic research: while genomes and disease conditions vary across races, international human genome databases are predominantly European-based, accounting for over 70% of all available data. Establishing a database comprising Southern Chinese populations is the key to fully harnessing genomic medicine.

During 2024-25, HKGP continued collecting, sequencing, and analysing genomic data from local patients and their families with undiagnosed diseases, hereditary cancers, and other conditions relevant to genomics and precision health. More than 50,000 participants had been recruited, and over 9,100TB of genomic data processed, establishing one of the world's most comprehensive genomic databases for Southern Chinese populations.

The insights gained and knowledge continuously gathered have empowered researchers, scientists, and healthcare professionals to advance medical research, make novel discoveries, and achieve accurate diagnoses and treatments for the local community. This unique database provides valuable information for researchers and enterprises, supporting clinical trials and facilitating the research and development of new drugs and treatments with improved efficacy, ultimately driving breakthroughs in healthcare services.

自成立以來,香港基因組中心(基因組中心) 全方位推動基因組醫學發展,透過推行香港 基因組計劃(基因組計劃),建立策略性臨床 協作夥伴關係,善用全基因組測序,將基因 組醫學融入常規臨床護理。

基因組中心利用創新的生物信息流程提升 基因組學能力,致力發掘基因組醫學的多重 效益,為病人、家屬及廣大市民提供精準診 斷、個人化治療,以及有效的疾病預防策略。

以華南人口為主 全面擴充數據庫

基因組計劃是基因組中心的重點項目,致力為本地及華南地區人口建立全面的基因組數據庫。基因組計劃於2021年10月推出,旨在填補基因組研究中的關鍵缺口 — 不同種族的基因組與疾病狀況存在差異。現時國際通用的人類基因組數據庫以歐洲白人為主,佔比超過七成。因此,建立涵蓋華南地區人口的數據庫,對於充分發揮基因組醫學的潛力至關重要。

在2024-25年度,基因組計劃持續收集、測序及分析本地病人及其家屬的基因組數據,涵蓋未能確診疾病、與遺傳有關的癌症,以及其他與基因組學及精準醫學有關的病症。計劃至今已成功招募逾50,000名參加者,處理的基因組數據總量超過9,100TB,建立了全球最全面的華南地區人口基因組數據庫之一。

從數據庫獲得的見解,加上持續累積的知識, 為研究人員、科學家和醫護專業人員提供有 力支援,推進醫學研究,帶來新發現,並為本 地市民帶來更精準的診斷與治療。這個獨特 的數據庫為科研人員和企業提供寶貴資源, 不僅支援臨床試驗,更促進新藥和高效治療 方案的研發,為醫療服務帶來突破性成果。



Nurturing Talent for the Genomics Era 培育人才 引領精準醫學

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

Patient Recruitment Network Increases in Size

Effective patient recruitment is vital to the success of HKGP. HKGI has set up three partnering centres at Hong Kong Children's Hospital, Prince of Wales Hospital and Queen Mary Hospital to recruit eligible participants for HKGP with informed consent.

To connect with more eligible patients and their family members, HKGI has worked closely with the Hospital Authority to expand the recruitment network. As of 2025, nine additional public hospitals have joined HKGP. They are Alice Ho Miu Ling Nethersole Hospital, Grantham Hospital, North District Hospital, Pok Oi Hospital, Princess Margaret Hospital, The Duchess of Kent Children's Hospital at Sandy Bay, Tin Shui Wai Hospital, Tuen Mun Hospital and Tung Wah Hospital.

Robust Governance with Partnering Centres Remains a Cornerstone

To ensure the seamless operation of HKGP across partnering centres and referring networks, HKGI established Hospital Operation Committees (HOCs) for each partnering centre from 2023 onwards, providing robust governance for HKGP's success and HKGI's mission to advance genomic medicine in Hong Kong.

Each HOC is jointly chaired by the Chief Executive Officer of HKGI, the Hospital Chief Executive of the concerned partnering centre, and the Dean of the affiliated medical school. This collaborative leadership model enables comprehensive oversight of operations, recruitment progress, and strategic planning of each centre and the referring networks.

As of June 2025, 19 HOC meetings have been conducted to review HKGP progress, participant feedback, resource allocation, finances, operational arrangements and workflow, as well as research projects and cases collaborated with each partnering centre. These regular meetings and exchanges facilitate strategic alignment, effective communication, and operational excellence, all fundamental to HKGP's success.

招募病人 擴大規模

提高招募病人的效率對基因組計劃的成功 至關重要。基因組中心已於香港兒童醫院、 威爾斯親王醫院和瑪麗醫院設立三間夥伴 中心,招募合資格參加者,並在取得其知情 同意後安排參與計劃。

為接觸更多合資格病人及其家屬,基因組中心與醫院管理局緊密合作,為基因組計劃擴展招募渠道。截至2025年,已新增九間公立醫院,包括雅麗氏何妙齡那打素醫院、葛量洪醫院、北區醫院、博愛醫院、瑪嘉烈醫院、大口環根德公爵夫人兒童醫院、天水圍醫院、屯門醫院和東華醫院。

穩健管治 暢順運作

為確保基因組計劃在夥伴中心和合作網絡順暢運作,基因組中心自2023年起,已為每間夥伴中心設立「醫院運作委員會」,通過穩健管治,成就基因組計劃,實現基因組中心推動本港基因組醫學發展的使命。

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,以便全面監察夥伴中心及其 轄下合作網絡的運作情況、病人招募進度和 策略規劃等。

截至2025年6月,三個委員會合共舉行了19次 會議,檢視基因組計劃的推行進度、參加者 的意見、資源分配、財務安排、運作模式和 工作流程,以及與每間夥伴中心合作的研究 項目及個案。這些定期會議和交流有助促進 策略性協調、提升溝通效能及營運表現,為 基因組計劃的成功奠定穩固基礎。



Saving Lives with Rapid WGS Services

HKGI's efforts towards integrating genomics into clinical care made a significant step forward with the official launch of a rapid whole genome sequencing (WGS) workflow. In Q3 2024, the HKGI team successfully performed its first rapid WGS for a critically ill patient, delivering fast and precise diagnostic insights for life-saving interventions.

As of mid-2025, HKGI has provided rapid WGS services for 84 urgent cases in Hong Kong. The team has reduced turnaround time, with the most remarkable case taking less than 48 hours from sample collection to diagnostic report. This case involved a one-day-old baby boy who was born with respiratory failure and bilateral polycystic kidney dysplasia and he was transferred to Neonatal Intensive Care Unit. Through rapid long-read genome sequencing, HKGI identified compound heterozygous variants in the *PKHD1* gene within 45 hours, confirming the diagnosis of autosomal recessive polycystic kidney disease 4, with or without hepatic disease. The early diagnosis provided valuable prognostic information for the clinical team and family, indicating an increased risk of kidney and liver complications and would require close clinical monitoring.

Another notable case involved a six-year-old boy who was transferred to Paediatric Intensive Care Unit presenting with acute glomerulonephritis and subsequent renal failure requiring renal transplant. Through rapid WGS, a variant in the *BTK* gene was identified in six working days, which confirmed a diagnosis of X-linked Agammaglobulinaemia. He was subsequently taken care of by a multi-disciplinary team (MDT) following a complex immunosuppression plan and immunoglobulin replacement therapy.

This innovative model marks a significant advance in critical care medicine. By leveraging the latest genomic technologies and dedicated workflows, HKGI now enables clinicians and medical professionals to make more informed diagnoses and develop subsequent treatment plans, transforming patient outcomes in different scenarios.

快速測序 拯救生命

隨着快速全基因組測序流程正式啟動,基因組中心將基因組醫學融入臨床護理的工作再邁出重要一步。在2024年第三季,基因組中心的團隊成功為一名危殆患者首次進行快速全基因組測序流程,提供迅速精準的診斷見解,及時介入治療,拯救生命。

截至2025年年中,基因組中心已為本港共 84宗緊急個案提供快速全基因組測序服務。 團隊全力縮短作業流程,當中最具代表性的 個案,從採集樣本到提交診斷報告的所用 時間不足48小時。這宗個案的男嬰出生的 一天,天生患有呼吸衰竭和雙側多囊性性 發育不良,需送入新生兒深切治療部。透 快速長序列基因組測序,基因組中心於45 小時內識別出PKHD1基因中的複合體隱性 多囊性腎病,並可能伴隨肝臟疾病。這項快速 診斷為臨床團隊及家屬提供寶貴的預後 計,指出患者出現腎臟與肝臟併發症的風險 增加,需進行密切的臨床監測。

另一宗值得關注的個案涉及一名六歲男童,他因急性腎炎轉入兒童深切治療部,其後病情惡化,出現腎衰竭,需接受腎臟移植手術。透過快速全基因組測序,團隊在六個工作天內找到其*BTK*基因變異之處,證實他患上「X-連鎖無丙種球蛋白血症」。男童其後由跨專業團隊照料,接受複雜的免疫抑制治療和免疫球蛋白替代療法。

這種創新模式標誌着重症醫學的一項重大 突破。基因組中心利用最新的基因組技術和 專門的工作流程,協助醫生和醫護專業人員 做出更明智的診斷,制訂後續治療方案,在 不同情況下改善患者的治療成效。



Nurturing Talent for the Genomics Era 培育人才 引領精準醫學

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



Driving Precise Diagnoses with Collaboration

Genomic medicine crosses clinical disciplines, necessitating the amalgamation of diverse expertise to enhance both clinical insight and patient outcomes. Since its inception, HKGI has championed multi-disciplinary team (MDT) meetings as a vital platform for healthcare professionals to collaborate, examine complex cases, exchange insights, and share expertise.

During the year, 15 MDT meetings were held, reviewing 75 cases that spanned a wide range of diseases, including neurological disorders, developmental delay cases, haematological disorders, metabolic disorders, immunological disorders, gastroenterological cases, and cancer cases. These sessions brought together clinicians, clinical geneticists, genetic counsellors, genome curators, laboratory scientists, bioinformaticians, researchers, and other specialists to discuss patient cases and jointly develop personalised treatment plans.

精準診斷 合作無間

基因組醫學橫跨多個臨床學科,集百家之 大成,以提升臨床診斷的準確性,並改善 患者的治療成效。自成立以來,基因組中心 一直積極推動跨專業團隊會議,作為促進協 作的重要平台,供醫護專業人員協作、研討 複雜病例、交流意見並共享專業知識。

年內,基因組中心舉行了15次跨專業團隊會議,所檢視的75宗案例涵蓋多種疾病,包括神經系統疾病、發展遲緩、血液疾病、代謝疾病、免疫系統疾病、腸胃疾病和癌症個案。這些會議匯聚醫生、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、研究人員,以及其他專科專家,共同探討病例,並制訂個人化治療方案。

Risk Scores Models Highlight Common Diseases

While accurate diagnoses and personalised treatments are among the central benefits of genomic medicine, equally important are personalised prevention plans.

In 2024-25, HKGI evaluated the performance of public Polygenic Risk Scores (PRS) models to predict chronic kidney disease within the local population as a pilot study. Concurrently, it initiated the groundwork in preparing genomic data to facilitate the development of local PRS models for common diseases, which is known as genome-wide association study (GWAS). The preliminary GWAS results identified potential genetic variants in the local population that are statistically linked to the traits of interest. These findings represent important foundational work that will pave the way for developing PRS models tailored to Hong Kong's unique genetic landscape.

HKGI also leveraged the Synergistic Research Environment (SRE), its self-developed research and data analysis platform, to assess diverse and representative reference panels tailored to Hong Kong's population, analysing and comparing genetic variations in clinically relevant genes with those found in global populations.

風險評分模型 聚焦常見疾病

基因組醫學不但對精準診斷和個人化治療起 着關鍵作用,對制訂個人化預防方案亦同樣 重要。

在2024-25年度,基因組中心開展先導研究,評估現有公共「多基因風險評分」模型在預測本地人口慢性腎病方面的成效。同時,中數學展開基因組數據的準備工作,促進針對常見病的本地「多基因風險評分」模型的開發,即「全基因組關聯分析」。初步分析結果已識別出本地人口中若干潛在基因變異,這些變異在統計學上與相關疾病特徵有關聯。研究成果為未來開發針對香港特有基因組特徵的「多基因風險評分」模型奠定重要基礎。

基因組中心亦運用自行開發的「協同合作研究平台」, 評估多個具代表性及為香港人口訂製的專屬參照數據庫, 分析並比對臨床相關基因與全球人口的遺傳變異。





Nurturing Talent for the Genomics Era 培育人才 引領精準醫學

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

Refining Risk Prediction with Innovative and New Methodologies

HKGI has further refined risk prediction by comprehensively integrating genotyping, deep phenotyping, health-related data, and medical records.

HKGI has undertaken extensive reviews of methodological frameworks used by leading international genomic initiatives. It examined approaches such as single-cell transcriptomics, spatial transcriptomics, and trusted research environment for data-sharing adopted by renowned population-scaled genomic projects. It also examined diverse models and cutting-edge tools for multi-omics analysis, establishing a robust foundation for sophisticated analytical methods tailored to local population health needs.

Strengthening Infrastructure to Bolster HKGP Expansion

With the continual expansion of genomic operations, HKGI substantially upgraded its infrastructure and sequencing capabilities throughout the year. The enhanced infrastructure enabled HKGI to increase its WGS service throughput by 2.5 times, raising capacity from 100 to over 250 samples per week.

In 2024-25, HKGI implemented several major initiatives to support this growth. High-performance servers and high-memory machines were strategically added to accommodate long-read sequencing and facilitate in-depth, complex analyses. Multiple additional testing machines were introduced to support comprehensive, large-scale testing, ensuring robust validation and quality assurance across all genomic processing workflows.

To establish a comprehensive sequencing ecosystem, HKGI invested in state-of-the-art systems powered by both short-read and long-read sequencers. This infrastructure allows HKGI to further scale up its operations as demand for genomic services continues to grow.

風險預測 技術革新

基因組中心全面整合基因分型、深度表型資料、健康相關數據和醫療紀錄,進一步優化 疾病風險預測。

基因組中心深入檢視國際頂尖基因組計劃採用的方法框架,研究知名大規模基因組計劃採用的方法,包括單細胞轉錄組學、空間轉錄組學和數據共享的可信研究環境。中心亦審視多組學分析的多元模型和先進工具,為開發切合本地人口健康需求的精密分析方法奠定穩固根基。

加強設備 擴大計劃

隨着基因組運作規模日漸擴大,基因組中心 於年內大幅提升基礎設施和測序能力。設施 升級後,基因組中心的全基因組測序服務 處理量提升2.5倍,每周處理的樣本數目由 100個增至超過250個。

在 2024-25 年度,基因組中心進行多項重大工程,以配合機構擴展需要。中心策略性地添置高效能伺服器和高記憶體運算設備,以支援長序列測序和深入複雜的分析;同時引進多台測試儀器,支援全方位和大規模測試,確保基因組處理流程中每一個環節均經過嚴格驗證,為質量把關。

為建立全面的測序生態圈,基因組中心引入了由短序列和長序列測序儀驅動的先進系統。隨着對基因組服務的需求不斷增長,這一基礎設施使基因組中心能夠進一步擴大其運作規模。



Optimising Sequencing Capabilities with Robust Bioinformatics

Complementing its robust hardware infrastructure, HKGI has developed sophisticated bioinformatics pipelines optimised for long-read sequencing analysis and multi-omics sample processing. By enabling comprehensive genomic interpretation, these advanced analytical capabilities support clinicians in making informed diagnostic and treatment decisions for patients.

A key innovation is the Data Ingestion Engine (DIG), which is one of the workflow platforms for HKGI's big data analytics. DIG automates data ingestion, transformation, and dissemination of quality control metrics of raw sequencing data, enabling efficient analysis of samples. The physical servers were expanded from 24 to 44 machines to accommodate the weekly processing of raw data generated from 450 samples after conducting WGS.

The Hybrid DIG project, completed in the first quarter of 2025, has significantly expanded HKGI's processing capabilities by leveraging cloud compute resources. This new hybrid-cloud architecture provides the flexibility to quickly scale up or down in response to rapid changes in compute demand without disrupting existing production workflows. The platform plays a crucial role in integrating genomics into clinical care by facilitating adoption of international data processing standards, supporting downstream pipelines used for clinical report generation such as "Congenica" and "CURA", and enabling population-wide high-volume genomic workflows. This enhanced infrastructure is essential as HKGI continues to expand its work and serve more people across the community.

智慧分析 完善測序

除了良好的硬件配套,基因組中心亦開發了精密的生物信息分析流程,提升分析長序列測序和處理多組學樣本的能力。通過全面的基因組詮釋,這些先進的分析能力協助醫生 為病人作出明智的診斷和治療決策。

其中一項主要創新流程是「數據導入引擎」 (DIG),作為基因組中心分析大數據的平台 之一。DIG可自動導入和轉化數據,並分發 原始測序數據的質量控制指標,實現高效 樣本分析。為應對每周處理多達 450 個樣本 經全基因組測序後產生的原始數據,中心已將 實體伺服器數量由24台擴充至44台。

混合型 DIG計劃已在 2025 年首季完成,通過善用雲端運算資源,顯著拓展基因組中心數據處理能力。這種全新的混合雲架構具有較高彈性,可因應運算需求的變化而迅速擴展或縮減,同時確保現有流程不受干擾。該平台在結合基因組醫學及臨床護理中扮演着關鍵角色,推動採用國際數據處理標準,支援「Congenica」和「基因組數據分析平台」(CURA)等生成臨床報告的下游流程,並實現覆蓋全港人口的大容量基因組工作流程。隨着基因組中心繼續擴展工作範疇以惠及更多市民,這個經完善的基礎設施尤為重要。



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To further enhance efficiency, HKGI has developed the "FASTCAT" application, which streamlines sequencing data workflows by improving automation, monitoring, and throughput. This application is designed to efficiently concatenate large sequencing files into sample-based file libraries for better organisation while ensuring data integrity and improving downstream analysis through checksum calculations and managing metadata in the cloud. "FASTCAT" supports the transition from primary sequencing to secondary analysis across multiple sequencer types while minimising local resource usage.

HKGI's analytical capacity has been further strengthened through the deployment of Multiple Graphics Processing Units accelerated servers into an Analytic Farm, including enhanced support for long-read sequencing pipelines. "FASTCAT" accelerates large-scale genomics workflows, making them more efficient and scalable to support faster scientific and clinical progress. By streamlining genomic data processing, "FASTCAT" helps integrate genomics into clinical care, ensuring clinicians and patients receive timely and actionable genomic insights.

HKGI established a platform for spatial transcriptomics during the year. Spatial transcriptomics is an advanced and revolutionary technology that provides location information of different cell types within the tissues based on gene expression patterns. It differs from traditional transcriptomics approaches in which gene expression profiles are analysed in bulk or single cells without spatial information.

Spatial transcriptomics uncovers the structural and functional tissue architecture and complex biological processes involved in disease progression, providing insights into disease mechanisms. It has also been used to explore tumour heterogeneity and immune cell infiltration, revealing how tumour cells interact with their microenvironment.

In combination with imaging and omics studies, spatial transcriptomics enhances disease diagnosis and classification, informs and supports precision medicine with targeted therapies.

為進一步提升效率,基因組中心開發了「FASTCAT」應用程式,通過加強自動化流程、 監測機制和處理效能,以簡化測序數據的 工作流程。該程式能高效整合大型測序 檔案,並為樣本分類,建立檔案庫,提升資料 組織與管理的效率;同時,通過在雲端進行 校驗和計算及管理元數據,確保數據完整, 提升後續分析的效率。「FASTCAT」支援從 一級測序到二級分析的轉換流程,並適用於 多種測序儀,盡量減少佔用本地伺服器資源。

基因組中心通過在「分析農場」中設置多圖形處理單元加速伺服器,進一步強化其分析能力,並加強對長序列測序流程的支援。 「FASTCAT」可提升大型基因組學工作流程的效率,擴大分析規模,以推進科學及臨床應用進展。「FASTCAT」可以簡化基因組數據處理流程,有助推動基因組學融入臨床護理,確保醫生和病人獲得及時且實用的基因組分析結果。

基因組中心於年內建立了空間轉錄組學平台。空間轉錄組學是一種革命性先進技術,可根據基因表現模式,提供不同細胞類型在組織中的分布情況。這種技術有別於傳統轉錄組學一後者只分析批量或單細胞的基因表現圖譜,缺乏空間分布的資訊。

空間轉錄組學揭示組織的結構與功能架構, 以及病情進展中涉及的複雜生物學過程, 從而為疾病機制提供新見解。它亦用於探索 腫瘤異質性和免疫細胞浸潤,揭示癌細胞如 何與周邊微環境相互作用。

空間轉錄組學結合影像學與組學研究,不但 增強疾病的診斷與分類,亦為標靶治療的 精准醫學提供有用信息與有力支持。

Developing Functional Assays for Genetic Characterisation and Interpretation

Over the past year, HKGI advanced its capabilities in functional genomics to enhance the characterisation, annotation, and interpretation of genes and genetic variants. These are key steps for understanding how genetic changes contribute to disease and for bringing genomic medicine into clinical care to improve patient outcomes.

HKGI established an operational workflow for bulk RNA sequencing (RNA-Seq) from wet laboratory to data analysis. The data analysis workflow involves primary analysis, quality control evaluation, sequence read alignment, and gene expression quantification, differential expression analysis, alternative splicing and functional analysis, and gene fusion detection. Pilot experiments using HKGP samples were successfully conducted to validate this methodology. Ongoing optimisation of the data analysis workflow continues to improve the quality and reliability of the results, paving the way for the integration of functional genomics into clinical practice.

Bulk RNA-Seq enhances the diagnosis of genetic diseases by uncovering the function of genes. It allows the qualitative and quantitative detection of gene expression in the entire genome, thereby helping clarify variant function and interpretation. While WGS identifies the variant at the DNA level, RNA-Seq clarifies the effect of the variant such as its impact on gene expression and transcript processing, refining diagnostic accuracy and quiding more precise treatments.

開發試驗 詮釋基因

過去一年,基因組中心不斷提升功能基因組 學的能力,以加強歸納、標註和詮釋基因和 基因變異。這些關鍵步驟有助了解基因變化 如何引致疾病,並推動基因組醫學應用於 臨床護理,改善病人的治療成效。

基因組中心建立了一套從濕實驗室到數據 分析的RNA測序工作流程。該數據分析流程 涵蓋一級分析、質量控制評估、序列讀取 比對、基因表現量化、差異表現分析、可變 剪接與功能分析,以及基因融合檢測。這套 方法已透過基因組計劃樣本的先導實驗 成功驗證。基因組中心亦持續優化數據分析 流程,將不斷提升分析結果的質量和可靠性, 為功能基因組融入臨床實踐鋪路。

批量RNA測序揭示基因的功能,優化遺傳病的診斷能力。該技術可對全基因組進行基因表現的定性和定量分析,有助釐清變異功能和詮釋結果。相較於全基因組測序識別DNA層面的變異,RNA測序可進一步闡明變異對基因表現和轉錄加工的影響,從而提升診斷準確度,推動更精準的治療方向。





Nurturing Talent for the Genomics Era 培育人才 引領精準醫學

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

Obtaining Recognition for HKGI Laboratory and WGS Pipeline

As HKGI advances at the frontier of medical science, maintaining the highest standards of quality and reliability remains vital for earning the trust of patients, clinicians, and research partners. HKGI was listed in the Medical Laboratory Technologist (MLT) Board as a company practising in the MLT profession for 2025. As a Research and Diagnostic laboratory, HKGI has made significant progress towards laboratory recognition through comprehensive quality assurance initiatives and external validation processes.

