Curriculum Vitae
Jeffrey M. Halpern

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Contact Info

Department of Chemical Engineering
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Education

2010: Ph.D. in Chemical Engineering — Case Western Reserve University (CWRU)

2003: B.S.E in Chemical Engineering — Case Western Reserve University (CWRU)
Specialty in Electrochemistry (Dean's High Honors and Cum Laude)

Research Interests

Interested in **biosensor** electrode development (design and testing), **electrochemistry**, **material science**, **surface chemistry**, and **micro/nanofabrication**. Experienced in developing, evaluating, and improving **biosensors.** Laboratory is focused on **S**urface **E**nhanced **E**lectrochemical **D**iagnostic **S**ensors (**SEEDS**).

Professional Experience

6/14-Present: **Assistant Professor**
University of New Hampshire, Department of Chemical Engineering, Durham, NH

1/13-5/14: **Fulbright Postdoctoral Scholar** and **Lady Davis Fellow**
Technion – Israel Institute of Technology, Department of Chemical Engineering, Haifa, Israel
Project Title: "Affinity-Based Nanosensor for Cancer Detection via Volatile Organic Compounds"

4/11-12/12: **NIH Musculoskeletal Postdoctoral Fellow, NRSA, T32**
Case Western Reserve University, Department of Biomedical Engineering, Cleveland, OH, USA
Project Title: "Affinity-Based Drug Delivery Systems for Prevention of Orthopaedic Implant Infections"

8/03-6/10: **Research Assistant, Ph.D. Student**
Case Western Reserve University, Department of Chemical Engineering, Cleveland, OH, USA
Ph.D. Dissertation Title: "Non-Planar Diamond Electrodes for Biomedical Neural Sensing and Stimulating"

Honors and Awards

1/13: Fulbright CORE Postdoctoral Senior Scholarship

1/13: Lady Davis Trust Fellowship

4/11: NIH Musculoskeletal Postdoctoral Fellowship, Ruth L. Kirschstein National Research Service Award,T32

4/10: 1st place poster competition winner at Spring 2010 Research ShowCASE

10/06: International travel award winner: Physical and Analytical Chemistry Division at Fall 2006: Electrochemical Society Joint Meeting

4/05: 1st place poster competition winner at Spring 2005 Case Western Reserve University Department of Chemical Engineering Graduate Research Symposium

8/03: Case Prime Fellowship

5/03: Completed certification as an E.I.T. (Engineer-in-Training) in Ohio

Refereed Papers

1. O. Barash[*], W. Zhang[*], **J.M. Halpern**[*], Q.-L. Hua, Y.-Y. Pan, H. Kayal, K. Khoury, H. Liu, M.P.A. Davies, and H. Haick. "Differentiation between genetic mutations of breast cancer by breath volatolomics." *Oncotarget*. **6** (2015) 44864-44876, doi: 10.18632/oncotarget.6269 [*]These authors have contributed equally to this work
2. **J.M. Halpern**, B. Wang, and H. Haick. "Controlling the Sensing Properties of Silicon Nanowires via the Bonds Nearest the Silicon Nanowire Surface." *ACS Applied Materials & Interfaces*. **7** (2015) 11315-11321, doi: 10.1021/acsami.5b01721
3. **J.M. Halpern**, C.A. Gormley, M. Keech, and H.A. von Recum. "Thermomechanical Properties, Antibiotic Release, and Bioactivity of a Sterilized Cyclodextrin Drug Delivery System." *Journal of Materials Chemistry B*, **2** (2014) 2764-2772, doi: 10.1039/C4TB00083H
4. **J.M. Halpern**, R. Urbanski, A.K. Weinstock, D.F. Iwig, R.T. Mathers, and H.A. von Recum. "A Biodegradable Thermoset Polymer Made by Esterification of Citric Acid and Glycerol." *Journal of Biomedical Materials Research A*, **102** (2014) 1467-1477, doi: 10.1002/jbm.a.34821
5. **J.M. Halpern** and H.B. Martin. "Rhenium Alloys as Ductile Substrates for Diamond Thin-Film Electrodes." *Diamond and Related Materials*, **42** (2014) 33-40, doi: 10.1016/j.diamond.2013.11.010
6. **J.M. Halpern**, M.J. Cullins, H.J. Chiel, and H.B. Martin. "Chronic *in vivo* Nerve Electrical Recordings of *Aplysia californica* Using a Boron-Doped Polycrystalline Diamond Electrode." *Diamond & Related Materials*, **19** (2010) 178-181, doi: 10.1016/j.diamond.2009.08.006
7. M. Roham, **J.M. Halpern**, H.B. Martin, H.J. Chiel, and P. Mohseni. "Wireless Amperometric Neurochemical Monitoring Using an Integrated Telemetry Circuit." *IEEE Transactions on Biomedical Engineering*, **55** (2008) 2628-2634, doi: 10.1109/TBME.208.2001264
8. **J.M. Halpern**, S. Xie, J.L. Schreiber, and H.B. Martin. "Kinetic and Adsorption Studies of Biogenic Amine Neurotransmitters at Polycrystalline Diamond Microelectrodes." *Electrochemical Society Transactions*, **28** (2007) 47-57, doi: 10.1149/1.2753283
9. M. Roham, **J.M. Halpern**, H.B. Martin, H.J. Chiel, and P. Mohseni. "Diamond Microelectrodes and CMOS Microelectronics for Wireless Transmission of Fast-Scan Cyclic Voltammetry." *Engineering in Medicine and Biology Society*, (2007) 6043-6046, doi: 10.1109/IEMBS.2007.4353726
10. **J.M. Halpern**, S. Xie, G.P. Sutton, B.T. Higashikubo, C.A. Chestek, H. Lu, H.J. Chiel, and H.B. Martin. "Diamond Electrodes for Neurodynamic Studies." *Diamond & Related Materials*, **15** (2006) 183-187, doi: 10.1016/j.diamond.2005.06.039

