

Thach Chu

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PhD Candidate

- Proficient in the use of Javascript, HTML, Microsoft Office Suite, Adobe CS Suite.
- Proficient in the use of engineering software: LabVIEW, CAD/FireStorm, ASPEN aided design.
- Proficient in laboratory biological laboratory techniques and an understanding of polymer chemistry.
- Fluent in English, Vietnamese, French, and understanding of American Sign Language.

Education and Certifications

Thayer School of Engineering, Dartmouth
PhD Candidate
Hanover, NH
May 2017

- Biomedical Engineering – HIV vaccination design and technologies

University of Rochester
Bachelor of Science: Chemical Engineering
Rochester, NY
May 2011

- Dean's Scholarship, Barry & Renate Florescue endowment recipient
- Passed NCEES Fundamentals of Engineering Exam - New York, April 2011

Research and Work Experience

Thayer School of Engineering, Dartmouth
PhD Candidate,
Margaret Ackerman, PhD Primary Investigator
Hanover, NH
September 2013 - Present

- Therapeutic antibody design to aid in vaccination and HIV infection.

Dermatology and Lab Medicine Departments, Yale School of Medicine
Postgraduate Research Associate,
Oscar Colegio MD, PhD and Stephanie Eisenbarth, MD PhD, Co-PI
New Haven, CT
November 2011 - September 2013

- Studied tumor associated macrophages under Oscar Colegio in Ruslan Medzhitov's lab.
- Independent project studying the role of NLRP10 gene in murine skin cancer models in Stephanie Eisenbarth's lab.

Polymer Science Lab, University of Rochester
Summer Researcher, Mitchell Anthamatten, PI; Alex Papastrat, Mentor
Rochester, NY
June 2010 - August 2010

- Conducted research on organic polymer materials under Eisenberg Summer Research Program.
- Mastered using organic polymer vapor deposition system in under a week and gained strong understanding of polymer materials over course of summer.

Bioengineering Lab, University of Rochester
Lab Technician, JH David Wu, PhD, Primary Investigator
Rochester, NY
October 2008 - August 2009

- Optimized procedures for techniques relevant to improving cellulosic ethanol production technology.
- Researched Clostridium thermocellum under Eisenberg Summer Research program.

Leadership and Club Activities

- President, American Institute for Chemical Engineers, University of Rochester Chapter, 2010 - 2011
- Engineering Ambassador, Hajim School of Engineering, 2010 - 2011
- Professional Liaison, American Institute for Chemical Engineers, University of Rochester, 2009 - 2010
- Vice President and Webmaster, Engineers for a Sustainable World, University of Rochester, 2008 – 2010

Publications and Projects

- Oscar R. Colegio, Ngoc-Quynh Chu, Alison L. Szabo¹, **Thach Chu**, Vikram Jairam, Nika Cyrus, Carolyn E. Brokowski, Stephanie C. Eisenbarth, Ruslan Medzhitov. “Functional polarization of tumor-associated macrophages by tumor-derived lactic acid.” *Nature*. (Submitted)
- Krishnaswamy, JK. **Chu, T.** Eisenbarth, SC. “Beyond Pattern Recognition – NOD-like Receptors in Dendritic Cells”. *Trends in Immunology*. 2013 May.
- Biodiesel Project: Developed biodiesel reactor for university bus system utilizing waste oil from dining centers.
- Senior Lab Project: Carbon dioxide scrubbing and wastewater remediation using algae bioreactor.