Health and Medical Research Fund:

2024-25 Annual Report

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Health and Medical Research Fund

On 9 December 2011, the Legislative Council (LegCo) Finance Committee approved a new commitment of \$1,415 million for setting up the Health and Medical Research Fund (HMRF), by consolidating the former Health and Health Services Research Fund (HHSRF) and the former Research Fund for the Control of Infectious Diseases (RFCID), with a broadened scope for funding health and medical research in Hong Kong. Research projects funded under the former HHSRF and the former RFCID have been subsumed under the HMRF.

On 28 May 2016, the Finance Committee approved to increase the approved commitment for the HMRF from \$1,415 million by \$1,500 million to \$2,915 million to sustain its operation for another five years from 2017-18 to 2021-22 and expand the scope of the HMRF to incorporate the functions of the former Health Care and Promotion Fund¹ (HCPF). After the consolidation of the HMRF and the HCPF on 28 April 2017, the HCPF and the HCPF Committee (the governing body of the HCPF) were renamed as the Health Care and Promotion Scheme (HCPS) and the Health Care and Promotion Committee (HCPC) respectively.

To further streamline the operation of the HMRF, on 1 August 2018, the HCPC and its Promotion Sub-Committee (technical arm of the HCPC) were consolidated and subsumed under the Grant Review Board (GRB, technical arm of the Research Council (RC)) for providing technical support to the RC for the HCPS. The RC thus became the sole governing body of the HMRF to provide strategic steer for all funding schemes (including the HCPS) under the HMRF. In December 2018, the annual open call for investigator-initiated research projects and the annual open call for HCPS were consolidated into one single open call.

On 28 April 2021, the LegCo approved to further increase the commitment of the HMRF by \$1,308 million (from \$2,915 million to \$4,223 million) to sustain the HMRF's operation and enhance the funding scope of HMRF.

The HMRF aims to build research capacity and to encourage, facilitate and support health and medical research to inform health policies, improve population health, strengthen the healthcare system, enhance healthcare practices, advance standard and quality of care, and promote clinical excellence, through generation and application of evidence-based scientific knowledge derived from local research in health and medicine. It also provides funding support to evidence-based health

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The Health Care and Promotion Fund (HCPF) was established in 1995 to provide financial support for activities related to health promotion, preventive care and related research; and patients in need of treatment not available in Hong Kong, particularly in respect of rare diseases. In 2006, the HCPF Committee decided to revise the scope the HCPF to focus primarily on health promotion activities and disease prevention.

promotion projects that help people adopt healthier lifestyles by enhancing awareness, changing adverse health behaviours and creating a conducive environment that supports good health practices.

The HMRF considers funding health and medical research/projects in the following areas –

- (a) public health, human health and health services (e.g. primary healthcare, non-communicable diseases, Chinese medicine);
- (b) prevention, treatment and control of infectious diseases with public health implications;
- (c) advanced medical research which applies advanced technologies to facilitate the translation of knowledge generated from health and health services or infectious diseases studies into clinical practice and to inform health policy; and
- (d) health promotion that facilitates mobilisation of local resources to promote good health and prevention of illness in the community.

The HMRF provides funding support for the following types of projects –

- (a) <u>Investigator-initiated Projects</u> (funding ceiling: \$1.5 million per project) to support research studies and health promotion projects from individual applicants in response to "HMRF Open Call" invitations for grant applications guided by reference to the thematic priorities.
- (b) <u>Government-commissioned Programmes</u> to support specific programmes commissioned to, inter alia, build research capacity, fill knowledge gaps, support policy formulation, address specific issues, assess needs and threats, etc. Funding may cover research projects, facilities, infrastructure and other capacity building initiatives as appropriate.
- (c) Research Fellowship Scheme (funding ceiling: \$1.2 million per award) to enhance research capability and build research capacity to facilitate the translation of knowledge into formulation of health policy and clinical practice. Research fellowships will be awarded to eligible candidates covering a range of research areas and specialties on the advice of the RC.

In general, members of any discipline or profession in health or health-related field can apply for funding. Grants may be awarded to locally based tertiary institutions, hospitals, medical schools, non-governmental organisations and other appropriate centres, units or services. Members of other disciplines, such as social welfare and education may also apply if the proposed projects are within the ambit of the HMRF.