HKGI submitted applications to the College of American Pathologists Proficiency Testing / External Quality Assessment for two consecutive years, participating in the Next-Generation Sequencing (NGS)-Germline programme in 2024 and 2025. HKGI's laboratory achieved a perfect score of 100% in both proficiency testing conducted at the end of 2024 and 2025, reaffirming HKGI's commitment to upholding international quality standards and demonstrating the laboratory's excellence.

測序流程 備受認可

在推動醫學發展的同時,基因組中心始終堅守最高的質量與可靠性標準,這對取得病人、醫生和研究夥伴的信任至關重要。2025年,基因組中心以從事醫務化驗專業的機構身份,獲列入醫務化驗師管理委員會註冊名冊。作為一間集研究與診斷功能於一身的實驗室,基因組中心通過全面的質量保證措施和外部驗證流程,在實驗室認證方面取得重要進展。

基因組中心連續兩年向美國病理學會提交申請,參與2024和2025年度的「新一代測序技術種系計劃」能力試驗/外部質量評鑑。在2024年和2025年進行的兩次能力試驗中,中心的實驗室均獲100%滿分佳績,進一步印證中心恪守國際質量標準的承諾,並彰顯其卓越的檢測實力。



HKGI also continuously implemented various initiatives to ensure the reliability of its WGS pipeline and analytical processes. HKGI implemented comprehensive quality assurance measures across all operational areas to maintain optimal operational efficiency. HKGI developed and optimised a robust procedure with stringent quality controls covering both wet laboratory and data analysis; carried out a vigorous training programme for staff members to ensure the highest quality of work is produced consistently; and implemented maintenance protocols to guarantee consistent equipment performance and analytic pipeline performance.

Participation in proficiency testing (PT) represents a critical component of the laboratory accreditation process and is mandated by numerous accreditation bodies. PT serves as an essential mechanism for laboratories to demonstrate competence across the entire operational workflow, encompassing both laboratory procedures and analytical pipeline, meeting high standards for quality and accuracy in the WGS testing process. HKGl has formulated plans to obtain laboratory accreditation in the future and is working towards achieving this important milestone.

Forging Ahead with Pride and Passion

HKGI's remarkable progress in building one of the most comprehensive genomic databases for the Southern Chinese population and advancing the integration of genomic medicine continued unabated throughout 2024-25. This expanding repository, together with the insights and knowledge it brings, has enabled ever more precise diagnoses, personalised treatments, and effective prevention plans. Through strategic clinical partnerships, enhanced services and infrastructure, and rigorous quality assurance measures, HKGI has significantly strengthened both its capability and capacity to harness genomic medicine, translating discoveries into tangible patient benefits and improved healthcare outcomes.

To further accelerate the integration of genomic medicine into clinical care, plans are underway to strengthen collaborative genomic research across the Guangdong-Hong Kong-Macao Greater Bay Area, develop PRS applications, and improve data system interoperability. HKGI remains steadfast in its commitment to advancing Hong Kong's position in genomic medicine and reinforcing the city's status as an international health and medical innovation hub.

基因組中心持續推行多項措施,以確保其全 基因組測序流程及數據分析的高度可靠性。 中心在各個營運層面實施全面的質量保證 機制,以維持最佳營運效能。具體而言,中心 已制訂並優化一套嚴謹的質量控制程序, 涵蓋濕實驗室操作與數據分析流程;為員工 提供全面培訓,確保工作表現穩定一致,達致 最高標準;並落實設備維護規程,確保儀器 性能穩定和分析流程順暢運作。

參與能力試驗是實驗室認證流程中的關鍵 環節,亦是多個認證機構的強制性要求。 能力試驗是實驗室展示其整體作業流程能力 的重要機制,涵蓋實驗操作與數據分析, 確保全基因組測序檢測在質量與準確度方面 達到嚴格標準。基因組中心已就將來獲得 實驗室認證定下計劃,正朝着這一重要里程 碑邁進。

昂首闊步 熱誠不減

在 2024-25 年度,基因組中心持續取得卓越 進展,不僅成功建立其中一個最全面的華南 地區人口為主的基因組數據庫,更積極推動 基因組醫學的融合與應用。這個不斷擴充的 數據庫,以及其所帶來的見解與知識,使得 診斷更加精準、治療更加個人化、疾病預防 方案更加有效。通過策略性臨床合作、強化 服務與基礎設施,以及嚴謹質量保證措施, 基因組中心顯著提升了運用基因組醫學的 能力與規模,將科研成果轉化為切實的病人 效益,改善醫療成效。

為進一步加快基因組醫學與臨床護理的融合,基因組中心正積極推動多項計劃,包括加強粵港澳大灣區的基因組研究協作、開發「多基因風險評分」應用程式,以及提升數據系統的互通性。中心堅定不移地推動香港在基因組醫學領域的發展,鞏固香港作為國際醫療創新樞紐的地位。





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

From publishing influential papers in prestigious journals to deepening engagement with the global scientific community, Hong Kong Genome Institute (HKGI) continued advancing genomic research and promoting scientific breakthroughs in 2024-25. In addition to launching an array of research initiatives with local and international collaborators across an expanding range of disease cohorts, with major strides in data-sharing platforms and biobanking infrastructure, HKGI has strengthened its capacity to leverage genomic medicine, accelerating the translation of genomic discoveries into tangible healthcare solutions.

Driving Research Excellence with Scientific Publications

HKGI's contributions to global genomic medicine accelerated in 2024-25 with the publication of eight research papers in distinguished journals. In these papers, HKGI team collaborated closely with researchers and experts in the field to share experience, clinical outcomes, insights, and discoveries in applying genomic medicine to clinical care with international scientific and medical communities. Beyond demonstrating HKGI's scientific rigour and clinical impact, these studies enriched the knowledge base underpinning precision medicine worldwide.

Among notable research publications, a comprehensive paper summarising findings from the first 520 cases of the pilot phase of Hong Kong Genome Project (HKGP) was published in *The Lancet Regional Health – Western Pacific* in February 2025. "The implementation of genome sequencing in rare genetic diseases diagnosis: a pilot study from the Hong Kong genome project" highlighted how HKGI and HKGP are improving care for patients with rare conditions through genomic medicine applications. The paper was also featured as the cover story, complemented by a striking illustration designed by a HKGI staff member.

Equally noteworthy was a research paper published in the June 2025 issue of *Human Genetics and Genomics Advances*. "Identification of technically challenging variants: Whole-genome sequencing improves diagnostic yield in patients with high clinical suspicion of rare diseases" emerged as one of the journal's most-read articles within its first month of publication, underscoring the reach and significance of HKGI's research contributions across the scientific and medical communities.

香港基因組中心(基因組中心)在2024-25年度 持續推動基因組學研究,促進科學突破,包括 於權威學術期刊發表具影響力論文,並積極 參與全球科學領域的交流合作。除了與本地 和國際夥伴就更多疾病群組共同開展研究 計劃,在建立數據共享平台和生物樣本庫 基礎設施方面取得重大進展之外,基因組中心 亦進一步活用基因組醫學,加快將基因組學 研究成果轉化為實在的醫療保健方案。

發表論文 推動科研

基因組中心於2024-25年度加快推動全球基因組醫學發展,年內在多份權威期刊發表共八篇研究論文。團隊與業界研究人員和專家緊密合作,通過相關論文與國際科學和醫學界分享基因組醫學應用在臨床護理的寶貴經驗、成果、專業見解和新發現。這些研究不僅展現基因組中心的科研嚴謹性和臨床影響力,亦豐富了全球精準醫學的知識庫。

在眾多研究成果中,一篇綜合性論文,於2025年2月刊登於The Lancet Regional Health – Western Pacific,總結香港基因組計劃首批520宗個案。該論文題為「罕見遺傳病診斷的基因組測序應用:香港基因組計劃先導研究」(The implementation of genome sequencing in rare genetic diseases diagnosis: a pilot study from the Hong Kong genome project),闡述基因組中心及基因組計劃如何通過基因組醫學改善對罕見病患者的照護。該論文更獲選為期刊封面故事,並配以由基因組中心員工設計的生動插圖。

另一篇備受關注的論文於 2025 年 6 月刊登於 Human Genetics and Genomics Advances,題為 「識別技術層面有一定挑戰的變異:全基因組 測序提高臨床高度懷疑罕見病患者的診斷成效》(Identification of technically challenging variants: Whole-genome sequencing improves diagnostic yield in patients with high clinical suspicion of rare diseases)。該論文於發表首月即成為該期刊瀏覽量最高的文章之一,凸顯基因組中心在科學和醫學界的研究影響力與重要性。



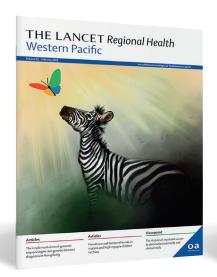
Nurturing Talent for the Genomics Era 培育人才 引領精準醫學

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

Title of Research Paper 研究論文	Journal 期刊
Identifying barriers and opportunities to facilitate the uptake of whole genome sequencing in paediatric haematology and oncology practice 識別障礙與機遇,以促進全基因組測序在兒童血液及腫瘤科臨床實踐中的應用	BMC Medical Education
UniVar: A variant interpretation platform enhancing rare disease diagnosis through robust filtering and unified analysis of SNV, INDEL, CNV and SV UniVar:變異基因詮釋平台,透過對 SNV、INDEL、CNV 及 SV 進行高效過濾及統一分析,提升診斷罕見疾病的效率	Computers in Biology and Medicine
The implementation of genome sequencing in rare genetic diseases diagnosis: a pilot study from the Hong Kong genome project 罕見遺傳病診斷的基因組測序應用:香港基因組計劃先導研究	The Lancet Regional Health – Western Pacific
A step forward in genetic counselling: defining practice and ethics through the Genetic Counselling Practice Consortium in Hong Kong 遺傳輔導的突破性進展:透過成立香港遺傳輔導專業發展聯席制訂遺傳輔導員實務規範及專業倫理守則	Journal of Human Genetics
Accelerating genetic diagnostics in retinitis pigmentosa: implementation of a semi-automated bespoke cohort analysis workflow for Hong Kong Genome Project 加快色素性視網膜炎的基因診斷:於香港基因組計劃採用半自動化精準疾病群組分析流程	Human Genetics
Experiences of participants with undiagnosed diseases and hereditary cancers during the initial phase of the Hong Kong genome project: a mixed-methods study 香港基因組計劃開展初期未能確診病症及與遺傳有關癌症參加者的體驗:一項混合研究	Human Genomics
A roadmap for genome projects to foster psychosocial and economic evidence to further policy and practice 促進社會心理及經濟實證以推進政策與實務的基因組計劃路線圖	Communications Medicine
Identification of technically challenging variants: Whole-genome sequencing improves diagnostic yield in patients with high clinical suspicion of rare diseases 識別技術層面有一定挑戰的變異:全基因組測序提高臨床高度懷疑罕見病患者的診斷成效	Human Genetics and Genomics Advances



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







Ramping Up Global Research in Rare and Common Diseases

HKGI's scientific endeavours extended far beyond scholarly publications in 2024-25. HKGI was committed to research initiatives spanning diverse disease cohorts, strategically broadening its investigative scopes to include a wider range of common and complex health conditions. This expansion has resulted in new insights that advance precision medicine, reinforcing HKGI's position at the forefront of genomic research.

HKGI collaborated with researchers at Grantham Hospital to develop a Semi-Automated Bespoke Cohort Analysis Workflow for diagnosis of retinitis pigmentosa. The workflow reduced analysis time by approximately 60% while maintaining diagnostic yields, leading to the discovery of three novel disease-causing variants. It demonstrated how genomic analysis capabilities can directly meet the specific needs of a disease cohort. Besides benefitting local patients, this notable paper "Accelerating genetic diagnostics in retinitis pigmentosa: implementation of a semi-automated bespoke cohort analysis workflow for Hong Kong Genome Project" was published in *Human Genetics*, sharing its innovative approaches with the global genomic medicine community.

拓展研究 覆蓋更多

在2024-25年度,基因組中心不但在發表學術論文方面取得佳績,亦致力將不同研究計劃推動至更多疾病群組,策略性地擴展研究範疇,涵蓋更多常見和複雜的健康狀況,為精準醫學帶來嶄新見解,進一步鞏固基因組中心在基因組研究領域的領先地位。

基因組中心與葛量洪醫院的研究人員合作, 開發出半自動化的精準疾病群組分析流程, 用作診斷色素性視網膜炎,不但能維持診斷 的準確性,更將分析時間大幅縮短約60%, 同時成功發現三種新型致病變異基因。這項 傑出成果顯示基因組分析能力可直接滿足 特定疾病群組的需求。除了惠及本地患者外, 中心亦將這新流程整理成論文,以「加快 色素性視網膜炎的基因診斷:於香港 基因組計劃採用半自動化精準疾病群組 分析流程」(Accelerating genetic diagnostics in retinitis pigmentosa: implementation of a semi-automated bespoke cohort analysis workflow for Hong Kong Genome Project) 為題,刊登於Human Genetics,與全球基因 組醫學界分享這創新方案。



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

Disease cohorts initiated or supported by HKGI during the year included children's myopia, atypical femoral fracture, oesophageal cancer, liver and pancreatic cancer, adult acute medicine, prostate cancer, lung cancer, retinitis pigmentosa, glaucoma, osteoporosis, diabetes and Genome-Wide Association Study analysis.

Internationally, HKGI strengthened research collaboration with esteemed institutes around the world, which included co-hosting with the Li Ka Shing Faculty of Medicine of the University of Hong Kong a strategic meeting to receive an international delegation of experts, researchers, and senior executives from the Asian Fund for Cancer Research and the Drug Information Association.

The strategic meeting took place in May 2025, serving as a platform for exchange among specialists in cancer research and clinical genetics and genomics applications. It also enabled HKGI to share its extensive knowledge accumulated from implementing HKGP and cultivate global research partnerships. Through collaborating with renowned international organisations and partners, HKGI facilitated the translation of cutting-edge genomic research into impactful healthcare solutions both locally and globally.

基因組中心在年內亦開展或支持多個疾病 群組的研究項目,包括兒童近視、非典型股骨 骨折、食道癌、肝臟和胰臟癌、成人急症醫療 服務、前列腺癌、肺癌、色素性視網膜炎、 青光眼、骨質疏鬆症、糖尿病,以及全基因組 關聯分析研究。

在國際層面,基因組中心進一步加強與全球 知名科研機構的合作,包括與香港大學李嘉誠 醫學院合辦會議,接待由亞洲癌症研究基金 會和藥物資訊協會的專家、研究人員和高級 管理人員所組成的國際代表團。

該策略會議在2025年5月舉行,為癌症研究 和臨床遺傳學與基因組學應用領域的專家 提供交流平台。基因組中心藉此分享推行 香港基因組計劃所得的豐富經驗,並促進 全球研究合作。透過與國際知名機構及夥伴 攜手合作,基因組中心致力將頂尖基因組 研究成果轉化為具影響力的醫療方案,造福 本地乃至全球社群。



Delivering Clinical Insights with Evidence-Based Studies

Sustainable progress of scientific research requires transparent measurement and rigorous outcome evaluation. In 2024-25, HKGI conducted comprehensive outcome evaluation studies to gain deeper insights into the clinical utility and health economics of whole genome sequencing (WGS) in focused disease areas. Participation was remarkable, with more than 1,500 questionnaires received from patients, their family members, and clinicians with the great support of HKGP partnering centres.

Separately, HKGI published the findings from a mixed-methods study evaluating the experience of participants with undiagnosed diseases and hereditary cancers during the initial phase of HKGP. The study showed that 89.8% of 341 participants were satisfied with their HKGP experience. Focus group participants were primarily motivated by altruistic goals to advance scientific knowledge and shorten diagnostic odysseys. Published in *Human Genomics* with the title "Experiences of participants with undiagnosed diseases and hereditary cancers during the initial phase of the Hong Kong genome project: a mixed-methods study", this study provided useful insights for improving participant engagement and refining informed consent processes for future phases of HKGP.

To further support evidence-based decision making, HKGI completed a study and data analysis using the Clinician-reported Genetic testing Utility InDEx (C-GUIDE) tool during the year, evaluating the post-test clinical utility outcomes of WGS. Through international collaboration with Professor Robin Hayeems' team at the Hospital for Sick Children Toronto, Canada. HKGI team translated C-GUIDE into Chinese, paving the way for its adoption across Hong Kong and potentially the broader Asia-Pacific region. Assessing clinical utility of WGS is essential for informing healthcare decisions in patient care, clinical guidelines and policy formulation.

循證為本 啟發新知

科研的可持續發展需要透明的測量和嚴謹的 結果評估。在2024-25年度,基因組中心就 全基因組測序在重點疾病領域的應用進行 全面成效評估,深入了解其臨床效益和醫療 經濟效益。在基因組計劃夥伴中心的支持 下,團隊共收集逾1,500份來自病人、家屬及 臨床醫生的問卷,反應踴躍。

此外,基因組中心發表一項混合方法研究,探討在基因組計劃初期,未能確診病症和遺傳癌症患者的參與體驗。研究顯示,在341名參加者中,89.8%對計劃的體驗表示滿意。焦點小組參加者以無私的精神參與計劃,希望推動科學發展並縮短其他病人的診斷歷程。該研究以「香港基因組計劃開展初期未能確診病症及與遺傳有關癌症參加者的體驗:一項混合研究」(Experiences of participants with undiagnosed diseases and hereditary cancers during the initial phase of the Hong Kong genome project: a mixed-methods study)為題,刊登於 Human Genomics,為基因組計劃未來改善參與流程和知情同意程序提供寶貴參考。

為進一步支持循證決策,基因組中心於 年內應用「醫生報告的基因檢測效益指數」 (C-GUIDE)進行研究和數據分析,評估全基 因組測序的臨床效益。此研究由基因組中心 與加拿大多倫多病童醫院的 Robin Hayeems 教授團隊合作進行。基因組中心將C-GUIDE 翻譯成中文,以便未來在香港乃至亞太地區 應用。評估全基因組測序的臨床效益,對 病人照護、臨床指引和政策制訂均具重要 意義。



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

Data on psycho-socio-economic outcomes were collected using HKGP Outcome Evaluation survey. This survey gathered background information, awareness, attitudes, health-related quality of life, psychosocial well-being, values, and preferences. The measures and indicators included in the survey were commonly used and validated in outcome evaluation studies, such as the EQ-5D-3L, Hospital Anxiety & Depression Scale, Perceived Stress Scale, and Client Service Receipt Inventory for the rare disease population.

基因組計劃的成效評估問卷涵蓋心理、社會及經濟層面,包括背景、認知、態度、健康相關生活質素、心理健康、價值觀和個人偏好。問卷採用多項國際通用且已被驗證的指標,包括EQ-5D-3L、醫院焦慮抑鬱量表、認知壓力量表和罕見病人服務使用記錄量表。

Building on this achievement, HKGI further expanded the outcome studies to Queen Mary Hospital, allowing HKGI to generate robust policy-relevant evidence for embedding genomic medicine across healthcare settings. Engagement with Prince of Wales Hospital on expanding the outcome studies is underway and expected to be implemented in Q4 2025.

在此基礎上,基因組中心進一步將成效研究 擴展至瑪麗醫院,以取得更具政策參考價值 的實證,推動基因組醫學融入不同醫療 場景。中心亦正與威爾斯親王醫院商討擴展 研究,預計將於2025年第四季落實。

Buttressing Research Capabilities with Enhanced SRE and CURA

Keeping pace with rapidly expanding patient recruitment and increasingly sophisticated genomic research, HKGI continued to strengthen its research infrastructure through targeted in-house innovation. The Synergistic Research Environment (SRE) and the Genome Curation Platform (CURA) are now enhancing HKGI's ability to recruit and process new patient cohorts while facilitating cutting-edge clinical and scientific research.

Operating under a rigorous governance framework, SRE enables eligible research collaborators to register as users and apply for restricted access to approved datasets within a secure, internet-free environment. All user applications and research projects undergo thorough review and approval by a panel of authoritative experts, ensuring the highest standards of scientific integrity and data protection. Only eligible researchers are granted access to de-identified clinical, phenotypic, and genomic data through dedicated secure workstations.

After a successful pilot in mid-2024, the platform received overwhelmingly positive feedback, enabling new research collaborations with the three HKGI partnering centres. SRE was officially opened to targeted collaborators in December 2024. Since then, HKGI has been collaborating with the University of Hong Kong and the Chinese University of Hong Kong in multiple projects on clinical and scientific research. Projects include Congenital heart defects, Polycystic kidney disease, Neurological disorders, Aortic diseases, Osteoporosis and RNA studies.

優化平台 增強實力

隨着病人招募規模迅速擴展和基因組研究日益複雜,基因組中心持續通過自家創新技術提升科研基礎設施。「協同合作研究平台」(SRE)和「基因組數據分析平台」(CURA)現已全面支援新病人群組的招募與數據處理,同時促進尖端臨床和科研項目的發展。

「協同合作研究平台」在嚴謹的管治框架下 運作,合資格的研究夥伴可註冊成為用戶, 申請在安全、無網路連線的環境中對已獲 審批的數據進行受限存取。所有用戶的申請 及研究項目均須經由專家小組審核,確保 科學誠信和數據保障達到最高標準。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、表型和 基因組數據。

「協同合作研究平台」在2024年中成功試行,獲得廣泛正面回饋,促成與基因組中心的三間夥伴中心展開新一輪科研合作。平台在2024年12月正式開放予指定合作機構使用,基因組中心隨即與香港大學和香港中文大學展開多項臨床和科研項目,涵蓋先天性心臟病、多囊性腎病、神經系統疾病、主動脈疾病、骨質疏鬆症和RNA研究等領域。

During the year, SRE was further enhanced to support flexibly adding customised datasets in large sizes, allowing researchers to select suitable disease and control datasets for more cohort research or large-scale studies. This implementation has facilitated the efficient sharing and access of substantial datasets, thereby enabling researchers to collaborate more effectively without the constraints of the past file size limitations. HKGI is preparing network enhancements for specific network access on designated SRE machines. These improvements are designed to optimise connectivity and performance, ensuring that researchers can conduct their work more efficiently and advance their research objectives.

Furthermore, improvements were implemented to the system's analytic capabilities. All tool requests submitted by collaborators were reviewed and successfully installed within the environment, ensuring that users can have access to a broader suite of pre-installed bioinformatics and statistical tools. These enhancements streamlined research workflows, reduced setup time, and improved the overall user experience within SRE.

