

ITEM FOR FINANCE COMMITTEE

**HEAD 149 – GOVERNMENT SECRETARIAT :
HEALTH, WELFARE AND FOOD BUREAU
Subhead 700 – General other non-recurrent
New item “Funding Research on Control of Infectious Diseases”**

Members are invited to approve the creation of a commitment of \$500 million for financing research projects on controlling infectious diseases

PROBLEM

In order to enhance our preparedness for the control of emerging infectious diseases, such as Severe Acute Respiratory Syndrome (SARS), there is a need to establish a coordinated research programme and support for research on controlling infectious diseases.

PROPOSAL

2. The Secretary for Health, Welfare and Food (SHWF) proposes to create a commitment of \$500 million for financing research projects on controlling infectious diseases to encourage, facilitate and support research on the prevention, treatment and control of infectious diseases, in particular emerging infectious diseases such as SARS.

JUSTIFICATION

3. Although infectious diseases have not been the major cause of death in Hong Kong and many developed countries for many years, the recent outbreak of SARS has highlighted the devastating nature of new infectious diseases, the adverse social and economic impact of an epidemic on the local as well as the global community. Given the geographical location of Hong Kong and the immense people movement across the Mainland border, it is critically important that close working relationship with scientists of Mainland China be developed in gathering evidence of sources of potential infection and outbreak.

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4. Despite the unprecedented progress made by the local and international scientific community, much remains unknown about SARS. More research is needed to unravel the mystery of this new variant of coronavirus and to gain more knowledge about the new disease. Other than SARS, there is also the possibility that other infectious diseases might show up in Hong Kong in the future. Therefore, it is necessary for the territory to build up and strengthen its knowledge base with regard to infectious diseases so as to prevent and control the spread of SARS and other infectious diseases. Subject to Members' approval of the commitment, SHWF plans to allocate –

- (a) \$450 million for a fund to finance research projects on controlling infectious diseases to encourage, facilitate and support research on the prevention, treatment and control of infectious diseases, in particular emerging infectious diseases such as SARS, in the territory; and
- (b) \$50 million to be provided to Mainland China for financing research projects on controlling infectious diseases.

Benefits

5. The knowledge and best practice protocol generated through research will be applicable to both the local and global community, leading to the following benefits –

- (a) enhanced prevention and control of the spread, both locally and across the border with Mainland China, of infectious disease and emerging infectious diseases, such as SARS;
- (b) strengthened knowledge base for surveillance and treatment of infectious diseases;
- (c) facilitated sharing of evidence-based knowledge amongst researchers of local community and Mainland China; and
- (d) enhanced local and Mainland research capacity in the field of infectious diseases

/Local

Local research on controlling infectious diseases

Scope

6. The scope of projects to be supported through the proposed fund includes but not limited to research-oriented investigations of anticipated or unanticipated outbreaks or epidemics of infectious diseases and evaluation of related new diagnostic, therapeutic, or pilot studies. The projects could cover research on the etiology, surveillance and epidemiology of infectious diseases, public health, basic, clinical and health service research, and funding of institutions to enhance research infrastructure.

7. The following are examples of research projects that could be supported by the proposed fund –

(a) Etiology, Epidemiology, Surveillance and Public Health

- (i) Detection and identification of emerging infectious diseases
- (ii) Studies of natural history of SARS, possible animal reservoirs
- (iii) Investigation of host susceptibility to emerging or re-emerging pathogens
- (iv) Research on ecological and environmental factors influencing disease emergence and transmission
- (v) Studies on people's behavior towards hygienic community and healthy living
- (vi) Modification of environmental factors to prevent outbreaks of similar diseases in the territory.

