Ha Pham

CONTACT INFORMATION

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EDUCATION

PhD in Chemistry, University of Illinois at Chicago **2014-2020**

- Advisor Dr. Lawrence Miller
- Thesis: High Dynamic-Range Lanthanide-Based Biosensors for Live-Cell Imaging and High Throughput Screening

B.S in Chemistry, Vietnam National University **2009-2014**

- Advisor: Dr. Anh Le
- Senior thesis: On the norm of the fundamental units in real quadratic number fields.

RESEARCH INTERESTS

I am interested in number theory; specifically zeta values, Iwasawa theory, and Hida theory.

RESEARCH EXPERIENCES

Postdoctoral researcher in Dr. Cho's lab at UIC **2020-**

- abc

Graduate Researcher in Dr. Miller's lab at UIC **2014-2020**

- Design and conduct biochemistry and chemical biology experiments for developing high dynamic-range Lanthanide-based FRET biosensors of Rac1.

Intern in Dr. Young-Tae Chang's lab at National University of Singapore **Spring 2014**

- Synthesize potassium-ion sensors and characterize their chemical properties by spectroscopy assay.

Intern in Dr. Martin Gruebele's lab at UIUC **Summer 2013**

- Understand the complex undulatory swimming patterns of Zebrafish by analyzing quantitatively the fish swimming and developing the fish locomotion models using NEURON software.

Undergraduate Research Assistant in Dr. Anh Le's lab Vietnam National University Summer 2009-2013

- Apply multi-component reaction in the synthesis of azacrown ethers containing both crown ether pigments and six-member heterocycles of nitrogen and characterize their chemical and biological properties.

PUBLICATIONS AND PREPRINTS

1. Ting Chen, Ha T Pham, Ali Mohamadi, Lawrence W Miller, Single-chain lanthanide luminescence biosensors for cell-based imaging and screening of protein-protein interactions, iScience, Volume 23, Issue 9, 2020.
2. Rosenhouse-Dantsker A., Pham H. T., Papadantonakis G. A. Chem 100 Laboratory Manual. Chicago: Hayden-McNeil, 2018. Print.
3. Le A. T., Truong H. H., Nguyen P. T., Dao N. T., To T. H., Pham H. T., Soldatenkov A. T., Synthesis and biological activity of (γ-arylpyridino)-dibenzoaza-14-crown-4 ethers, Mendeleev Communications, 25(3), 224-225, 2015.
4. Le A. T., Truong H. H., Nguyen P. T., Pham H. T., Kotsuba V. E., Soldatenkov A. T., Khrustalev V. N., Wodajo A. T., Synthesis and Molecular Structure of Dibenzo [4-(α-Thienyl- and α-Pyrrolyl) pyrido]aza-14-crown-4 Ethers, Macroheterocycles, 7(4), 386-390, 2014.
5. Girdhar K., Benitez-Jones M., Pham H. T., Nelson M., Gruebele M., Chemla Y., The behavioral space of zebrafish locomotion and its neural network model, Bulletin of the American Physical Society, 2014.

PATENTS

1. Le A., Soldatenkov T., Nguyen P., To T., Truong H., Pham H., 2013. Synthesis of (γ-arylpyridino)-dibenzoaza-14-crown-4 ether derivatives and their cytotoxicity on four cancer cell lines. Patent No. VN 19514.

TEACHING AND SERVICES

Volunteer for Boys and Girls club of Chicago **2016 - 2017**

- Every week, we helped young students do hands-on experiments and activities. The main goal of this program is to motivate them to study science.

AWARDS AND SCHOLARSHIPS

- Teaching Assistant of the year, Department of Chemistry, UIC, 2016.
- POSCO scholarship, Posco T.J.Park Fund Foundation, 2011 - 2013.

CONFERENCES AND WORKSHOPS

- Arithmetic of low dimensional abelian varieties, ICERM 2019.
- Arizona Winter School 2018: Iwasawa theory.
- Arizona Winter School 2017: Perfectoid spaces.
- Interactions between Representation Theory and Algebraic Geometry, Chicago 2017.

COMPUTER SKILLS

• Python • Machine learning • Probabilistic programming with PyMC3