平台在年內更進一步升級,支援靈活添加 大型訂製數據集,讓研究人員可按需要選取 合適的疾病和對照數據,進行群組或大型 研究。此舉有效提升大型數據的共享與存取 效率,突破過往檔案大小的限制,促進更高效 的科研合作。基因組中心亦正為指定「協同 合作研究平台」工作站進行網絡升級,以優化 連接效能和系統表現,確保研究人員可更 順暢推進研究工作。

平台的分析功能也獲提升,所有合作夥伴提交的工具申請均經審批並成功安裝於系統內,用戶現可存取更多內建的生物信息和統計分析工具。這些升級不但簡化研究流程、縮短系統設定時間,更全面提升用戶 體驗。





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

SRE infrastructure expanded from its original four servers to eight, supporting more concurrent research projects. Each server's storage capacity was upgraded from 10TB to 24TB using mixed-use solid-state drives (SSDs), ensuring fast and reliable local storage. This enhancement allowed researchers to handle larger datasets and advanced software tools, enabling deeper analysis for complex projects.

Research is always at the forefront of HKGI's innovation. A crucial step in research workflow is genome curation, essential for interpreting collected genomic data and ensuring the quality and reliability of resulting databases. To advance HKGI's data interpretation capabilities, HKGI developed CURA, a cloud-based system designed to expedite genome curation and bolster research productivity. 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.

In 2024-25, CURA was fully integrated with SRE, enabling users to harness the combined computational and visualisation power of both platforms. The development of CURA progressed successfully through three distinct phases. The first two phases were completed in 2024, introducing robust processing capabilities and enhancing functionalities. These covered five advanced features, namely the Genomiser, semi-automated ACMG classification, HKGI knowledge base, cohort analysis, and long-read data compatibility. These innovations streamline the curation process and allow for comprehensive, accurate interpretation and reporting of clinical sequencing data.

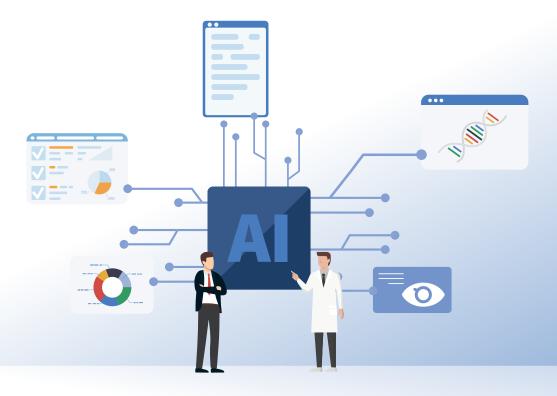
Phase Three of CURA was completed in the first quarter of 2025, focusing on integrating advanced annotation and visualisation tools to support analyses of short-read, long-read, and somatic data. As of mid-2025, the number of cases processed reached 4500, with a consistent weekly throughput of 200 cases. This milestone demonstrated CURA's effectiveness in elevating the breadth and quality of HKGI's clinical genomic analysis.

「協同合作研究平台」的基礎設施亦由原來的四個伺服器擴展至八個,支援更多研究項目同時進行。每個伺服器的儲存容量亦由10TB提升至24TB,採用混合用途固態硬碟(SSDs),確保儲存快速穩定,讓研究人員可處理更大型數據及使用更先進工具,進行更深入複雜的分析。

研究工作一直是基因組中心創新的核心,而 基因組數據整理則是科研流程中不可或缺的 一環,對詮釋基因組數據及確保數據庫質量 至關重要。為提升數據詮釋能力,中心開發 了雲端為本的「基因組數據分析平台」,加快 基因組數據整理流程並提升研究效率。 「基因組數據分析平台」透過將病人數據去 識別化,並連接多個生物數據庫和分析工具, 為用戶提供簡便的中央介面,支援個案詮釋 和基因變異分析。

在 2024-25 年度,「基因組數據分析平台」已全面整合至「協同合作研究平台」,用戶可同時運用兩大平台的運算和圖像化功能。「基因組數據分析平台」的開發分三期進行,首兩期已於 2024 年完成,提升處理效能並加入五項進階功能,包括:Genomiser、半自動化 ACMG分類、基因組中心知識庫、群組分析功能,以及長序列數據兼容性。這些創新功能簡化了數據整理流程,使研究人員可更全面、精準地詮釋和報告臨床測序數據。

「基因組數據分析平台」第三期開發計劃已於2025年首季完成,重點整合先進註釋和圖像化工具,支援短序列、長序列和體細胞數據分析。截至2025年中,系統已處理4,500宗個案,並維持每周約200宗的穩定處理量,充分展現該平台在提升基因組中心臨床數據分析廣度與質量方面的成效。



Adopting Artificial Intelligence to Optimise Research and Analysis Efforts

HKGI is building a private, efficient, and secure artificial intelligence (AI) system using high-performance computers. This configuration allows the Institute to run advanced AI models entirely on-site, ensuring data privacy, accelerated processing, and complete operational control without dependence on external cloud services. The computers are interconnected to facilitate seamless collaboration and equipped with robust storage infrastructure to maintain all data security. By leveraging cutting-edge technology, HKGI has achieved significant speed improvements while tailoring the system to support genomic research. The objective is to establish a scalable, self-contained AI environment that meets the Institute's specific operational needs.

Aligned with global trends, HKGI is adopting Al technologies to enhance genome curation and bioinformatics workflows, improving data analysis, interpretation, and overall operational efficiency. The Institute is actively strengthening its Al readiness through communicating with the Health Bureau, Cyberport, and other Al technology partners to explore practical applications and feasibility studies, ensuring Al adoption delivers measurable efficiency gains across all operational areas.

人工智能 提升效率

基因組中心正利用高性能電腦建構一個獨立、高效且安全的人工智能系統,讓先進的模型可於中心內部全面運行,確保數據私隱、加快處理速度,同時可全面掌控系統運作,無需依賴外部雲端服務。系統中的電腦互相連接,促進無縫協作,並配備強強的儲存設施,確保數據安全。透過應時,並按基因組研究各項目的特定需求度身設計系統,目標是建立一個可擴展、自主可控的人工智能環境,以配合中心的科研工作。

配合全球趨勢,基因組中心積極採用人工智能技術,優化基因組數據整理及生物信息分析流程,提升數據分析、詮釋及整體運作效率。中心亦正與醫務衞生局、數碼港及其他人工智能技術夥伴保持溝通,探索實際應用和進行可行性研究,確保人工智能技術在各個運作範疇均能帶來具體成效。



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



Biobank Unlocks Data Sharing for Supercharged Research

HKGI's infrastructure development during 2024-25 also extended to establishing a comprehensive biobank, facilitating responsible data sharing within the genomic medicine community while supporting diverse research initiatives. A biobank is a biorepository that stores samples for research purposes. The samples collected from HKGP participants contribute to this, creating a rich resource and covering many rare diseases across different medical specialties and cancer types.

A notable achievement of HKGI was the development of a robust biobank inventory system, enabling efficient deposition and tracking of a wide variety of bio-samples. This system ensures effective sample management and traceability throughout all stages of the research process, upholding the highest standards of quality and integrity for future analyses and collaborative studies.

數據共享 加速科研進程

在2024-25年度,基因組中心在基礎設施建設方面亦取得重要進展,包括建立一個全面的生物樣本庫,促進基因組醫學領域的盡責數據共享,並支援多元研究項目。生物樣本庫是指專門儲存研究樣本的生物儲存庫。基因組計劃參加者所提供的樣本涵蓋多種罕見疾病,橫跨不同醫學專科和癌症類型,為樣本庫注入豐富資源。

基因組中心其中一項重要成果是成功建立 一套高效的樣本儲存和管理系統,能有效 存放和追蹤各類生物樣本,確保研究各階段 的樣本管理和可追溯性,為未來的分析和 科研合作提供高質量和高誠信的保障。 Complementing the biobank, HKGI is developing a genome database of Southern Chinese populations that houses clinical information and comprehensive genomic data generated from the biological samples, including whole genome sequencing, long-read sequencing, RNA sequencing, single-cell transcriptomics, and spatial transcriptomics.

Combined with the sequencing data and clinical data captured from HKGI databases, the Biobank facilitates comprehensive data analysis within the SRE. Population-based analyses have become possible through techniques such as Genome-wide Association Studies (GWAS), providing scientists with valuable insights into research topics including pharmacogenomics and creating collaborative opportunities with pharmaceutical companies for clinical trials that benefit Hong Kong citizens.

Looking ahead, the biobank is positioned for substantial growth. HKGI will further enhance its capacity to support groundbreaking genomic research and enable meaningful data sharing within the global scientific community.

Driving Global Impact Through Genomic Innovation

HKGI is making significant strides in advancing genomic research, yielding substantial progress in scientific discovery and practical application. With the broadening scope of research in rare genetic conditions and prevalent common diseases, and collaboration with local and global partners, HKGI is increasing its capacity to address the full spectrum of health challenges in Hong Kong. Consistent innovation in research infrastructure with in-house tools and biobank enhancement is empowering HKGI to accelerate scientific breakthroughs and ultimately translate genomic discoveries into meaningful healthcare solutions. With the publication of findings, insights, and experiences in world-leading scientific journals, HKGI has established itself as a respected contributor to the international genomic medicine community and a driving force for global genomic excellence. The result has improved local patient outcomes and made remarkable advances in precision medicine worldwide.

除生物樣本庫外,基因組中心亦正在建立 一個以華南人口為主的基因組數據庫,整合 臨床資訊和由樣本產生的基因組數據,包括 全基因組測序、長序列測序、RNA測序、 單細胞轉錄組學和空間轉錄組學數據。

結合基因組中心資料庫的測序和臨床數據, 生物樣本庫可於「協同合作研究平台」進行 全面分析。透過全基因組關聯分析等技術, 研究人員可進行人口為本的研究,為科學家 提供藥物基因組學等領域的寶貴見解,並 有機會促成與製藥公司合作開展臨床試驗, 造福香港市民。

展望未來,從生物樣本庫帶來的的數據量 將迎來顯著增長,基因組中心將進一步提升 其能力,支援突破性的基因組研究,並促進 全球科研社群進行具意義的數據共享。

啟迪創新 深化影響

基因組中心在推動基因組研究方面持續取得重大進展,於科研發現及臨床應用層面均實務 。隨着研究範疇涵蓋更多罕見遺傳病和常見疾病,並加強與本地和國際夥健的合作,中心正逐步提升應對香港發展,也括開發內部工具和加強生物樣本庫,也括開發內部工具和加強生物樣本庫,也抵力。透過持續提升研究基庫,與轉化為具實質意義的醫療方案。基基研究與中心不斷在全球頂尖科學期刊上發表,現已成為國際基因組醫學界備受尊重的貢獻者,並在推動全球是與出來與發展方面發揮關鍵作用。這些努力不與發展方面發揮關鍵作用。這些努力不夠發展方面發揮關鍵作用。這些努力不夠不過,更推動全球精準醫學邁向新里程。



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

To develop the future of the healthcare industry, it is essential to cultivate and nurture talent and transform them into the next generation of genomic specialists and innovators. Hong Kong Genome Institute (HKGI) expanded its comprehensive talent development strategy to nurture a robust pipeline of genetics and genomics talent for Hong Kong in 2024-25. HKGI engages a diverse audience, from secondary school students to seasoned healthcare professionals. Through partnerships, knowledge exchange, and capacity-building initiatives, HKGI brings current practitioners and future generations together to advance precision medicine, delivering improved health outcomes for the community.

Bringing Talent Together

Genomic medicine is a wide field that requires expertise from a variety of professionals. While scientists, clinical geneticists, bioinformaticians, and genome curators unlock genomics' potential, genetic counsellors help patients and families understand complex genetic information and its implications for health. A vast network of practitioners – clinicians, nurses, researchers, medical technologists, laboratory professionals, and a cast of many more – transform genomic findings into actionable healthcare solutions. Building a robust talent pool and facilitating cross-specialty collaboration are fundamental to sustaining and advancing genomic medicine.

In 2024-25, HKGI's multi-disciplinary team (MDT) meetings continued to promote knowledge exchanges and professional development. Clinicians and healthcare professionals made in-depth case discussions, shared expertise, examined cutting-edge research findings, and collaborated on personalised treatment strategies that improved clinical decision-making.

During the year, HKGI hosted 15 MDT meetings with the three partnering centres – Hong Kong Children's Hospital, Prince of Wales Hospital, and Queen Mary Hospital. Participant feedback confirmed that these meetings were invaluable for continuing professional education and training, keeping them stay updated on the latest developments in genomic medicine while fostering meaningful professional networks across institutions.

Knowledge Advancement with Advocates Delivers Incredible Results

HKGI established a network of "genomic advocates" to promote genomic medicine knowledge and its application in clinical settings. Dedicated individuals from diverse clinical specialties and research projects in public hospitals serve as ambassadors, sharing knowledge and insights gained from Hong Kong Genome Project (HKGP) with colleagues and partners.

作育英才,培育具創新視野的新一代基因組學專才,對促進未來醫療發展至關重要。香港基因組中心(基因組中心)在2024-25年度拓展全方位的人才培育策略,為香港遺傳學和基因組學培育穩健的人才梯隊。基因組中心的培育對象多元化,涵蓋中學生乃至資深醫護專業人員。通過夥伴合作、知識交流和能力發展計劃,基因組中心匯聚醫護同價與新一代專才,共同推動精準醫學發展,讓社會享有更優質的健康成效。

精英匯聚 群策群力

基因組醫學範疇廣泛,需匯聚各方專業人才的專業知識。科學家、臨床遺傳學家、生物信息學家和基因組數據分析員致力發揮基因組學的潛力,遺傳輔導員則協助病人和家屬理解複雜的遺傳學資訊及其對健康的影響;醫生、護士、研究人員、醫務化驗師、實驗室專業人員及其他專才組成龐大的醫護網絡,將基因組研究成果轉化為切實可行的醫療方案。建立穩健的人才庫並促進跨專業協作,是推動基因組醫學持續發展的根基。

在 2024-25 年度,基因組中心的跨專業團隊 會議持續促進知識交流和專業發展。醫生和 不同醫護專業人員深入探討病例、分享專業 知識、審視嶄新研究成果,共同制訂個人化 治療策略,作出更理想的臨床決策。

年內,基因組中心與香港兒童醫院、威爾斯親王醫院和瑪麗醫院三間夥伴中心共舉行了 15場跨專業團隊會議。與會者一致認同, 這些會議對持續專業進修和培訓極具價值, 不僅有助掌握基因組醫學的最新發展,亦 促進機構之間建立意義重大的專業網絡。

啟迪新知 成效卓著

基因組中心設立了「基因組學倡導者」網絡,推廣基因組醫學知識及其臨床應用。來自公立醫院不同臨床專科和研究項目的專業人員擔任推廣大使,積極和同事及合作夥伴分享從香港基因組計劃(基因組計劃)中獲得的知識與見解。



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

During 2024-25, more than 15 sharing sessions and meetings were held. These engagements enabled HKGI to form partnerships with university research groups, including the ophthalmology, adult nephrology, osteoporosis, and brain tumour specialties research groups at the University of Hong Kong (HKU), as well as the paediatric and adult leukaemia, young-onset diabetes, aortic dissection, and clinical oncology research groups at the Chinese University of Hong Kong (CUHK).

Medical Professionals Reinforce Essential Training

HKGI organised over 50 thematic training sessions, talks, and seminars for medical professionals throughout the year, augmenting the workforce's knowledge base, promoting genomic medicine's long-term development, and expanding overall engagement.

One key collaborative initiative of HKGI involved targeted genome curation training for CUHK trainees. The session featured the sharing of expertise in variant curation and integration of genetic and clinical evidence, with in-depth examination of complex patient cases from CUHK's diabetes cohort. Another key collaborative initiative of HKGI involved specialised training on next-generation sequencing for paediatric doctors at Queen Mary Hospital, enhancing their ability to interpret test results and apply emerging genomic technologies.

在2024-25年度,基因組中心舉行了逾15場分享會和會議,促成基因組中心與大學研究小組建立夥伴關係,包括香港大學(港大)眼科、成人腎科、骨質疏鬆症和腦腫瘤研究小組,以及香港中文大學(中大)成人及兒童白血病、早發糖尿病、主動脈撕裂和臨床腫瘤科研究小組。

醫護輩出 強化培訓

年內,基因組中心為醫護專業人員舉辦了超過50場專題培訓、講座和研討會,加強從業員的知識基礎,促進基因組醫學的長遠發展,並擴大業界參與。

基因組中心重點項目之一,是為中大學員 提供基因組數據分析的專項培訓,內容包括 分享基因變異數據分析的專業知識、遺傳學 與臨床實證的融合,並深入剖析中大糖尿病 群組的複雜病例。中心另一重點合作項目, 是為瑪麗醫院的兒科醫生提供專門培訓, 聚焦新一代測序技術,提升他們詮釋測試 結果和應用新興基因組技術的能力。



HKGI executives and subject-matter experts delivered guest lectures and shared their expertise with postgraduate students and medical professionals at the invitation of distinguished institutions and professional bodies. These discussions covered HKGP implementation progress, evolution of genomic medicine in Hong Kong, introduction to the genetic counselling profession, and the role of bioinformatics in genetics and genomics in modern practice.

Collectively, these initiatives have significantly enhanced the knowledge base of healthcare professionals and contributed to the cultivation of a workforce proficient in genomic medicine, thereby underpinning the long-term development of this critical field in Hong Kong.

Genetic Counselling Goes from Strength to Strength

Genetic counsellors are essential bridges in the patient healthcare journey, fostering liaison between patients, clinicians, and laboratory technologists. These specialised practitioners provide crucial guidance and support for patients and their families in navigating complex genetic and genomic information, empowering them to make well-informed, life-changing decisions with confidence and understanding.

With the substantial support from the Health Bureau of the HKSAR Government, HKGI established the Hong Kong Genetic Counselling Practice Consortium (GCC) in 2022. By developing a comprehensive framework for genetic counselling practice and advancing professional standards in Hong Kong, GCC ensures that patients can receive high-quality care and support.

In 2024-25, GCC spearheaded professional development and standardisation of genetic counselling practices in Hong Kong, conducting extensive reviews of global training programmes and credentialing systems, as well as local training courses. These efforts provided valuable international perspectives to inform curriculum enhancement and strengthen educational standards tailored to Hong Kong's healthcare system and workforce. GCC also reviewed career pathways for genetic counsellors within the Hospital Authority (HA) system, while exploring its broader role in raising public awareness and understanding of genomics.

Following GCC's endorsement of the bilingual Scope of Practice and Code of Ethics for Genetic Counsellors in Hong Kong in August 2024, HKGI worked closely with HA to disseminate this foundational guidance document to all genetic counsellors and their supervisors by Q4 2024. HA's Human Resources Division incorporated these professional standards into recruitment and performance assessment frameworks, establishing a solid basis for consistent, high-quality genetic counselling practice throughout Hong Kong's healthcare system.

基因組中心的管理層和專題專家應多間知名機構及專業團體邀請,為研究生和醫護專業人員舉行客席講座,分享專業知識。講座內容涵蓋基因組計劃的進度、基因組醫學在香港的發展進程、遺傳輔導專業簡介,以及生物信息學在遺傳學與基因組學實踐中扮演的角色。

各項活動相輔相成,顯著提升醫護專業人員 的知識,培育出精通基因組醫學的專業 團隊,為香港基因組醫學的長遠發展奠定 堅實基礎。

遺傳輔導 日益壯大

遺傳輔導員在病人求醫路上並肩同行,擔當病人、醫護人員與實驗室醫務化驗師之間的重要溝通橋樑。他們為病人及其家屬提供專業輔導和支援,講解複雜的遺傳學和基因組學資訊,協助他們充分了解情況,並作出知情決定,為自己的人生掌舵。

在特區政府醫務衞生局大力支持下,基因組中心在2022年成立了「香港遺傳輔導專業發展聯席」(聯席),為遺傳輔導實務範圍制訂全面框架,並提升香港專業標準,確保病人獲得優質護理和支援。

在2024-25年度,聯席主導香港遺傳輔導實務的專業發展和標準化,廣泛審視全球的培訓計劃和資歷認證制度,同時檢討本地培訓課程。相關工作為完善課程內容提供寶貴的國際視野,強化符合香港醫療體系和人力需求的培訓標準。聯席亦審視了遺傳輔導員在醫院管理局(醫管局)體系內的職業路徑,並探索他們在輔導以外的角色,有助提高公眾對基因組學的認知與理解。

聯席在2024年8月正式通過遺傳輔導員雙語「實務規範」和「倫理守則」後,基因組中心隨即與醫管局緊密合作,在2024年第四季前將這份基礎指引文件送達所有遺傳輔導員及其主管。醫管局人力資源部已將相關專業標準納入招聘和績效評估框架,為全港醫療體系保持一致且高質素的遺傳輔導實務標準奠定穩固根基。



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

GENE Club Nurtures Genomic Knowledge

Aside from strengthening the genomic profession, HKGI is dedicated to bringing like-minded genomic professionals together to foster collaboration and advance collective knowledge. HKGI launched a journal club called GENE Club – an acronym for "Genomic Exchange for Nurturing Excellence". Every four to six weeks, the Club gathers clinicians, scientists, researchers, experts, academics, and emerging talent from the medical, scientific, and genomic fields to discuss insights and industry developments.

At the inaugural session, Dr Jack Yao, Chief Scientist of Al for Life Sciences Lab of Tencent Healthcare, was invited to speak about the latest trends and practices in applying artificial intelligence (Al) to genomic data analysis. In the second session, the Club hosted an inspiring presentation by Dr Lai Hei-ming, CEO and Founder of Illumos and a clinician-scientist-entrepreneur working on next-generation 3D tissue diagnostics. Dr Lai discussed his groundbreaking medical invention for precision phenotyping and his entrepreneurial journey, guided by a "nothing is impossible, just learn it" philosophy.

Through a series of thematic seminars, HKGI is committed to facilitating exchanges of knowledge and experience on various thought-provoking topics, building the talent pool and accelerating the development of genetics and genomics in Hong Kong.

匯研講堂 傳遞知識

除了加強基因組學專業知識外,基因組中心亦致力匯聚志同道合的基因組學人才,促進協作與知識交流。基因組中心創立專業知識交流會「基因組醫學匯研講堂」(GENE Club),全寫為「Genomic Exchange for Nurturing Excellence」。中心每隔四至六周請來醫學、科學及基因組學領域的醫生、科學家、研究人員、專家、學者和新晉人才,討論行業相關見解和發展趨勢。

首場講堂邀請了騰訊健康生命科學實驗室 人工智能醫療首席科學家姚建華博士,深入 剖析人工智能應用於基因組數據分析的 最新趨勢與實踐。第二場由Illumos創辦人 兼行政總裁黎曦明博士主講。黎博士身 醫生、科學家與企業家三職,致力研發新 一代三維(3D)組織顯影技術。他在席間探討 其在精準表型分析方面的開創性醫學發明, 並分享在創業路上秉持「凡事皆可能,只要 學就行」的信念。

基因組中心通過一系列專題研討會,積極 促進多元主題的知識與經驗交流,藉此建構 人才庫,加速香港遺傳學和基因組學發展。



Scan the QR Code to view the GENE Club seminars 掃描二維碼以觀看「基因組醫學匯研講堂」





Distinguished Scholars Drive Vital Global Exchange

While insights from local experts inform best practices, learning from international counterparts is equally crucial for building a talent pool that can foster – innovation and accelerate – the growth and development of genomic medicine. HKGI actively invited globally renowned scientists, clinicians, and researchers to deliver impactful lectures. These engagements not only enriched the local professional landscape with diverse perspectives and cutting-edge insights, raising genomic medicine practice standards, but also broadened HKGI's international connections.

