## Environmental Research, Technology Demonstration and Conference Project

| Project Number:                      | ECF 03/2018   |
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| Project Title:                       | 5th International Symposium on the Environmental Dimension of Antibiotic<br>Resistance (EDAR5)  |
| Principal<br>Investigator:           | Professor Zhang Tong, Department of Civil Engineering, The University of Hong Kong  |
| Total Approved<br>Grant:             | \$489,700 or 70% of the total actual expenditure, whichever would be the less   |
| Duration:                            | 1/11/2018 to 31/8/2019  |
| Project Status:                      | Completed   |
| Project Scope:                       | Environmental antimicrobial resistance (AMR) is an emerging pollutant according the Frontiers Report 2017 of United Nation Environment Programme. The purpose of this conference is to bring internationally renowned experts in the field of AMR in environments to Hong Kong for them to share their knowledge and expertise on the latest development in environmental AMR field with our local experts and environmental practitioners from government, academic and private sectors. The specific objectives of the Conference are – |
|                                      | (a). To set up a platform for knowledge and idea exchange regarding to the latest development in AMR study in different parts of the world;   |
|                                      | (b). To foster regional and international collaborations in research and development among scientists, environmental consultants, policy makers and governmental officers engaging in the field of environmental AMR;   |
|                                      | (c). To resolve some of the pressing practical issues in the environmental dimension of AMR, especially policy and mitigation strategies; and   |
|                                      | (d). To identify knowledge gaps and prioritise important research areas in this field.  |
| Summary of the<br>Findings/Outcomes: | <ul> <li>(a). The Conference was successfully held at The University of Hong Kong from 9 to 14 June 2019. During the 5-day conference, 30 invited talks, 40 oral presentations and 190 poster presentations were showcased and delivered. A total of 350 attendants from 115 cities of 30 countries joined the Conference;</li> </ul>   |
|                                      | <ul> <li>(b). Key topics of the Conference are –</li> <li>fundamental scientific aspects of environmental AMR including</li> </ul>  |
|                                      | <ul> <li>sources and drivers;</li> <li>approaches to effective mitigation in different use sectors;</li> </ul>  |
|                                      | <ul> <li>approaches to effective intigation in different use sectors,</li> <li>connections between environmental hotspots and point sources such as medical settings;</li> </ul>  |
|                                      | <ul> <li>risk assessment and policy implications; and</li> <li>global aspects and how to better communicate and inform all countries/regions</li> </ul>   |
|                                      | (c). The Conference provided new insights on the key issues for advancing protection of public health and the environment, and broadly covered  |

| environmental AMR in different aspects;   |
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| (d). Objectives of the Conference were fully achieved –   |
| - it established a platform for people at home and abroad to share information and to brainstorm ideas on the recent developments in the AMR research;  |
| - it facilitated cross-border collaborations among scientists, more importantly, strengthened cooperation between scientific fields and environmental consultants, policy makers and government officials;  |
| - it constructed technical standards on AMR research in environmental dimension; and  |
| - the current achievements and research gaps in the AMR were intensively discussed.   |
| <ul><li>(e). Publications included an edited abstract book which provides fundamental considerations and practical methodologies for AMR to protect the environment and human health, as well as the latest developments in the field, available in the Conference website for downloading; and</li><li>(f). Press releases were issued by The University of Hong Kong.</li></ul> |
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