On completion of approved projects, the final and dissemination reports will be assessed before dissemination via the website (https://rfs.healthbureau.gov.hk), the Hong Kong Medical Journal and at the monthly Journal Club meetings. In addition, the HMRF organises the Health Research Symposium every two to three years to provide a platform for experts, researchers, healthcare professionals and community partners to share their knowledge and achievements in various research and health promotion topics, and acknowledge outstanding projects funded by the HMRF.

Governance

Health and Medical Research Fund

Research Council (Chaired by the Secretary for Health) Grant Review Board (Chaired by GRBE) Referee Panel GRBE: Grant Review Board Executive Governing body Technical arm Executive arm

Chaired by the Secretary for Health, the RC is responsible for providing strategic steer for funding health and medical research and health promotion projects, and overseeing the management of the HMRF including the allocation of funds for approved grants. Its terms of reference are as follows –

- (a) to determine research agenda and funding control mechanism of the HMRF;
- (b) to approve procedures for inviting, and criteria for vetting grant applications;

- (c) to approve standard terms and conditions for grant holders;
- (d) to approve funding allocation after peer-review process;
- (e) to approve processes for the ongoing monitoring and evaluation of approved research/projects;
- (f) to establish the GRB to carry out the technical work of the RC;
- (g) to disseminate key findings of funded projects; and
- (h) to supervise the management and investment of the fund.

The RC is supported by the Grant Review Board (GRB), the GRB Executive (GRBE)², Assessment Panels (APs) and Referee Panel as technical arms which comprise local and non-local experts from a wide spectrum of medical, health, social and analytical sciences to make recommendations on funding applications and assess the progress and outcomes of funded projects.

The membership of the RC and their supporting committees can be found at *Appendix A*. Their operation is supported by the Research Fund Secretariat of the Research and Data Analytics Office under the Health Bureau.

Highlights of 2024-25

Investigator-initiated Projects

The HMRF since its establishment in 2011 has supported 2,238 investigator-initiated projects, of which 1,241 projects have been completed and closed. These projects cover most research topics under the thematic priorities on –

(a) Health and Health Services – prevention and management of major non-communicable diseases including cardiovascular illnesses, cancers, chronic respiratory diseases, diabetes and mental disorders; modifiable lifestyle factors including tobacco use, internet gaming disorder, harmful use of alcohol, and physical inactivity; mental health; sleep deprivation; reproductive health; psychosocial burdens of carers; health services including primary healthcare, chronic disease management, health economics, preventive care for children, elderly care, palliative care and Chinese medicine;

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² The GRBE comprises Chairpersons of the GRB.

- (b) Infectious Diseases epidemiology, surveillance and control of emerging and re-emerging infectious diseases, transmission dynamics, pathogen characteristics, mechanism of infection, diagnosis and therapeutics, antimicrobial resistance, antimicrobial stewardship, host immunology, vaccine research, health economics and promotion of vaccination programme;
- (c) Advanced Medical Research use of advanced technologies to understand the prevalence, risk factors, causes, diagnosis, treatment and prevention of a wide range of human diseases and conditions, including development of telemedicine, use of artificial intelligence and deep learning models for outcome prediction, improving treatment response and disease management, application of genetics and genomics approaches for the development of personalised medicine; and
- (d) Health Promotion reduction of tobacco/alcohol-related problems, strengthening of preventive care in children, adolescents, elderly and ethnic minorities, promotion of healthier lifestyles, empowerment of patients in chronic disease management, mental health promotion, injury prevention and breastfeeding, women's health and sexual health.

During the year, 195 investigator-initiated projects were completed and closed.

Annual Open Call for Investigator-initiated Projects

The 2024 HMRF Open Call for Investigator-initiated Projects was announced in December 2024. Only **clinical research and research on infectious diseases with public health implications** will be supported as HMRF emphasises the importance of translational potential of research findings. Research proposals on infectious diseases with public health implications from bench to bedside and at community level, and with translational value are supported. Clinical research based on Chinese medicine theory or clinical research on Chinese medicine theory and methodology will also be supported. Those falling under the thematic priorities (*Appendix B*) will be given higher priority for funding. In accordance with the thematic priorities and the established assessment criteria³, the GRB's recommendations on funding applications will be considered by the RC. Funding results will be announced in September 2025.

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³ Grant applications are assessed through a stringent two-tier peer review process, first by the Referee Panel, and then by the Grant Review Board. The assessment criteria include scientific merit and originality, local relevance/impact, translational potential/value and feasibility of the proposals, sustainability of health promotion projects, capacity of the administering institutions, track record of applicants, value for money and research ethics, where applicable.