A key initiative was the launch of the Distinguished Scholar Series in September 2024. In partnership with the Asia Pacific Society of Human Genetics (APSHG), HKGI co-hosts the "HKGI-APSHG Distinguished Scholar Series", providing a platform for meaningful interactions between local healthcare professionals and leading global experts. This series aims not only to disseminate the most recent knowledge but also to inspire innovative approaches to genomic medicine, fostering a culture of continuous learning and professional growth.

Throughout the year, four online lectures were conducted, attracting nearly 300 participants, with YouTube viewership exceeding 40,000 as of June 2025. These lectures provided an invaluable opportunity for local professionals to engage with global leaders in genomic medicine, fostering an environment of continuous learning and professional growth. A range of pertinent topics was covered during these sessions:

傑出學者 促進國際交流

本地專家的見解固然有助確立最佳實務 準則,汲取國際同儕的經驗亦同樣關鍵。 兩者並重,方能構建促進創新、加速基因組 醫學增長與發展的人才庫。基因組中心積極 邀請全球知名科學家、醫生和研究人員,舉辦 具啟發性的講座。這類國際交流活動不僅 帶來多元視野和尖端見解,豐富本地專業 的發展概況,提高基因組醫學的實務標準, 更有助拓展基因組中心的國際網絡。

重點項目之一是2024年9月推出的「傑出學者講座系列」。基因組中心與亞太人類遺傳學會(APSHG)合作,共同主辦「HKGI-APSHG傑出學者講座系列」,為本地醫護專業人員與全球頂尖專家搭建深入交流的平台。此講座系列不僅致力傳播行業前沿知識,更啟發基因組醫學創新思維,培養持續學習與專業發展的文化。

「傑出學者講座系列」於年內舉辦共四次線上講座,吸引近300名參加者觀看直播。截至2025年6月,YouTube頻道觀看人次已突破四萬。這些講座為本地專業人員提供與全球基因組醫學領袖交流的寶貴機會,營造出持續學習與專業發展的環境。講座涵蓋多項相關主題:



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

Distinguished Scholar 傑出學者	Topic 主題
 Professor Heidi Rehm Chief Genomics Officer, Center for Genomic Medicine and Department of Medicine Massachusetts General Hospital Co-Director (Program in Medical and Population Genetics) and Chief Medical Officer (Broad Clinical Laboratories), Broad Institute of MIT and Harvard 	Advancing Genomic Medicine through Global Collaboration 國際協作 推動基因組醫學
 Professor Kiran Musunuru Professor of Cardiovascular Medicine and Genetics Director (Genetic and Epigenetic Origins of Disease Program), Cardiovascular Institute Scientific Director (Center for Inherited Cardiovascular Disease), Perelman School of Medicine, University of Pennsylvania 	Moving Towards Genome-editing Therapies 推動基因編輯療法
 Professor Zornitza Stark Clinical Geneticist, Consultant (Paediatric Genetics), Victorian Clinical Genetics Services Clinical Implementation Lead, Australian Genomics 	Accelerating Rare Disease Diagnosis: From Rapid Testing to Genomic Newborn Screening 加快診斷罕見病:從快速測序到 新生嬰兒基因篩查
 Professor Serena Nik-Zainal NIHR Research Professor Professor of Genomic Medicine & Bioinformatics, Early Cancer Institute and Department of Medical Genetics, University of Cambridge Honorary Consultant in Clinical Genetics, Cambridge University Hospitals NHS Trust 	Mutational Signature Analysis in Cancer Whole-genome 癌症全基因組的突變特徵分析



Scan the QR Code to view the "Distinguished Scholar Series" 掃描二維碼以觀看「傑出學者講座系列」



These initiatives underscore HKGI's unwavering commitment to fostering a culture of continuous learning and collaboration within the field of genomic medicine. By engaging with leading experts globally, HKGI not only enhances the professional development of local practitioners but also contributes significantly to the advancement of genomic medicine in Hong Kong, positioning the region as a significant contributor in this vital area of healthcare.

這些項目彰顯基因組中心堅定不移的信念, 推廣持續進修的文化,促進基因組醫學的 業界協作。透過與全球頂尖專家交流,基因 組中心不僅促進本地醫護人員的專業發展, 更為香港基因組醫學的進步作出重大貢獻, 鞏固香港在全球醫療版圖中的重要地位。

Genomic Talent Soars Through Fundamental Partnerships

HKGI's commitment to talent development is constantly demonstrated through strategic partnerships with accredited professional bodies, providing research funding as well as local and overseas training grants.

HKGI has partnered with the Hong Kong Academy of Medicine (HKAM) to offer the "HKAM-HKGI Research Excellence Grants in Genomic Medicine" for young fellows and higher trainees. During 2024-25, three projects were awarded grants. They concerned investigation of the disease pathogenesis of childhood steroid-resistant nephrotic syndrome through spatially resolved transcriptome signatures of kidney tissue; personalised drug prescription in kidney transplant recipients utilising pharmacogenetics panels; and identification of genomic risk factors of atypical femoral fractures through whole genome sequencing, as well as development of fracture risk assessment tools.

夥伴合作 培育人才

基因組中心一向重視人才培育,與專業機構 建立策略性夥伴關係,提供研究經費和本地 及海外進修獎學金。

基因組中心與香港醫學專科學院攜手推出「基因組醫學卓越研究獎」,鼓勵年青院士和專科培訓醫生投身基因組研究。在2024-25年度,共有三項研究項目獲頒資助,分別為通過腎臟組織的空間解析轉錄組特徵,探究兒童類固醇抗性腎病症候群的致病機制;運用藥物基因組學檢測,為腎臟移植受贈者處方個人化治療藥物;通過全基因組測序,並開發骨折風險評估工具。



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

Through these grants and the prestigious recognition they provide, HKGI aims to attract more young clinicians to take part in genomic research. This initiative not only provides valuable opportunities for awardees to advance their professional development, but also inspires exciting breakthroughs in technology and clinical applications that benefit the broader healthcare community.

基因組中心通過提供資助,向得獎者表達 讚譽和肯定,吸引更多年青醫生投身基因組 學研究。此舉不僅為得獎者提供促進專業 發展的寶貴機會,更啟發技術創新與臨床 應用突破, 造福整個醫療界。

HKGI also established collaboration with the Hong Kong College of Physicians (HKCP). The "HKCP-HKGI Overseas Training Scholarship and Training Grant for Excellence in Genomic Medicine" encourages fellows and trainees to pursue continuous professional development. Successful applicants were awarded substantial support for overseas training in the United Kingdom or placements at HKGI.

基因組中心亦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」,鼓勵院士 和培訓醫生持續進修和發展專業。獲選者在 獎學金的支持下,可負笈英國接受海外培訓, 或於基因組中心實習。

The financial support and prestige provided by these awards have incentivised more young clinicians to participate in genomic research, offering valuable opportunities for professional growth and propelling technological breakthroughs and clinical applications that benefit patients and the community. With the intake for the 2025-26 commenced in Q2 2025, applications from outstanding candidates continue to expand the field's horizons.

這些獎項所提供的資助和學術聲望,成功激勵更多年青醫生投身基因組學研究,不僅為他們提供發展專業的寶貴機會,更推動技術突破和臨床應用,惠及病人和社會大眾。2025-26年度的進修獎學金已於2025年第二季接受申請,吸引更多優秀人才藉以不斷拓展基因組學的發展前景。



Establishing a Career Ladder for Professional Development

HKGI's mission to advance genomic science and genomic medicine in Hong Kong is underpinned by its most valuable asset – staff members. HKGI is committed to attracting, developing, and retaining the specialised, multi-disciplinary talent essential to fulfilling this mission. The cultivation of talent represents a core strategic priority, ensuring the establishment of a sustainable and expert workforce capable of driving innovation and excellence.

To attract and retain leading talent in an increasingly competitive landscape, HKGI has established a robust framework for career advancement. Since 2022, career progression pathways have been benchmarked against public sector standards to ensure competitive remuneration packages and transparent career development opportunities. In addition to annual leave entitlements, new family-friendly leave benefits were introduced to emphasise commitment to staff well-being and work-life balance. These measures contribute to positioning HKGI as a premier employer in the field of genomics and attracting top-tier professionals.

HKGI also fosters a culture of continuous professional development, empowering staff to advance their careers through lifelong learning. Professional development opportunities, ranging from comprehensive in-house training in genome curation to specialised programmes like Project Management Professional qualification, are strategically designed to build the specific competencies required for career progression, ensuring HKGI's workforce stays at the forefront of this rapidly advancing field.

Through this multi-faceted approach that encompasses well-structured career ladders, competitive remuneration, professional development opportunities, and forward-looking talent management policies, HKGI is building a skilled workforce, poised to propel genomic science and realise the transformative potential of genomics medicine in Hong Kong.

Igniting Genomic Medicine for School Learning

Beyond supporting established medical professionals, HKGI is committed to inspiring the younger generation, including secondary school and university students, to raise awareness, spark passion, and cultivate a sustainable pipeline of genomic talent for Hong Kong.

職涯階梯 發展專業

員工是基因組中心最珍貴的資產。全賴全體 員工的努力,中心方可肩負推動香港基因 組科學與基因組醫學發展的使命。因此, 吸引、培育和挽留人才是中心一貫的核心 策略。中心致力建立一支可持續發展的專家 隊伍,驅動創新,精益求精。

在競爭日益激烈的環境中,基因組中心透過完善的職涯晉升架構,吸引並留住頂尖人才。自2022年起,職涯晉升階梯按公營機構標準作為基準,確保薪酬待遇具競爭力,並提供清晰透明的發展機會。除年假外,基因組中心更推出家庭友善假期,彰顯工福祉和平衡生活與工作安排的重視。相關措施有助基因組中心成為基因組學領域的首選僱主,吸引頂尖專業人才。

基因組中心亦致力營造促進持續專業發展的 文化,鼓勵員工終身學習,推進職涯發展。 中心提供的專業培訓涵蓋範疇廣泛,包括 基因組數據分析的全面內部培訓,以及項目 管理專業人員(PMP)認證等專項課程,旨在 培養員工擁有職業發展所需的專業能力, 確保團隊在基因組學一日千里的發展中保持 領先優勢。

透過完善的職涯晉升階梯、具競爭力的薪酬 待遇、多元的專業發展機會以及具前瞻性 的人才管理政策,基因組中心正致力打造一支 精鋭團隊,推動基因組科學的持續發展,並 實現香港基因組醫學的變革潛力。

校園深耕 燃點熱忱

基因組中心不僅支援現職醫護專業人員, 更積極啟發中學和大學生等年青一代,提升 他們對基因組學的認知,激發他們對基因組 學的熱情,為香港建立可持續發展的基因組 學人才梯隊。



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



In 2024-25, HKGI worked with major academic institutions to integrate genomic knowledge into nursing and healthcare curricula. Strategic collaboration meetings were held with CUHK's Nethersole School of Nursing to accelerate the development and implementation of genomics-related courses within its Master of Nursing Programme.

HKGI partnered with the School of Nursing and Health Sciences at the Hong Kong Metropolitan University and the Hong Kong University of Science and Technology (HKUST) to catalyse the younger generation, cultivating a new wave of talent poised to drive healthcare innovation and excellence.

These collaborative initiatives demonstrate HKGI's strategic approach to building genomic capabilities across educational institutions, ensuring a robust foundation for the future advancement of genomic medicine in Hong Kong's healthcare system.

Academic Excellence Powered by Vital Scholarships

Understanding the powerful impact of recognition on academic development, HKGI collaborated with the Faculties of Medicine at CUHK and the University of Hong Kong (HKU) to provide scholarships for undergraduate and postgraduate students. Since 2022-23, HKGI has awarded scholarships to 17 students.

在2024-25年度,基因組中心與本地大專院校合作,將基因組學知識融入護理和醫療課程中。基因組中心與中大那打素護理學院舉行了策略性合作會議,加快基因組學相關課程在學院的護理碩士課程的發展及融合。

基因組中心亦與香港都會大學護理及健康 學院及香港科技大學(科大)攜手合作,致力 激發年青一代的學習熱誠,培育新世代 人才,引領醫療創新和卓越發展。

這些合作項目彰顯基因組中心的策略方針, 通過在各大院校培養基因組學人才,為基因 組醫學在本港醫療體系的未來發展奠下堅實 基礎。

獎項表彰 推動學術

基因組中心深明表彰對推動學術發展的重要性,因此與中大及港大醫學院合作,為本科生和研究生設立獎學金。自2022-23年度起,基因組中心已向17名學生頒發獎學金。

These initiatives recognise students who excel in genomic medicine and related sciences, encouraging further exploration of this exciting field. At CUHK, awards have been given to the top student in the Master of Science in Genomics & Bioinformatics, the best pre-clinical medical student, and for outstanding case studies and genomic projects. At HKU, outstanding Bachelor of Medicine and Bachelor of Surgery (MBBS) students received scholarships, while undergraduate and postgraduate students with exceptional research theses were awarded Genomic Science Prizes.

Following the success of these programmes, HKGI extended similar academic awards to the Hong Kong Polytechnic University (PolyU) in October 2024, offering scholarship prizes to outstanding students in genomic-related disciplines.

Through these initiatives, HKGI demonstrates its commitment to fostering academic excellence and nurturing the next generation of professionals in genomic medicine and related disciplines.

Bringing the Next Generation into a New Bold Era

Outreach is a core pillar of HKGI's efforts to develop future talent. During the year, HKGI attended career fairs and hosted visits to instigate the next generation's understanding of HKGI's work and Hong Kong's latest genomic medicine developments.

In March 2025, HKGI participated in the Career Fair organised by the Faculty of Science of CUHK. This event provided an excellent opportunity for HKGI to connect with students, introduce them to exciting career opportunities in genomic medicine, and showcase its impactful work. Students demonstrated genuine curiosity and passion, affirming the importance of youth engagement in healthcare innovation in Hong Kong.

HKGI's outreach efforts produced remarkable results. In 2024-25, a total of 8 career talks and visits were organised for secondary school and university students, these included sharing sessions hosted for aspiring clinicians within HKU's MBBS programme; students pursuing the Bachelor of Science in Bioinformatics; and dedicated student groups such as Hong Kong Medical Genetics and Genomics Student Society (HKGeneSoc) of CUHK and the Biomedical Sciences Society of HKU.

此等獎學金計劃旨在嘉許在基因組醫學及科學相關學科表現卓越的學生,鼓勵他們進一步探索此充滿潛力的領域。中大的獲獎者包括基因組學和生物信息學理學碩士課程的頂尖學生、成績優異的臨床前醫科生,以及在病例研究和基因組學項目表現傑出的學生。港大向表現出色的內外全科醫學士學生頒發獎學金,並為發表卓越研究論文的本科生和研究生授予「基因組科學獎」。

鑑於以上計劃的成功,基因組中心在2024年 10月將同類學術獎項擴展至香港理工大學, 嘉許在基因組相關學科表現卓越的學生。

通過這些獎學金計劃,基因組中心充分展現 支持學術發展的決心,致力培育基因組醫學 及相關領域的新一代專業人才。

引領新一代 邁向新時代

外展活動是基因組中心培育未來棟樑的核心 支柱。年內,中心積極參與職業博覽,並舉辦 參觀活動,讓新一代認識基因組中心的工作 和香港基因組醫學的最新發展。

2025年3月,基因組中心參與由中大理學院舉辦的職業博覽。是次活動為中心提供絕佳機會,與學生深入交流,向他們介紹基因組醫學的就業前景,並展示中心的工作成果。同學們反應熱烈,展現濃厚興趣與熱情,印證青年參與對推動本地醫療創新的重要性。

基因組中心的外展工作成果斐然。在 2024-25年度,中心共舉辦八場職業講座和參觀活動,對象包括港大內外全科醫學士課程的學生、生物信息學理學士學生,以及中大香港遺傳學學生協會及港大生物醫學學會等學生組織。



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

A particularly memorable event took place in May 2025, with HKGI hosting over 30 secondary school students and mentors from the HKSAR Government's Strive and Rise Programme. Professor Herbert Chia Pun-kok, an HKGI board member and programme mentor, captivated students with his presentation on how cutting-edge technologies, including AI and big data, are revolutionising healthcare delivery. The students were equally fascinated by the medical innovations presented by HKGI's CEO and CMSO, marvelling at the transformative power of sequencing technologies in diagnosing diseases, personalising treatments, and enhancing health outcomes for HKGP participants and the public.

The students also toured HKGI's Genomic Laboratory, where they witnessed state-of-the-art sequencing equipment and technological applications in action. This experience not only solidified their understanding but also inspired students to pursue careers in the rapidly evolving field of genomic medicine.

Internships Inspire Future Leaders

HKGI continued to offer its popular internship and attachment programmes, providing immersive, hands-on learning experiences for students interested in genomics and healthcare innovation.

In the summer of 2025, HKGI welcomed 14 secondary school and university students from diverse academic disciplines, including medicine, bioinformatics, communication, finance, IT and other fields, providing them with early exposure to career opportunities in genetics and genomics. These bright young minds came from prestigious local universities, including HKU, CUHK, HKUST, and PolyU, as well as international institutions such as the Imperial College London, Stanford University, University College London and the University of Manchester.

By working alongside HKGI colleagues, students deepened their understanding of genomic medicine and gained valuable insights into the diverse roles available in this dynamic and evolving field. Many expressed a keen interest in the subject and a strong desire to contribute to HKGI's meaningful work.

2025年5月舉行的一場活動尤為令人印象深刻,基因組中心接待了特區政府推行的「共創明『Teen』計劃」的30多名中學生及友師。基因組中心董事局成員兼計劃導師車品覺教授生動闡釋了人工智能和大數據等尖端科技如何革新醫療服務,令同學們深受啟發。中心行政總裁及首席醫務及科學總監所分享的醫學創新成果引發熱烈迴響,同學們對於測序技術在診斷疾病、個人化治療,以及提升基因組計劃參加者乃至公眾健康的變革力量表示驚嘆。

同學們亦參觀了基因組中心的基因組實驗室,親睹先進的測序設備和技術應用的實際運作。此經驗不僅加深學生對基因組醫學的理解,更激發其投身於此快速發展的領域的志向。

實習啟迪 未來領袖

基因組中心持續推行廣受好評的實習和體驗計劃,為有志投身基因組學和醫療創新的學生,提供實戰機會。

在2025年暑假,中心取錄了14名中學和大學生,他們修讀醫學、生物信息學、傳訊、金融、資訊科技等不同學科,以讓他們及早了解遺傳學和基因組學的職業發展機會。這批優秀青年來自港大、中大、科大、理大等本地頂尖學府,以及倫敦帝國學院、史丹福大學、倫敦大學學院、曼徹斯特大學等國際知名院校。

同學們與基因組中心同仁並肩工作,不僅 深化對基因組醫學的理解,更能洞悉這個 機遇處處、發展迅速的領域所提供的多元化 職涯路徑。同學們均展現對基因組醫學的 濃厚興趣,並熱切期望為基因組中心意義 深遠的工作貢獻所長。

Talent Development Knows No Bounds

Young people, innovation, and talent represent the foundation for a promising future for genomic medicine in Hong Kong and the region. HKGI's comprehensive talent development strategy is advancing genomic expertise across the healthcare system through continuous professional development, strategic partnerships with academic institutions and professional bodies, and knowledge exchange initiatives. The efforts are cultivating a skilled workforce capable of harnessing and applying genomic medicine at every level of healthcare delivery while establishing clear career pathways that inspire the next generation.

HKGI's coordinated initiatives foster a robust ecosystem for the advancement of genomic medicine in Hong Kong, ensuring that both current practitioners and future generations possess the expertise necessary to harness the transformative potential of genomic medicine. Through stakeholder collaboration, professional development support, and youth engagement, HKGI is laying the groundwork for a healthcare system where precision medicine is seamlessly integrated into patient care, ultimately delivering improved health outcomes for all Hong Kong residents.

人才培育 潛能無限

青年、創新與人才無疑是香港乃至區內基因 組醫學蓬勃發展的基石。基因組中心的全 方位人才培育策略,透過持續專業發展、與 各大院校和權威機構建立策略性夥伴關係, 並舉行知識交流活動,提升整個醫療體系的 基因組醫學知識水平。這些努力旨在培育出 專業團隊,能在醫療服務各個層面靈活應用 基因組醫學,並開闢清晰的事業路向,激勵 新一代投身此領域。

基因組中心統籌協調各項計劃,營造強健的生態系統,促進香港基因組醫學發展,確保現職醫護人員與未來人才掌握專業知識,以充分發揮基因組醫學的變革潛力。 基因組中心與各持份者通力合作,提供專業發展支援,鼓勵青年參與,為醫療體系奠下根基,使精準醫學與病人護理無縫融合,最終為全港市民帶來更優質的健康成果。





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

Engaging the public and various stakeholders to deepen their understanding of genetics and genomics is essential for unlocking genomic medicine's vast potential. During 2024-25, Hong Kong Genome Institute (HKGI) implemented a wide range of outreach initiatives to connect with the wider community. From forging relationships with patients and students to strengthening its presence in the mass media and across local and international professional communities, HKGI raised public awareness of genomic medicine and sparked meaningful conversations about its significance and applications, advancing HKGI's commitment to making genomic medicine accessible to all.

讓公眾和各界持份者更深入理解遺傳學和基因組學,對充分發揮基因組醫學的龐大發展潛力至關重要。於2024-25年度,香港基因組中心(基因組中心)舉辦了一系列外展活動,積極聯繫社會各界。中心不但與病人和學生建立緊密聯繫,亦積極善用媒體影響力,加強本地與國際專業社群的宣傳。各項力,加強本地與國際專業社群的宣傳。各項學措不但令公眾對基因組醫學有更深入了解,亦引起社會各界對其重要性與應用展開討論,實現「普及基因組醫學,共享健康福樂」的願景。

Building Unshakeable Bonds with Patients

Patients and their families are at the heart of HKGI's mission. Their insights and experiences are invaluable in shaping innovations that deliver meaningful benefits. To promote the Hong Kong Genome Project (HKGP) and disseminate genomic medicine knowledge among patients, HKGI has collaborated closely with the Hospital Authority and harnessed its networks for patient engagement and education.

During the year, HKGI Chief Executive Officer (CEO) Dr Lo Su-vui and Chief Medical and Scientific Officer (CMSO) Dr Brian Chung participated in a Patient Support Group Meeting organised by the Queen Mary Hospital, introducing to patients and representatives of patient groups details of HKGP, genomic medicine applications, and potential benefits to patients and their families.