Book Chapters

1. **J.M. Halpern** and H.A. von Recum. "Affinity-Based Delivery Systems." in *Biomaterials and Regenerative Medicine*, P. Ma Ed., Cambridge University Press, (2014) 419-430, ISBN: 9781107012097.

Patents

1. H.B. Martin, C.A. Zorman, A.E. Hess, D.M. Sabens, C.C. Hayman, and **J.M. Halpern**. "Diamond Apparatus and Method of Manufacture." US Patent No. 008627 A1, (Apr. 14, 2011) Case Western Reserve University. Cleveland, OH.

Invited Presentations

1. **J.M. Halpern**, G. Thompson, M. Arral, and E. Mohammadi. "Polymer Surface Modification for use in Enhanced Electrochemical Biosensors." Oral, Presented at *American Chemical Society Fall 2016*. Philadelphia, PA August 2016.

2. **J.M. Halpern**. "SEEDS Laboratory Development of a High Throughput Metabolite Diagnostic Sensor." Oral, Presented at *Department of Chemical Engineering,* Aristotle University of Thessaloniki. Thessaloniki, Greece, July 2016.
3. **J.M. Halpern**. "Using QCM-D in the SEEDS Laboratory towards Greater Diagnostic Power." Oral, Presented at *3T-Analytik*. Tuttlingen, Germany, July 2016.
4. **J.M. Halpern.** "SEEDS Laboratory at UNH." Oral, Presented at *Department of Chemical Engineering*, University of Chester. Chester, UK, July 2016.
5. **J.M. Halpern.** "SEEDS Laboratory Approach towards a Point of Care Breast Cancer Diagnostic Sensor." Oral, Presented at *Department of Medicine*, The Geisel School of Medicine and Dartmouth-Hitchcock Medical Center. Lebanon, NH, June 2016.
6. **J.M. Halpern**. "SEEDS Laboratory Approach in Development of Diagnostic Sensors." Oral, Presented at *Center for Biotechnology and Genomic Medicine*. Augusta University, Augusta, GA. Invited Guest, May 2016.
7. G. Thompson and **J.M. Halpern**. "Electrochemical Detection of Antioxidants." *Balog-Halpern Joint Group MiniSymposium*. University of New England, Department of Chemistry. Biddeford, ME, July 2015
8. **J.M. Halpern**. "Preparing for Fulbright." *PreDeparture Meeting, Fulbright – Council for International Exchange of Scholars (CIES)*. Washington, DC, June 2015.
9. **J.M. Halpern.** "Development of chemical sensors for disease diagnosis" *Department of Pharmacy Lecture Series*. University of New England, Portland, ME. Invited Speaker, December 2014.
10. **J.M. Halpern.** "Development of disease diagnostic sensors" *Bioengineering Symposium*. University of New Hampshire, Durham, NH. Invited Speaker, October 2014.
11. **J.M. Halpern.** "Controlling the gas sensing properties of silicon nanowire field effect transistors through non-oxide surface modifications" *Department of Chemistry Lecture Series*, University of New Hampshire. Durham, NH. Invited Speaker, October 2014.
12. **J.M. Halpern.** "Impact of the Fulbright experience" *Fulbright Dinner at the U.S. Ambassador's House*, Herzliya, Israel. Keynote Address, May 2014.
13. **J.M. Halpern.** "Development of a biodegradable thermoset polymer for sustained drug delivery" *Special Seminar in Chemical Engineering*, Technion – Israel Institute of Technology. Haifa, Israel. Invited Speaker, January 2014.
14. **J.M. Halpern.** "Sensing gas analytes using alkyl modified silicon nanowire field effect transistors" *US Fellows Project Day*, Tel Aviv, Israel. Invited Speaker, January 2014.
15. **J.M. Halpern.** "Changing the surface chemistry of breath based sensors for cancer detection" *Fulbright Enrichment Seminar*, Cairo, Egypt. Invited Speaker, March 2013.
16. **J.M. Halpern.** "Changing the surface chemistry of a breath based sensor to increase sensitivity and selectivity" *Fulbright Briefing Meeting*, Tel Aviv, Israel. Invited Speaker, January 2013.
17. **J.M. Halpern.** "Affinity-based drug delivery for prevention of orthopaedic implant infections" *Musculoskeletal Lecturer Series*, Case Western Reserve University. Cleveland, OH. Invited Speaker, November 2012.
18. **J.M. Halpern.** "Non-planar diamond electrodes for neural sensing and stimulating" *Department of Chemical Engineering Lecture Series*, Case Western Reserve University. Cleveland, OH. Invited Speaker, April 2010.