Government-commissioned Programmes

Since the establishment of the HMRF, 27 commissioned programmes (covering about 296 individual studies) have been approved in the following areas –

- (a) **Infectious diseases** including studies on prevention, control and treatment of infectious diseases, including COVID-19, to address important research areas in transmissibility and infectivity of the virus, effective detection and surveillance, prevention strategies of the disease, development of vaccines, treatments and therapies, promotion of the acceptance, uptake and adherence to public health and social measures, and preparedness and response to the pandemic and epidemic; evaluation of influenza vaccination programmes and clinical trials on influenza vaccine, including the use of imiquimod in elderly and chronic illness subjects;
- (b) **Non-communicable diseases** including identifying the risk of breast cancer; evaluation of Government's breast cancer screening pilot programme; and colorectal cancer screening pilot programme; surveys on mental health morbidity in different age groups; evaluation of the Hong Kong Genome Project and the Chronic Disease Co-Care Pilot Scheme;
- (c) **Life-course research** targeting paediatric population such as nurturing a breastfeeding friendly community and identifying mothers' barriers to sustain exclusive breastfeeding; survey on vitamin D status of infants, young children and pregnant women; and review of growth charts for Hong Kong children; and elderly care including review on end-of-life care and service models to improve quality of healthcare for the elderly;
- (d) Clinical trials and cohort studies including setting up of Phase I Clinical Trials Centres; conducting early phase clinical trials on novel pharmaceutical products; and following up various local cohorts relating to long-term use of aspirin, young-onset diabetes, late-onset dementia, depressive and anxiety symptoms, non-communicable diseases in "Children of 1997" birth cohort, households and users of elderly health services, primary care of hypertension and diabetes, and cardiovascular risk factors; and
- (e) **Research on policy issues** including review on healthcare manpower planning; review on regulatory framework for healthcare professional development; evaluating the impact of tobacco control policies in Hong Kong; and mental health promotion through community partnership programmes.

Seventeen programmes have been completed and closed.

Research Fellowship Scheme

The Research Fellowship Scheme has been launched since 2015 to support researchers or professionals in their early to mid-career, particularly healthcare professionals to enhance their skills in public health and health services research. Tertiary institutions funded by the University Grants Committee are invited to nominate fellowship applicants annually. In order to provide more training opportunities to build up the research capacity of Hong Kong to meet future needs and challenges, invitation for applications has been extended to the two designated teaching hospitals (i.e. Prince of Wales Hospital and Queen Mary Hospital) starting from the 2021 application round. The grant ceiling per award is \$1.2 million including up to \$0.4 million⁴ for overseas training/attachment relating to health services or public health, in particular public health policy topics. Higher priority would be given to applications which address cancers and the preventable or modifiable risk factors for non-communicable diseases, namely unhealthy diet, physical inactivity, tobacco use and harmful use of alcohol. Ninety-two awards have been approved since the implementation of the Scheme.

The 2024 Open Call was issued in October 2024 and closed on 6 January 2025. A total of 35 applications were received. The Research Fellowship Assessment Panel's recommendations on funding applications will be considered by the RC. Funding results will be announced in June 2025.

During the year, nine research fellowship projects were completed and closed.

The final reports and dissemination reports of satisfactorily completed research programmes/projects are posted on the website (https://rfs.healthbureau.gov.hk) for wider dissemination. Projects with findings that merit wider dissemination are published as a supplement to the Hong Kong Medical Journal which are also available online. Projects with higher translational value and local relevance will also be presented at the monthly Journal Club meetings.

Health Research Symposium 2024

The Health Research Symposium 2024 (the Symposium) with the central theme of "Advancing Health through Research and Technology" was held on 26 November 2024. The Symposium attracted enrolment from over 850 medical and healthcare practitioners, researchers, academics, and community and government representatives to share the research findings of projects funded by the HMRF as well as to exchange experiences.

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⁴ Since the 2019 Open Call for Research Fellowship Scheme, the budgets for training plan and research plan have been revised from \$0.2 million to up to \$0.4 million and about \$1 million to \$0.8 million respectively.

Four world-renowned experts, namely Professor Anthony JORM, Dr Alexander NG, Professor CHEN Zhengming and Professor Corinne FAIVRE-FINAA, were invited to deliver keynote lectures at the Symposium to enlighten the attendees with their experiences and insights on mental health, the application of big data in primary healthcare, precision medicine, and real-world research, respectively.

