NEW FINDINGS OF THE DOCTORAL DISSERTATION

Dissertation title: Study on chemical composition and evaluation of the anti-cancer effect of stems and leaves of *Stephania dielsiana* Y. C. Wu.

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

Name of Ph.D. candidate: Tran Thi Thu Hien

Scientific supervisors:

1. Dr. Le Thi Kim Van
2. Assoc. Prof. Dr. Nguyen Quoc Huy

Academic institution: National Institute of Medicinal Materials

Summary of new findings:

1. Chemical Components

- From the stems and leaves of *Stephania dielsiana* Y.C. Wu isolated and determined the chemical structures of 11 compounds, of which:
  + Two new compounds were alkaloids (stedieltin A and stedieltin B);
  + One compound was isolated for the first time from the genus *Stephania* Lour. (aristolactam);
  + Four compounds were first isolated from *Stephania dielsiana* Y.C. Wu (oxostephanosine, 4-hydroxybenzaldehyde, benzyl *β*-D-glucopyranoside, and (6*R*,9*S*)-roseoside).
- The thesis has initially studied the methods of isolation and quantitative of oxostephanine in medicinal herbs. The thesis is the first publication on the change of oxostephanine content in the stems and leaves of *Stephania dielsiana* Y.C. Wu according to the time of harvest.

2. Biological Activities

The thesis is the first publication on:

+ Cytotoxic effects on five cancer cell lines of compounds (stedieltin A, stedieltin B, oxostephanosine, and oxocrebanine).

+ Mechanism of cytotoxic activity of oxostephanine on ovarian cancer cell line (OVCAR-8) and three normal cell lines (hUVECs, UC-MSCs, and hFBs).

Hanoi, Dec 20th 2022

THE SCIENTIFIC SUPERVISORS **Ph.D. CANDIDATE**

Dr. Le Thi Kim Van **Tran Thi Thu Hien**

Assoc. Prof. Dr. Nguyen Quoc Huy