

CURRICULUM VITAE

Khoa Nguyen

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EDUCATION

- 2009 - Present Ph.D. Candidate, Biochemistry, Cellular, and Molecular Biology
University of Tennessee, Knoxville
Advisor: Dr. Barry Bruce
- 2008 (May) Bachelor of Science, Microbiology
University of Tennessee, Knoxville
Advisor: Dr. Pamela Small

HONORS/AWARDS

- 2012 The Best Graduate Student Poster, 21st Western Photosynthesis Conference,
Asilomar Conference Grounds, Pacific Grove, CA.
- 2011 The Best Graduate Student Presentation, STAIR Annual Retreat, UTK
- 2010 1st Place, UTK BCMB Poster Competition (Junior Division)
- 2009 – Present IGERT Fellowship, National Science Foundation STAIR (Sustainable Technology
through Advanced Interdisciplinary Research) Program

TEACHING EXPERIENCE

- Graduate Teaching Assistant
University of Tennessee, Knoxville
- 2010 (Summer) BCMB 230 Lab, Human Physiology
2010 (Spring) BCMB 230 Lab, Human Physiology
2009 (Fall) Biology 101 Lab, Humankind in the Biotic World

RESEARCH EXPERIENCE

- 2010 **Rotation Student**, Department of Biochemistry, Cellular, and Molecular Biology
University of Tennessee, Knoxville
Topic: High Efficiency Transformation of *Thermosynechococcus elongatus*.
Principal Investigator: Dr. Barry Bruce
- 2010 **Rotation Student**, Department of Biochemistry, Cellular, and Molecular Biology
University of Tennessee, Knoxville
Topic: The Role of Ethylene Receptors in Phototactic Cyanobacteria
Principal Investigator: Dr. Brad Binder

- 2010 **Rotation Student**, Department of Biochemistry, Cellular, and Molecular Biology
University of Tennessee, Knoxville
Topic: Directed Evolution of a Single Chain Minimal HLA-DR4 by Yeast Surface
Display
Principal Investigator: Dr. Eric Boder
- 2009 **Lab Technician**, Department of Biochemistry, Cellular, and Molecular Biology
Duties: Cloning, subcloning, PCRs, cyanobacteria culturing/transformation
Principal Investigator: Dr. Barry Bruce
- 2007-2008 **Undergraduate**, Department of Microbiology, University of Tennessee, Knoxville
Topic: PCR Screening of Gene Encoding Toxin of *Mycobacterium Ulcerans*
Principal Investigator: Dr. Pamela Small

PUBLICATIONS

Khoa Nguyen, Barry D. Bruce. Growing green electricity: Progress and strategies for use of Photosystem I for sustainable photovoltaic energy conversion. *Biochimica et Biophysica Acta* 01/2014.

Baker DR, Manocchi AK, Lamicq ML, Li M, **Nguyen K**, Sumner JJ, Bruce BD, Lundgren CA. Comparative Photoactivity and Stability of Isolated Cyanobacterial Monomeric and Trimeric Photosystem I. *J Phys Chem B*. 2014 Feb 18.

Chen W, Sekmen A, Bruce B, **Nguyen K**, Mishra P, Emujakporue L, Wehbi K. Computational Approaches for Predicting Interaction Sites of Cytochrome and Photosystem I. *ISCA BICOB*. 2013 March. 978-1-880843-89-5.

Manocchi A, Baker D, Pendley S, **Nguyen K**, Hurley M, Bruce B, Sumner J, Lundgren C. Photocurrent Generation from Surface Assembled Photosystem I on Alkanethiol Modified Electrodes. *Langmuir*. 2013 Feb 19; 29(7):2412-9.

Williamson H, Benbow M, **Nguyen K**, Beachboard D, Kimbirauskas R, McIntosh M, Quaye C, Ampadu E, Boakye D, Merritt R, Small P. 2007. Distribution of *Mycobacterium ulcerans* in Buruli ulcer endemic and non-endemic aquatic sites in Ghana. *PLoS Neglected Tropical Diseases* 2(3): e205.

POSTER PRESENTATIONS

- 2013 (August) 11th Workshop on Cyanobacteria, St. Louis, MO
Nguyen, K., Bruce, B.D.
Optimizing Cytochrome c_6 Re-reduction Kinetics of *T. elongatus* P_{700}^+ In Vitro for Applied Photosynthesis
- 2012 (October) ASM KY-TN Branch Meeting
Nguyen, K., Myers, N., Bruce, B.D.
Engineering Photosystem I for Enhanced Electron Transport Rates In Vitro for Applied Photosynthesis

- 2012 (January) 21st Western Photosynthesis Conference, Pacific Grove, CA
Nguyen, K., Myers, N., Paquet C., Bruce, B.D.
Enhancing Electron Transport Rates Through Photosystem I In Vitro for Applied Photosynthesis
- 2011 (January) 20th Western Photosynthesis Conference, Pacific Grove, CA
Nguyen, K., Myers, N., Williams B., Harrell, D., Paquet C., Bruce, B.D.
Engineering Photosystem I for Enhanced Electron Transport Rates In Vitro for Applied Photosynthesis
- 2010 (August) BCMB Departmental Retreat, Knoxville, TN
Nguyen, K., Myers, N., Iwuchukwu, I., Harrell, D., Paquet, C., Bruce, B.D.
Engineering Photosystem I for Enhanced Electron Transport Rates In Vitro for Applied Photosynthesis
- 2010 (January) 19th Western Photosynthesis Conference, Pacific Grove, CA
Nguyen, K., Harrell, D., Myers, N., Bruce, B.D. Transformation of *Thermosynechococcus elongatus* BP-1 for advanced bioenergy applications.