聯繫病人 締結信任

基因組中心矢志服務病人及其家屬,他們的 見解和經驗對於塑造能帶來實質效益的創新 成果至關重要。為推廣香港基因組計劃(基因 組計劃),並向病人傳播基因組醫學知識, 基因組中心與醫院管理局緊密合作,善用其 醫院網絡,加強對病人的溝通和教育。

本年度,基因組中心行政總裁羅思偉醫生 與首席醫務及科學總監鍾侃言醫生參與了由 瑪麗醫院舉辦的病人互助組織會議,向病人 及相關團體代表介紹基因組計劃的詳情、 基因組醫學的應用,以及為病人及其家屬 帶來的潛在裨益。





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HKGI also strengthened connections with the rare disease community, whose members often experience firsthand the transformative potential of genomic medicine in bringing hope and possibilities to those living with rare conditions. In 2024-25, HKGI participated in the 10th Anniversary Gala Dinner of Rare Diseases Hong Kong in November 2024. HKGI experts actively supported educational initiatives organised by specific patient groups, including appearing on "The Rare Encounters" podcast series co-hosted by the Hong Kong Mucopolysaccharidoses and Rare Diseases Mutual Aid Group and the Hong Kong Medical Genetics and Genomics Student Society.

During the podcast, CMSO shared HKGP updates and discussed genomic medicine's role in enhancing rare disease care through patient cases, clinical insights, and the application of advanced medical technologies such as artificial intelligence (AI). Drawing from his extensive experience in genetics and genomics, he also illustrated how collaborative efforts with partners have brought hope and life-changing impacts to patients and their families.

HKGI fosters trust and support from patients through effective communication. One of the Institute's key initiatives is the production of the HKGP Information Kit, which includes a booklet, leaflet, and souvenir to facilitate patient recruitment. This resource has proven effective at fully informing participants about HKGP's objectives and details before signing up. HKGI regularly reviews and updates the Information Kit to reflect the latest developments. During the year, three rounds of production were completed, and the kits were delivered to respective hospitals for patient recruitment. These initiatives reflect HKGI's commitment to transparency and collaboration, ensuring that patients feel empowered, informed, and engaged throughout their genomic medicine journey.

罕見病患者及其家屬對基因組醫學可帶來的希望與改變有着深刻的體會,而基因組中心亦致力加強與罕見病患者社群的聯繫。於2024-25年度,基因組中心參與2024年11月舉行的香港罕見疾病聯盟十周年誌慶晚宴。此外,中心積極支持由不同病人組織舉辦的教育活動,包括參與由香港黏多醣症暨罕有遺傳病互助小組與香港遺傳學學生協會聯合製作的《罕友奇遇記》播客系列。

基因組中心首席醫務及科學總監在節目中 分享了基因組計劃的最新進展,並透過分享 病例、臨床見解,以及人工智能等先進醫學 科技的應用,闡釋基因組醫學對改善罕見 病護理方面所發揮的作用;並憑藉其於遺傳 學和基因組學的豐富經驗,說明基因組中心 如何與夥伴攜手合作,為病人及其家屬帶來 希望與改變。

基因組中心致力透過有效溝通,加強病人對中心的信任與支持。中心重點工作之一,是製作基因組計劃資料冊,以協助招募計劃參加者。資料冊包括基因組計劃的小冊子宣傳單張及紀念品,有助參加者在參加計劃的宗旨和詳情。中心亦定訓檢視和更新資料冊內容,確保資訊反映計劃的最新發展。中心於年內完成三輪資訊人會與作並分發至相關醫院,以招募合適病人神,與作並分發至相關醫學的路途上能掌調,並確保病人在基因組醫學的路途上能掌握自主權並充分了解相關資訊,從而作出明智選擇。





Genomic Literacy Bolstered by Media Outreach

Leveraging the reach and impact of mass media, HKGI proactively engages with leading platforms to ignite public interest and awareness of genomic advancements. Through television programmes, radio and podcast interviews, press releases, and thematic articles, HKGI publicises its endeavours and HKGP's implementation progress to diverse audiences, fostering a deeper understanding of genomic medicine's transformative potential.

Throughout the year, HKGI achieved significant success in amplifying its voice across media channels, particularly through broadcast media. By engaging with Television Broadcasts Limited (TVB), one of the most popular news channels in Hong Kong, HKGI was featured in four episodes of TVB's popular healthcare programme "Vital Lifeline" from October to November 2024. In each episode, an HKGI expert discussed a specific rare disorder covered by HKGP, highlighting the Institute's vital role in managing complex cases and shaping effective treatment and monitoring strategies with genomics. The benefits for patients and their families were prominently showcased, fostering a deeper appreciation for this groundbreaking field.

Radio proved to be another compelling channel for HKGI to engage with the community. In November 2024, HKGI was featured on Radio Television Hong Kong (RTHK)'s radio programme "Under the Sun", delving into the latest trends in genomic medicine as well as its critical role in transforming healthcare services in Hong Kong. The interviews aired over two episodes, highlighted HKGI's commitment to advancing clinical applications of genomic medicine and its efforts in building a comprehensive genome database for the Southern Chinese population, serving as an invaluable resource for future medical research and drug development.

連繫媒體 接觸社群

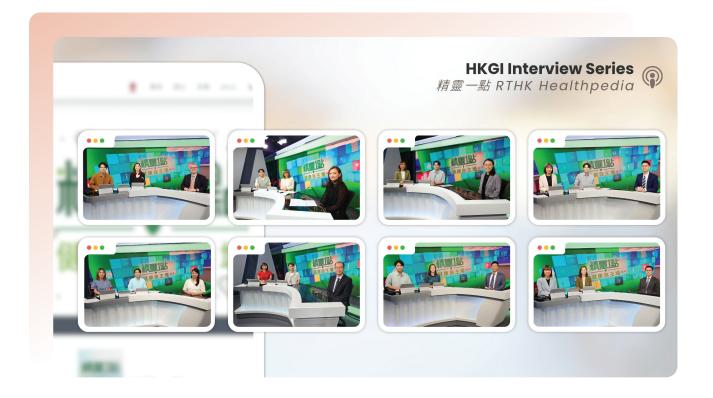
基因組中心充分善用媒體的渗透力和影響力,積極與主流平台合作,加強公眾對基因組學發展的興趣與認識。透過電視節目、電台及播客訪談、新聞稿及專題文章等多元渠道,重點宣傳中心工作及基因組計劃的最新發展,加深社會對基因組醫學及其龐大變革潛力的了解。

基因組中心本年度在媒體推廣方面成效顯著,其中透過廣播媒體宣傳的表現尤其出色。中心與香港其中一個最受歡迎的新聞資訊頻道 — 電視廣播有限公司(無綫電視)合作,於2024年10月至11月期間,參與錄學人氣健康資訊節目《最強生命線》其中四集發製。基因組中心專家在每集深度剖析基因組計數下的一種罕見病,凸顯中心在處理複節下的一種罕見病,凸顯中心在處理複節,制訂治療方案和監察治療策略方及其病例、制訂治療方案和監察治療策略的關鍵角色,並展示基因組醫學為病人及其家人帶來的實質效益,深化公眾對這個開創性領域的認知與認同。

電台亦是基因組中心接觸社群的重要渠道。 2024年11月,中心受邀參與香港電台(港台) 節目《太陽底下新鮮事》的訪問,深入探討 基因組醫學的最新發展趨勢,並分享其在 推動本港醫療變革中的關鍵作用。訪問分為 兩集播出,重點介紹基因組中心致力推動 基因組醫學臨床應用和建立以華南地區人口 為主的基因組數據庫,為未來的醫學研究和 藥物開發提供寶貴研究資源。



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Building on the strong rapport, HKGI collaborated with RTHK to launch a weekly "HKGI Interview Series" on its popular programme "Healthpedia". Aired on RTHK Radio 1 and TV Channel 31, the programme provided HKGI with an authoritative and impactful platform to promote its work and bring genomic medicine closer to the public. Eight episodes were produced, covering topics such as basic concepts of genetics and genomics, introduction to HKGP, and clinical applications of genomic medicine in rare disorders and common diseases.

Broadening outreach, HKGI published thematic articles in print and online media throughout the year. Four compelling articles under the theme "Meet the Genomic Medicine Experts" were published in the Hong Kong Economic Journal, including its website and Facebook page, between December 2024 and January 2025. Each article distilled essential content from HKGI's award-winning expert videos, highlighting an industry leader who is a current or former HKGI Board member. These esteemed experts were Professor Raymond Liang, Professor Nancy Ip, Professor Lau Chak-sing, and Professor Dennis Lo. They shared their remarkable journeys in research and development, passionately advocating for HKGI's mission of advancing genomic medicine in Hong Kong.

基因組中心其後與港台再度合作,每周於港台第一台和港台電視31播出的健康節目《精靈一點》推出「香港基因組中心系列」,為中心提供權威及具影響力的渠道,向公眾介紹基因組醫學,並走入社區。「香港基因組中心系列」共有八集,內容涵蓋遺傳學和基因組學的基本概念、香港基因組計劃的簡介,以及基因組醫學在罕見病和常見疾病的臨床應用等。

基因組中心於報章和網上媒體發表專題文章,以擴展接觸層面。中心在2024年12月至2025年1月期間於《信報財經新聞》實體報章、網站和Facebook專頁刊登「基因醫學專家系列」四篇專訪,內容取材自基因組中心屢獲殊榮的專家影片系列,訪問多位對本地科研發展深具影響力的現任及前任董事局成員,分別為梁憲孫教授、葉玉如教授、劉澤星教授和盧煜明教授。他們不但分享其非凡科研歷程,亦積極宣揚基因組中心推動本地基因組醫學發展的使命。

HKGI also continued enriching the educational page "Get to Know Genomics" on HK01, Hong Kong's leading online news platform. During the year, nine articles were published, covering topics including patient stories and latest HKGI events, such as a visit by secondary school students from the HKSAR Government's Strive and Rise Programme, and HKGI receiving the Privacy Friendly Awards from the Office of the Privacy Commissioner for Personal Data.

HKGI also kept the media and general public informed of its developments through press releases. Key events and messages included HKGI's support for the Chief Executive's 2024 Policy Address, its efforts to cultivate partnerships with industry leaders, such as global biopharmaceutical company AstraZeneca through strategic meeting, and promotion of the International Genomic Medicine Symposium which HKGI co-organised with renowned international partners in November 2025.

All these initiatives generated positive media coverage across major news platforms, including The Standard, Sing Tao Daily, and Sina Hong Kong. In addition to enhancing public understanding of genomics, these efforts enabled HKGI to strengthen its brand, reinforcing its position as a trusted voice in the field. 基因組中心於年內亦持續在主流網媒《香港01》開設「認識基因組」專頁,發布新聞及教育資訊,刊登了合共九篇文章,內容涵蓋病人故事以至中心最新活動,例如接待香港特區政府推行的「共創明『Teen』計劃」的中學生,以及榮獲私隱專員公署頒發「私隱之友嘉許獎」等資訊。

此外,中心透過新聞稿向傳媒和公眾發布最新動態,重點活動和信息包括基因組中心歡迎《行政長官 2024 年施政報告》;致力與業界領袖達成合作夥伴關係,例如與全球生物製藥企業阿斯利康舉辦座談會,探討策略性合作;以及宣傳基因組中心於 2025年11 月與國際權威夥伴合辦的「基因組醫學國際會議」。

《英文虎報》、《星島日報》和《新浪香港》等 主流新聞平台,均對以上舉措作出正面報道。 媒體推廣不僅有助加深社會大眾對基因組學 的認識,更有效強化基因組中心的品牌形象, 鞏固其在基因組醫學領域的權威地位。





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Corporate Publications Take Communications to the Next Level

HKGI produces corporate collaterals to forge connections with stakeholders and convey its vision, mission and the significance of genomic medicine in advancing healthcare services in Hong Kong. The annual report serves as a crucial resource, keeping stakeholders engaged and informed of HKGI's latest developments and achievements. It also reflects HKGI's commitment to robust corporate governance, transparency, and accountability.

With their engaging content and appealing design, HKGI's annual reports have received accolades in international annual report competitions for three consecutive years. The 2023-24 Annual Report encapsulated HKGI's milestones and achievements in driving "Genomic Innovations for Precision Health", the theme of the year. Featuring a comprehensive work report supported by appealing visuals, the annual report included a special section "HKGP: Our Life-changing Stories", sharing patient cases and highlighting the transformative impact of genomic.

傳訊刊物 深入淺出

基因組中心製作不同機構刊物,力求與持份 者建立連繫,並傳達其願景、使命,以及基因 組醫學在推動香港醫療服務發展中的重要 角色。年報是中心向持份者匯報工作的核心 刊物,除了細述機構的最新發展和成果外, 亦展現基因組中心對實踐嚴謹企業管治、 保持透明度和問責性的高度重視。

基因組中心的年報內容豐富生動,加上別具心思的設計,已連續三年在國際年報比賽贏得多項殊榮。中心的2023-24年報以「啟發醫學創新:精準治療·共享健康」為主題,全面展示中心在推動基因組醫學創新方面的里程碑與成就。該年報載有全面的工作報告,輔以精美圖像,並設有特別章節「香港基因組計劃:改變生命的故事」,透過分享病人個案,凸顯基因組學的變革性影響。





The 2023-24 Annual Report garnered the Gold Award (Non-profit Category) at "2024 Vision Awards", organised by the League of American Communications Professionals, and ranked 53rd among the Top 100 entries. Moreover, in two other competitions organised by MerComm, Inc., a leading communications specialist in the United States, the annual report received the Gold Award (Government Agencies & Offices Category) at the "2024/25 Mercury Excellence Awards", as well as the Bronze Award (Non-Profit – Medical & Social Services Category) at the "2025 ARC Awards".

Receiving honours from prestigious bodies, all of which have been established for over 30 years, is testament to HKGI's commitment to producing high-quality corporate publications that foster transparency and empower communication with stakeholders.

As HKGI embarks on its next phase of development, it formulated the Strategic Plan 2025-30, a pivotal corporate document that charts the Institute's roadmap for the next five years and outlines its strategic focuses and initiatives. Following the Board's endorsement in December 2024, a bilingual publication was published in mid-2025 with a user-friendly design. The Strategic Plan not only articulates HKGI's vision for the future but also inspires collaboration and innovation, setting the stage for transformative advancements in genomic medicine.

To further promote the HKGI spirit, light-hearted corporate materials such as festive e-cards were produced to engage stakeholders during Christmas and Chinese New Year. These publications, incorporating festive and DNA elements, also served as effective tools for brand building. Through these efforts, HKGI seeks to ensure that vital knowledge is accessible to all, fostering deeper understanding of genomic medicine within society.

基因組中心的 2023-24年報在美國傳訊專業 聯盟舉辦的國際年報大獎「2024 Vision Awards」「非牟利機構組別」榮獲金獎,並在「全球最佳年報 100強」排名第53名。該年報亦在美國傳訊業翹楚 MerComm, Inc. 主辦的另外兩個比賽中報捷,在「2024/25 Mercury Excellence Awards」「政府及公營機構組別」,以及「2025 ARC Awards」「非牟利 — 醫學及社會服務組別」中分別獲頒金獎和銅獎。

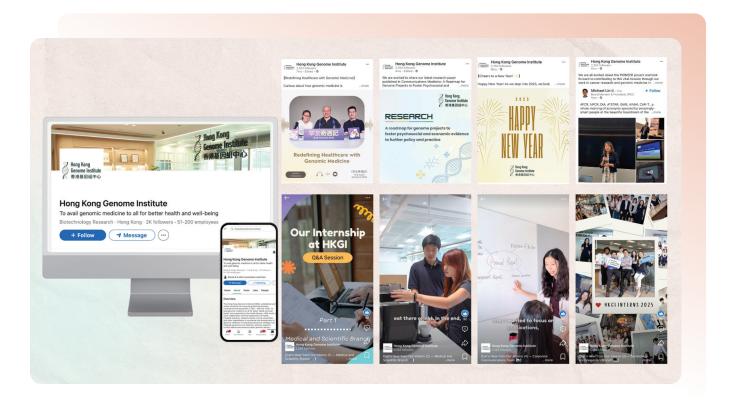
基因組中心的年報在多間擁有超過30年歷史的國際權威機構屢獲殊榮,足證中心用心編製優質企業刊物,提高資訊透明度,並加強與持份者溝通。

隨着基因組中心進入下一發展階段,《2025-30年策略計劃》為中心勾勒出未來五年的發展藍圖,闡述策略重點及行動方針。這份關鍵文件於2024年12月經董事局通過後,已於2025年年中正式發布,其設計簡潔易明且中英對照。策略計劃不僅闡明基因組中心的未來願景,亦加強協作、推動創新,為基因組醫學帶來的變革和發展奠定基礎。

為進一步推廣基因組中心的精神,中心特意 製作節日電子賀卡等輕鬆活潑的素材,於 聖誕節和農曆新年發放,加強與持份者的 連繫。這些融入節日氣氛和基因元素的 項目,有助塑造品牌形象,讓基因組醫學理念 更深入人心。



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Harnessing Online Channels to Maximise Publicity

HKGI has continually employed dynamic online promotional strategies to expand reach, elevate brand presence, and maximise publicity. A notable endeavour is HKGI's proactive management of its official LinkedIn page. Launched in June 2024, the page bolsters HKGI's digital footprint and forges stronger connections with local and international scientific and medical communities. More than 60 posts were published during the year, covering topics including updates on HKGI and HKGP, event highlights, research publications, career opportunities, and festive greetings. Each post was accompanied by appealing visuals or a short video to drive engagement. In just a year, with strategic targeting, the page attracted nearly 2,000 followers, showcasing robust growth in HKGI's supporter base and social media exposure.

To further enhance engagement with specific stakeholders, such as research collaborators and visiting scholars, HKGl actively participated in professional dialogue through commenting and content sharing. By engaging with stakeholders in this manner, HKGl not only amplifies its visibility and promotes its messages to a broader professional community, but also fosters valuable relationships that can lead to collaborative opportunities and support for its mission.

線上平台 擴大宣傳

基因組中心持續採用靈活多元的網上宣傳 策略,接觸更廣泛受眾,提升中心的知名度, 並達致最佳的宣傳效果。基因組中心的重要 宣傳工作之一,是積極運用其於2024年6月 開設的官方 LinkedIn專頁。專頁不僅強化 基因組中心在數碼平台的影響力,更促進 中心與本地及國際科學和醫學社群建立更 緊密連繫。中心於年內在專頁發布逾60則 帖文,內容涵蓋基因組中心和基因組計劃的 最新消息、活動精華、研究成果、工作機會 和節慶祝福等。每則帖文皆配以精美圖像 或短片,以增加互動。憑藉策略性推廣,專頁 在短短一年內吸引近2,000名追蹤者,反映 基因組中心的支持者基礎和社交媒體知名度 的強勁增長。

基因組中心透過積極留言和轉發內容,進一步加強與科研合作夥伴、訪問學者等持份者的互動。這些舉措不僅提升了中心的知名度,更能廣泛向專業社群宣揚信息,加深與業界的聯繫並促成更多合作機會,推動持份者支持中心實踐使命。

While LinkedIn remains a significant platform for outreach, HKGI has continued the implementation of search engine optimisation strategies and promotional campaigns on Google and YouTube throughout the year to engage diverse audiences.

As HKGI enters a new phase of development following its Strategic Plan 2025-30, a website revamp project has been initiated to address evolving needs. The new website is expected to launch by Q1 2026, with the objective of enhancing user experience, optimising search engine visibility, strengthening cybersecurity, and facilitating efficient operations.

Fostering Collaborations Across Borders

During 2024-25, HKGI hosted and participated in over 50 visits, exchange meetings, and events designed to engage key stakeholders and explore new partnerships. These initiatives have served as vital platforms for connecting with industry leaders, government representatives, and strategic stakeholders, fostering meaningful dialogues that pave the way for impactful collaborations and shared goals.

除了以LinkedIn作為主要的外展平台外, 基因組中心亦持續運用搜尋引擎最佳化 (search engine optimisation)策略,提升中心 的網站在搜尋引擎的排名,並在Google 和 YouTube加強宣傳,接觸多元受眾。

配合《2025-30年策略計劃》的推行,中心已着手優化網站設計,豐富內容以應對與時並進的需求。新網站預計於2026年第一季正式啟用,旨在提升用戶體驗、優化網站於搜尋引擎的排名、強化網絡安全並促進高效運作。

跨境協作 深化交流

於2024-25年度,基因組中心舉辦及參與了逾50場參觀、交流會和活動,與主要持份者保持聯繫,並探索新的合作機會。這些場合成為中心連繫業界領袖、政府代表和策略性持份者的重要平台,透過深度對話,建立具影響力的夥伴協作關係,為共同目標邁步向前。





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

Among these engagements, notable exchanges with leading research organisations and commercial entities from around the globe have taken centre stage. They included meetings with the China National Centre for Bioinformation (CNCB), Tencent Healthcare, AstraZeneca, and an international cancer research delegation.

In August 2024, HKGI received a delegation from the CNCB, a leading national research institute in bioinformatics. With a common aspiration to advance genomic research and establish a genome database for the Southern Chinese population, experts from both institutions engaged in fruitful exchange on whole genome sequencing (WGS), bioinformatics pipelines, data management, and artificial intelligence (AI) applications, laying the groundwork for future collaborative research initiatives.

In September 2024, HKGI hosted a visit by the global biopharmaceutical company AstraZeneca. The meeting centred on latest advancements in genomic technologies and potential research collaborations aimed at accelerating research and clinical trials for new drugs and treatments, leveraging the unique Southern Chinese genome database HKGI is developing.

在眾多活動中,中心高度重視與全球各地的 頂尖研究組織和商業機構的深入交流,當中 包括中國國家生物信息中心、騰訊健康、 阿斯利康和國際癌症研究考察團。

2024年8月,基因組中心接待中國國家生物信息中心的代表團。雙方秉持共同願景,致力推動基因組學研究,並建立以華南地區人口為主的基因組數據庫。雙方專家就全基因組測序、生物信息流程、數據管理和人工智能的應用交流意見,收獲甚豐,為未來合作研究奠定基礎。

2024年9月,基因組中心接待全球生物製藥企業阿斯利康的代表。雙方就基因組技術的最新發展進行交流,並探討運用中心獨特且不斷擴充的華南地區人口基因組數據庫,共同進行研究,加快新藥的研發和臨床測試。





In January 2025, HKGI received a team of experts and scientists from Tencent Healthcare. This exchange focused on the latest trends in genomic science, particularly the integration of AI and other groundbreaking technologies to enhance analysis of genomic data.

HKGI co-hosted a visit with the Li Ka Shing Faculty of Medicine of the University of Hong Kong in May 2025, welcoming a delegation of international experts, researchers, and senior executives from the Asian Fund for Cancer Research and the Drug Information Association, along with local neuro-oncology clinical leaders. Attendees exchanged insights and experiences in cancer research and discussed applications of genomic medicine. They also learnt about HKGI's state-of-the-art laboratory infrastructure, genome sequencing capabilities, and ongoing efforts in transforming genomic research into impactful healthcare solutions.

