

## NEW FINDINGS OF DOCTORAL DISSERTATION

**Name of Doctoral candidate:** Bui Thi Xuan

**Dissertation title:** “Study on chemical constituents, toxicity and biological effects to support the treatment of gastric, duodenal ulcers of *Sanchezia nobilis* Hook.f.”

**Specialty:** Medicinal Materials - Traditional Pharmacy

**Code of speciality:** 9720206

Name of academic advisors:

1. Dr. Tran Minh Ngoc
2. Dr. Tran Thanh Ha

**Name of the academic institute:** National Institute of Medicinal Materials

**Summary of new findings of the dissertation:**

### 1. Botanic

The thesis has described in detail the morphological characteristics of *Sanchezia nobilis* Hook.f. Acanthaceae.

### 2. Chemical constituents

The structure of 20 compounds isolated from the leaves of *Sanchezia nobilis* Hook.f. were identified, in which:

- 1 new compound: (+)-13-*O*-acetylfawcettimine;
- 13 compounds were isolated from genus *Sanchezia* for the first time:  $\alpha$ -spinasterol, stigmast-4-ene-3,6-dion, 7-hydroxy-6-methoxy coumarin, acid coccinic, acid betulinic, (+)-fawcettidine, hispidulin, kaempferol, afzelin, hispidulin-7-*O*- $\beta$ -glucopyranoside, hispidulin-4'-*O*- $\beta$ -glucopyranoside, hispidulin-7-*O*- $\beta$ -glucuronopyranosid methyl ester, and hispidulin-7-*O*- $\beta$ -glucuronopyranoside.

### **3. Toxicity and Biological activities:**

Sub-chronic toxicity of the ethyl acetate fraction of *Sanchezia nobilis* Hook.f. was published for the first time.

The thesis is the first publication on:

- Anti-ulcer effect on pyloric ligation model (Shay) in white rats of the total extract with 3 dose levels.

- Anti-inflammatory effect on gastric ulcer in the model of pyloric ligation (Shay) in white rats of extracts of *n*-hexane fractions, ethyl acetate, and water at the lowest dose with the total extract had an effect.

- Central analgesic effect of total extract and fractions of *n*-hexane, ethyl acetate, and water, each with 2 dose levels in hot plate model and pain threshold meter model in white mice.

*Ha Noi, .....December, 2022*

**ACADEMIC ADVISORS**

**DOCTORAL CANDIDATE**

**Dr. Tran Minh Ngoc**

**Dr Tran Thanh Ha**

**Bui Thi Xuan**