Health and Medical Research Fund:

2016-17 Annual Report
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Health and Medical Research Fund (HMRF)

On 9 December 2011, the Legislative Council (LegCo) Finance Committee approved a new commitment of $1,415 million for setting up the 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. The commitment comprised an injection of $1,000 million and unexpended balances of the former HHSRF and the former RFCID amounting to $190.8 million and $224.2 million respectively during the establishment.

On 28 May 2016, the LegCo Finance Committee approved an increase to the 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 that of the Health Care and Promotion Fund (HCPF). The consolidation will take effect in 2017-18.

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 health 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 provides funding support for health and medical research activities, research infrastructure and research capacity building in Hong Kong in various forms. The abstracts and the budget of approved Investigator-initiated Research Projects are available at the website http://rfs.fhb.gov.hk.

The HMRF, steered by the Research Council (RC), supports health and medical research in the following broad areas –

(a) public health, human health and health services (e.g. primary care, non-communicable diseases and Chinese medicine) (previously funded by the HHSRF);

(b) prevention, treatment and control of infectious diseases, in particular emerging and re-emerging infectious diseases (previously funded by the RFCID); and

(c) advanced medical research in the fields of paediatrics, neuroscience, clinical genetics and clinical trials (a broadened scope under the HMRF).
It provides funding support for the following types of projects –

(a) Investigator-initiated Research Projects (funding ceiling: $1.2 million per project) – to support studies from individual researchers in response to "open call" invitations for research grant applications guided by reference to the research areas and thematic priorities.

(b) Government-commissioned Research Programmes – 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 the health or health-related field can apply for research funding through investigator-initiated projects. Grants may be awarded for research in tertiary institutions, hospitals, medical schools or other appropriate centres, units or services. Members of other disciplines, such as social welfare and education may also apply if the proposed research is within the ambit of the HMRF. Research applications are assessed by a stringent two-tier review process, first by the Referee Panel, and then by the Grant Review Board (GRB) according to the criteria set out below –

- originality of the research topic
- relevance to the scope of funding and thematic priorities
- significance of the research question
- quality of scientific content
- credibility for study design and method
- feasibility of the intended project
- research ethics
- translational potential/value

The GRB will also take into account the past performance and track records of the grant applicants, research capability of the administering institution, and the proposal’s value for money when considering the funding recommendation. The RC will review and endorse the funding recommendations of the GRB. The GRB will provide specific
feedback for each application.

In addition, the HMRF organises the Health Research Symposium from time to time for researchers and healthcare professionals to share their knowledge and achievements in various research topics, and acknowledge outstanding research projects funded by the HMRF. The next Health Research Symposium will be held on 16 June 2017.

**Governance**
Chaired by the Secretary for Food and Health, the RC is responsible for providing strategic steer for funding health and medical research, and overseeing the administration 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 research 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; and
(g) to disseminate key findings of funded projects.

The RC is supported by the GRB, the GRB Executive (GRBE) and the Referee Panel for technical input. Individual members of the Referee Panel are selected according to their specific field of expertise to review grant applications.

The membership of the RC, the GRBE and the GRB is at Appendix A. Their operation is supported by the Research Fund Secretariat of the Research Office under the Food and Health Bureau.

**Highlights of 2016-17**

**2016 HMRF Open Call**

The 2016 Open Call was issued in December 2016 and by the closing date of 31 March 2017, a total of 856 funding applications were received. In accordance with the thematic priorities (Appendix B) and the established assessment criteria, the GRB’s funding recommendations will be considered by the RC. Funding results will be announced in November 2017.
During the year, final reports of 164 completed projects were assessed by circulation.

Investigator-initiated Research Projects

Of the 1,378 Investigator-initiated Research Projects funded under the HMRF, 883 projects have been completed. These projects cover most research topics under the thematic priorities on –

(a) Health and Health Services – management and prevention of major non-communicable diseases including cardiovascular illnesses, cerebrovascular diseases, cancers; modifiable lifestyle factors including tobacco control, alcohol consumption behaviour and harm, mental health, injury prevention, sleep deprivation, exercise and health and environmental pollution; health services including primary care, chronic disease management and palliative care, elderly care and Chinese medicine;

(b) Infectious Diseases – epidemiology, surveillance and control of emerging and re-emerging infectious diseases, antimicrobial resistance and vaccination programmes;

(c) Advanced Medical Research – paediatrics; neurosciences; clinical genetics, and clinical trials.

Projects whose findings merit wider dissemination to the research community are published as a supplement to the Hong Kong Medical Journal.