Global Partnerships Power the Rise of Genomic Medicine

HKGI's commitment to expanding professional networks and fostering collaborations extends well beyond visits and meetings. Throughout 2024-25, senior executives from HKGI actively participated in both local and overseas industry events, empowering the team to maximise exposure, enhance public awareness, and broaden its influence in the fields of genetics and genomics.

2025年1月,騰訊健康的專家及科學家團隊 到訪基因組中心。是次交流聚焦基因組科學 的最新趨勢,並着重於人工智能及其他創新 技術在基因組數據分析上的應用。

基因組中心於2025年5月與香港大學李嘉誠醫學院合辦活動,接待來自亞洲癌症研究基金會及藥物資訊協會的國際專家、研究人員和高層代表,並邀請本地神經腫瘤學臨床領袖參與。與會者就癌症研究交流見解和經驗,並探討基因組醫學應用的前景。交流團亦參觀了基因組中心設備先進的實驗室,了解其頂尖基因組測序能力,以及其將基因組學研究轉化為具影響力的醫療方案所付出的努力。

國際協作 推動發展

基因組中心致力擴展專業網絡,所促成的合作不止於參觀活動和座談會。於2024-25年度,中心管理層積極參與本地和海外業界活動,進一步提升中心的知名度,加強公眾認知,並拓展其在遺傳學和基因組學領域的影響力。



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

A key highlight was HKGI's participation in the symposium held by the International Cancer Genome Consortium held in January 2025, during which CEO and CMSO were invited to deliver a keynote speech titled "Population Cancer Genomics Through the Lens of the Hong Kong Genome Project". This presentation not only showcased HKGI's market-leading end-to-end WGS pipelines but also illustrated patient cases that exemplified the monumental impact of genomic medicine on patient care.

The dissemination of genomic knowledge continued through two significant events in May 2025: the Hong Kong International Nurses Day Celebration Symposium, organised by the Hong Kong Academy of Nursing and Midwifery, followed by the Asia Summit on Global Health, organised by the Hong Kong Trade Development Council. At the Symposium, HKGI's CEO shared his perspectives and firsthand experiences from HKGI's journey while emphasising the essential role of nurses in integrating genomic advancements into routine clinical care. At the Asia Summit on Global Health, CMSO chaired a panel discussion titled "Addressing Unmet Needs: Orphan Drugs and Rare Disease Treatments", facilitating dialogue among leading experts on how genomic advancements are catalysing breakthroughs in the diagnosis and treatment of rare diseases.

Internationally, CMSO represented HKGI at major conferences, showcasing its exciting achievements in advancing genomic medicine in Hong Kong. A highlight was the Medical Genome Series Exchange Forum held in Beijing in August 2024, where CMSO captivated the audience with the presentation "Genome Sequencing as the First Line of Diagnosis – Insights from the Hong Kong Genome Project". Later that month, CMSO brought the conversation to Singapore, delivering a presentation on "Genomics Becomes Medicine: Implementation of the Hong Kong Genome Project".

These engagements not only ignited vibrant discussions about the future of genomic medicine but also elevated HKGI's standing on the international stage. As a result of this enhanced global visibility, CMSO was invited to represent Hong Kong on the Lancet Commission on Rare Diseases (LCRD) and attended the commission's first meeting in Geneva in November 2024, advocating for persons living with rare diseases alongside experts from around the world.

其中一項重點活動是國際癌症基因組聯盟於2025年1月舉辦的會議,基因組中心的行政總裁和首席醫務及科學總監獲邀發表題為Population Cancer Genomics Through the Lens of the Hong Kong Genome Project 的主題演講。是次演講不僅展示了基因組中心領先業界的整套全基因組測序流程,更透過病例闡釋基因組醫學對病患護理的深遠影響。

在國際層面,首席醫務及科學總監代表基因組中心出席多場重要會議,展示中心推動香港基因組醫學發展的卓越成就。亮點之一是2024年8月在北京舉行的「醫學基因組系列交流會」。首席醫務及科學總監以Genome Sequencing as the First Line of Diagnosis – Insights from the Hong Kong Genome Project 為題發表演説,吸引全場聽眾的關注。同月下旬,他更將相關議題延伸至新加坡,發表題為Genomics Becomes Medicine: Implementation of the Hong Kong Genome Project的專題演講。

上述各項活動不僅引發醫學界圍繞基因組醫學未來發展的熱烈討論,更提升了基因組中心的國際地位。憑藉中心在國際的知名度提高,首席醫務及科學總監獲邀在《刺針》轄下罕見病專家委員會擔任香港代表,出席2024年11月在日內瓦舉行的首次大會,與全球專家共同為罕見病患者發聲。

The connections made through LCRD also paved the way for an exciting collaboration among HKGI, Rare Diseases International, and LCRD to host the "International Genomic Medicine Symposium" in Hong Kong. This landmark event brought together distinguished experts, clinicians, and scientists from over 20 countries, fostering dynamic exchanges in genomic medicine and rare diseases. The one-day Symposium attracted nearly 300 participants. Following the Symposium, the annual LCRD Meeting was held to further strengthen international cooperation in the research and development of genomic medicine and rare diseases.

Unprecedented Engagement Efforts Deliver Landmark Wins

HKGI's dynamic stakeholder engagement strategy embodies a steadfast commitment to transforming cutting-edge genomic science into impactful healthcare solutions for everyone. Its proactive outreach and engagement efforts have laid a solid foundation for future ventures. As HKGI continues to expand its local and global footprint, the connections established will empower HKGI to accelerate medical innovations, foster open dialogue, and promote knowledge sharing, ensuring that the benefits of genomic advancements are accessible to all.

藉由經《刺針》罕見病專家委員會建立的聯繫,促成基因組中心與國際罕見病傳家委員會的合於。 及《刺針》轄下罕見病專家委員會的合作。 在香港舉辦「基因組醫學國際會議」。 業界盛事匯聚來自20多個國家的傑出專家 醫生和科學家,就基因組醫學和罕見病傳 交流。是次會議為期一天,吸引了近300 參加者。《刺針》轄下罕見病專家委員因因 參加者。《刺針》轄下空見病專家委員因 會議後舉行年度大會,進一步加強基 醫學和罕見病研究的國際合作,推動相關 領域的發展。

同心合力 成果斐然

基因組中心積極推動持份者參與,體現了將 尖端基因組科學轉化為全民醫療方案的堅定 決心。中心主動連繫各界並參與不同活動, 為基因組學未來發展奠定穩固基石。隨着 基因組中心繼續拓展於本地乃至全球的影響 力,所建立的龐大網絡將助力中心加快醫 學創新、促進開放對話並推動知識共享, 確保基因組學發展的成果能惠及普羅大眾。





Operate with Excellence 卓越營運



Operate with Excellence

卓越營運

Operational excellence remains at the heart of Hong Kong Genome Institute's (HKGI) mission to advance genomic medicine and deliver a meaningful impact on Hong Kong's healthcare system. Throughout 2024-25, HKGI maintained the highest standards across all aspects of its operations, from strategic planning and infrastructure enhancement to cybersecurity excellence and environmental, social and governance (ESG) integration. This approach encompassed robust data security measures, advanced infrastructure development, responsible artificial intelligence (AI) governance, and proactive risk management, all underpinned by a culture of continuous improvement, sustainability, and innovation.

香港基因組中心一直維持確保機構高效 運作,致力推動基因組醫學發展,為香港 醫療體系帶來深遠影響。於2024-25年度, 基因組中心在各項工作一直恪守最高標準, 包括制訂策略計劃、優化基礎設施、提升 網絡安全,以及整合環境、社會及管治 (ESG)原則,秉持可持續發展且創新求進的 機構文化,實施嚴謹數據安全措施、頂尖 基礎設施建設、負責任的人工智能管治, 以及積極主動的風險管理原則。

Strategic Planning Shapes a Bright Future

A significant milestone during the year was the publishing of the Strategic Plan 2025-30. With the successful conclusion of the Strategic Plan 2022-25, HKGI, under the guidance of the Board, formed a working group to formulate strategic directions and outline a development roadmap for the next five years. Led by the Chief Executive Officer (CEO) and comprising senior staff, the working group analysed HKGI's positioning, Hong Kong's long-term healthcare needs, advancements in science, medicine and technology, and global developments in genetics and genomics. The resulting Strategic Plan 2025-30, published in mid-2025, established the framework for HKGI to deliver greater value to Hong Kong's healthcare system and drive genomic medicine's continued progress. HKGI remains dedicated to refining and enhancing its well-established infrastructure, guidelines, and operational workflows. This commitment to continuous improvement enables HKGI to operate more effectively while maximising the impact of the public resources entrusted to its stewardship and delivering greater benefits to Hong Kong's medical community.

策略計劃 高瞻遠矚

Infrastructure Excellence Empowers Impressive Growth

In 2024-25, HKGI made significant investments in its core infrastructure to support increasingly complex genomic datasets, strengthening its capacity for future growth and innovation. To accommodate data from more than 6,000 flow cells through 2026, long-read storage capacity was expanded by 10 petabytes, bringing the total to 12 petabytes. This major enhancement strengthens HKGI's ability to manage the increasing scale and complexity of genomic data securely and efficiently. HKGI introduced a new virtual machine platform to host critical systems, web applications, and internal infrastructure tools. This platform elevates reliability, scalability, and resource efficiency, while supporting high service availability and HKGI's long-term operational goals.

完善基建 推動進步

於2024-25年度,基因組中心投放大量資源提升多項核心基礎設施,以處理漸趨複雜的基因組數據,鞏固未來的發展與創新能力。為容納直至2026年逾6,000個流動細胞產生的基因組數據,中心將長序列數據的儲存容容量於年內增加10PB,使總容量達12PB,讓中心更安全高效地管理日益龐大和複雜的基學中心可以承載關鍵系統、網絡應用程式和內部基礎設施工具,提升系統的可靠性、可擴展性和資源效益,確保服務高度可用,以支援中心的長遠營運目標。



Nurturing Talent for the Genomics Era 培育人才 引領精準醫學

Operate with Excellence 卓越營運

Data Access and Security Controls Strengthened for Peace of Mind

To bolster cybersecurity, HKGI enhanced its Information Technology (IT) Security Policy and supporting guidelines to ensure stronger safeguards for data access, system usage, and incident management. The updated framework introduced clearer requirements for user access control, setting out standard processes for account creation, modification, and termination. Password security was reinforced through stricter complexity rules, formal reset procedures, and periodic changes, including mandatory multi-factor authentication for sensitive systems. Policies on mobile and remote access were also strengthened, including the use of Virtual Private Network (VPN), device security standards and encryption requirements, to safeguard data when accessed outside HKGI's premises.

To further embed good practice across the organisation, the guidelines emphasised secure end-user behaviours such as email, internet, and IT system usage, and provided clear instructions on incident response to ensure that security events are reported and handled promptly.

These security enhancements were complemented by thorough infrastructure assessments. In addition to routine server upgrades and system scanning, HKGI undertook extensive penetration testing and vulnerability assessments across all infrastructure and application systems to meet Security Risk Assessment and Audit (SRAA) requirements. External independent consultants also provided guidance to ensure alignment with industry best practices.

Advancing Cybersecurity to International Standards

Recognising the importance of data security to patient and stakeholder trust, HKGI strengthened its robust data security measures to protect the valuable data of the Institute and Hong Kong Genome Project (HKGP)'s participants.

HKGI engaged an independent consultant to conduct an Institute-wide SRAA in Q4 2024, as one of its most important initiatives in data and risk management. Given the rapid evolution of the digital environment, this exercise conducted a thorough examination of all operating systems, digital platforms, infrastructure, and relevant guidelines, ensuring all HKGI systems and platforms are designed, maintained, and updated in accordance with the most stringent international standards and compliance requirements.

數據存取 安全至上

為進一步推動資訊科技安全,指引釐清了 使用電郵、網絡和資訊科技系統的正確 做法,並訂立明確的事故應對程序,確保 中心能及時通報和有效處理保安事故。

上述強化資訊保安措施輔以全面的基礎設施評估,完善保障基因組中心所有系統的安全。除了定期更新伺服器及掃描系統,基因組中心亦為所有基礎設施和應用系統進行大規模的滲透測試和漏洞評估,以符合保安風險評估及審計(Security Risk Assessment and Audit)的要求。中心亦外聘獨立顧問亦提供指引,確保符合業界最佳實務標準。

網絡安全 接軌國際

基因組中心深明數據安全對贏得病人和持份 者信任至為關鍵,因此持續強化嚴密的數據 安全措施,保護中心及香港基因組計劃(基因 組計劃)參加者的重要數據。

面對數碼環境瞬息萬變,基因組中心委託了獨立顧問,於2024年第四季進行全面的保安風險評估及審計,範圍涵蓋中心內所有部門。作為中心管理數據及風險最重度的措施之一,該項評估和審計工作徹底檢視所有運作系統、數碼平台、基礎設施及相關指引,有助確保中心所有系統與平台設計、維護和更新各方面均符合最嚴謹的國際標準與合規要求。



The findings from the SRAA and remediation plans, including those related to incident response preparedness, access management, firewall controls, and IT policy governance, were reported to HKGI's Information Security Governance Committee (ISGC) in December 2024. All findings were addressed through defined remediation actions and completed within three months, with appropriate measures put in place to prevent recurrence. A formal reassessment was subsequently conducted by independent consultants to verify that all issues had been fully resolved. This process not only ensured compliance with security and audit requirements but also reinforced HKGI's overall cybersecurity readiness and governance maturity.

HKGI collaborated with an independent consultant on a Cybersecurity Incident and Data Breach Tabletop Drill Exercise in March 2025 that simulated scenarios covering ransomware attacks, data breaches, and critical system outages. Led by the incident response leadership team, HKGI went through a comprehensive drill with participation from implementation and coordination teams across various departments. The exercise evaluates the organisation's incident response plans, inter-departmental coordination, and communication procedures to ensure organisational readiness for potential cybersecurity threats.

保安風險評估及審計過程中發現的問題及修正措施,包括與事故應變準備、存取管理、防火牆管控和資訊科技政策管治相關的內容,已於2024年12月向基因組中心轄下的資訊保安管治委員會(Information Security Governance Committee)匯報。中心在三個月內完成所有修正工作,並即時推行防範措施,杜絕類似事件再次發生。其後由獨範已徹底解決。此流程不僅符合安全及審制已徹底解決。此流程不僅符合安全及審納要求,更進一步提升基因組中心的整體網絡安全準備度和管治成熟度。

基因組中心與獨立顧問合作,於2025年3月舉行「網路安全事故與資料外洩模擬演習」,模擬勒索軟件攻擊、資料外洩和關鍵系統故障等情境。在事故應變督導團隊的領導下,基因組中心進行了一次全面演練,由各部門的執行和協調團隊共同參與。是次演習全面評估機構在事故應變、部門協調和溝通等方面的安排,以確保面對潛在網絡安全威脅時具備充分應變的能力。



Nurturing Talent for the Genomics Era 培育人才 引領精準醫學

Operate with Excellence 卓越營運

To safeguard sensitive genomic data and ensure resilience against increasingly sophisticated cyber threats, a Security Operations Centre (SOC) is being established. SOC is a dedicated capability that combines skilled professionals, defined processes, and advanced technology to continuously monitor IT systems, detect cyber threats, and respond to incidents in real time.

The establishment of SOC was carried out in phases, with initial operations scheduled for launch in late 2025. This initiative follows recommendations from SRAA, the Cybersecurity Incident and Data Breach Tabletop Drill Exercise, and advice from the Data Advisory Committee and ISGC. It is a direct response to the rising frequency and sophistication of cyberattacks – including ransomware, phishing, and insider threats. These pose significant risks to the healthcare and genomics sectors, positioning HKGI to remain secure, operationally resilient, and trusted in its mission to advance genomic research and healthcare innovation.

SOC will operate 24/7 to ensure real-time visibility and protection across systems and networks. It is designed to detect threats earlier, respond faster, and improve overall security readiness. Built on international standards such as ISO/IEC 27001 and local government guidelines, including the Digital Policy Office's IT Security Guidelines (G3) and Baseline IT Security Policy (S17), SOC incorporates automation and vendor expertise while maintaining internal oversight of critical operations.

為保障敏感的基因組數據,並抵禦日益複雜的網絡威脅,基因組中心正着手設立安全營運中心(Security Operations Centre)。該中心將作為防護專責單位,結合專業人才、既定流程和先進技術,持續監控資訊科技系統、偵測網絡威脅並即時作出應對。

安全營運中心預計由 2025 年年底起分階段 投入運作。該中心的設立依循保安風險評估 及審計、「網路安全事故與資料外洩模擬 演習」的建議,以及數據諮詢委員會和資訊 保安管治委員會的意見而展開,積極應對 日益頻繁且手法愈趨高明的網絡攻擊,包括 勒索軟件、釣魚攻擊和內部威脅。鑑於這些 威脅對醫療和基因組學領域構成重大風險 基因組中心必須致力維護安全和營運穩健 性,並維持各方信任,方能持續推進基因組 研究與醫療創新。

安全營運中心將全天候運作,實時監控系統 與網絡,提升對威脅的偵測速度與應變效 率,進一步加強整體保安。該中心遵從ISO/ IEC 27001等國際標準及本地政府指引,包括 數字政策辦公室的《資訊科技保安指引G3》及 《基準資訊科技保安政策S17》,整合了自動 化技術和服務供應商的專業知識,同時維持 關鍵運作的內部監控。



As a cornerstone of HKGI's cybersecurity resilience, SOC enhances compliance, reliability, and trust. By embedding structured monitoring, incident response playbooks, and continuous threat management, SOC ensures that HKGI remains secure, operationally robust, and trusted in its mission to advance genomic research and healthcare innovation.

作為基因組中心網絡安全穩健性的基石, 安全營運中心將全面提升中心的合規性、 可靠性與信任度。透過整合結構化監控、 事件應變手冊和持續威脅管理機制,安全 營運中心將確保基因組中心於推動基因組 研究與醫療創新過程中,始終保持運作穩健 安全,並贏得各界信賴。

Al Technology Assessed and Readied for Operations

Al is increasingly vital for enhancing efficiency and supporting data-driven decision-making. In 2025, HKGI commenced its Al governance initiative to establish comprehensive frameworks for the responsible use of emerging technologies. Concurrently, HKGI began piloting Al projects, including a local deployment of a Large Language Model and the testing of an Al-driven framework for genomic interpretation in rare disease analysis. These initiatives aim to demonstrate how Al can improve data analysis, reduce turnaround times, and ease the burden of manual curation, while serving as practical test cases for the Institute's Al governance framework.

HKGI is developing a comprehensive AI governance framework aligned with Hong Kong's regulatory standards, referencing the AI governance priorities of the Chinese Mainland, and leading international practices. Key elements being established include structured risk assessment protocols, human oversight mechanisms, transparency requirements, and accountability measures, with particular emphasis on safeguarding personal and genomic data.

By embedding governance into practice from the early stage, HKGI is establishing the foundation for ethical, effective, and sustainable AI adoption. This approach strengthens HKGI's readiness to manage emerging technologies while supporting operational resilience and efficiency, reinforcing its commitment to excellence in genomic research and innovation.

人工智能應用 準備周全

人工智能對提升效率和支援數據驅動決策日益重要。基因組中心於2025年啟動人智能管治倡議,制訂全面框架,以確保新新技術的負責任應用,並同步開展多項人對能先導項目,包括使用大型語言模型,並測試用於罕見病分析中以人工智能驅動工工,的基因組詮釋框架。相關倡議旨在展示人程制能如何提升數據分析效能、縮短作業流程,減輕以人手分析數據的負擔,並成為中心人工智能管治框架的實測案例。

基因組中心正建立一套全面的人工智能管治框架,該框架符合香港的監管標準,並參照中國內地的人工智能管治重點和主要國際慣例。關鍵要素包括結構化風險評估流程、人工監督機制、透明度要求和問責措施,當中特別着重保障個人和基因組數據安全。

基因組中心從初期階段便將管治融入實際 運作,為合乎倫理、高效率且可持續發展的 人工智能應用奠定基礎。此方針使基因組 中心為管理新興技術作好充足準備,提升 營運穩健性及效率,進一步彰顯中心於基因 組研究及創新方面追求卓越的決心。





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Operate with Excellence 卓越營運



Cybersecurity Excellence Garners Industry Recognition

Robust cybersecurity systems are only as effective as the people who use them. For this reason, HKGI provides wide-ranging training programmes for all staff to maintain cybersecurity awareness. It mandates cybersecurity training for new joiners through online modules that address daily operational risks and mitigation strategies. To supplement foundational training, targeted workshops were organised throughout the year to deepen staff understanding of evolving security challenges. A notable example was the "Expert Insight on Cybersecurity Best Practices" sharing session given by Mr Tony Ma, Chief Information Security Officer of the Hospital Authority (HA), during which he analysed the cyber risk landscape, HA's experience in defending against cybersecurity risks, as well as security principles for Al and cloud adoption.

網絡防護 業界肯定

HKGI conducted regular communication and email campaigns to remind staff about emerging threats and security protocols, and runs controlled phishing simulation exercises to evaluate staff recognition of suspicious communications and response capabilities. These initiatives serve both as educational tools and performance indicators, reinforcing HKGI's defence against social engineering attacks while identifying areas for improvement in security awareness.

HKGI's cybersecurity and data protection efforts have earned prestigious industry recognitions, receiving the Office of the Privacy Commissioner for Personal Data's "Outstanding Gold Award" at the Privacy-Friendly Awards 2025, the award's highest distinction for personal data privacy protection excellence. In late 2024, HKGI achieved "Platinum Tier" under the Cybersecurity Staff Awareness Recognition Scheme 2024/25, a joint initiative by Hong Kong Internet Registration Corporation Limited and ISACA China Hong Kong Chapter to acknowledge superior performance in cybersecurity practices and staff awareness programmes.

Embedding ESG Excellence Across Operations

HKGI embraces ESG principles to drive meaningful sustainability outcomes and generate positive contributions to both environmental stewardship and societal advancement.

基因組中心亦定期透過傳訊和推廣電郵, 提醒員工有關新興網絡威脅及安全規程的 資訊,並舉行模擬網絡釣魚演習,評估員工 識別和應對可疑通訊的能力。這些舉措兼具 教育與績效指標的雙重作用,不僅強化了 基因組中心對社交工程攻擊的防禦能力, 亦有助識別需要加強安全意識的範圍。

基因組中心在網絡安全和數據保障方面的努力備受業界肯定。中心於年內獲取香港個人資料私隱專員公署頒發「私隱之友嘉許獎 2025」最高榮譽的卓越金獎,表揚其在保障個人資料私隱相關範疇的卓越表現。2024年年底,基因組中心更贏得「共建員下防火牆嘉許計劃 2024/25」中最高的「白金級別」認證,該計劃由香港互聯網註冊管理有限公司與國際信息系統審計協會中國香港分會合辦,表彰在網絡安全實務和員工防護意識方面表現傑出的機構。

持續發展 融入營運

基因組中心秉持環境、社會及企業管治 (ESG)原則,致力推動意義深遠的可持續 發展,為環境管理與社會進步作出積極貢獻。





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Operate with Excellence 卓越營運

As part of its commitment to environmental responsibility, HKGI has embedded sustainable practices throughout its operations from inception. Its office infrastructure incorporates energy-efficient systems, including automated lighting and equipment controls that optimise energy consumption during off-hours. To advance its waste reduction objectives, HKGI has implemented comprehensive recycling practices with staff participation and proper waste sorting procedures. Additionally, HKGI actively promotes a culture of sustainability by encouraging the use of reusable materials and providing eco-friendly alternatives for both staff and visitors, significantly reducing reliance on single-use items. These initiatives reflect HKGI's broader commitment to corporate social responsibility and dedication to minimising environmental footprint while maintaining operational excellence.

