

## **Research Assessment Exercise 2020**

### **Impact Overview Statement**

**University:** **The Chinese University of Hong Kong** |

**Unit of Assessment (UoA):** **6** |

**Total number of eligible staff of the university in the UoA:** **5** |

#### **(1) Context** - context for the individual case study(ies)

The objective of our research is to ensure the safety and quality of Chinese herbal medicines by providing applicable methods and adoptable reference standards. The research in School of Chinese Medicine (SCM) addresses the needs of Government, clinics of Hospital Authority, industry sectors and consumers of herbal medicines.

- i. Government and public policy makers: Hong Kong Chinese Materia Medica Standards (HKCMMS) project was established by the Department of Health to develop standards for commonly used CMMs to ensure the safe use and the quality of Chinese medicines. Many of our research results have been adopted by the Government for the publication of HKCMMS.
- ii. Hospital Authority: To avoid poisoning caused by consuming Chinese medicines adulterated or confused with toxic herbs, we have provided authentication and analytical tests for Chinese medicines used in clinics of Hospital Authority.
- iii. Industry: In recent years, certificates to demonstrate the safety and quality of Chinese medicines are requested by buyers from local and overseas markets. We have developed analytical methods and conducted analytical tests for suppliers of herbal medicines.
- iv. The public: Our research work has helped improve the quality and safety of CMM available in the market and protect public health. |

#### **(2) Approach to impact** - the unit's approach to impact during the assessment period for impact

Our impacts have been achieved through continuous engagement with government committees, industry sectors and local communities. The following impact activities are coordinated by a team under the Research Committee (RC) of SCM and the works are reported to the RC regularly.

- i. **Influencing government and public policy.** We are regularly reporting our research findings and providing suggestions to Department of Health in meetings of International Advisory Board or Scientific Committee of HKCMMS. To maximize the influence on policy makers, the school encourages and nominates staff to join various advisory committees of the governments such as Chinese Medicine Council of Hong Kong and Advisory Committee of Government Chinese Medicines Testing Institute.
- ii. **Influencing industry sectors.** Our research team has been widely recognized by local Chinese medicine traders on quality control of Chinese herbal medicines as we have proactively provided them research and analytical services on tests of Chinese herbal medicine which cannot be done by the commercial testing laboratories, as well as educational programmes to assist testing laboratories to build up testing capability in authentication of CMMs. We have also provided training workshop on authentication of CMM for Chinese medicine traders and testing laboratories. All these activities are supported by SCM in terms of advertisement, online registration and various administrative works. To foster industry investment on research, the school encourages staff to build a long-term partnership with the industry sectors by providing research and analytical services to them, with an aim to develop impact-driven research, thereby enhancing the school's RAE performance.
- iii. **Influencing the public.** We have undertaken a wide range of public engagement activities in order to arouse the public awareness of the safety and quality of Chinese herbal medicines. For example, we have produced short video broadcasted in CUTV channel and CUHK YouTube

channel. Training workshop and seminars have been provided to the public for teaching basic knowledge in authentication of Chinese herbal medicines. These activities are coordinated through the Public Relations team of the school. |

### (3) **Strategy and plans** - strategy and plans for supporting impact

The primary objective of our research work is to ensure the safety and quality of Chinese herbal medicines. To achieve this, we shall continue our research work to address the need of the beneficiaries. Our main strategies are listed as follows:

- i. The School positions “Quality assurance (QA) and quality control (QC) of Chinese Medicine” as the flagship research programme in Research Strategic Development Planning. It provides laboratory space, equipment and consumables, and supports the employment of specialist staff. Experts are appointed as honorary Professors to guide the research projects. Staff with significant achievement in activities relevant to impact are rewarded as “Merit Increment” in annual Performance Review and Development or promoted to academic post.
- ii. The school fosters extensive research collaborations with local and international institutions and has signed “Memorandum of Understanding” with many of them. The school supports annual Summer Research Placement Programme, coordinated through The Office of Academic Link (China), to establish research collaboration with other research institutions.
- iii. The school encourages and provides assistance to staff to build links with industry partners by providing analytical and research service, training workshops and educational seminars.
- iv. The School helps staff to improve the accessibility of our research via a range of media including YouTube, television, newspapers and international conferences. |

### (4) **Relationship to case studies** - the relationship between the unit’s approach to impact and the submitted case studies

Our approach is to impact on the safety and quality of Chinese medicines by developing the HKCMMS and working with policy maker, clinics, industry, and public. The case study submitted by the QA/QC research team exemplifies our approach to impact. The hallmarks include:

- i. **Close working relationship with the policy makers.** The QA/QC research team regularly presents the research results to the Department of Health for the development of HKCMMS. Some research findings have been translated into policy of the Government.
- ii. **Services to Hospital Authority.** In the past, medicinal herbs were usually prescribed to patients without any authentication and testing. Therefore, cases of poisoning by consuming herbal medicines were recorded when the prescribed herbs were adulterated or confused with toxic herbs. The QA/QC research team provides annual authentication and analytical tests to Hospital Authority to make sure that the herbal medicines used in all Chinese Medicine Centres of Hospital Authority are free from the contaminants of toxic herbs.
- iii. **Strong evidence for translating research results to benefit the industry sectors.** Chinese herbal medicines are the raw materials for production of proprietary Chinese medicines. Therefore, the quality of herbs has a direct impact on the products. The analytic methods and reference standards published in HKCMMS help the manufacturers to control the quality of herbal materials and ensure the quality of their products. The analytic methods published in HKCMMS facilitate the development of the testing and certification industry in Hong Kong. More than ten testing laboratories have obtained accreditation under The Hong Kong Laboratory Accreditation Scheme to perform tests according to the HKCMMS.
- iv. **People are more aware of the safety of Chinese herbal medicines.** Through our training workshops, seminars, and educational programmes in public media, people have a better understanding of Chinese herbal medicines. The case of poisoning because of confusion on these herbal drugs has been significantly reduced in recent year as described in our case study. |