

THUA-PHONG LAM

thua-phong.lam.3910@student.uu.se

Kantorsgatan 32, Uppsala 75424, Sweden || (+46) 729 730 920

<https://github.com/phonglam3103/> | <https://scholar.google.com/citations?user=6cgYvflAAAAJ>

EDUCATION [Transcripts](#) | [Short course training certificates](#)

Uppsala University, Uppsala, Sweden

2023 - 2025

- **Master** of Pharmaceutical Science
- **Major:** Pharmaceutical modeling
- **Principal subjects/skills covered:**
 - Preclinical and clinical data analysis
 - Image and sequence analysis
 - Bioinformatics and cheminformatics
 - Molecular biopharmaceutics

University of Medicine and Pharmacy at Ho Chi Minh City, Ho Chi Minh City, Vietnam

2017 - 2022

- **Bachelor** of Pharmacy
- **Major:** Medicinal chemistry | Computer-aided drug design
- **GPA:** 3.59/4.00 (rank 2/368) – **Thesis:** 9.9/10 (rank 1)
- **Principal subjects/skills covered:**
 - Medicinal chemistry
 - Pharmacokinetics - Pharmacology
 - Computer-aided drug design
 - Biochemistry – physiology and pathophysiology
- **Thesis:** In silico virtual screening and binding affinity evaluation of potential interleukin-33 inhibitors.

Additional courses

- **Convolutional neural networks (Stanford University & DeepLearning.AI):** certified by Coursera (2024)
- **Data Scientist with Python:** certified by Datacamp (2023)
- **Introduction to Data Science in Python (University of Michigan):** certified by Coursera (2023)
- **Machine Learning Specialization (Stanford University & DeepLearning.AI):** certified by Coursera (2023)

WORK EXPERIENCE

University of Medicine and Pharmacy at Ho Chi Minh City, Ho Chi Minh City, Vietnam

Research Assistant, Department of Medicinal Chemistry

05/2019 – 12/2023

Advisors: MPharm. Tan Thanh Mai | Prof. Dr. Khac-Minh Thai

IL-33/ST2 inhibitors project (Ongoing): The project objective is to focus on applying in-silico approaches and in-vitro methods to discover the small molecule inhibitors of the Interleukin-33 (IL-33) / ST2 axis.

- Conducted different virtual screening stages including homology modeling, 3D-pharmacophore, molecular docking, molecular dynamics simulation, and binding free energy calculation.
- Applied conventional machine learning methods (SVM, Linear Regression, RandomForest, XGBoost) and deep learning techniques (MLP, GNN) to build a classification model for ST2 inhibitors.
- Applied advanced dynamics simulation methods (MixMD) to find putative binding sites on IL-33 and ST2.
- Designed and applied the in vitro evaluation protocol using fluorescent spectroscopy.

Flavonoids as anti- α -glucosidase and α -amylase dual-target inhibitors (2022-2023): The project aims to evaluate the inhibitory activity of synthetic and natural flavonoids against anti-diabetic targets.

- Led a research group of seven pharmacy students to conduct a systematic review.
- Organized three consecutive seminars about the stages of a systematic review.
- Analyzed data and wrote manuscripts for publications.

Computational antiviral projects (2021-2022): The projects' goals were to evaluate the inhibitory activity of in-house chalcones and commercial drugs against emerging viral pandemics such as COVID-19 and Monkeypox.

- Conducted different virtual screening methods to evaluate the binding affinity of small molecules.
- Analyzed data and wrote manuscripts for publications.

Research Assistant, Department of Clinical Pharmacy

08/2022 – 02/2023

Prediction of antibiotic resistance in hospitalized patients using machine learning algorithms from medical record data:

The study aims to develop machine learning models to predict the susceptibility of bacteria against a set of empirical antibiotics used in current treatment guidelines. My main responsibilities included developing machine learning models using different resampling methods to handle the imbalanced dataset.