(b) Basic Research

- (i) Development and validation of diagnostic tools
- (ii) Pathogenesis and immunologic characteristics of SARS
- (iii) Genomic sequencing, proteomics and informatics of pathogens causing SARS
- (iv) Elucidate the immunopathology of SARS to identify existing antiviral drug and development of novel treatment for SARS

/(c)

(c) Clinical and Health Service Research

- (i) Clinical trials to evaluate the safety and efficacy of therapeutics, in particular, antiviral drug and other immune-based therapy in patients with SARS
- (ii) Investigate the role and efficacy of Chinese medicine in treating SARS
- (iii) Evaluate control measures to ameliorate disease impact at hospital level
- (iv) Develop treatment regime to improve management of patients with specific infectious disease
- (v) Rational drug discovery in partnership with others to identify candidate drugs for treating infectious diseases

(d) Enhancement of Research Infrastructure

- (i) Develop sophisticated research equipments
- (ii) Develop software support systems

Research output

8. The output in terms of number of research projects to be funded can be benchmarked on local experience. The average grant awards by the Research Grants Council (RGC) under the University Grants Committee amount to about HK\$0.93 million per research project at present. Based on this benchmark, the output for the research fund is estimated to be about 400 projects.

Eligibility

9. The proposed funding for local research will be opened to researchers and research institutes from the public, private and academic sectors in Hong Kong. Eligible applicants must have a track record of conducting research on the prevention, treatment and control of emerging infectious diseases in the territory. Researchers collaborating with Mainland China and overseas institutions may also apply for the fund.

10. It is anticipated that the research efforts would produce scientific advances and best practices as a result of multi-disciplinary cooperation and collaboration. To be eligible for a grant, the proposed research project must demonstrate high scientific merits and of local application. All research applications will undergo a two-tiered peer review process, first by the Referee Panel and second by the Grant Review Board.

Administration

11. It is proposed that the fund be overseen by a Research Council, which would make recommendation to HWFB for allocation of research fund. The Research Council is supported by a secretariat and two working committees, namely the Grant Review Board and the Referee Panel. The secretariat will be housed under the Health, Welfare and Food Bureau to provide administrative and technical support to fund administration, including initial screening of applications, liaison with applicants, assignment of referees, preparation of documents for council meetings, and input on grant management and operation. The secretariat will be supported by staff at non-directorate level either through recruitment on non-civil service contract terms or through hiring of professional services from local universities. It is estimated such cost per year would take up about 0.5% of the total fund.

12. Other administrative cost will include remuneration for overseas referees for review of applications for research grant and review of research finding reports, publication of research dissemination reports and maintenance of webpage to publicise research projects financed and research findings. It is estimated that this would take up about 1.2% of the total fund.

13. The fund will support studies initiated by individual investigators as well as those commissioned by the Bureau to address specific health problems, fill scientific gaps and respond to public health threats or needs. All research proposals shall be subject to the extensive, two-tiered peer review process to ensure scientific credibility and for ethical considerations. The proposed role and responsibility, composition, and the term of reference of the Council, Grant Review Board and Referee Panel are set out in paragraphs 14 to 22 below.

/Research

Research Council

Role and responsibility

14. The Research Council assumes responsibility for all aspects of the administration of the proposed fund and the allocation of funds for approved grants. The Council appoints members to the Grant Review Board and the Referee Panel.

Composition

15. The Council comprises representatives from the Health, Welfare, and Food Bureau; public institutes and bodies; as well as members from the academic arena and private sector to be appointed by the Secretary for Health, Welfare and Food. The term of service of appointed members is normally two years.

Terms of reference

16. The terms of reference of the Research Council are –
- (a) Determine research agenda and funding control mechanism of the proposed fund.
 - (b) Approve procedures for inviting, and criteria for vetting research applications.
 - (c) Approve standard terms and conditions for grant-holders.
 - (d) Recommend to HWFB on applications and allocating of funding.
 - (e) Approve processes for the ongoing monitoring and evaluation of approved research projects.
 - (f) Set up Grant Review Board, Referee Panel, and any other sub-committees as and when necessary to carry out the work of the Council.
 - (g) Report periodically to the Secretary for Health, Welfare and Food on the work of the Council and its ancillary bodies including the financial status of the proposed fund.
 - (h) Disseminate key findings of funded projects.

/Grant

Grant Review Board

Role and Responsibility

17. The Grant Review Board acts as the scientific advisor to the Council and makes recommendations with regard to initial funding, requests for additional funds and assesses the outcomes of funded research. It is through the Grant Review Board that all applications as well as final and dissemination reports for funded grants are subject to peer review for their scientific merit and compliance with the funding principle and ethical considerations.