Government-commissioned Research Programmes

Twenty portfolios of commissioned programmes have been approved in the research areas of infectious diseases, mental health morbidity survey, healthcare manpower planning and projection, regulatory framework for healthcare professionals, Phase I Clinical Trials Centres, quality of healthcare for the ageing, risk of breast cancer and evaluation of Government’s colorectal cancer screening pilot programme in Hong Kong. Nine portfolios have been completed.

The final reports and dissemination reports of satisfactorily completed research portfolios are posted on the website (http://rfs.fhb.gov.hk) for wider dissemination to the research community.
Research Fellowship Scheme

The Research Fellowship Scheme was launched in August 2015 to support researchers or professionals in their early to mid-career, particularly healthcare professionals to enhance their skills in public health research. Tertiary institutions funded by the University Grants Committee were invited to nominate fellowship applicants annually. The grant ceiling per award is $1.2 million including $0.2 million for local/overseas training/attachment relating to health services or public health, in particular public health policy topics.

The 2016 Open Call was issued in August 2016 with closing deadline on 18 November 2016. The number of nominations by each institution and the total number of awards were increased from three to five and from four to eight respectively. Among the 12 applications received by the closing deadline, eight fellowship applicants were invited for interview. The provisional results of the interview are being considered by the RC.

Consolidation of HMRF and HCPF

The incorporation of the HCPF into the HMRF will take effect in 2017-18. To streamline operation after the consolidation, the governance structure of the HMRF and the HCPS was reviewed. The HCPF and the HCPF Committee (the governing body of the HCPF) will be renamed as the Health Care and Promotion Scheme (HCPS) and the Health Care and Promotion Committee (HCPC) respectively. The RC and the HCPC are responsible for providing strategic steer for funding health and medical research projects, and health promotion projects respectively.

Financial Position

The cash balance of the HMRF as at 31 March 2017 is $2,327.2 million, with an uncommitted funding balance of $1,699.5 million (i.e. funding available for new projects/programmes). The financial position for the HMRF for the 2016-17 financial year is at Appendix C.
Appendix A

Membership of the Research Council, the Grant Review Board Executive and the Grant Review Board (as at 31 March 2017)

(A) Research Council

Chairperson

Secretary for Food and Health (or Permanent Secretary for Health)

Members

Prof Francis CHAN Ka-leung
Prof Annie CHEUNG Nga-yin
Prof FOK Tai-fai
Prof David HUI Shu-cheong
Prof Mary IP Sau-man
Prof Nancy IP Yuk-yu
Prof LAU Yu-lung
Prof Diana LEE Tze-fan
Prof Gabriel M LEUNG
Prof Dennis LO Yuk-ming
Prof Alex MOLASIOTIS
Prof Joseph Sriyal Malik PEIRIS
Prof Paul TAM Kwong-hang
Dr Dominic TSANG Ngai-chong
Appendix A

Prof Maurice YAP Keng-hung

Prof YEEOH Eng-kiong

Dr YU Wai-cho

Secretary for Innovation and Technology (or representative)

Director of Health (or representative)

Chief Executive of Hospital Authority (or representative)

Secretary

Head of Research Office

Food and 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.

Members

Dr Felix CHAN Hon-wai

Prof Francis CHAN Ka-leung

Prof David HUI Shu-cheong

Prof Nancy IP Yuk-yu

Prof Timothy KWOK Chi-yui

Prof Cindy LAM Lo-kuen

Prof LAU Yu-lung

Prof Gabriel M LEUNG

Dr Patrick LI Chung-ki
Appendix A

Dr LO Su-vui
Dr Dominic TSANG Ngai-chong
Prof YEOH Eng-kiong
Prof YIP Shea-ping
Prof YUEN Kwok-yung

(C) Grant Review Board

Terms of Reference:

The terms of reference of the Grant Review Board are –

(a) to set Standard Operating Procedures for the grant submission and review process, and the assessment and dissemination of final reports;

(b) to distribute guidelines for the formulation of research proposals, grant applications and the submission of final and dissemination reports;

(c) to review and assess applications and recommend projects for funding;

(d) to review and assess final and dissemination reports;

(e) to promote the development of research in the areas of health & health services, controlling infectious diseases and advanced medicine in the wider community;

(f) to monitor the progress of approved projects; and

(g) to monitor the financial performance of approved projects.

