

## NEW FINDINGS OF DISSERTATION

**Dissertation title:** Study on chemical components and several biological activities of *Belamcanda chinensis* (L.) DC. collected in Vietnam.

**Speciality:** Medicinal Materials - Traditional Pharmacy      **Code number:** 9720206

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**Summary of new findings:**

### ***1. Chemical Components***

- *Belamcanda chinensis* has been discovered that it contained 5 main component groups such flavonoid, organic acid, amine acid, polysaccharide, and sugar.
- 20 compounds have been isolated from *Belamcanda chinensis* (11 compounds from rhizome (**BC1 - BC11**) and 9 compounds from air parts (**BC12 - BC20**), among these compounds:
  - + 4 new compounds: 6''-O-acetylembinin, 3''-O-acetylembinin, irigenin 3'-O-β-D-glucopyranoside, and 2'-O-acetyl-1,3-O-diferuloylsucrose.
  - + 6 firstly isolated compounds: Isoswertisin, 2''-O-α-L-rhamnosyl-4'-O-methylisovitexin, embinin, (7R,8S)-dehydrodiconiferyl alcohol-γ'-methyl ether, isorhamnetin-3-O-(6''-acetyl)-β-D-glucopyranoside, and 1,3-O-diferuloylsucrose.
- Established the quantitative method for together 6 compounds, which have isolated from radix of *Belamcanda chinensis* by HPLC, then given out the concentration of those contents the materials which cultivated Nghe An, Phu Tho, Thai Binh, Thanh Hoa, Vinh Phuc, and Yen Bai.

### ***2. Biological Activities***

- Discovering that the 2 compounds which were acetovanillon, (7R,8S)-dehydrodiconiferyl alcohol-γ'-methyl ether, isolated from radix of *Belamcanda chinensis*, have significantly anti-inflammation and its mechanism.

- The first time study on effects of methanol extract of radix of *Belamcanda chinensis* on the carrageenan-induced paw edema model and granule ulcer by amiant- induced.
- The beginning of scavenging in inhibition on proliferation of VSMC cells of extraction and isolated compounds from air part of *Belamcanda chinensis*,

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