Selected Oral and Poster Presentations

1. T. Ownes, C. D'Amours, R.D. Bergeron, and **J.M. Halpern**. "The Electro-Chemical Lab Analysis and Visualization Module." Poser, presented at *Undergraduate Research Conference*, UNH, Durham, NH, April 2016. **1st Place Poster Award Winner**
2. M. Arral and **J.M. Halpern**. "Biosensor for N^G-hydroxy-L-Arginine." Poser, presented at *Undergraduate Research Conference*, UNH, Durham, NH, April 2016.
3. A. Mack and **J.M. Halpern**. "Electrochemical Quartz Crystal Microbalance for Biosensor Applications." Poser, presented at *Undergraduate Research Conference*, UNH, Durham, NH, April 2016.

4. G. Thompson and **J.M. Halpern**. "Electrochemical Detection for Biosensor of Antioxidants Using Surface Modified Electrodes." Poser, presented at *Undergraduate Research Conference*, UNH, Durham, NH, April 2016.
5. K.R. Verfaillie and **J.M. Halpern**. "Comparison of Flow Cell vs. Static Cell." Poster, presented at *Bioengineering Symposium*, Durham, UNH, October 2015.
6. G. Thompson and **J.M. Halpern**. "Electrochemical Detection of Beta-Carotene and Lutein." Poster, presented at *Bioengineering Symposium*, Durham, UNH, October 2015.
7. M. Arral and **J.M. Halpern**. "Electrochemical Detection of N^G-Hydroxy-L-Arginine (NOHA)." Poster, presented at *Bioengineering Symposium*, Durham, UNH, October 2015.
8. A. Mack and **J.M. Halpern**. "Electrochemical Quartz Crystal Microbalance for Biosensor Applications." Poster, presented at *Bioengineering Symposium*, Durham, UNH, October 2015.
9. K.R. Verfaillie and **J.M. Halpern**. "Comparison of Flow Cell vs. Static Cell." Poster, presented at *RETE and REU Symposium*, Durham, UNH, August 2015.
10. **J.M. Halpern** and H. Haick. "Development of gas sensors for disease diagnosis." Oral, Presented at *2014 American Institute of Chemical Engineers Fall Annual Meeting*. Atlanta, GA, November 2014.
11. **J.M. Halpern**. "Novel electrochemical sensor array for biofluids." Poster, presented at *2013 American Institute of Chemical Engineers Fall Annual Meeting*. San Francisco, CA, November 2013.
12. **J.M. Halpern** and H. Haick. "Molecular-terminated, oxide-free silicon nanowire field effect transistors: Effect of the C-C bond nearest to the surface." Oral, presented at *2013 American Institute of Chemical Engineers Fall Annual Meeting.* San Francisco, CA, November 2013.
13. **J.M. Halpern**, M. Keech, A. Weinstock, R.T. Mathers, and H.A. von Recum. "Affinity-based thermoset biodegradable polymer." Oral, presented at *2013 American Institute of Chemical Engineers Fall Annual Meeting*. San Francisco, CA, November 2013.
14. **J.M. Halpern**, C. Gormley, M. Keech, and H.A. von Recum. "Sterilization of anti-microbial surface coatings." Oral, presented at *2013 American Institute of Chemical Engineers Fall Annual Meeting.* San Francisco, CA, November 2013.