Composition

18. Members are appointed by the Council and are expected to be academia and other local or overseas experts versed in the research of infectious diseases. Potential members are identified through established network, publications, scientific roles and committee meetings or collaborative work. The Secretary for Health, Welfare and Food nominates the Chairman of the Grant Review Board.

Terms of Reference

19. The terms of reference of the Grant Review Board are –
- (a) Set policies and procedures for the grant submission and review process, and the assessment and dissemination of final reports.
 - (b) Distribute guidelines for the formulation of research proposals, grant applications, and the submission of interim, final and dissemination reports.
 - (c) Review and assess applications and recommend projects for funding.
 - (d) Evaluate the quality of critical appraisals done by the Referee Panel.
 - (e) Review and assess final, interim and dissemination reports.
 - (f) Monitor the progress of approved projects.
 - (g) Monitor the financial performance of approved projects.

/Referee

Referee Panel

Role and Responsibility

20. Individual members of the Referee Panel, according to their specific area of expertise, are invited to review grant applications for funding and assess the outcomes of funded projects.

Composition

21. Individual members of the Panel will be identified through a variety of sources including through existing network, recommendation of the Grant Review Board members, bibliographic sources such as Medline, the reference section of the grant proposal or through internet contacts particularly in evidence-based health and health services literature.

Terms of reference

22. The terms of reference of the Referee Panel are –

- (a) Assess the scientific merit and ethical considerations of submitted proposals
- (b) Assess the relevance of the proposal to the funding principle and the applicability of the research to the local context.
- (c) Assess the ‘value for money’ as presented in the final and dissemination reports.

Mechanism to Prevent Duplicate Funding

23. The two-tiered peer review process will not only provide comments on the relevance by the experts, but also advice on any duplication with on-going projects based on their most updated knowledge of research projects. Duplication will be rejected. Besides, in line with prevailing international practice, all grants applicants will be required to declare whether their research proposals are also being considered by other funding agencies. The secretariat will conduct cross-checking with relevant funding organizations including RGC, Health and Health Services Research Fund, Health Care and Promotion Fund, AIDS Trust Fund etc. The aim is to ensure that no single project will be funded twice.

/Monitoring

Monitoring of Funded Projects

24. All successful applicants and host institutions shall be required to keep an audit trail of budget spent and submit periodic progress reports as well as a final report of the project. The results of their research are also to be disseminated in a medium or channel to be determined by the Research Council.

Mainland research on controlling infectious diseases

25. The proposed funding for Mainland research will be opened to researchers and research institutes in Mainland China. The administration of the fund for Mainland research will be determined by the Ministry of Science and Technology of the People's Republic of China, basing on their current practice of handling medical and health research funds.

Reporting mechanism

26. HWFB will report to the Legislative Council on a regular basis in respect of the allocation of funds under the commitment to support local research projects and for research in the Mainland.

FINANCIAL IMPLICATIONS

27. SHWF proposes a commitment of \$500 million for financing research projects on controlling infectious diseases.

28. It is planned that the allocation for local research will sustain research projects for about 5 years. The operation of the fund will be reviewed after 3 years. The proposal will not give rise to additional recurrent expenditure.

29. There will not be any revenue implications arising from the proposal, as no application or administration fees will be charged on local applicants.

BACKGROUND INFORMATION

30. On 23 April 2003, the Government announced a series of measures to relieve the impact of the outbreak of SARS. Among the measures, the Chief Executive announced the allocation of a total sum of \$1.5 billion for medical research and enhancing public health as longer-term measures to control the disease, and to provide assistance and professional training for health care workers.

31. Subsequent to this announcement, the Chief Executive further announced on 29 May 2003 to earmark, out of the \$1.5 billion, \$500 million to finance medical research, of which \$50 million will be provided to encourage research in the Mainland.

32. The Legislative Council Panel on Health Services discussed this proposal on 25 June 2003 and 9 July 2003. Members noted the proposal and the need for enhancing resources for research on SARS and emerging infectious diseases.

Health, Welfare and Food Bureau
July 2003