Members

Prof Anil Tejbhan AHUJA
Dr Alma AU May-lan
Prof John BACON SHONE
Appendix A

Prof BIAN Zhao-xiang
Prof Kenneth BOHELER
Prof CAI Zongwei
Prof CHAIR Sek-ying
Prof Chetwyn CHAN Che-hin
Prof Godfrey CHAN Chi-fung
Prof Juliana CHAN Chung-ngor
Dr Engle Angela CHAN
Prof Henry CHAN Hin-lee
Dr Karen CHAN Kar-loen
Prof Paul CHAN Kay-sheung
Prof Allen CHAN Kwan-chee
Prof Andrew CHAN Man-lok
Prof Daniel CHAN Tak-mao
Dr CHAN Wai-chi
Dr Johnny CHAN Wai-man
Prof CHAN Wai-yee
Prof CHAN Ying-shing
Prof Emily CHAN Ying-yang
Prof Kathryn CHEAH Song-eng
Prof Gladys CHEING Lai-ying
Dr CHEN Honglin
Dr CHEN Zhiwei
Prof Christopher CHENG Hon-ki
Dr CHEUNG Kin
Prof Bernard CHEUNG Man-yung
Prof Annie CHEUNG Nga-yin
Prof Raymond CHEUNG Tak-fai
Prof CHEUNG Yiu-fai
Prof CHIEN Wai-tong
Prof James CHIM Chor-sang
Dr Wilson CHING Yick-pang
Dr CHOI Cheung-hei
Prof Winnie CHU Chiu-wing
Dr Brian CHUNG Hon-yin
Dr Benjamin John COWLING
Prof Richard FIELDING
Dr Daniel FONG Yee-tak
Prof FUNG Kwok-pui
Prof Tony GIN
Dr William B GOGGINS
Prof James GRIFFITH
Prof Sian Meryl GRIFFITHS
Prof GUAN Yi
Prof Joseph HARWELL
Prof Karl HERRUP
Dr HO Lai-ming
Dr HO Pak-leung
Dr Daniel HO Sai-yin
Prof HUANG Yu
Prof Mamie HUI
Prof Ivan HUNG Fan-ngai
Dr Dennis IP Kai-ming
Prof Margaret IP
Prof Mary IP Sau-man
Dr Patrick IP
Prof JIN Dong-yan
Dr Janice M JOHNSTON
Prof KHONG Pek-lan
Prof KHOO Ui-soon
Prof KWAN Hoi-shan
Dr Patrick KWAN Kwok-leung
Prof Paul LAI Bo-san
Prof Jimmy LAI Shiu-ming
Dr Timothy LAI Yuk-yau
Dr David LAM Chi-leung
Prof LAM Ching-wan
Prof Linda LAM Chiu-wa
Prof Karen LAM Siu-ling
Prof Carly LAM Siu-yin
Prof LAM Tai-hing
Prof LAM Tai-pong
Dr Wiley LAM Tak-chiu
Dr Wendy LAM Wing-tak
Prof LAU Chak-sing
Prof Joseph LAU Tak-fai
Prof Simon LAW Ying-kit
Dr Calvin LEE Kai-fai
Prof Nelson LEE Lai-shun
Prof Tatia LEE Mei-chun
Dr Jenny LEE Shun-wah
Dr LEE So-lun
Prof Diana LEE Tze-fan
Dr LEUNG Chi-chiu
Dr Gilberto LEUNG Ka-kit
Mr LEUNG Kwok-fai
Prof Cynthia LEUNG Man
Prof LEUNG Po-sing
Prof LEUNG Suet-yi
Prof LEUNG Ting-fan
Prof LEUNG Wai-keung
Prof Ronald Adolphus LI
Dr William LI Ho-cheung
Dr Teresa LI Mun-pik
Dr Wilina LIM Wei-ling
Prof LIN Zhi-xiu
Prof LO Kwok-wai
Dr Raymond LO See-kit
Dr Janice LO Yee-chi
Prof LU Aiping
Dr Grace LUI Chung-yan
Dr Christopher LUM Chor-ming
Prof Maria LUNG LI
Dr Margaret MAK Kit-yi
Prof David MAN Wai-kwong
Appendix A

Prof Bradley MCPHERSON
Prof Alex MOLASIO TIS
Prof John Malcolm NICHOLLS
Dr Eddy NG Kwok-po
Prof Irene NG Oi-lin
Prof Simon NG Siu-man
Prof Gabriel NG Yin-fat
Prof Hextan NGAN Yuen-sheung
Prof Joseph Sriyal Malik PEIRIS
Prof Leo POON Lit-man
Prof Randy POON Yat-choi
Prof John RUDD
Dr C Mary SCHOOLING
Prof SHEN Jiangang
Prof SO Kwok-fai
Prof SZETO Cheuk-chun
Dr TAM Cheuk-yin
Prof TAM Lai-shan
Prof Kathryn TAN Choon-beng
Prof Sydney TANG Chi-wai
Prof TANG Jin-ling
Appendix A