When it comes to human resources management, talent development and staff welfare, HKGI's offers competitive compensation packages and benefits, and maintains a steadfast commitment to diversity, equality, and inclusion across all levels of the organisation.

在人力資源管理、人才培育和員工福利 方面,基因組中心提供具市場競爭力的薪酬 待遇和福利,並在機構上下各個層面堅守 多元、平等和共融的原則。





Beginning in 2025, HKGI introduced family-friendly leave entitlements for all employees, including birthday, marriage and childcare leaves. These new initiatives underscore HKGI's dedication to work-life balance and recognising that supporting employees' personal well-being and family responsibilities ultimately strengthens the Institute's collective mission. Through these efforts, HKGI continues to build a workplace culture where every team member can thrive professionally while maintaining their personal well-being.

HKGI cultivates a cohesive workplace culture through carefully planned team-building initiatives and social events. It hosts regular celebrations throughout the year, including festive gatherings for Christmas and Chinese New Year, creating opportunities for staff to connect outside their daily responsibilities to build rapport. Staff forums allow colleagues to stay abreast of HKGI's developments and strategic directions, fostering not only enhanced staff connection but also a supportive, inclusive environment that reinforces employees' sense of belonging.

自 2025 年起,基因組中心推出家庭友善假期政策,新增生日假、婚假和育兒假。新措施惠及全體員工,充分展現基因組中心對工作與生活平衡的重視。中心深信支持員工提升個人福祉及照顧家庭需要,能推動員工上下一心、共同實現中心使命。基因組中心努力不懈地構建友善的職場文化,讓每位團隊成員在專業領域發光發熱,同時亦能照顧個人福祉。

基因組中心透過精心策劃的團隊活動和 聚會,加強團隊凝聚力,在過去一年定期 舉辦節慶活動,包括聖誕和農曆新年節日聚 會,增加員工在日常工作以外交流的機會, 從而加深團隊默契。員工論壇讓同事們掌握 中心的最新發展和策略方向,不僅促進 員工之間的聯繫,更營造出和諧共融的工作 環境,加強員工的歸屬感。



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Operate with Excellence 卓越營運

To support staff professional development, regular training programmes and learning opportunities form the foundation of staff development at HKGI. It provides both internal training sessions and external development support to help team members stay current with industry advances. During the year, HKGI organised training sessions covering genomic medicine applications across medical specialties, AI in genomic data analysis, cybersecurity, records management, and workplace productivity. It also offered sponsored external training programmes to help staff enhance their professional expertise in specialised areas.

HKGI is committed to making a positive impact in the community through various educational outreach initiatives for youth. In addition to its Internship Programme and career talks for undergraduate and post-graduate students, HKGI successfully conducted its Secondary Students Attachment Programme, providing younger students with valuable early exposure to careers in genomics and hands-on experience in the field. Throughout the year, HKGI welcomed secondary school students from the Hong Kong Quality Mentorship Network, offering them insights into HKGI's cutting-edge infrastructure and potential career pathways. HKGI hosted a visit for secondary school students and their mentors from the HKSAR Government's Strive and Rise Programme, inspiring them to explore learning and career opportunities in genomics and biotechnology.

For corporate governance, HKGI continued to strengthen its framework by deepening the integration of ESG principles across its strategic and operational work in 2024-25. Building on its commitment to transparency, accountability, and sustainability, HKGI expanded its governance structure with the establishment of ISGC and the Steering Committee on Organisational Structure Review Implementation (SCO). ISGC provides expert oversight on cybersecurity strategies, data governance, risk management, and compliance with government digital policies, while SCO guides the phased implementation of structural and functional enhancements to improve organisational efficiency and talent development. ESG oversight was also extended to cover AI and emerging technology ethics.

To further support responsible innovation and knowledge protection, HKGI set up a dedicated taskforce to develop its Intellectual Property policy. HKGI Board continued its annual self-assessment to evaluate its effectiveness in promoting sustainable development, with enhanced diversity that includes new members bringing expertise in big data technologies and data asset management. Collectively, these efforts reinforce HKGI's commitment to responsible governance and long-term value creation.

基因組中心以定期培訓和進修機會為人才培育策略基礎,為員工提供培訓課程和發展支援,幫助團隊成員緊貼業界發展趨勢。年內,基因組中心舉辦多場培訓,內容涵蓋基因組醫學於不同醫學專科的應用、以人工智能進行基因組數據分析、網絡安全、檔案管理和職場生產力等。中心亦資助員工參加外部培訓計劃,提升員工在各個專業範疇的知識。

基因組中心致力透過各種青少年外展教育活動,造福社群。除了為本科生及研究生提供實習計劃和職業講座外,中心亦成功推行中學生體驗計劃,讓年輕學子及早認識基因組學的不同崗位,獲得相關實戰經驗。過去一年,基因組中心接待了來自香港優節友網絡的中學生,介紹中心的先進設施動的「共創明『Teen』計劃」的中學生和友師舉辦了分享會,啟發他們探索基因組學和生物科技的學習和就業機會。

於2024-25年度,基因組中心持續將ESG原則融入其策略和運作,進一步強化企業管治框架。基因組中心高度重視透明度、問責性和可持續發展,因此設立資會公益等分類。 (Steering Committee on Organisational Structure Review Implementation),管治架構。前者專責於網絡安全策略、數策管治、風險管理,以及遵守政府數碼政策的專家監督;後者則負責指導分階段實施的架構和職能優化,以提升組織效率,促進人才發展。ESG監督範圍亦延伸至人工智能和新興科技的倫理議題。

為進一步支持負責任創新並保護知識產權, 基因組中心成立專責小組,制訂知識產權 政策。董事局會持續進行年度自我評估, 以檢視其在推動可持續發展的成效。而隨着 新成員加入,董事局成員的背景更趨多元 化,並引入大數據技術和數據資產管理等 專業知識。各項舉措相輔相成,進一步展現 了基因組中心對負責任管治及創造長遠價值 的決心。

Evolving Staff Structure and Remuneration to Meet Future Needs

During the financial year 2024-25, HKGI completed its second review on staff number, structure, ranking, and remuneration in accordance with the Memorandum of Administrative Arrangements with the HKSAR Government. This review was conducted alongside a holistic review conducted by an external consultant for an optimal organisational structure to deliver HKGP and achieve HKGI's vision in the long run, and the formulation of HKGI's Strategic Plan 2025-30 for advancing genomic medicine in Hong Kong.

The review concluded that HKGI's staff structure and remuneration framework remain appropriate to support its mission and strategic development. It confirmed that the salary point system and salary review mechanism introduced in 2022 continue to function effectively. The remuneration package for all staff levels, including the top three tiers – Senior Managers, Branch Heads, and the CEO – remains appropriate and is not higher than those for civil servants or staff of comparable ranks in relevant subvented organisations. These arrangements ensure prudent management of resources and support effective talent recruitment and retention.

架構薪酬 與時俱進

於2024-25財政年度,基因組中心根據與特區 政府簽署的行政安排備忘錄,對員工人數、 架構、職級和薪酬水平進行第二次檢討。 檢討工作與外聘顧問進行的全面審視同步 進行,旨在優化組織架構以推行基因組 計劃,實現基因組中心的長遠願景,同時為 中心制訂《2025-30年策略計劃》,推動香港 基因組醫學發展。

是次檢討結果顯示,基因組中心的員工架構和薪酬框架仍屬恰當,有助支持中心的使命與策略性發展,並確認了2022年設立的薪點制度和薪酬檢討機制繼續行之有效。中心所有職級,包括最高三個職級(即高級經理、部門主管和行政總裁)的薪酬待遇仍屬恰當,不會優於職級相若的公務員或政府資助機構的員工。此等安排確保資源經審慎管理,同時亦有利招聘和挽留人才。





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To foster a supportive work environment, new family-friendly measures, including marriage leave, child-care leave, and birthday leave for staff, were recommended in the review and subsequently implemented with approval from the Board. In line with these efforts, HKGI is developing a Talent Attraction and Retention Policy to enhance a talent pipeline and outline career pathway in genomics.

The recommendations of the review were endorsed by HKGI's Board of Directors in December 2024. Under the guidance of the Board and the Finance and Administrative Committee, HKGI will continue to regularly review the number, structure, ranking, and remuneration of its staff to ensure these practices consistently support HKGI's long-term development.

Visionary Strategic Risk Management Creates Corporate Resilience

Proactive risk management is a cornerstone of HKGI's commitment to operational excellence and resilience, with risks consistently prioritised over the past year. To effectively identify and mitigate risks that could impact HKGI's development, including ESG factors, an Enterprise Risk Management (ERM) framework has been in place since HKGI began full operations in March 2021.

為營造關懷互助的職場環境,是次檢討建議 推行全新的家庭友善措施,包括為員工提供 婚假、育兒假和生日假。為配合相關措施, 基因組中心正制訂吸引和挽留人才政策, 並勾勒基因組學領域的事業發展路徑,以 強化人才儲備。

上述檢討建議於2024年12月獲基因組中心董事局通過。在董事局和財務及行政委員會的指導下,中心會繼續定期檢視員工人數、架構、職級及薪酬水平,確保相關措施持續支持中心的長遠發展。

風險預控 增強穩健

積極風險管理乃基因組中心追求卓越營運和建立穩健性的基石。過去一年,中心堅持將風險管理置於首位。自2021年3月全面運作以來,中心一直採用企業風險管理框架,有效識別和應對各類潛在風險,包括ESG風險因素。



Under the ERM framework, a dedicated working group, led by the CEO and comprising senior staff, conducts organisation-wide reviews of potential operational risks. This group reports to the Audit and Risk Committee (ARC), a key functional committee under the HKGI Board. ARC convenes regularly to keep abreast of the latest risk management trends and industry best practices, ensuring HKGI remains proactive in addressing internal and external challenges that could disrupt operations. ARC oversees the entire ERM process, from planning and implementation to reporting and monitoring. It provides guidance on a comprehensive range of risk-related matters, including ongoing risk assessments, strategy development, progress tracking, and evaluation, to ensure HKGI's risk management approach remains relevant, timely, and effective.

The ERM model is regularly reviewed and updated to ensure it remains robust, relevant, and aligned with HKGI's evolving needs and expanding operations. ARC deliberated and endorsed these updates at its meetings throughout the year. HKGI has identified seven critical risk categories requiring focused attention: "Laboratory Quality, Safety and Operations" and "Bioinformatics and Genomics Platform Technologies" proactively address challenges to maintain HKGI's operational stability and accessibility. These efforts are critical to ensuring consistent delivery of high-quality genomics analysis, research, and precision medicine. "IT Security, Operations and Data Privacy" is secured by implementing robust measures in IT security, operations, and data privacy that safeguard the confidentiality, integrity, and availability of sensitive genomic and personal data. These protections are vital to preserving HKGI's reputation and trust. "Talent Management" focuses on attracting, developing, and retaining top-tier professionals in the genomics field to sustain HKGI's competitive edge and innovation capacity. "Organisational Change Management" is essential for achieving HKGI's strategic objectives. It ensures strong leadership alignment, clear communication, and robust staff engagement to drive successful outcomes. "Innovation, Technology and Transformation", if not effectively managed could hinder the development and adoption of cutting-edge tools and processes, such as AI for bioinformatics processing and genomic data analysis. "Collaboration with Academics and Industry Partnership for Research and Pharmaceutical Companies", which requires clear contractual agreements with well-defined terms for intellectual property rights, roles, responsibilities, and liabilities, is essential to mitigating risks and ensuring smooth project execution.

随着基因組中心規模日漸擴大,中心定期 檢討並完善企業風險管理機制,確保框架 維持穩健,以配合不斷轉變的營運所需。 審計及風險管理委員會於年內舉行的會議 上,審議並批准了相關完善措施。基因組 中心確定需要重點關注的七大風險類別。 在「實驗室運作流程和安全標準」和「生物 信息和基因組平台測序技術」方面,基因組 中心主動應對挑戰,維持中心穩定運作並有 效提供服務,這對於確保持續提供高質量的 基因組學分析、研究和精準醫學至關重要。 在「資訊科技保安、運作流程和數據私隱」 方面,基因組中心穩守良好聲譽和信任的 關鍵是透過實施嚴謹的資訊安全、營運和 資料隱私措施,保障敏感基因組數據和 個人資料的機密性、完整性和可用性。至於 「人才管理」和「組織變革管理」方面,前者 聚焦於吸引、培育和挽留基因組醫學領域 的頂尖人才,以維持中心的競爭優勢和創新 能力,而後者則是對實現中心的策略性目標 的關鍵,確保領導層高度協作、溝通清晰 明確,並提升員工參與度,共同推動成果。 在「創新、技術及改革 | 方面,若管理不善, 將室礙先進工具及流程的開發和應用,例如 以人工智能進行生物信息處理和基因組數據 分析。在「與學術界合作及製藥公司建立 研究夥伴關係」方面,中心必須簽訂條款 清晰的合約協議,明確界定知識產權、 職能、職責和法律責任,以降低風險並確保 計劃順利執行。



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HKGI maintains a comprehensive risk register detailing each risk's likelihood, potential impact, and corresponding mitigation strategies. Additionally, a risk matrix tracks risk likelihood, trends, consequences, and prioritisation to ensure effective oversight. Over the past year, HKGI rigorously reviewed and monitored these risks. Under the guidance of HKGI Board and ARC, customised prevention and mitigation strategies were implemented, successfully containing most risks at acceptable levels.

Recognising the growing importance of cybersecurity, HKGI is committed to continuously strengthening its infrastructure, systems, and platforms. Ongoing efforts to enhance staff awareness ensure that operations adhere to the highest security and governance standards.

基因組中心制訂並持續完善全面的風險優次列表,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,配以綜合分析風險狀況的矩陣圖,追蹤各項風險發生的可能性、變化趨勢、影響和優次,以確保有效監督風險。過去一年,在董事局及審計及風險管理委員會的指導下,基因組中心已嚴格檢視並監察各項風險,同時實施專門制訂的預防和應對措施,成功將大多數風險控制在可接受的水平。

鑑於網絡安全日益重要,基因組中心將繼續 提升基礎設施、系統及平台建設,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。

Upholding Fiscal Responsibility through Prudent Financial Stewardship

Regarding Financial stewardship, HKGI's prudent measures and stringent controls ensure appropriate and cost-effective use of resources. Strategic procurement during the year facilitate institutional growth, including sequencing analysis systems and platforms that enhanced laboratory capabilities, along with data centre and infrastructure expansions that strengthened the bioinformatics platform performance and capacity. Professional services in IT security and corporate communication were also secured to maintain robust day-to-day operations across the Institute.

Operational Excellence Fuels Sustained Growth and Development

With these enhanced capabilities, HKGI is ready to pursue increasingly complex genomic research and clinical applications while upholding its exemplary standards, fulfilling the ambitious goals set out in the Strategic Plan 2025-30. The cutting-edge bioinformatics infrastructure and advanced data management systems will support HKGI's further recruitment of more samples for whole genome sequencing over the next five years. Fortified data security frameworks, sophisticated AI governance protocols, and improved data interoperability systems will accelerate collaborative genomic research both domestically and internationally.

HKGI's comprehensive risk management and progressive ESG policies will also continue to create a positive impact beyond scientific discovery. In addition to maintaining operational resilience, these initiatives will foster an environment that attracts and enables the world's brightest talent in genomics to build their careers while driving Hong Kong's genomic and healthcare aspirations.

審慎理財 穩健營運

財務管理方面,基因組中心秉持審慎理財的原則,嚴控開支,以確保資源用得其所,符合成本效益。本年度的策略性採購項目促進中心發展,當中包括引進測序分析系統和平台,提升實驗室的分析能力;以及擴建數據中心與基礎設施,以加強生物信息平台的效能和容量;同時亦取得資訊科技保安和企業通訊的專業服務,確保中心各部門的日常運作維持穩健。

卓越營運 持續發展

基因組中心的實力與日俱增,將堅守卓越標準,拓展日益複雜的基因組研究和臨床應用,實現《2025-30年策略計劃》所訂立的宏大目標。先進的生物信息基礎設施和頂尖的數據管理系統,將支援中心在未來五年進一步收集更多病人樣本,進行全基因組測序。強化後的數據安全框架、精密的人工智能管治規程,以及優化的數據互通系統,將加快推動本地和國際間的基因組合作研究。

基因組中心的全面的風險管理和前瞻性的 ESG政策,有助科學研發以外帶來更多正面 影響。這些舉措不僅維持中心的穩健運作, 亦營造出有利環境,吸引全球頂尖基因組 人才在港發展事業,推動香港基因組學, 實現更理想的醫療願景。



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 Hong Kong Genome Institute (HKGI) and the implementation of the Hong Kong Genome Project (HKGP), observing the core corporate governance principles of accountability, transparency, fairness, responsibility, as well as environmental, social, and governance (ESG).

香港基因組中心(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香港基因組計劃(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 Hong Kong Special Administrative Region (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 of HKGI regularly meet with government officials to discuss issues relating to the work of HKGI. As and when appropriate, the Chief Executive Officer 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.

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. 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 the Permanent Secretary for Health in the first quarter of each year, outlining the work it will carry out to achieve its strategic goals during the year.

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.

問責

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,盡快向醫務衞局常任秘書長提交有關基因組中心的馬目、並在不遲於財政年度屆滿後三個月,數提交基因組中心的賬目報表副本及年度會動報告。經董事局批准後,基因組中心自動政年度刊發年度報告。基因由中心有別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。

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。

Corporate Governance 企業管治

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 on the progress of its work to stakeholders. The HKGI Strategic Plan 2022-25, 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 Permanent Secretary for Health for publication and promulgation to 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.

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 professional bodies. It issues press releases and holds media briefings to inform the media and the public of all current issues and important matters relating to its work.

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.

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 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。作為指導甚 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。

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。

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 advocates, 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 a 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 Chief Executive Officer of HKGI in daily operations.

Environmental, Social and Governance

HKGI prioritises ethical impacts and sustainability practices, integrating 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. From December 2023 onwards, 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自動於2021年7月開始招募的組計劃於2021年7月開始招募相關論理審查委員會獲得批准;而在基因組計劃的進度報告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。

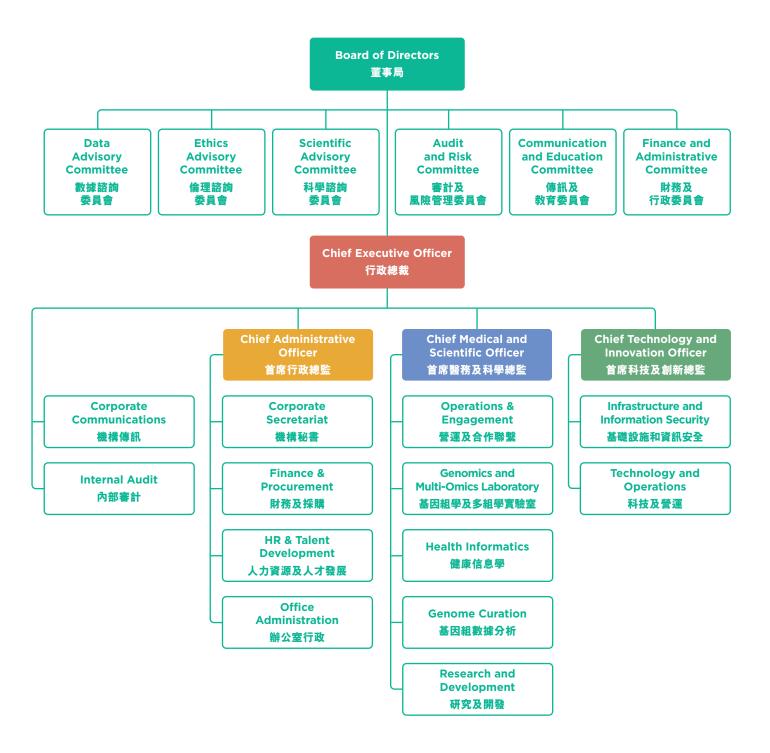
環境、社會及管治

Corporate Governance 企業管治

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

HKGI Board of Directors comprises 18 non-public officers and three public officers, engaging experts from different sectors, such as clinical professionals, data scientists, bioinformaticians, legal experts, accountants, and public educationalists to promote the development of genomic medicine in Hong Kong.

