

THE EDUCATION UNIVERSITY OF HONG KONG
FACULTY OF LIBERAL ARTS AND SOCIAL SCIENCES

Research Output/Impact/Knowledge Transfer Prize
for the Dean's Research Fund 2018-19

Brief Introduction of Awardee's
Research/KT Publication/Study/Output and Future Research/KT Development

Awardee (Dept): Dr. Deng Wenjing, Assistant Professor (SES)
Publication Title/KT project: Phosphorus flame retardants and Bisphenol A in indoor dust and PM_{2.5} in kindergartens and primary schools in Hong Kong

A. *Briefly introduce your research/KT publication/study/output for which you have received the prize.*

Phosphorus flame retardants (PFRs) and one of plasticizers, bisphenol A (BPA), which are potentially endocrine disruptors and neurotoxins, may increase the risk of childhood diseases during gestation, infancy, and childhood. This study has provided information about the levels of PFRs and BPAs in indoor PM_{2.5} and dust and fully understand the species and amount of PFR uptake through indoor PM_{2.5} and dust by using child population in the kindergartens and primary schools in Hong Kong of warm year-round climate. School children's health risk was assessed by daily exposure models after contents determined. The results would provide information on child exposure to PFRs and BPAs in Hong Kong and help regulate their usage.

This output entitled “**Phosphorus flame retardants and Bisphenol A in indoor dust and PM_{2.5} in kindergartens and primary schools in Hong Kong**” has been published *Environmental Pollution* with an impact factor of 5.714 (2016).

B. *How you used/will use your prize and perhaps its usefulness to your research/KT development?*

This prize provides a remarkable support to my research development on endocrine disruption chemicals (EDCs) and children health. With this prize, the concentrations of emerging EDCs via indoor PM_{2.5} and dust in kindergartens and primary schools will be analyzed in a larger scale. The exposure levels of young children during school hours via indoor PM_{2.5} and dust will also be estimated. The research could provide policy makers with a valuable insight into indoor environments in this global city and help them formulate appropriate preventive strategies, such as searching the main pollutive source.

C. Expected research/KT outcomes/outputs/impacts arising from this prize.

This prize can help to create new perspectives to regulate endocrine disruption chemicals (EDCs) problems. Results can be used to improve our society and protect public health, especially for children health.