Prof Nelson TANG Leung-sang
Prof Agnes TIWARI Fung-yee
Prof TO Ka-fai
Dr Tony TO Shing-shun
Dr Antonio TONG Chi-kit
Dr Thomas TSANG Ho-fai
Prof Kenneth TSANG Wah-tak
Prof George TSAO Sai-wah
Prof TSE Hung-fat
Dr Gary TSE Man-kit
Prof Karl TSIM Wah-keung
Prof Stephen TSUI Kwok-wing
Prof WING Yun-kwok
Prof Martin WONG Chi-sang
Dr William WONG Chi-wai
Prof Lawrence WONG Ka-sing
Prof Frances WONG Kam-yuet
Prof Chris WONG Kong-chu
Dr Grace WONG Lai-hung
Dr Cesar WONG Sze-chuen
Prof WONG Tze-wai
Appendix A

Prof Vincent WONG Wai-sun
Prof Gary WONG Wing-kin
Prof Samuel WONG Yeung-shan
Prof WONG Yung-hou
Prof Patrick WOO Chiu-yat
Prof Justin WU Che-yuen
Dr Joseph WU
Prof WU Wutian
Prof WU Zhenguod
Prof Hannah XUE Hong
Dr YAM Wing-cheong
Prof Bryan YAN Ping-yen
Prof Michael YANG Mengsu
Prof Maurice YAP Keng-hung
Prof YEUNG King-lun
Prof YIP Kam-shing
Prof Doris YU Sau-fung
Dr YU Wai-cho
Dr YU Weichuan
Prof Benny ZEE Chung-ying
Prof ZHANG Zhangjin
Prof ZHAO Guoping

Prof ZHAO Zhongzhen
Appendix B

Thematic Priorities of the Health and Medical Research Fund for 2016 Open Call

Research Area 1: Health and Health Services
This area focuses on the cause, treatment, prevention of human diseases and the effectiveness and cost-effectiveness of healthcare services and policy.

Theme 1: Public Health

Ref. Code Major non-communicable diseases (NCD)

PH-NC-1 ○ Identification and surveillance of socioeconomic and health-related risk factors associated with quality of life and major NCD in local population

PH-NC-2 ○ Risk factors of cancers that has rising trends in Hong Kong in recent years including thyroid cancer, corpus cancer, prostate cancer, kidney cancer, non-small cell lung cancer and ovarian cancer

PH-NC-3 ○ Effectiveness of interventions to tackle NCD and their contributing factors, e.g. cancer, cardiovascular diseases, cerebrovascular diseases, childhood nutrition and obesity

PH-NC-4 ○ Extent and impact of food marketing on children’s eating behaviour and body weight

Modifiable lifestyle factors

○ Tobacco control

PH-MF-1a ▪ Identification of factors and evaluation of methods to prevent uptake of smoking

PH-MF-1b ▪ Effectiveness of strategies to reduce smoking prevalence in general population

PH-MF-1c ▪ Effectiveness of smoking cessation programmes and publicity including new media

PH-MF-1d ▪ Evaluation of tobacco control policies (including surveillance and intervention)

○ Alcohol consumption behaviour and harm

PH-MF-2a ▪ Identification of factors influencing drinking behaviour

PH-MF-2b ▪ Effectiveness and cost-effectiveness of interventions to reduce alcohol-related harm

PH-MF-2c ▪ Public health impact of alcohol tax change

PH-MF-2d ▪ Effect of restricting off-premises alcohol sale to underage people
Appendix B

○ Promoting good mental health
  PH-MF-3a  •
  Assessment of people suffering from and at risks of developing mental disorders
  PH-MF-3b  •
  Risk and protective factors for mental disorders
  PH-MF-3c  •
  Effectiveness of interventions to promote mental well-being and optimize recovery from mental disorders
  PH-MF-3d  •
  Mental health literacy of the general public

○ Injury and poisoning
  PH-MF-4a  •
  Identification of risk factors and effectiveness of prevention methods, especially in the areas of domestic injury, sports injury, falls and drowning/near drowning
  PH-MF-4b  •
  Study on the epidemiology and the clinical aspects of metal poisoning in Hong Kong

