

# What would you get when you purchase "Bai Jiang Cao" in the Hong Kong market?

Grace Gar-Lee Yue<sup>a</sup>, Tao Zheng<sup>a</sup>, Dandan Hu<sup>a</sup>, Man-Ho Tong<sup>a</sup>, Huihai Yang<sup>a</sup>,  
David Tai-Wai Lau<sup>b</sup>, Pang-Chiu Shaw<sup>a,c,d</sup>, Clara Bik-San Lau<sup>a,c,\*</sup>

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<sup>a</sup> *Institute of Chinese Medicine and State Key Laboratory of Research on Bioactivities and Clinical Applications of Medicinal Plants, The Chinese University of Hong Kong;*

<sup>b</sup> *Shiu-Ying Hu Herbarium, School of Life Sciences, The Chinese University of Hong Kong;*

<sup>c</sup> *Li Dak Sum Yip Yio Chin R&D Centre for Chinese Medicine, The Chinese University of Hong Kong;*

<sup>d</sup> *School of Life Sciences, The Chinese University of Hong Kong.*

\*Correspondence: Clara Bik-San Lau, email: [claralau@cuhk.edu.hk](mailto:claralau@cuhk.edu.hk)

## Abstract:

**Introduction:** Bai Jiang Cao (BJC, 敗醬草) is commonly prescribed alone or in complex prescriptions by Chinese medicine practitioners for colorectal cancer patients in Hong Kong. In fact, BJC can refer to various species, such as *Patrinia Herba* (PH, 敗醬) which include *Patrinia scabiosifolia* (PS, 黃花敗醬), *Patrinia villosa* (PV, 白花敗醬), etc., and even including other genera such as *Thlaspi Herba* (TH, *Thlaspi arvense* 菥蓂 or 蘇敗醬), or *Sonchus brachyotus* (苦苣菜 or 北敗醬). It is commonly found that herbal stores in Hong Kong provide different species of BJC. However, the pharmacological activities of these species might vary, which may affect the herbal medicine efficacy in patients. Hence, the present study aimed at investigating which species (PH or TH) could be purchased under the name BJC from herbal stores among the 18 districts in Hong Kong, and comparing the chemistry and cytotoxic activities of these samples.

**Materials and Methods:** Morphological authentication of BJC samples were performed according to literature [1] and their chemical profiles were examined using thin layer chromatography. Hot water extracts of these BJC samples were then prepared and their effects on viability of human colon cancer HCT116 cells were evaluated using MTT assays [2].

**Results:** Basing on the results of morphological and chemical authentication, only 5 out of 18 samples were identified as PH, with 4 of them being identified as PV, and 1 as PS. Besides, only PH water extracts, but not TH water extracts, were shown to suppress the viability of HCT116 cells.

**Conclusions:** This study provided important information to Chinese medicine practitioners and patients that in order to obtain the efficacy of BJC in colon cancer management, correct species of BJC should be used.

## References:

1. He, X., et al. *Am J Chin Med.* 2017, 45(4): 637-666; [2] Yang, H., et al. *Molecules.* 2021, 26(19): 6032.