

LCQ11: Digital Herbarium for Chinese Medicines

Following is a question by Professor the Hon Chan Wing-kwong and a written reply by the Secretary for Health, Professor Lo Chung-mau, in the Legislative Council today (December 11):

Question:

The Digital Herbarium for Chinese Medicines (DHCM), a dedicated website established by the Government Chinese Medicines Testing Institute of the Department of Health, has been officially launched since March 26 this year. The public, Chinese medicine industry and scientific research institutions may use relevant information for purposes of identifying Chinese herbal medicines, testing and education. In this connection, will the Government inform this Council:

- (1) of the details of the digitalised information on Chinese medicines recorded in DHCM so far;
- (2) of the number of public page views as well as the usage of and feedback on DHCM since its launch; and
- (3) how the authorities will step up efforts to promote and enhance DHCM in the future?

Reply:

President,

In consultation with the Department of Health (DH), the consolidated reply to the question raised by Professor the Hon Chan Wing-kwong is as follows:

Managed by the DH, the Government Chinese Medicines Testing Institute (GCMTI) specialises in the testing of and scientific research on Chinese medicines. It employs state-of-the-art technology to develop and establish internationally recognised reference standards for the safety, quality and testing methodology of Chinese medicines. With continuous efforts in promoting the standardisation and internationalisation of Chinese medicines, the GCMTI will help the Chinese medicines industry strengthen quality control of its products through transfer of technology, with a view to establishing the brand image of Hong Kong Chinese medicines and developing the city into an international hub for Chinese medicines testing and quality control.

The Digital Herbarium for Chinese Medicines (DHCM) (www.cmherbarium.gov.hk) established by the GCMTI is the first online herbarium in the world that provides comprehensive digital information on Chinese medicines. It includes high-resolution images and related data of 220 commonly used Chinese materia medica (CMM) and their origin plant specimens,

with chemical information, microscopic slides and DNA sequence data available for some CMM. The DHCM users may use the name of CMM or plants, their medicinal uses, collection locations, or medicinal parts, etc, as keywords to search for information of the Chinese medicines. Information on uses, precautions on proper use as well as storage methods, etc, is provided for each CMM. At present, the total number of data field entries in the DHCM have already exceeded 10 000, which is conducive to the promotion of innovative application of Chinese medicines data and resources.

The DHCM is also the first in the world using photogrammetry to produce three dimensional (3D) images on traceable CMM specimens. Currently, it contains 3D images of a total of 27 CMM specimens.

Besides, the DHCM uses virtual reality (VR) technology to provide users with a virtual tour of the GCMTI's Chinese Medicines Herbarium currently located in the Hong Kong Science Park. Users will be able to view the precious CMM specimens donated by the National Medical Products Administration through the National Institutes for Food and Drug Control.

Since its launch in March 2024, the DHCM has recorded more than 700 000 page views. In the past few months, the DHCM was showcased at multiple major and international events including the InnoEX 2024, the World Health Organization's Expert Group Meeting on the Development of an International Herbal Pharmacopoeia, the kick-off event for the first Hong Kong Chinese Medicine Culture Festival, and received acclaim from international experts.

The Advisory Committee of the GCMTI (the Committee) is an advisory body set up for the GCMTI with members comprising representatives from the Government, Chinese medicine practice, Chinese medicines industry and academia, as well as the international experts of the Hong Kong Chinese Materia Medica Standards project. All along, the Committee has been providing advice for the GCMTI, bringing the DHCM on par with international standards. It has not only highly recognised the contents and functions of the DHCM since its launch, but also offered valuable advice on the DHCM's continuous development and on how to further leverage its functions of facilitating Chinese medicines testing, scientific research, education, culture promotion, etc. The GCMTI is actively following up on such advice to make continuous improvements to the contents and functions of the DHCM, such as showcasing the outcome of the National Survey of CMM Resources (Hong Kong Region) in the DHCM, as well as producing a new batch of 3D images of 30 kinds of CMM including those derived from animals and minerals.