

Ha Pham

CONTACT

INFORMATION

Department of Chemistry
The University of Illinois at Chicago
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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: Synthesis and cytotoxicity of (γ -arylpyridino)-dibenzoaza-14-crown-4-ether

RESEARCH

INTERESTS

I am interested in Biochemistry; specifically Cholesterol signaling, Time-gated luminescence microscopy, FRET-based biosensors, TR-FRET assay, gene manipulation.

RESEARCH

EXPERIENCES

Postdoctoral researcher in Dr. Cho's lab at UIC

2020-

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 at 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. Ha Pham, Mona Hoseini Soflaee, Andrei V Karginov, Lawrence W Miller FRET and LRET Biosensors for Cell-based Imaging and Screening of Rac1 Activation, preprint available at <https://www.biorxiv.org/content/10.1101/2021.06.25.449998v1>
2. Ha T Pham, Lawrence W Miller, Lanthanide-based resonance energy transfer biosensors for live-cell applications, Methods in Enzymology, Volume 651, 2021, Pages 291-311.

3. 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.
4. Rosenhouse-Dantsker A., Pham H. T., Papadantonakis G. A. *Chem 100 Laboratory Manual*. Chicago: Hayden-McNeil, 2018. Print.
5. 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.
6. 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, *Macrocyclic Chemistry*, 7(4), 386-390, 2014.
7. 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.

Laboratory Coordinator for CHEM 100 at UIC **2016-2020**

AWARDS AND SCHOLARSHIPS

- Postdoctoral Small Scholarship Award, UIC, 2020.
- Travel award to attend and give a talk at the ACS 2020 meeting, UIC, 2020 (very unfortunately, the event was canceled due to the pandemic).
- Teaching Assistant of the year, Department of Chemistry, UIC, 2016.
- POSCO scholarship, Posco T.J.Park Fund Foundation, 2011-2013.
- The prominent young students of VNU University of Science, 2013.
- 2nd prize, Student Research Workshop, VNU University of Science, 2013.
- Annual Scholarship for excellent students, Vietnam National University, 2009-2013.

COMPUTER SKILLS • Python • RStudio