

OTONYE BRAIDE-MONCOEUR

Northeastern University
Department of Chemistry and Chemical Biology
Boston, MA 02115-5000
o.braide-moncoeur@northeastern.edu
(404) 702-0002

EDUCATION

- 2014 **Ph.D. Bioanalytical Chemistry**, University of Florida
Advisor: Dr. Gail E. Fanucci
- 2007 **M.S. Chemistry**, Georgia Institute of Technology
- 2004 **B.A. Chemistry**, *magna cum laude*, Lincoln University
Pure & Applied Mathematics (minor)

PROFESSIONAL EXPERIENCE

- 2020 – Present **Associate Teaching Professor**, Biochemistry Program, Northeastern University
- 2014 – 2020 **Assistant Professor**, Department of Chemistry, Gordon College
- 2019 **Adjunct Professor**, Department of Chemistry, University of Massachusetts at Lowell
- 2018 **Interim-Chair**, Department of Chemistry, Gordon College
- 2015 **Visiting Professor**, Department of Chemistry and Physics, Salem State University
- 2010 – 2014 **Research & Teaching Assistant**, Department of Chemistry, University of Florida
- 2007 – 2009 **REU Coordinator**, University of Florida
NSF South East Alliance for Graduate Education and the Professoriate (SEAGEP) program
- 2005 – 2006 **Mass Spectrometry facilities Lab Assistant**, Department of Chemistry, Georgia Institute of Technology
- 2004 **Intern**, Protein Chemistry Department, Biomedicum/University of Helsinki, Helsinki, Finland
- 2003 **Intern**, Polymer Chemistry Division, Université Pierre et Marie Curie, Paris, France
- 2002 **Intern**, Analytical Chemistry Division, University of Florida

SUMMARY

- Bioanalytical chemist with extensive training in studying the effects of localized protein-lipid interactions on membrane dynamics and properties.
- Current research involves training undergraduates to utilize fluorescence spectroscopic methods to study localized environmental changes and lipid dynamics with the aim to further elucidate the mechanism of pulmonary surfactant function.
- Instrumentation experience: HPLC, Fluorescence spectroscopy, UV-Vis spectroscopy, GC-MS, AA, FTIR, GC, CD, EPR, DLS, DSC, EI, and ESI-MS.

AWARDS

2016, 2018	Provost Summer Research Fellowship
2013 – 2014	McKnight Dissertation Fellowship
2013	Graduate Student Council Travel Grant, UF
2013	NOBCChE Advancing Science Award
2013	ISMAR Travel Award
2013	Chemical Physics Center Travel Award, UF
2012	Biophysical Society MAC Travel Award
2012	NSF SEAGEP Scholarship, UF
2012	SEMRC Travel Award
2007 – 2009, 2012	NSF SEAGEP Fellowship, UF
2007	BOE Fellowship, UF
2005	Outstanding TA Award, Georgia Tech
2004 – 2006	Cherry Emerson Fellowship, Georgia Tech
2004 – 2006	GAANN Fellowship, Georgia Tech
2002 – 2004	MARC Scholar, Lincoln University

PUBLICATIONS

Braide-Moncoeur, Otonye; Yi, Michelle; Long, Joanna R.; Fanucci, Gail E. "Selective modification of lipid bilayers dynamics and fluidity by a pulmonary surfactant protein mimic," *in preparation*.

Braide-Moncoeur, Otonye; Tran, Nhi; Long, Joanna R.; "Peptide-based synthetic pulmonary surfactant for the treatment of respiratory distress disorders," *Current Opinion in Chemical Biology*, **2016**, 32, 22-28.

Turner, Austin L.; **Braide, Otonye**; Mills, Frank D.; Fanucci, Gail E.; Long, Joanna R. "Residue specific partitioning of KL₄ into phospholipid bilayers," *BBA – Biomembranes*, **2014**, 1838, 3212-3219.

Kohli, Punit; Wharton, John E.; **Braide, Otonye**; Martin, Charles R. "Template synthesis of gold nanotubes in an anodic alumina membrane," *Journal of Nanoscience and Nanotechnology*, **2004**, 4, 6, 605-610.

PRESENTATIONS

Otonye Braide-Moncoeur, "Improved Understanding of Lipid Trafficking in Lung Surfactant via Adaptive Peptide Helicity." *Invited speaker for the Seminar in Biological Chemistry series at Wesleyan University*, Middletown, CT, United States, October 16, 2017.

Otonye Braide et al., "Characterizing Lung Surfactant Peptide and Lipid Interactions in Different Timescales." **40th National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE) conference**, Indianapolis, IN, United States, September 30- October 4, 2013.

Otonye Braide, Joanna R. Long, Gail E. Fanucci, "Effects of KL₄ on Lipid Bilayer Dynamics and Fluidity." **14th International Society of Magnetic Resonance (ISMAR)**, Rio de Janeiro, Brazil, May 19-24, 2013.

