



# Quyen V. Vu

"EVERYTHING HAPPENS FOR A REASON"

## PERSONAL DETAILS

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<i>Birth</i>	August 28, 1993
<i>Languages</i>	English, Vietnamese, C/C++, Python, Julia
<i>Assets</i>	A happy family and private bicycle
<i>Personal</i>	<a href="https://qv5013.github.io/">https://qv5013.github.io/</a>
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<i>Contact</i>	<a href="mailto:vuqv.phys@gmail.com">vuqv.phys@gmail.com</a>

## EDUCATION

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### Grad Student

10/2018-9/2023

*Institute of Physics, Polish Academy of Sciences*

**Thesis title:** "Influence of the ribosome on protein ejection and folding"

**Supervisor:** Prof. Edward P. O'Brien and Prof. Dr. hab. Mai Suan Li

**Major:** Theoretical Physics

### Master of Science in Physics

2015-2017

*Vietnam National University-University of Science (VNU-US)*

### Bachelor of Science in Physics

2011-2015

*Vietnam National University-University of Science (VNU-US),*

*Talented Program of Physics*

## HONORS AND AWARDS

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1. "Creative Youth" Award of Vietnam Association of Science and Technology in Poland for 2021.
2. The second prize "Student - Scientific Researching" Conference of Faculty of Physics, VNU-US, April 2015.
3. PetroVietnam Scholarship 2015.

## PUBLICATIONS

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1. **Vu, Q. V.**; Sitarik, I.; Jiang, Y.; Yadav, D.; Sharma, P.; Fried, S. D.; Li, M. S.; O'Brien, E. P. A Newly Identified Class of Protein Misfolding in All-Atom Folding Simulations Consistent with Limited Proteolysis Mass Spectrometry. *bioRxiv* 2022. <https://doi.org/10.1101/2022.07.19.500586>.
2. Dang, L. P.; Nissley, D. A.; Sitarik, I.; **Vu, Q. V.**; Jiang, Y.; Li, M. S.; O'Brien, E. P. Synonymous Mutations Can Alter Protein Dimerization through Localized Interface Misfolding Involving Self-Entanglements. *bioRxiv* 2021, 2021.10.26.465867. <https://doi.org/10.1101/2021.10.26.465867>.

3. Halder, R.; Nissley, D. A.; Sitarik, I.; Jiang, Y.; Rao, Y.; **Vu, Q. V.**; Li, M. S.; Pritchard, J.; O'Brien, E. P. How Soluble Misfolded Proteins Bypass Chaperones at the Molecular Level. *Nat. Commun.* 2023, 14 (1), 3689.
  4. **Vu, Q. V.**; Nissley, D. A.; Jiang, Y.; O'Brien, E. P.; Li, M. S. Is Posttranslational Folding More Efficient Than Refolding from a Denatured State : A Computational Study. *J. Phys. Chem. B* 2023, 127 (21), 4761–4774.
  5. Leininger, S. E.; Rodriguez, J.; **Vu, Q. V.**; Jiang, Y.; Li, M. S.; Deutsch, C.; O'Brien, E. P. Ribosome Elongation Kinetics of Consecutively Charged Residues Are Coupled to Electrostatic Force. *Biochemistry* 2021, 60 (43), 3223–3235.
  6. **Vu, Q. V.**; Jiang, Y.; Li, M. S.; O'Brien, E. P. The Driving Force for Co-Translational Protein Folding Is Weaker in the Ribosome Vestibule Due to Greater Water Ordering. *Chem. Sci.* 2021, 12 (35), 11851–11857.
  7. Nissley, D. A.; **Vu, Q. V.**; Trovato, F.; Ahmed, N.; Jiang, Y.; Li, M. S.; O'Brien, E. P. Electrostatic Interactions Govern Extreme Nascent Protein Ejection Times from Ribosomes and Can Delay Ribosome Recycling. *J. Am. Chem. Soc.* 2020, 142 (13), 6103–6110.
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