In addition, 28 local project teams funded by the HMRF and four recipients of the Research Fellowship Scheme were invited to share their research findings and translation results, covering research in areas including advanced medical technologies, primary healthcare and preventive medicine, non-communicable diseases, mental health and infectious diseases. Nearly 80 HMRF-funded projects were also displayed at a poster exhibition at the Symposium to showcase the achievements.

Furthermore, in order to recognise the excellent research efforts and outstanding contributions of researchers in the areas of medical and health, health promotion and COVID-19, awards were presented to 13 researchers at the Symposium.

Research translation impact

The HMRF attaches great importance to the translational value of the funded projects, and they have been yielding fruitful results in translating research into practice. From the outcome evaluation survey conducted on 145 research projects and technology/knowledge transfer offices of universities in 2024, it was revealed that:

- (a) 78% of the funded projects had their research findings published in peerreviewed journals, showcasing that the HMRF is effective in supporting knowledge generation;
- (b) 42% of the funded projects received additional funding for further research, with each project receiving an additional funding amounting to five times that of the HMRF grant on average;
- (c) The HMRF-funded projects have filed 162 patent applications in different places (including Chinese Mainland, Hong Kong, Europe, the United States and Japan), established 15 spin-out companies/ joint ventures/ incubation programmes and signed 11 collaboration agreements of various types, showcasing the industrialisation potential of these funded projects; and
- (d) In terms of application in the formulation of healthcare policies and practices, one of the government-commissioned research projects funded by HMRF

successfully developed the sewage testing approach for quantitative detection of SARS-CoV-2, providing an important indicator for the Government to keep track of the virus activity in the community during the COVID-19 epidemic. Relevant testing approach has been incorporated into the Government's routine Territory-wide Sewage Surveillance Programme, with the scope of sewage surveillance to be expanded to cover other infectious diseases such as seasonal influenza. This testing approach was further enhanced and adopted outside Hong Kong. Furthermore, the results of a longitudinal study on latent tuberculosis infection (LTBI) screening found that repeated LTBI testing might be excessive for individuals living with Human Immunodeficiency Virus (HIV). Such results were cited in the Recommendations on the Management of HIV and Tuberculosis Coinfection put forward by the Centre for Health Protection of the Department of Health as guidelines.

In September 2024, to further enhance HMRF's translational impact, the RC discussed a newly proposed Research Translation Strategy covering four priorities, namely:

- (a) To shape research translation culture;
- (b) To build quality partnership;
- (c) To promote end-of-grant translation; and
- (d) To monitor and evaluate research outcomes.

A consultation exercise has since been undertaken to gauge the insights of diverse stakeholders, and the consultation feedback will inform further revision of the Strategy, which will be presented to the RC for endorsement in September 2025.

Financial Position

The cash balance of the HMRF as at 31 March 2025 is \$1,799.57 million, with an uncommitted funding balance of \$441.52 million (i.e. funding available for new projects/programmes). The financial position of the HMRF for the 2024-25 financial year is at *Appendix C*.

Membership of the Research Council and its Supporting Committees (as at 31 March 2025)

(A) Research Council

Chairperson

Secretary for Health (or Permanent Secretary for Health)

Non-official Members

Prof Engle Angela CHAN

Prof Juliana CHAN Chung-ngor

Prof Karen CHAN Kar-loen

Prof Paul CHAN Kay-sheung

Prof Ivan HUNG Fan-ngai

Dr Raymond LAI Wai-man

Prof Linda LAM Chiu-wa

Prof LEUNG Wai-keung

Prof Gilberto LEUNG Ka-kit

Prof LIN Chia-chin

Prof Tony MOK Shu-kam

Prof David SHUM Ho-keung

Prof Karl TSIM Wah-keung

Prof Samuel WONG Yeung-shan

Ex-officio Members

Secretary for Innovation, Technology and Industry (or representative)

Director of Health (or representative)

Secretary-General of the University Grants Committee (or representative)

Chief Executive of Hospital Authority (or representative)

Dean of the Faculty of Medicine of The Chinese University of Hong Kong (or representative)

Dean of the Li Ka Shing Faculty of Medicine of The University of Hong Kong (or representative)

Secretary

Head (Research and Data Analytics Office) Health Bureau

(B) Grant Review Board Executive

Terms of Reference:

The terms of reference of the Grant Review Board Executive are –

- (a) to assess and recommend action (on behalf of the Grant Review Board (GRB)) on requests for additional funds, budget revision and/or reallocation, changes to study design or methods, and changes to the principal applicant or administering institution;
- (b) to monitor the quality of the peer review including the assignment of referees to grants for review;
- (c) to monitor the response of grant applicants and grant holders to requests by the GRB;
- (d) to evaluate and advise the GRB regarding changes to the grant or final report review process; and
- (e) to advise the Research Fund Secretariat on the monitoring of the progress of current research/projects.