Otonye Braide, Andrea Medina, Suzanne Farver, Joanna R. Long, and Gail E. Fanucci, "Selective Modification of Lipid Bilayer Dynamics and Fluidity Properties by KL₄ (Mimetic of Surfactant Protein B)." **57th Biophysical Society Meeting**, Philadelphia, PA. United States, February 2-6, 2013.

Otonye Braide, Andrea Medina, Michelle Yi, Suzanne Farver, Joanna R. Long, and Gail E. Fanucci, "Effects of KL₄ on Lipid Bilayer Dynamics and Fluidity Properties." **41st Southeastern Magnetic Resonance Conference (SEMRC)** held in conjunction with SERMACS, Raleigh, NC, United States, November 17-19, 2012.

Otonye Braide, Suzanne Farver, Yong Ran, Andrea Medina, Joanna R. Long, and Gail E. Fanucci, "KL₄ Selectivity in Penetration of Saturated Lung Surfactant Lipid Components and Modification of Bilayer Properties." **88th Florida Annual Meeting and Exposition (FAME)** (ACS Florida section), Innisbrook, FL, United States, May 17-19, 2012.

Otonye Braide, Lawrence A. Bottomley, and Jimmy Reeves, "Cyclic Square Wave Voltammetry: Adsorption vs. Diffusion." **58th South Eastern Regional Meeting of the American Chemical Society (SERMACS)**, Augusta, GA, United States, November 1-4, 2006.

Otonye Braide, John C. Helfrick, and Lawrence A. Bottomley, "Identifying Electrode Reaction Mechanisms with Cyclic Square Wave Voltammetry." **231st American Chemical Society (ACS) National Meeting**, Atlanta, GA, United States, March 26-30, 2006.

STUDENT PRESENTATIONS

Amanda Page, Kayla Kroning, and Otonye Braide-Moncoeur, "Using FRET to Elucidate the Lipid Trafficking Mechanism of SP-B N and C Terminal Peptides." **73rd American Scientific Affiliation Annual Meeting**, Wenham, MA. United States, July 27-30, 2018.

Kayla Kroning, and Otonye Braide-Moncoeur, "Using FRET to Elucidate the Lipid Trafficking Mechanism of SP-B N and C Terminal Peptides." **62nd Biophysical Society Annual Meeting**, San Francisco, CA. United States, February 17-21, 2018. *

Kayla Kroning, and Otonye Braide, "The Use of Membrane Fusion to Understand the Role of Lung Surfactant B in Lipid Trafficking." **61st Biophysical Society Annual Meeting**, New Orleans, LA. United States, February 11-15, 2017. *

**These presentations were also given at the 253rd and 254th American Chemical Society national meetings*

MEMBERSHIPS

2012 – present	Biophysical Society (BPS)
2015 – 2017	American Chemical Society (ACS)
2015 – 2016	Sigma Xi

PROFESSIONAL SERVICE

2020 – present	BPS Committee for Professional Opportunities for Women
2014 – 2020	BPS Committee for Inclusion and Diversity
2017 – 2018	Database Committee for the Alliance of Scientific Societies for the Development of the Next Generation of Scientists member
2018	American Scientific Affiliation (ASA) annual meeting mentorship panel
2017	ASA annual meeting mentorship panel
2015 – 2016	Sigma Xi North Shore Chapter Vice President

INSTITUTIONAL SERVICE

2018 – 2019	Faculty Development Committee
2015 – 2016	Faculty Welfare Committee
2015 – 2016	First Year Experience Committee
2015 – 2016	Faculty group to offer counsel to the President

2015 – 2016	MACC - Campuses for Environmental Stewardship program funded the Davis Educational Foundation
2015	Clarendon Scholar Interviewer
2015	Life Together Task Force
2014 – 2016	Companions mentoring program
2014 – 2015	Health Professions Committee

TEACHING

Bioanalytical Chemistry lecture and lab

Principles of Chemistry I lecture and lab

Quantitative Analysis lecture and lab

Instrumental Analysis lecture and lab

Biomembranes

Quantitative Analysis (graduate level)

Junior/Senior Seminar

The Scientific Enterprise (core course)

REFERENCES

Gail E. Fanucci

Professor, Department of Chemistry
 University of Florida
 P O Box 117200
 Gainesville, FL 32611
 (352) 392-2345
 (352) 392-0872 (fax)
fanucci@chem.ufl.edu

Anne Donnelly

Director of the UF Center for Undergraduate Research
 University of Florida
 P O Box 117535
 Gainesville, FL 32611
 (352) 846-3222
adonnelly@aa.ufl.edu

Ian M. de Vera

Director of the Protein Core Facility and

Assistant Research Professor, Department of Pharmacology and Physiology
Saint Louis University
1402 S. Grand Blvd,
St. Louis, MO 63104
(314) 977-6467
lan.devera@health.slu.edu

Irv Levy
Chair, Department of Chemistry
Gordon College
255 Grapevine Rd
Wenham, MA 01984
Irv.levy@simmons.edu