

NEW FINDINGS OF DOCTORAL DISSERTATION

Name of Doctoral candidate: Do Thi Oanh

Dissertation title: “Botanical properties, phytochemistry and biological activity studies on *Chloranthus japonicus* Sieb. in Vietnam”

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

Name of academic advisors:

1. Prof. Dr. Pham Thanh Ky
2. Assoc. Prof. Dr. Le Viet Dung

Name of academic institute: National Institute of Medicinal Materials

Summary of new findings of the dissertation:

1. Botany

- Scientific name of the sample was identified as *Chloranthus japonicus* Sieb. (Chloranthaceae).
- Botanical properties, anatomical analysis of *Chloranthus japonicus* Sieb. were performed.

2. Chemical constituents

Structure of 14 compounds isolated from *Chloranthus japonicus* Sieb. were identified, including:

- + 5 compounds were isolated from *C. japonicus* Sieb. for the first time: 4 α ,8 β -dihydroxyeudesm-7(11)-en-12,8-olide, 4 α -hydroxy-5 α ,8 β (H)-eudesm-7(11)-en-8,12-olide, sacglaboside C, shizukanolide F, and isofraxidin.
- + 6 compounds were isolated from genus *Chloranthus* Sw. for the first time: linarionoside A, 5-(hydroxymethyl)fururaldehyde, glucosyringic acid, vanilloside, sarcglaboside G, and calycanthoside.

3. Toxicity and Biological activities:

- Acute toxicity of aerial parts and root extracts of *C. japonicus* Sieb. was published for the first time.
- The aerial parts extract was indicated to have acute anti-inflammatory activity, root extract did not show the activity.
- The aerial parts and root extracts both show *in vitro* chronic anti-inflammatory activity.
- The aerial parts and root extracts both exhibited hepatoprotective activity on PAR-

induced liver injury model.

- Protease HIV-1 inhibitory activity of $4\alpha,8\beta$ -dihydroxyeudesm-7(11)-en-12,8-olide was studied for the first time with $IC_{50} = 0,45 \mu\text{M}$.

Hanoi, Nov 2018

ACADEMIC ADVISORS

DOCTORAL CANDIDATE

Prof. Dr. Pham Thanh Ky

MSc. Do Thi Oanh

Assoc. Prof. Dr. Le Viet Dung