Non-official Members

Prof Engle Angela CHAN

Prof Juliana CHAN Chung-ngor

Prof Karen CHAN Kar-loen

Prof Paul CHAN Kay-sheung

Prof Philip CHIU Wai-yan

Prof Ivan HUNG Fan-ngai

Prof Karen LAM Siu-ling

Prof LAU Chak-sing

Prof LEUNG Wai-keung

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Prof Gilberto LEUNG Ka-kit

Dr Grace LUI Chung-yan

Prof David MAN Wai-kwong

Dr Thomas TSANG Ho-fai

Prof Karl TSIM Wah-keung

Prof Stephen TSUI Kwok-wing

Prof WING Yun-kwok

Prof Martin WONG Chi-sang

Prof William WONG Chi-wai

Prof YEOH Eng-kiong

(C) Grant Review Board

Terms of Reference:

The terms of reference of the Grant Review Board are –

- (a) to advise Standard Operating Procedures for the grant submission and review process, and the assessment and dissemination of final reports;
- (b) to review and assess applications and recommend projects for funding;
- (c) to review and assess final and dissemination reports;
- (d) to promote the development of research in the areas of health and health services, controlling infectious diseases, advanced medicine and health promotion in the wider community;
- (e) to monitor the progress of approved projects; and
- (f) to monitor the financial performance of approved projects.

