



Erik Nordquist

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Education

- | **Ph.D. Chemistry**, University of Massachusetts Amherst
- 2018 | **B.S. Chemistry and Physics**, The College of Idaho

Fellowships

- 2020 – 2022 | **Chemistry-Biology Interface (CBI) Fellowship**
Funded Traineeship through NIH and UMass
- 2022 | **UMass CNS Teaching Fellowship**
Funded Traineeship through UMass in connection with CIRT

Publications

- 2021 | 1. **Nordquist, E. et al.** Physics-Based Modeling Provides Predictive Understanding of Selectively Promiscuous Substrate Binding by Hsp70 Chaperones. *PLOS Computational Biology* (2021).
- 2020 | 2. Gong, X. et al. Accelerating the Generalized Born with Molecular Volume and Solvent Accessible Surface Area Implicit Solvent Model Using Graphics Processing Units. *Journal of Computational Chemistry* (2020).

Undergraduate Mentoring

- 2019 – 2020 | Callie Jillson studied how DnaK's helical lid impacts substrate binding.
- 2020 – 2021 | Samantha Schultz used protein-like nanopores to help design a protocol for accelerating the sampling of hydrophobic dewetting transitions.

Presentations

- 2022 | **Biophysical Society Annual Meeting**
"Free Energy of Hydrophobic Dewetting in Gating of BK Channels"
- 2020 | **Northeastern Structural Symposium Research Talk**
"Physical Origins of Selective Promiscuity to Hsp70s Revealed Through Physics-Based Modeling"
- 2020 | **UMass ResearchFest Poster**
W.E. McEwen Poster Prize winner; "Physical Origins of Selective Promiscuity to Hsp70s Revealed Through Physics-Based Modeling"
- 2019 | **Molecular Biophysics in the Northeast Poster Session**
"Understanding the Origins of DnaK's Selective Promiscuity with Physics-based Modeling"

Professional Development

- 2021 | **Intro. to Evidence-based Undergraduate STEM Teaching**
8-week CITRL-run course, incl. topics: active learning, formative assessments, backward design, etc.
- 2021 | **The Inclusive STEM Teaching Project online course**
4-week CIRTLL-run, evidence-based course on inclusive STEM teaching.
- 2019 | **OpenACC GPU Hackathon at MIT**
Parallelizing implementation of implicit solvent model GBMV2/SA

Service

- 2021 | **Journal Referee Biophysical Journal**, reviewed 1 article
- 2021 | **Search Committee for Grad Program Director**, UMass Amherst Chem. Dept.
- 2021 – | **Journal for Emerging Investigators**, 11 articles reviewed to-date
- 2020 | **CBI Alumni Networking Event**, Organization Committee
- 2019 – 2021 | **Annual Chem Dept ResearchFest**, Organization Committee