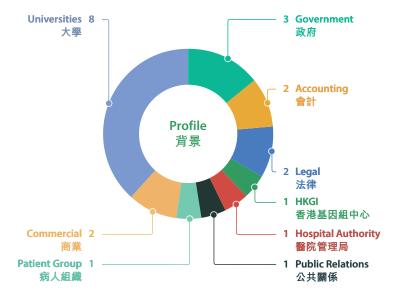
董事局

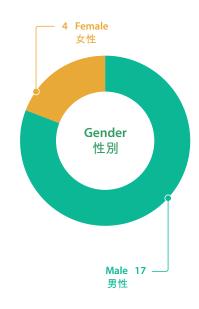
董事局職能

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18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。





Corporate Governance 企業管治

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 2024-25, the Board deliberated on a comprehensive range of strategic, governance, and operational matters essential to the effective leadership and management of HKGI. Key governance items included the Board's annual self-assessment for 2024, the HKGI Annual Report for 2023-24, and updates on the implementation of HKGP. The Board also reviewed the half-yearly and annual progress of the 2024-25 Annual Plan Programmes, as well as the audited financial statements and financial report for the year. Forward planning was supported by the endorsement of the 2025-26 Annual Plan and Draft Estimates of Income and Expenditure, along with a forecast of agenda items for the coming year. Strategic development was further advanced with the HKGI Strategic Plan 2025-30, a consultancy report on HKGI's organisational structure, and a review of HKGI's staff structure and remuneration. Operational decisions included updates to committee memberships, award and extension of key contracts for infrastructure expansion, data centre colocation, telecommunication services, sequencing reagents, and support services. The Board also approved the appointment of HKGI's external auditor and received progress reports from its functional committees. The meeting attendance rates of individual Board members for the period from April 2024 to June 2025 are 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 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 2024-25, the Consortium met twice to review the global genetic counselling training programmes and requirements for credentialing, the career development of genetic counsellors in the Hospital Authority and the role of genetic counselling in promoting public awareness of genomics, as well as to note the sharing by local course directors on current genetic counselling training courses 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2024-25年度審議 了多項與基因組中心領導及管理相關的重要 策略、管治及營運事宜。主要管治事項包括 董事局2024年度的周年自我評估、香港基因 組中心2023-24年報,以及基因組計劃的實施 進展。董事局亦審閱了2024-25年度計劃的 半年及全年進度報告,以及該年度經審計 的財務報表及財務報告。為推進未來規劃, 董事局通過了2025-26年度計劃及收支預算 草案,以及2025-26年度董事局會議的待議 事項。在策略發展方面,董事局審批了香港 基因組中心的《2025-30年策略計劃》,以及 有關香港基因組中心的組織架構顧問報告 和員工架構及薪酬水平檢討報告。營運層面 方面,董事局審議了委員會成員名單的 更新、擴展基礎設施的合約、以及數據中心 托管場地租賃、電訊網絡服務供應、樣本庫 製備試劑、短序列和長序列測序試劑及支援 服務的續約事宜。此外,董事局亦通過了基因 組中心外聘核數師的委任,並審閱了各專責 委員會的工作進度報告。在2024年4月至 2025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,並實現在香港發展 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院 (聯席),匯聚遺傳學及基因組學的專 持份者,促進本地遺傳輔導專業的發展。 在2024-25年度,聯席舉行了兩次會議,檢視 全球遺傳輔導專業培訓課程及認證要求 醫院管理局遺傳輔導員的職業發展、遺傳 輔導在促進公眾對基因組學認識方面的 角色,並聽取本地課程負責人就香港現行 遺傳輔導培訓課程的分享。

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
	Professor Allen CHAN Kwan-chee ⁱ 陳君賜教授 ⁱ	67
	Mr Ray CHAN Chin-ching 陳展程先生	80
	Professor CHAN Wai-yee ⁱⁱ 陳偉儀教授 ⁱⁱ	100
	Ms Ivy CHEUNG Wing-han 張頴嫻女士	100
	Professor Herbert CHIA Pun-kok ⁱ 車品覺教授 ⁱ	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	100
	Dr Isabella LIU Fang-chun 劉芳君博士	40
	Professor Dennis LO Yuk-ming, SBS, JP 盧煜明教授, SBS, JP	40
	Professor Alfonso NGAN Hing-wan ⁱⁱ 顏慶雲教授 ⁱⁱ	100
	Mr Tim PANG Hung-cheong 彭鴻昌先生	100
	Mr Stephen WONG Kai-yi 黃繼兒先生	100
	Professor Ian WONG Chi-kei ⁱ 黃志基教授 ⁱ	100
	Dr Michael WONG Lap-gate 黃立己醫生	80
	Professor WONG Yung Hou 王殷厚教授	100
	Professor YIP Shea-ping 葉社平教授	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	80
	Mr Sam HUI Chark-shum, JP 許澤森先生, JP	100
	Dr Teresa LI Mun-pik, JP 李敏碧醫生, JP	100

Notes 附註:

i. Appointment commenced on 5 November 2024. 任期自2024年11月5日。

ii. Appointment completed on 4 November 2024. 任期至2024年11月4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 2024 to June 2025 are listed in the following section.

Data Advisory Committee

Membership

Convenor: Professor YIU Siu-ming

Non-official Members: Professor CHAN Ting-fung

Dr Chris CHAN Tsun-leung

Dr CHEUNG Ngai-tseungⁱⁱ

Professor Herbert CHIA Pun-kokⁱ

Dr Lucas HUI Chi-kwong

Professor JIANG Pei-yong

Dr Jacky LAM Wai-kei

Mr Victor LAM Wai-kiu Professor Terrence LAU Chi-kong

Dr Shawn LEUNG Shui-on Dr Isabella LIU Fang-chunⁱⁱ Professor Ian WONG Chi-keiⁱⁱ Professor Angela WU Ruohao Professor YANG Wan-lingⁱⁱ

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2024年4月至2025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: 陳廷峰教授 陳俊良博士 張毅翔醫生 車品覺教授! 許志光博士 江培勇教授 林偉棋醫生 林偉喬先生 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

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。

楊萬嶺教授"

- 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 (DAC) conducted two meetings, with an average attendance rate of almost 90%, 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, data centre colocation, data storage expansion, deployment of a virtual machine platform, security enhancements on infrastructure and system applications, as well as the development of two core projects, namely HKGI Curation Platform and HKGI Synergistic Research Environment. The DAC also noted the updates on the formulation of Strategic Plan 2025-30 and the progress update of the Institute-wide Security Risk Assessment and Audit.

Note:

- i. Appointment commenced on 1 December 2024.
- ii. Appointment completed on 30 November 2025.

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90%,討論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,並提出意見。其中包括參加理、對據中心託管場地租賃、數據存應明之一。 數據中心託管場地租賃、數據存應用的。 是擬機平台部署、加強基建及系統應用心的基因組數據分析平台,以及協同合作研究平台的發展。委員會亦備悉制訂《2025-30年策略計劃》的最新進展,以及機構保安風險評估及審核工作的最新進展。

附註:

- i. 任期自2024年12月1日。
- ii. 任期至2025年11月30日。



Corporate Governance 企業管治

Governance Structure 管治架構

Ethics Advisory Committee

Membership

Convenor: Dr Derrick AU Kit-sing

Non-official Members: Dr Josephine CHONG Shuk-ching

Professor Calvin HO Wai-loon

Professor Stephen LAM Tak-sumii

Professor Pamela LEE Pui-wah

Professor LEUNG Suet-yiii

Mr Tim PANG Hung-cheong

Dr Mary TANG Hoi-yini

Mr Stephen WONG Kai-yi

Professor Desmond YAP Yat-hin

Mr Henry YAU Kwong-chi

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

何維倫教授

林德深教授

李珮華教授

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

游廣智先生

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。
- 参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 over 95%. 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, the status of ethics approval from relevant IRBs, positive results of the commissioned evaluation study of HKGP, the "Best Poster Presentation Award" garnered at the 9th Nursing Symposium on Cancer Care *cum* 1st Genomic and Genetic Nursing Forum, and the findings of the Clinician-reported Genetic testing Utility InDEx (C-GUIDE) study. The EAC also discussed ethical considerations arising from newborn genome sequencing and artificial intelligence (AI) in genomic medicine, and received updates on the formulation of the Strategic Plan 2025-30.

Note:

- i. Appointment completed on 31 July 2025.
- ii. Appointment completed on 30 November 2025.

工作重點

倫理諮詢委員會於年內舉行了兩次會議, 平均出席率超過95%。委員會審視了基因組 計劃的里程碑,以及相關倫理考量,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、獨立評估機構給予基因組計劃的正面 評價、於第九屆癌症護理研討會暨首屆遺傳 學護理論壇中獲頒 "Best Poster Presentation Award",以及Clinician-reported Genetic testing Utility InDEx (C-GUIDE)的研究成果。 委員會亦討論新生嬰兒基因組測序及人工 智能於基因組醫學中的應用所引起的倫理 議題,並備悉制訂《2025-30年策略計劃》的 最新進展。

附註:

- i. 任期至2025年7月31日。
- ii. 任期至2025年11月30日。



Governance Structure 管治架構

Scientific Advisory Committee

Membership

Convenor: Professor Dennis LO Yuk-ming, SBS, JPi

Professor LAU Chak-sing, BBS, JPii

Non-official Members: Professor Allen CHAN Kwan-cheeii

Professor Godfrey CHAN Chi-fungiii

Dr Leo CHAN Ho-fungii

Professor LEUNG Tak-yeungiii

Dr LUK Ho-mingii

Dr Edmond MA Shiu-kwan

Professor Tony MOK Shu-kam, BBS

Professor SHAM Pak-chung, JP

Dr Venus SIU Wing-szei

Professor WONG Yung Hou

Professor Michael YANG Mengsu

Professor YIP Shea-ping

Official Members: Representative from the Health Bureau

Representative from the Department of Health

Terms of Reference

- 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, JPi

劉澤星教授, BBS, JP

非官方成員: 陳君賜教授"

陳志峰教授 原浩峰醫生 梁德楊教授 原浩峰

陸浩明醫生 馬紹鈞醫生

莫樹錦教授, BBS

沈伯松教授, JP

蕭詠詩醫生ⁱ 王殷厚教授

楊夢甦教授

葉社平教授

官方成員: 醫務衞生局代表

衞生署代表

職權範圍

- 考慮、建議及批准基因組計劃的臨床、 實驗室及研究規程。
- 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 three 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 in-house whole genome sequencing capability and capacity, productive strides made during multidisciplinary team meetings, follow-up on HKGP pilot phase, the latest development of HKGI Synergistic Research Environment and HKGI Curation Platform, findings of retinitis pigmentosa cohort analysis, and potential research partnerships. The SAC appreciated the expanded disease cohorts under the new theme of "Genomics and Precision Health" in addition to cohorts of undiagnosed diseases and hereditary cancers. The SAC also discussed the updates on the formulation of the Strategic Plan 2025-30, the clinical application of long-read sequencing, and the application of rapid long-read genome sequencing in to enhance the diagnosis of genetic diseases in critically ill patients.

Notes:

- i. Appointment completed on 30 November 2024.
- ii. Appointment commenced on 1 December 2024.
- iii. Appointment completed on 30 November 2025.

工作重點

科學諮詢委員會於年內舉行了三次會議, 平均出席率近90%。委員會聽取了基因組計 劃的進度報告,包括參加者招募人數上升、 內部全基因組測序能力及產能提升、跨專業 團隊會議取得的豐碩成果、基因組計劃先導 階段的進度報告、基因組中心的協同合作 研究平台和基因組數據分析平台的最新 發展、視網膜色素病變的分析結果,以及 潛在的研究合作機會。委員會欣悉「基因組 學及精準醫學」主題下的疾病群組,在「未能 確診病症」及「與遺傳有關的癌症」主題以外 得以擴大。委員會亦討論了制訂《2025-30年 策略計劃》的最新進展、長序列測序技術的 臨床應用,以及快速長序列測序技術於香港 基因組計劃中的應用,以提升對危重病患者 遺傳病的診斷能力。

附註:

- i. 任期至2024年11月30日。
- ii. 任期自2024年12月1日。
- iii. 任期至2025年11月30日。



Corporate Governance 企業管治

Governance Structure 管治架構

Audit and Risk Committee

Membership

Convenor: Dr Isabella LIU Fang-chun
Non-official Members: Ms Fran HUNG Suk-fanⁱ

Dr KAM Pok-man, BBS

Mrs Lesley WONG CHUI Yue-chue, SBS, JP

Official Member: Representative from the Health Bureau

Terms of Reference

 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: 洪淑芬女士

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

- 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。
- 就外聘、重新外聘及解聘外聘核數師向 董事局提出建議。
- 檢閱外聘核數師提交的賬目,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 three regular meetings, achieving a 100% attendance rate. 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 2025-26 and received progress reports on audit results of HKGI's operations. These included audits on the compliance of the partnering centres at the University of Hong Kong/Queen Mary Hospital and the Chinese University of Hong Kong/Prince of Wales Hospital with the collaboration agreements and operations controls, as well as audits on HKGI's declaration of conflict of interest, security and operation controls of colocation service providers, legal compliance, staff retention, follow-up on compliance and controls of procurement processes, and phishing simulation. For risk management, the ARC considered and approved HKGI's 2025 Enterprise Risk Management Plan. The ARC was updated on the progress and results of the Phase 2 evaluation report of HKGP conducted by the PHG Foundation of the University of Cambridge and the School of Public Health under the Li Ka Shing Faculty of Medicine of the University of Hong Kong, as well as the Security Risk Assessment and Audit Progress Report on HKGI from an external consultancy firm. The ARC also endorsed the appointment of an external auditor to HKGI for three financial years ending 31 March 2028.

In addition, two FAC-ARC joint meetings were held to review and endorse HKGI's audited financial statements and financial report, with an average attendance rate of over 90%.

Note:

i. Appointment commenced on 1 December 2024.

工作重點

審計及風險管理委員會於年內舉行了三次 定期會議,出席率達100%。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 2025-26年度內部 審計計劃,以及有關基因組中心業務的審計 結果的進度報告。其中完成的審計包括香港 大學/瑪麗醫院,和香港中文大學/威爾斯 親王醫院的夥伴中心合作協議的營運控制; 基因組中心的利益衝突申報、託管場地租賃 服務供應商的保安和運作監控、法律合規、 員工留任、跟進處理採購流程的合規與 控管,以及網絡釣魚模擬測試。在風險管理 方面,委員會審議並通過基因組中心 2025年 企業風險管理計劃。委員會亦備悉由英國 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第二階段 評估報告的進度與結果,以及外聘顧問公司 就基因組中心整體運作的保安風險評估及 審計進度報告。委員會並通過為基因組中心 任命外聘核數師,為期三個財政年度至2028年 3月31日為止。

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, 審視並通過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%。

附註:

i. 任期自2024年12月1日。



Corporate Governance 企業管治

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-taki

Mr Tim PANG Hung-cheong

Ms Leona WONG Nga-lai

Mr Jackie YU Ka-kei

Official Member: Representative from the Health Bureau

Terms of Reference

 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 HKGl on the appointment of the publicity and social media consultant(s).
- 3. To review and oversee HKGl's branding, communications, publicity activities, and key messages delivered to the public, including the awareness, clinical benefits, and data privacy issues of HKGP.
- 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

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。
- 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。
- 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。
- 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

During the period, the Communication and Education Committee (CEC) held two meetings 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 various stakeholders, ranging from government officials and lawmakers to patients, healthcare professionals, and the media. These included the development of directions and strategies for "Enhancing Public Genomic Literacy and Industry Partnership" as part of the Strategic Plan 2025-30, the formulation of the promotional strategies for the "International Genomic Medicine Symposium" co-organised with Rare Diseases International and The Lancet Commission on Rare Diseases, the publication of the HKGI 2023-24 Annual Report, coordination of media interviews on programmes of Television Broadcasts Limited and Radio Television Hong Kong, enhancements to the HKGI LinkedIn page, and contribution of contents to the online thematic column on HK01.

The CEC also deliberated on a number of engagement events at the meetings, such as visits by senior officials from the Health Bureau, Hospital Authority (HA) and Fire Services Department, delegates from the global biopharmaceutical corporation AstraZeneca, senior management from Tencent Healthcare, and patient outreach initiatives coordinated through the HA. The CEC was briefed on and provided insights regarding HKGI's ongoing involvement in various mass media interviews and industry events.

Furthermore, the CEC endorsed HKGl's 2025-26 Publicity Plan and received operational updates on the implementation progress. Members also applauded the recognition HKGl received for its outstanding communication efforts, including the "2024 Vision Awards", "2024/25 Mercury Excellence Awards", and "2025 ARC Awards", all hosted by renowned international industry organisations.

Note

i. Appointment completed on 30 November 2024.

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,如制訂《2025-30年策略計劃》中有關「加強公眾認識及深化業界夥伴關係」的策略方向、擬定基因組中心與際罕見病協會及《刺針》罕見病專家委與會合辦的「基因組醫學國際會議」的宣傳策無經電視及香港電台節目的媒體訪問、優化生物。與及於《香港01》的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辦的多項交流活動,包括醫務衞生局、醫院管理局及香港消防處高級官員、全球生物製藥公司阿斯利康(AstraZeneca)代表、騰訊健康高層管理團隊等到訪參觀,以及透過與醫院管理局合作加強與病人聯繫不受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。

除此之外,委員會通過了基因組中心 2025-26年度的宣傳計劃,並聽取了相關工作進度報告。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「2024 Vision Awards」、「2024/25 Mercury Excellence Awards」及「2025 ARC Awards」。

附註:

i. 任期至2024年11月30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

 To advise on the overall policies and procedures relating to financial, human resources, and administrative matters of HKGI.

- 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 2025-26; quarterly HKGI financial reports; a quarterly expenditure summary for HKGP of the three partnering centres; the latest staff recruitment progress and organisation structure; procurement of reagent kits and support services, hardware equipment for bioinformatics platform and infrastructure, data centre colocation and telecommunication network services; HKGI's staff structure and remuneration review report; IT security policies and guidelines and updated procurement guidelines and procedures; and the strategic goals for "Nurturing Talents in Genomic Medicine" outlined in the HKGI Strategic Plan 2025-30.

In addition, two FAC-ARC joint meetings were held to review and endorse HKGI's audited financial statements and financial report, with an average attendance rate of over 90%.

財務及行政委員會

成員

召集人: 張頴嫻女士

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

- 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。
- 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 通過的事宜,包括2025-26年度收支預算。 季度財務報告、基因組計劃三間夥伴中心 季度開支摘要、員工招聘的最新情況及組 架構、採購測序試劑及支援服務、生物信息 平台基建的硬件設備、數據中心託管場地租 賃及電訊網絡服務、基因組中心員工架構及 薪酬水平檢討報告、資訊科技保安政策及 指引和更新採購指引及程序,以及《2025-30年 策略計劃》中「培育基因組醫學人才」策略 目標。

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, 審視並通過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。





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 2024-25, the highlights were as follows:

- (a) Recurrent subvention of HK\$104,953,000 was received for the funding of personal emoluments and other operating charges. In addition, HK\$16,993,271 of the recurrent subvention for the PCs included in deferred income in previous years was recognised as income when the related recurrent expenditure was expensed during the financial year.
- (b) Non-recurrent subvention of HK\$199,656,593 was received for the bioinformatics services, sequencing services and PCs network costs, and HK\$190,583,257 was recognised as income when the related expenditure was expensed during the financial year. The unutilised 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\$1,977,266 was recognised as income which represented the depreciation charge on those assets during the financial year. The remaining 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。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。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。

2024-25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104,953,000港元。此外, 過往年度計入遞延收入的16,993,271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費用收取非經常性補助 199,656,593港元,其中190,583,257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 1,977,266港元已確認為收入,為該等 資產於本財政年度內的折舊費用。資本 補助結餘金額於財務狀況表入賬為遞延 收入。

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- (d) After netting off the expenditure items and depreciation charges, the deficit and total comprehensive income for the year ended 31 March 2025 was HK\$4,144,920.
- (e) As at 31 March 2025, the non-current assets of property, plant and equipment and right-of-use assets were HK\$86,523,838 and HK\$25,932,583 respectively. The net current liabilities included bank balances of HK\$42,488,612, and payables and accruals of HK\$39,366,346. The accumulated fund was HK\$78,897,146.

The financial statements of HKGI for the financial year ended 31 March 2025 had been prepared in accordance with HKFRS Accounting Standards as 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 23 June 2025 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 2025年3月31日止年度的虧損及全面 收益總額為4,144,920港元。
- (e) 於2025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86,523,838港元及25,932,583港元。流動負債淨額包括銀行結餘42,488,612港元,以及應付款項和應計費用39,366,346港元。累計資金為78,897,146港元。

基因組中心截至2025年3月31日止年度的財務報表乃根據香港會計師公會頒布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2025年6月23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 financial years ended 31 March 2025 and 31 March 2024 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2025年3月31日及2024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 2025 截至2025年3月31日止年度

		2025	2024
		HK\$	HK\$
		港元	港元 ————————————————————————————————————
INCOME	收入		
Recurrent subvention	經常性補助	104,953,000	108,953,000
Add: Release of deferred income	加:遞延收入撥回	16,993,271	24,192,361
		7, 1 7	, , , , , ,
		121,946,271	133,145,361
Non-recurrent subvention	非經常性補助	190,583,257	107,648,534
Capital subvention	資金補助	1,977,266	1,987,784
		314,506,794	242,781,679
Bank interest income	銀行利息收入	1,074,580	1,815,603
Foreign exchange differences	外匯差額	40,784	-
Total income	收入總額	315,622,158	244,597,282
EXPENDITURE	開支		
	經常性開支		
Recurrent expenditure Personal emoluments	人員薪酬	(52.044.005)	(50.330.036)
		(62,841,906)	(59,328,926)
Partnering Centres expenses	夥伴中心開支 ************************************	(16,993,271)	(24,192,361)
Other operating charges	其他營運費用	(28,380,052)	(31,177,052)
		(108,215,229)	(114,698,339)
Non-recurrent expenditure	非經常性開支		
Partnering Centres expenses	夥伴中心開支	(14,757,604)	-
Other non-recurrent charges	其他非經常性費用	(158,526,570)	(100,512,192)
Depreciation	折舊		
Property, plant and equipment	物業、廠房及設備	(32,064,945)	(19,830,012)
Right-of-use assets	使用權資產	(6,169,754)	(6,169,754)
Gain/(loss) on derecognition of lease liabilities	終止確認租賃負債的收益/	(0)102/131/	(0,102,731)
	(虧損)	48,318	(818,331)
Finance cost on lease liabilities	租賃負債的融資成本	(81,297)	(445,155)
Total expenditure	開支總額	(319,767,078)	(242,473,783)
(DEFICIT)/SURPLUS AND TOTAL	年內(虧損)/盈餘		
COMPREHENSIVE INCOME FOR THE YEAR	及全面收益總額	(4,144,920)	2,123,499
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Financial Report 財務報告

Statement of Financial Position

財務狀況表

As at 31 March 2025 於2025年3月31日

		2025 HK\$	2024 HK\$
		港元	港元
NON-CURRENT ASSETS	非流動資產		
Property, plant and equipment	物業、廠房及設備	86,523,838	71,934,491
Right-of-use assets	使用權資產	25,932,583	18,944,590
Prepayments and deposits	預付款及按金	51,669,410	61,147,648
Total non-current assets	非流動資產總額	164,125,831	152,026,729
CURRENT ASSETS	流動資產		
Inventories	存貨	7,137,849	14,885,766
Prepayments, deposits and other receivables	預付款、按金及其他		
	應收款項	51,889,187	99,560,136
Bank balances	銀行結餘	42,488,612	36,828,454
Total current assets	流動資產總額	101,515,648	151,274,356
CURRENT LIABILITIES	流動負債		
Other payables and accruals	其他應付款項及應計費用	39,366,346	28,411,051
Deferred income – Recurrent subvention	遞延收入 — 經常性補助	_	16,993,271
Deferred income – Non-recurrent subvention	遞延收入 — 非經常性補助	69,290,571	72,048,296
Deferred income – Capital subvention	遞延收入 — 資本補助	1,977,266	1,977,266
Lease liabilities	租賃負債	-	2,145,680
Total current liabilities	流動負債總額	110,634,183	121,575,564
NET CURRENT (LIABILITIES)/ASSETS	流動(負債)/資產淨額	(9,118,535)	29,698,792
TOTAL ASSETS LESS CURRENT LIABILITIES	資產總額減流動負債	155,007,296	181,725,521
NON-CURRENT LIABILITIES	非流動負債		
Deferred income – Non-recurrent subvention	遞延收入 — 非經常性補助	65,850,248	90,353,731
Deferred income – Capital subvention	遞延收入 — 資本補助	1,875,264	3,852,530
Lease liabilities	租賃負債	4,241,648	334,204
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	76,110,150	98,683,455
Net assets	資產淨額	78,897,146	83,042,066
FUNDS	資金		
Accumulated fund	累計資金	78,897,146	83,042,066





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