Non-official Members

Prof John BACON-SHONE

Prof BIAN Zhao-xiang

Prof David Makram BISHAI

Prof CAI Jing

Prof CAI Zongwei

Prof CHAIR Sek-ying

Dr CHAN Wai-man

Prof CHAN Ying-shing

Prof Albert CHAN Chi-yan

Prof Allen CHAN Kwan-chee

Prof Andrew CHAN Man-lok

Prof Chetwyn CHAN Che-hin

Prof Daniel CHAN Tak-mao

Prof Emily CHAN Ying-yang

Prof Esther CHAN Wai-yin

Prof Francis CHAN Ka-leung

Prof Jasper CHAN Fuk-woo

Prof Godfrey CHAN Chi-fung

Prof Henry CHAN Hin-lee

Dr Sherry CHAN Kit-wa

Prof CHANG Wing-chung

Dr David CHAO Vai-kiong

Ms Mabel CHAU Man-ki

Prof Kathryn CHEAH Song-eng

Prof CHEN Honglin

Prof CHEN Zhiwei

Prof CHEN Zigui

Dr Catherine CHEN Xiao-rui

Prof Alfred CHENG Sze-lok

Prof Cecilia CHENG

Prof CHEUNG Ching-lung

Dr CHEUNG Kin

Prof CHEUNG Yiu-fai

Prof Annie CHEUNG Nga-yin

Prof Jason CHEUNG Pui-yin

Prof Raymond CHEUNG Tak-fai

Dr Peter CHIU Ka-fung

Prof CHOW Chun-bong

Dr Ferrick CHU Chung-man

Mr Thomas CHU Sai-ming

Prof Winnie CHU Chiu-wing

Mr William CHUI Chun-ming

Prof Brian CHUNG Hon-yin

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Prof DENG Xin

Prof FENG Yibin

Prof Daniel FONG Yee-tak

Prof Kenneth FONG Nai-kuen

Prof Tony GIN

Prof James Francis GRIFFITH

Dr HO Lai-ming

Prof HO Pak-leung

Prof Joshua HO Wing-kei

Prof Rainbow HO Tin-hung

Prof HUANG Yu

Dr Wendy HUANG Yajun

Prof David HUI Shu-cheong

Prof Margaret IP

Prof Mary IP Sau-man

Prof JIN Dong-yan

Prof KHOO Ui-soon

Prof Jean KIM Hee

Dr Fanny KO Wai-san

Prof Timothy KWOK Chi-yui

Prof Daniel LAI Wing-leung

Prof Jimmy LAI Shiu-ming

Prof Timothy LAI Yuk-yau

Prof LAM Tai-hing

Prof Andrew LAM Kwok-cheung

Prof Cindy LAM Lo-kuen

Prof David LAM Chi-leung

Prof Eddy LAM Kwok-fai

Prof Linda LAM Chiu-wa

Dr Mona LAM Wai-cheung

Prof Wendy LAM Wing-tak

Prof LAU Yu-lung

Prof Joseph LAU Tak-fai

Dr LEE Chi-chiu

Prof Calvin LEE Kai-fai

Dr Jenny LEE Shun-wah

Prof Tatia LEE Mei-chun

Dr LEUNG Chi-chiu

Mr LEUNG Kwok-fai

Prof LEUNG Suet-yi

Prof LEUNG Ting-fan

Dr LEUNG Wing-cheong

Prof Angela LEUNG Yee-man

Prof Christopher LEUNG Kai-shun

Dr Gabriel Matthew LEUNG

Dr Pamela LEUNG Pui-yu

Prof Polly LEUNG Hang-mei

Prof Raymond LI Hang-wun

Prof William LI Ho-cheung

Prof LIN Chia-chin

Prof LIN Zhi-xiu

Prof LO Kwok-wai

Dr Raymond LO See-kit

Prof Alice LOKE YUEN

Dr Lobo LOUIE Hung-tak

Dr Annissa LUI Wai-ling

Dr Christopher LUM Chor-ming

Prof LUO Ruibang

Prof LYU Aiping

Prof Ronald MA Ching-wan

Prof Nancy MAN Kwan

Prof Enders NG Kwok-wai

Prof Irene NG Oi-lin

Prof Margaret NG Heung-ling

Dr Roger NG Man-kin

Prof Simon NG Siu-man

Prof Hextan NGAN Yuen-sheung

Prof Marco PANG Yiu-chung

Mr Tim PANG Hung-cheong

Prof Leo POON Lit-man

Prof Liona POON Chui-yee

Prof Randy POON Yat-choi

Prof Timothy Hudson RAINER

Dr Catherine Mary SCHOOLING

Prof SHEN Jiangang

Prof Gilman SIU Kit-hang

Prof SZETO Cheuk-chun

Prof TAM Lai-shan

Dr Stanley TAM Kui-fu

Prof Kathryn TAN Choon-beng

Prof Nelson TANG Leung-sang

Prof Sydney TANG Chi-wai

Prof Julian Alexander TANNER

Prof Agnes TIWARI Fung-yee

Prof TO Ka-fai

Prof Kelvin TO Kai-wang

Prof Kenneth TSANG Wah-tak

Prof TSE Hung-fat

Prof Eric TSE Wai-choi

Dr Gary TSE Man-kit

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Prof Kelvin WANG Man-ping

Prof WONG Yung-hou

Dr Cesar WONG Sze-chuen

Prof Eliza WONG Lai-yi

Prof Frances WONG Kam-yuet

Prof Gary WONG Wing-kin

Prof Samuel WONG Yeung-shan

Prof Joseph WU

Prof Justin WU Che-yuen

Dr Kitty WU Kit-ying

Prof XU Aimin

Prof Bryan YAN Ping-yen

Prof Maurice YAP Keng-hung

Prof YEUNG King-lun

Prof Michael YING Tin-cheung

Prof YIP Shea-ping

Prof Janelle YORKE

Prof Joyce YOU Hoi-sze

Prof YU Weichuan

Prof Doris YU Sau-fung

Prof YUEN Kwok-yung

Prof Richard YUEN Man-fung

Prof Patrick YUNG Shu-hang

Prof Benny ZEE Chung-ying

Prof ZHANG Zhang-jin

Ex-officio Members

Dr Rachel CHENG Pui-yan

Dr CHUANG Shuk-kwan

Dr FUNG Ying

Dr Kellie SO Pui-sheung

Dr Kitty HSE Mei-yin

Dr Raymond HO Lei-ming

Thematic Priorities - 2024 Open Call for Investigator-initiated Projects

I. Infectious Diseases

Infectious diseases with public health implications, including those infectious diseases that are prevalent in or pose threat to Hong Kong and neighbouring areas

Ref. Code Description

Aetiology and epidemiology

- A-0001 Promote research to better understand the pathogen characteristics, disease mechanism and risk factors that drive the impact of infections
- A-0002 Assess threats from zoonotic or other emerging infectious pathogens and develop methods for reducing the risk

Prevention, Detection and Management

- A-0003 Investigate modes of transmission of infectious pathogens (including determinants of contagiousness) and identify non-pharmaceutical interventions to limit its spread in hospitals and the community
- A-0004 Economic studies on vaccines and develop and evaluate strategies to improve acceptability and vaccine uptake, especially in high risk groups
- A-0005 Develop and test novel approaches for enhancing prevention, surveillance, early detection, diagnosis, treatment, and recovery/rehabilitation from infectious diseases and its sequelae