15. **J.M. Halpern**, R.T. Mathers, H.A. von Recum. "Biodegradable antibiotic delivery materials developed from renewable and biocompatible reagents." Oral, presented at *2012 American Institute of Chemical Engineers Fall Annual Meeting*. #536h. Pittsburgh, PA, November 2012.
16. **J.M. Halpern**, K.J. Fang, M. Keech and H.A. von Recum. "Functional variations to a cyclodextrin affinity-based drug delivery polymer after sterilization." Oral, presented at *2012 Musculoskeletal Research Day*. Cleveland, OH, April 2012.
17. **J.M. Halpern**, K.J. Fang, and H.A. von Recum. "Evaluation of an autoclaved cyclodextrin affinity-based drug delivery system for orthopaedic implant infections." Oral, presented at *Spring 2012 American Chemical Society*. #10545. San Diego, CA, March 2012.
18. **J.M. Halpern**, H.J. Chiel, and H.B. Martin. "Non-planar diamond electrodes for biomedical neural sensing and stimulating." Poster, presented at *2010 Research ShowCASE*. #257. Cleveland, OH, April 2010. ***1st Place Poster Competition Winner***
19. **J.M. Halpern**, M.J. Cullins, H.J. Chiel, and H.B. Martin. "*in vivo* nerve recording in freely-behaving *Aplysia californica* with diamond hook electrodes." Oral, presented at *2009 European Diamond Conference*. #O.06. Athens, Greece, September 2009.
20. **J.M. Halpern** and H.B. Martin. "Boron-doped polycrystalline diamond on flexible non-planar substrates." Oral, presented at *2009 New Diamond and Nano Carbon*. #A4.3. Traverse City, MI, May 2009.

21. **J.M. Halpern**, M.J. Cullins, H.J. Chiel, and H.B. Martin. "Chronic *in vivo* nerve electrical recordings of *Aplysia californica* using a boron-doped polycrystalline diamond electrode." Poster, presented at *2009 New Diamond and Nano Carbon*. #PE4.5. Traverse City, MI, May 2009.
22. **J.M. Halpern**, S. Xie, and H.B. Martin. "Kinetics and adsorption studies of biogenic amine neurotransmitters at polycrystalline diamond microelectrodes." Oral, presented at *2006 Electrochemical Society Joint Meeting*. #1293. Cancun, MX, November 2006. ***International Travel Award Winner***
23. **J.M. Halpern**, H. Liu, C.A. Chestek, H.J. Chiel, and H.B. Martin. "Diamond electrodes for stimulating neural activity, recording action potentials, and measuring chemical release." Poster, presented at *2005 Society for Neuroscience Annual Meeting.* #519.1. Washington, DC, November 2005.
24. **J.M. Halpern**, S. Xie, G.P. Sutton, B.T. Higashikubo, C.A. Chestek, H. Lu, H.J. Chiel, and H.B. Martin. "Diamond electrodes for neurodynamic studies in *Aplysia californica*." Poster, presented at *2005 Case Western Reserve University Department of Chemical Engineering, Graduate Research Symposium*. Cleveland, OH, May 2005. ***1st Place Poster Competition Winner***
25. **J.M. Halpern**, S. Xie, G.P. Sutton, B.T. Higashikubo, C.A. Chestek, H.J. Chiel, and H.B. Martin. "Diamond electrodes for neurodynamic studies in *Aplysia californica*." Oral, presented at *2005 Applied Diamond Conference/NanoCarbon Meeting*. #0162. Argonne National Laboratory. Argonne, IL, April 2005.

