

#### CURRENT POSITION

ASSISTANT PROFESSOR OF CHEMISTRY, SEATTLE UNIVERSITY -- 2013

#### EDUCATION

Johns Hopkins University School of Medicine — PhD in Biophysics and Biophysical Chemistry, October 2009

Dissertation: A DNA-Assisted Binding Assay for Weak Protein-Protein Interactions

Advisor: Robert Schleif

The College of Wooster — BA in Physics and Biology (double major), May 2004 *Summa cum laude*

#### TEACHING EXPERIENCE

SEATTLE UNIVERSITY

Biochemistry I (CHEM 454) Fall 2013 (Team taught with Prof. Minderhout), Spring 2014

Biochemistry Lab I (CHEM 464) Fall 2013

Biochemistry Lab II (CHEM 465) Winter 2014

General Chemistry II (CHEM 122) Winter 2014

Qualitative Inorganic Chemistry Lab (CHEM 133) Spring 2014

POSTDOCTORAL FACULTY FELLOW, CHEMISTRY, BOSTON UNIVERSITY — 2010-2012

Designed and led discussion sections focused on group problem-solving for the intensive general chemistry sequence (fall: CH109, spring: CH110); Guest lecturer in CH109 and CH110 (at least 3 weeks each semester).

AFFILIATE ASSISTANT PROFESSOR, CHEMISTRY, LOYOLA UNIVERSITY MARYLAND — FALL 2009

Oversaw two lab sections each week.

TEACHING ASSISTANT, BIOLOGY, JOHNS HOPKINS UNIVERSITY — FALL 2008

Advised undergraduate biochemistry students during office hours, graded homework and exams.

**Key skills:** Implementing strategies for site-directed labeling of proteins; developing a fluorescence quenching assay; molecular cloning in *E. coli*; biophysical analysis of proteins by intrinsic tryptophan fluorescence, fluorescence anisotropy, isothermal titration calorimetry, surface plasmon resonance, and x-ray crystallography.

#### PUBLICATIONS

Ellis, K. E., **Frato, K.E.**, Elliott, S.J. 2012. Impact of quaternary structure upon bacterial cytochrome c peroxidases: does homodimerization matter? *Biochemistry*. 51:10008-16.

Pulcu, G. S.\*, **Frato, K. E.\***, Gupta, R., Hsu, H.-R., Levine, G. A., Hendrich, M. P. and Elliott, S. J. 2012. The di-heme cytochrome c peroxidase from *Shewanella oneidensis* requires reductive activation. *Biochemistry* 51: 974–985.

**Frato, K. E.** and Schleif, R. F. 2009. A DNA-assisted binding assay for weak protein-protein interactions. *J. Mol. Biol.* 394: 805-814.

Sickmier, E. A., **Frato, K. E.**, Shen, H, Paranawithana, S.1c"207 Tm T8T4 1 Tf [F] 0.2 (r) -0.2 (a) -0.2 (to) 0.2 (,) 0.2 ( ) 0.2 (K) -

PREVIOUS UNDERGRADUATE MENTORING EXPERIENCE

Natalie Jones, Boston University undergraduate, Spring 2013.

Jane Fomina, Boston University undergraduate, May 2011- May 2012.

Josh Cole, Boston University undergraduate, Summer 2011.

Byung Joon Park, Johns Hopkins University undergraduate, Summer 2009.

Kevin Rhee, Johns Hopkins University undergraduate, Fall 2008 - Spring 2009.

Andy (Pingyang) Liu, University of Hong Kong undergraduate, Summer 2008.

AWARDS

Fellow, Cross-disciplinary Training Program in Cancer Nanotechnology, 2012