Antimicrobial Resistance

- A-0006 Develop novel diagnostics tools to aid diagnosis and treatment of infections and antimicrobial resistance
- A-0007 Develop novel preventive measures on antimicrobial resistance
- A-0008 Develop novel antimicrobials or other alternative agents
- A-0009 Promote awareness and education regarding antimicrobial resistance, infection prevention and control, and antibiotic stewardship

Ref. Code Description

- A-0010 Research on promoting behavioural changes regarding the use of antimicrobials in the public
- A-0011 Research on estimating local health burden of antimicrobial resistance
- A-0012 Research on the role of environment in the evolution of antimicrobial resistance
- A-0013 Research on preventive measures on the spread of antimicrobial resistance through the environment

Preparedness and Response to Pandemic and Epidemic

- A-0014 Utilise operational research, big data, artificial intelligence, digital technologies and –omics approaches for clinical and public health applications, including prevention, contact tracing, screening for infection, surveillance, disease control, clinical management and programme delivery
- A-0015 Evaluate psychological, societal and economic impact of infection control interventions
- A-0016 Develop assessment frameworks for ethical, legal and privacy issues on the use of digital health technology

II. Non-communicable Diseases (NCD)

Ref. Code Description

Detection, treatment and management

B-0001	Epidemiology; identify modifiable risk and protective factors for prevention and development of major NCD including cardiovascular diseases, chronic respiratory diseases, diabetes, mental disorders, and the <u>top ten cancers in Hong Kong (by incidence or mortality)</u> according to the Hong Kong Cancer Registry's latest statistics
B-0002	Develop and test novel approaches for enhancing prevention, early diagnosis, treatment, and recovery/ rehabilitation from major NCD
B-0003	Study effective measures to address physical and psychosocial burdens and enhance the capacity of carers, and in particular vulnerable carers such as single parent and elderly couples
B-0004	Study to eliminate health disparities and improve quality of care in underserved populations

Ageing and elderly care

B-0005	Tackle issues relating to ageing population including sarcopenia, frailty,
	fracture, falls, cognitive impairment and promotion of healthy ageing
B-0006	Develop and evaluate palliative care and end-of-life care delivery

Mental health

B-0007	Identify means to increase mental health literacy, promote mental wellbeing, encourage help-seeking, and reduce stigma towards persons with mental health needs
B-0008	Identify and evaluate novel measures to address mental health needs of vulnerable groups (including low-income, ethnic minority families and the elderly)
B-0009	Evaluate the impact of physical and mental comorbidity in people with mental disorders, chronic illnesses, and the elderly
B-0010	Identify and evaluate novel school-based interventions to promote students' mental health

III. Primary Healthcare

Ref. Code	Description
C-0001	Enhance primary care services for the prevention and management of NCD, and avoidable demand for secondary and tertiary care
C-0002	Develop and evaluate the effectiveness and cost-effectiveness of collaborative, interdisciplinary, inter-sectoral and integrated care service models (including public-private interface and medical-social collaboration) for prevention and management of NCD and multi-morbidity at the community level, such as District Health Centres
C-0003	Develop and evaluate innovative service models for preventing, managing and treating individuals and families at risk of developing or living with chronic diseases in public and private primary healthcare settings
C-0004	Develop strategies to promote family doctor concept to provide comprehensive, continuing, whole-person, co-ordinated and preventive care to individuals and their families
C-0005	Develop strategies and measures to adopt a life-course preventive care approach to address unique needs across lifespan of each age group and health conditions and to evaluate the effectiveness and cost-effectiveness of preventive care, including cost of enhancements through specific schemes, programmes and interventions for specific age groups, cohorts or health conditions
C-0006	Identify and evaluate the incentives/enhancers to encourage people to preferentially use primary healthcare services, in particular the elderly
C-0007	Develop strategies and measures to promote oral health among preschool children, adolescents, elderly, and underprivileged groups

IV. Preventive Medicine

Ref. Code Description

Tobacco control

D-0001 Develop and evaluate innovative measures to further reduce smoking prevalence in Hong Kong, in particular preventing the younger generation from smoking (including the use of alternative smoking products)

D-0002 Develop innovative methods, measures, and study designs to assess tobacco use knowledge, attitudes, perceptions, and behaviours and other related unhealthy behaviours such as harmful use of alcohol, addiction to video gaming and drug abuse; including measures to best predict future use of tobacco products other than conventional cigarettes