HONOURS AND AWARDS

- **Graduate Student Merit Award for Top-ranking graduates (2022):** awarded by the Vice president of UMP.
- **Certificate of outstanding contribution to the faculty's extracurricular activities (2022):** certificated by the Secretary of UMP's Youth Union.
- **UMP Scholarship for excellent students (2017-2022):** full tuition fee scholarship for the top 10% of best students (based on academic performance and extracurricular activities) for continuously 9 semesters.
- **Third prize in Summer Research Scholarship (2020):** a student scientific research program for 5 outstanding students.
- **OPC Scholarship (2020):** full tuition fee scholarship for 10 excellent students in the academy, awarded by OPC
- **Homtamin scholarship (2019):** for outstanding students in the academy and social activities, awarded by Korea United Pharm Company

PUBLICATIONS Selected articles

[Full list](#)

1. **Lam T-P**, Tran N-VN, Pham L-HD, ... & Tran TD. (2024). Flavonoids as dual-target inhibitors against α -glucosidase and α -amylase: a systematic review of in vitro studies. *Nat. prod. bioprospect.* 14(4). [\[Link\]](#)
2. Mai TT, Phan MH, Thao TT, **Lam TP**, ... & Tran TD. (2023). Discovery of novel flavonoid derivatives as potential dual inhibitors against α -glucosidase and α -amylase: virtual screening, synthesis, and biological evaluation. *Mol. Divers.* [\[Link\]](#)
3. **Lam TP**, Tran VH, Mai TT, Lai NVT, Dang BTN., Le MT, ... & Thai KM. (2022). Identification of Diosmin and Flavin Adenine Dinucleotide as Repurposing Treatments for Monkeypox Virus: A Computational Study. *Int. J. Mol. Sci.*, 23(19). [\[Link\]](#)
4. **Lam TP**, Nguyen DN, Mai TT, Tran TD, Le MT,... & Thai KM. (2022). Exploration of chalcones as 3-chymotrypsin-like protease (3CLpro) inhibitors of SARS-CoV-2 using computational approaches. *Struct. Chem.*, 33(5). [\[Link\]](#)

SKILLS

Languages: Vietnamese, English (IELTS 7.5)

Technical skills:

- Proficient in using programming languages for data analysis and visualization (R and Python), product communication (R Markdown and Latex), and version control (Git).
- Narrative and systematic review using Rayyan.
- Highly skilled in different operating systems: Unix (Mac OS, Linux), Windows
- Technical writing and reference organizing using Endnote and Zotero.
- Molecular modeling techniques (pharmacophore, molecular docking, molecular dynamics simulation, homology modeling) and programs (PyMol, MOE, Autodock Vina, FlexX, Glide, GROMACS, AMBER, and NAMD)
- QSPR/QSAR modeling using Rdkit, Sci-kit Learn, TensorFlow, and Pytorch.
- Analytical techniques (spectroscopy, titration), in-vitro experiments (enzyme-based assay)

Leadership experiences:

- Good communication skills gained through five years of working in the faculty's academic club and two years working in the faculty's student association.
- Good organizational skills gained through organizing at least 14 research-oriented seminars and 6 student scientific research programs for young pharmacy students.
- Leadership (worked as the academic club president supervising 30 members for 2 years)
- Mentoring (mentored two junior research groups participating in student research programs in 2022)

SOCIAL ACTIVITIES

2023: Contributor of [Sweden Mentor](#), an AI chatbot based on large-language model to provide information about life in Sweden

2019 – 2021: Member of the committee of the Faculty's Student Association

2017 - 2022: Member/President/Mentor of Pharmacy Academic Club

REFERENCES

Prof. Khac-Minh Thai,

Head of the Department of Medicinal Chemistry
Faculty of Pharmacy,
University of Medicine and Pharmacy at Ho Chi Minh City
E: thaikhacminh@ump.edu.vn | F: +84 909 680 385

MPharm. Tan Thanh Mai,

Lecturer at the Department of Medicinal Chemistry
Faculty of Pharmacy,
University of Medicine and Pharmacy at Ho Chi Minh City
E: mthtan@ump.edu.vn | F: +84 903 800 885