○ Sleep deprivation
  PH-MF-5a  •
  Effects of sleep deprivation on physical and mental health outcomes
  PH-MF-5b  •
  Effectiveness of strategies to promote sleep hygiene
  PH-MF-5c  •
  Effects of sleep intervention to reverse the adverse outcomes in chronically sleep deprived individuals

○ Exercise science and health
  PH-MF-6a  •
  Effectiveness of exercise intervention to promote physical and psychological well-being in disease populations
  PH-MF-6b  •
  Effective strategies to promote physical activity in general population
  PH-MF-6c  •
  Relationships between fundamental motor development and physical literacy
  PH-MF-6d  •
  Exercise and cognitive health

○ Environmental pollution and climate change
  PH-EP-1  •
  Epidemiology, identification and quantification of pollutants
  PH-EP-2  •
  Impact on health
  PH-EP-3  •
  Improve public health knowledge about linkages between health and climate
  PH-EP-4  •
  Effectiveness of climate change adaptation and mitigation to protect health
Theme 2: Health Services

○ Primary care
  HS-PC-1  ▪ Developing multidisciplinary health service models
  HS-PC-2  ▪ Evaluation of adoption of the Hong Kong Reference Frameworks in Primary Care Settings and identification of the associated enabling factors and/or barriers
  HS-PC-3  ▪ Effectiveness of primary care programmes

○ Chronic disease management and palliative care
  HS-CD-1  ▪ Service delivery models and effectiveness for chronic disease management
  HS-CD-2  ▪ Health economic analysis of the new target/biological therapies
  HS-CD-3  ▪ Effectiveness and safety of new medications or innovative devices in the management of obesity
  HS-CD-4  ▪ Effectiveness of end-of-life programmes in residential care homes
  HS-CD-5  ▪ Effectiveness of supportive and palliative/end of life care

○ Reducing avoidable hospitalisation
  HS-RH-1  ▪ Effectiveness of programmes to reduce avoidable hospitalisation
  HS-RH-2  ▪ Evaluation of models of ambulatory care
  HS-RH-3  ▪ Health systems research to support enhancing care in the community

○ Elderly care
  HS-EC-1  ▪ Prevention of cognitive decline in old age, exploring intervention methods and models of care for dementia
  HS-EC-2  ▪ Promote the bone health of elderly population and to promulgate secondary prevention of fragility fractures
  HS-EC-3  ▪ Early return to function and quality of life after fragility fractures in elderly
  HS-EC-4  ▪ Effectiveness of structured fall prevention programmes for elders in the community
Appendix B

○ Evaluation on efficiency
  HS-EE-1  ▪ Cost-effectiveness models for better management plans
  HS-EE-2  ▪ Cost-utility comparisons between treatment options

○ Use of modern information technology in healthcare
  HS- IT-1  ▪ Improve quality and safety of patient care
  HS- IT-2  ▪ Enhance efficiency
  HS- IT-3  ▪ Facilitate public private collaboration
  HS- IT-4  ▪ Enhance the capacity and ability in ambulatory / community care

Theme 3: Chinese Medicine

CM-1  Integrated approaches in combining Chinese and Western models of health care
CM-2  Effectiveness of Chinese medicine in prevention/ treatment of human diseases
CM-3  Interactions including efficacy and toxicity of combined Chinese-western medicine
CM-4  Identifying quality control parameters for Chinese medicines

Research Area 2: Infectious Diseases
This area focuses on the research of infectious diseases which pose potential threats in Hong Kong and neighbouring areas.

Theme 1: Respiratory Pathogens (including influenza and tuberculosis)

RP-1  Epidemiology (including mathematical modelling)
RP-2  Transmission
RP-3  Pathogenesis
RP-4  Rapid diagnostic tests
RP-5  Novel control approaches
RP-6  Economic burden of disease
RP-7  Vaccine and therapies

Theme 2: Emerging & Zoonotic Diseases

EZ-1  Characterise new pathogens in animals that can infect humans
Appendix B

EZ-2 Identification of risk factors that contribute to the emergence of disease
EZ-3 Transmission
EZ-4 Pathogenesis
EZ-5 Development of diagnostic tests
EZ-6 Surveillance methods for emerging infections
EZ-7 Vaccine and therapies