Current Research Support

6/16-7/16: Center for International Education and Global Engagement, Major Grant for International Development and Engagement, "International Development on a Metabolomics Human Science Frontiers Grant" Role: **PI**

8/16-7/18: National Science Foundation, Early-Concept Grants for Exploratory Research, NanoBioSensing. "Collaborative Proposal: Use of Elastin-Like Polymer as an Electrochemical Biosensor" Role: **PI**

Completed Research Support

1/13-9/14: Fulbright CORE Senior Scholar. Country: Israel "Affinity-Based Nanosensor for Cancer Detection via Volatile Organic Compounds" Role: **Postdoctoral Fellow**

1/13-12/14: Lady Davis Trust. "Affinity Based Nanosensor of Volatile Organic Compounds for Cancer Detection" Role: **Postdoctoral Fellow**

6/12-8/12: Research Experience for Undergraduates (REU) Supplement to NSF NIBIB CAREER: Research and Education Program in Affinity-Based Drug Delivery. "Effect of Ethylene Oxide Sterilization on Cross-linked Cyclodextrin Affinity-Based Drug Delivery Gels" Role: **Co-I** and **Mentor to Undergraduates**

8/11-8/12: Advanced Platform Technologies (APT), Veterans Affairs (VA) Innovative Initiative Program. "Sterilization of an Affinity-Based Drug Delivery Device to Reduce Infections from Orthopaedic Implants" Role: **Co-PI**

4/11-12/12: National Institute of Health (NIH), T32, Musculoskeletal Training Grant, (NIH T32 AR007505), "Evaluation of Affinity-Based Drug Delivery Systems for Orthopaedic Devices" Role: **Postdoctoral Trainee**

Teaching Experience

ChE 708 *Process Design (Senior Capstone)* (Spring 2015 [34], Spring 2016 [36])

CS 791/792 *Senior Project* (Project Advisor, Fall 2015-Spring 2016 [2])

BMCB 799H *Honors Senior Thesis* (Spring 2016 [1])

ChE 762/862 *Biomedical Engineering* (Fall 2014 [15], Fall 2015 [6])

INCO 590 *Student Research Experience* (Spring 2015 [1], Spring 2016 [1])

ChE 996 *Graduate Independent Study* (Summer 2015 [1])
ECHE 396 (CWRU) *Research and Innovation* (Spring 2007 [6])

Guest Lectures

1. "What is a Networking Interview" *AIChE*, Chemical Engineering, UNH, February 2016.
2. "How to Create a Process Flow Diagram" *ChE 612 Unit Operations*, Chemical Engineering, UNH, February 2016.
3. "Process Flow Diagram and Piping and Instrumentation Design" *ChE 752 Process Control,* Chemical Engineering UNH, February 2016.
4. "Development of Disease Diagnostic Sensors" *Chemical Engineering Lectures*, November 2015.
5. "Research in the biosensor laboratory: Disease diagnostic sensors" *Chemical Engineering Lectures*, April 2015.
6. "Effective Oral and Poster Presentation Techniques" *Graduate Student Annual Meeting*, Technion, March 2013.
7. "Preparing for Your Poster and Oral Presentations" *Summer Undergraduate Research in Energy & Sustainability*, CWRU, April 2012.
8. "Control Experiments" Department of Chemical Engineering, *Research and Innovation*, CWRU, November 2008.
9. "How to Give a Presentation" Department of Chemical Engineering, *Research and Innovation,* CWRU, October 2008.
10. "Brain Chemistry: Monitoring Disorders and Discovering Solutions" Department of Psychology, *Physiological Psychology.* Xavier University, December 2007.
11. "Brain Chemistry: Monitoring Disorders and Discovering Solutions" Department of Psychology, *Physiological Psychology.* Xavier University, October 2005.

Graduate Mentoring Experience

'15-'16: Elnaz Mohammadi, *Ph.D.* (Expected Graduation 2019)

Undergraduate and High School Mentoring Experience

'16: Sabrina Marnoto, *Undergraduate* (Currently obtaining a BS at UNH Bioengineering, 2019)
- **Award winner**, Research Experience for Teachers in Engineering Summer 2016

'15-'16: Michaela Schones, *Undergraduate* (Currently obtaining a BS at UNH Bioengineering, 2018)
- **Award winner**, Summer Undergraduate Research Fellowship 2016

'15-'16: Alexis Mack, *Undergraduate* (Currently obtaining a BS at UNH, MCBS, 2018)
- **Award winner**, Undergraduate Research Award Spring 2016

'15: Kathryn Verfaillie, *Undergraduate* (Currently obtaining a BS at PSU, Chemistry Education, 2017)
- **Award winner**, Research Experience for Teachers in Engineering Summer 2015