Healthy lifestyle

D-0003 Develop and evaluate innovative measures to increase the public's adoption of balanced diet in a practical and sustainable manner so as to increase fruit and vegetables consumption and reduce salt, sugar and fat consumption, in different subpopulations and across different key settings and cultures

D-0004 Develop and evaluate innovative approaches to increasing physical activity and reducing sedentary behaviour, including the testing of digital technologies (e.g. mobile or wearable devices), in different subpopulations and across different key settings and cultures

Patient empowerment

D-0005 Promote health literacy and patient empowerment

D-0006 Promote underserved groups such as new immigrants, low income groups, marginalised groups and ethnic minority groups to receive evidence-based screening programmes, and better manage their own health

V. Digital Health and Advanced Technology

Ref. Code	Description
E-0001	Clinical application of knowledge from genetics / genomics for prevention / personalised medicine
E-0002	Apply big data analytics to examine clinical information for prevention, diagnosis, therapeutics, rehabilitation and better management of patients
E-0003	Develop and evaluate the use of digital technology to improve the enhancement of population health and the delivery of healthcare services, especially in health promotion, health self-monitoring, self-care support, primary healthcare, and healthcare journey management
E-0004	Develop, apply and evaluate advanced technology to enable smart care provision in community and hospital settings including smart ward, smart clinic, smart pharmacy

VI. Clinical Trials and Implementation Science

Introduction

Clinical trials provide research evidence into clinical practice and help improve population health, while implementation science aims to promote the systematic uptake of research findings and other evidence-based information into routine practice. It also aims to assess the performance, and, hence, improve the quality and effectiveness of health services. Proposals submitted under this thematic priority should aim to improve the existing healthcare system in terms of enhancing patient care or informing health policies.

There are several established theories, frameworks, models and taxonomies that can be used to analyse barriers and facilitators of implementation outcomes. Relevant frameworks include CFIR (Consolidated Framework for Implementation Research), PRISM (Practical, Robust Implementation and Sustainability Model), RE-AIM (Reach, Effectiveness, Adoption, Implementation and Maintenance), TDF (Theoretical Domains Framework), and PARiHS (Promoting Action on Research Implementation in Health Services). Human-centred design (HCD) is another framework which helps tailor innovations to fit end-users, narrowing the gap between efficacious interventions and large-scale impact.

Ref. Code Description

Clinical Trials

F-0001	Clinical trials on the development and testing of new drugs, techniques,
	treatments, diagnostic and therapeutic medical devices, public health and
	health system interventions with a view to improving clinical practice and
	population health

F-0002 Clinical trials that adopt a life-course approach to include children and older adults, as well as other population groups often underserved by clinical trials

Implementation Science

F-0003	Strategies to implement and disseminate evidence-based health promotion, prevention, screening, early detection, and diagnostic interventions, as well as effective treatments, clinical procedures, guidelines or accreditation into existing care systems, particularly with the use of smart technology to facilitate patient care
F-0004	Studies on health care and public health policies and other contextual factors that influence the success of dissemination or implementation efforts
F-0005	To conduct formative and process evaluation for improving implementation outcomes and sustainability

Appendix B

Ref. Code	Description
F-0006	Implementation of multiple levels of interventions within community or health services settings to meet the needs of complex patients and diverse systems of care
F-0007	Studies on reducing or stopping ("de-implementing") the use of clinical and community practices that are ineffective, unproven, low-value, or harmful

Health and Medical Research Fund Financial Report for the year ended 31 March 2025

Cash balance a	as at 31.3.2024	HK\$	HK\$ 2,062,067,419.46
Grants paid for	the period from 1.4.2024 to 31.3.2025	j	(262,496,151.82)
<u>HMRF</u>	Commissioned project grants Investigator-initiated project grants Research Fellowship Scheme Health Care and Promotion Scheme	(78,368,136.29) (167,043,647.60) (7,212,562.74) (6,034,572.83) (258,658,919.46)	
Direct operation costs paid (3,837,232.36) (3,837,232.36)			
Increase in com	mitment		-
Cash balance a	as at 31.3.2025		1,799,571,267.64
Less:			(1,358,046,723.69)
<u>HMRF</u>	Fund committed but not yet paid: Commissioned project grants Investigator-initiated project grants Research Fellowship Scheme Health Care and Promotion Scheme	(366,811,662.07) (939,210,219.49) (51,494,375.73) (530,466.40) (1,358,046,723.69)	
Uncommitted balance as at 31.3.2025			441,524,543.95