Theme 3: Antimicrobial Resistance

AR-1 Epidemiology of multi-drug resistant organisms
AR-2 Identification of risk factors for colonisation and infection
AR-3 Mechanisms of resistance and its transfer
AR-4 Laboratory-based strategies for detection
AR-5 Optimal infection control measures
AR-6 Appropriate antimicrobial therapy and avoidance of antibiotic overuse
AR-7 Effectiveness of programmes to promote antibiotic awareness in community and antimicrobial resistance

Theme 4: Vaccination Programmes

VP-1 Development of new vaccines
VP-2 Acceptability of vaccination programmes (e.g. pneumococcal vaccination in elderly) and factors affecting vaccination
VP-3 Effectiveness and economic analysis of vaccine (e.g. effectiveness in seasonal influenza vaccine in local community and cost-benefit analysis of hepatitis A vaccine)
VP-4 Measures to enhance vaccination of elderly, institutionalised or other at-risk populations

Theme 5: Technology Platforms

TP-1 Application of the “omics” technologies in infectious diseases diagnosis and epidemiology studies
TP-2 Application of the new mobile IT technologies in infectious disease surveillance and contact tracing
TP-3 Genome sequencing and molecular epidemiology
Appendix B

TP-4 Technology substitution/supplement for traditional pathogen typing methods

Theme 6: Severe Sepsis

SS-1 Epidemiology in Hong Kong

Research Area 3: Advanced Medical Research
This area focuses on the development and use of new technologies, and treatment paradigms to improve human health. The following 4 themes are our priorities:

Theme 1: Clinical Genetics

CG-1 Genetic and genomic study of major chronic and hereditary diseases in Hong Kong
CG-2 Identification of biomarkers for common cancers using molecular biology approaches
CG-3 Genetic counselling
CG-4 Research on ethical, legal and social issues associated with advances in medical genetics and genomics

Theme 2: Clinical Trials

CT-1 Assessing the safety and effectiveness of a new medication/ new device/ new indication of existing medication or device on a specific group of patients
CT-2 Comparing the effectiveness in patients with a specific disease of two or more already approved or common interventions for that disease

Theme 3: Neuroscience

NS-1 Epidemiology, identification of risk factors, prevention, diagnosis, treatment, management and rehabilitation of neurological diseases, particularly neurodegenerative diseases, stroke and injuries
NS-2 Stem cell therapy and regenerative medicine
Theme 4: Paediatrics

PD-1 Epidemiology, identification of risk factors, prevention, diagnosis, treatment, management in the following special areas: Neonatology, respiratory, allergy, clinical immunology, dermatology, gastroenterology, haematology, oncology, metabolic, cardiovascular, surgical diseases and nutrition (Vitamin D supplementation to exclusive breastfed babies)
# Appendix C

## Health and Medical Research Fund

### Financial Report for the year ended 31 March 2017

<table>
<thead>
<tr>
<th>Cash balance as at 31.3.2016</th>
<th>HK$</th>
<th>HK$</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>1,012,039,737.13</td>
<td>1,012,039,737.13</td>
</tr>
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</table>

Grants paid for the period from 1.4.2016 to 31.3.2017 (184,806,311.93)

| Former HHSRF Commissioned project grants | (937,967.47) |
| Investigator-initiated project grants   | (8,091,579.26) |
|                                          | 9,029,546.73  |

| Former RFCID Commissioned project grants | (11,196,139.16) |
| Investigator-initiated project grants   | (19,371,121.57) |
|                                          | 30,567,260.73  |

| HMRF Commissioned project grants        | (39,831,025.55) |
| Investigator-initiated project grants   | (102,803,346.71) |
|                                          | 142,634,372.26  |

Direct operation costs paid (2,575,132.21)

Injection approved on 28 May 2016 1,500,000,000.00

**Cash balance as at 31.3.2017** 2,327,233,425.20

Less: (627,706,159.25)

| Former HHSRF Fund committed but not yet paid: |                  |
| Commissioned project grants                   | (6,081,372.45)   |
| Investigator-initiated project grants         | (3,944,996.30)   |
|                                              | 10,026,368.75    |

| Former RFCID Fund committed but not yet paid: |                  |
| Commissioned project grants                   | (1,183,110.50)   |
| Investigator-initiated project grants         | (1,003,161.22)   |
|                                              | 2,186,271.72     |

| HMRF Fund committed but not yet paid:         |                  |
| Commissioned project grants                   | (141,638,388.13) |
| Investigator-initiated project grants         | (469,002,051.45) |
| Research fellowships                          | (4,853,079.20)   |
|                                              | 615,493,518.78   |

**Uncommitted balance as at 31.3.2017** 1,699,527,265.95