'14-'16: Mariah Arral, *Undergraduate* (Currently obtaining a BS at UNH, Chemical Engineering, 2018)
- **Award winner**, BP Scholars Program, 2016
- **Award winner**, Summer Undergraduate Research Fellowship 2016
- **Award winner**, Research Experience and Apprenticeship Program Summer 2015

'14-'16: Garrett Thompson, *Undergraduate* (Currently obtaining a BS at UNH, MCBS, 2017)
- **Honors Thesis** completed, "Electrochemical Detection of Antioxidants" 2016
- **Participant and Advocate at Hill Day**, American Society for Biochemistry and Molecular Biology, 2016
- **Award winner**, International Research Opportunities Program to University of Chester Summer 2015
- **Award winner**, Summer Undergraduate Research Fellowship 2015

'14-'15: Nicholas Sweeney-Cook, *Undergraduate* (Completed a BS at UNH, Chemical Engineering 2016)
- **Award winner**, Undergraduate Research Award Fall 2015

'14: Kayan Khoury, *Undergraduate* (Completed a BSc at Azrieli College of Engineering in 2014)

'13: Mohammed Khatib, *Undergraduate* (Completed a BSc at Technion)

’11-‘12: Catherine Gormley, *Undergraduate* (Currently obtaining PhD at Boston University)
- **1st Place Poster Award winner** in December 2012 SOURCE, CWRU
- **Award winner** for Research Experience for Undergraduate Summer 2013 experience

‘11-12: Melissa Keech, *Undergraduate* (Completed a BSE at CWRU)

’11-’12: Katherine Fang, *Undergraduate* (Completed a MSE at Cornell)

’11: Aaron Markowitz, *High School Student* (Completed a BS at Harvard)

’11: Anna Henry, *MD/PhD Rotation Student* (MD/PhD student at CWRU)

’09-’10: Daniel Engel, *Undergraduate* (Founded product design company Engel LLC)

’07: Robert Hirschsohn, *High School Student* (Completed BSE at University of Cincinnati in 2013)

’06-08: Benjamin Bloom, *High School Student and Undergraduate* (Completed an MD at McGill in 2016)

’04-’10: Trained many students on the operation of using hot filament chemical vapor deposition for diamond growth, as well as other equipment within the laboratory.

Professional Service

’16-present: **Organizer and Chair**, *Departmental Undergraduate Poster Session*,

’16-present: **Journal Reviewer**, *Macromolecular Sciences and Engineering*

’16-present: **Journal Reviewer**, *Nutrition Research*

’16: **CEPS Incoming Student Scholarship Interviewer**, Committee Member

’15-Present: **Fulbright Student Scholar Interview Committee**, Committee Member

’14-present: **American Institute of Chemical Engineers**, *Session Chair and Poster Judge*

’14-present: **Bioengineering Symposium at UNH**, *Poster Judge*

’14-present: **Curriculum Committee for the Bioengineering Program**, Committee Member

‘15: **Fulbright PreDeparture Orientation and meeting**, *Panelist*

‘14: **1st Annual Post Doctoral Development Program**, *Organizer, Presenter, and Panelist*
First Organizer of a Fulbright Post-Doctoral Development Program

‘13: **Ph.D. Candidates View of the American Academic System**, *Invited Fulbright Science Panel*

’11-‘12: **SOURCE (Support Of Undergraduate Research & Creative Endeavors) Symposium**, *Poster Judge*

‘12: **Musculoskeletal Research Day**, *Organizer and Poster Judge*

’08-‘10: **Electrochemical Society - Cleveland Chapter:** *President*
Presiding Officer, Organizer, and Judge at 2008 ECS/YCES Graduate Research Posters
Yeagar Award Selection Board, 2008

‘09: **American Chemical Society: Central Region Meeting**
Presiding Officer and Organizer at ECS/YCES Graduate Research Posters

Industry Experience

6/10-4/11: **Momentive Performance Materials,** Richmond Heights, OH *Advanced Development Engineer*

1/02-8/02: **Forest Laboratories, Inc.**, Inwood, NY *Co-op Engineer*

6/01-8/01: **Pressure Chemical Company**, Pittsburgh, PA *Summer Intern*

6/00-12/00: **National Center for Microgravity Research**, Cleveland, OH *Lab Assistant at NASA*, Co-op

Membership

’16-present: Metabolomics Society

’11-present: American Chemical Society

‘09-Present: American Association for the Advancement of Science

’03-Present: Electrochemical Society

‘02-Present: American Institute of Chemical Engineering