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## EDUCATION

- Ph.D. **Case Western Reserve University**, Ph.D., Biomedical Engineering, May, 1999.  
Dissertation title: “Functionally selective stimulation of peripheral nerves:  
Electrodes that alter nerve geometry”.
- B.S. **Michigan Technological University**, B.S., Electrical Engineering, May, 1992.

***Other Professional Training***

Medical Device Software: A Practical Guide to Software Process Control and  
Documentation, Underwriters Laboratories, Northbrook, IL, 2001.

ACADEMIC  
APPOINTMENTS

- July 2009 – Present Associate Professor with Tenure (primary appt.),  
Department of Biomedical Eng., Case Western Reserve School of Eng.,  
**Case Western Reserve University**, Cleveland, OH.
- Jan 2005 – Present Associate Director (secondary appointment),  
Cleveland Advanced Platform Technology Center, Cleveland, OH  
**A National Center of Excellence of US Dept of Veterans Affairs**,  
Rehabilitation Research and Development Service
- Jan 2002 – Present Principal Investigator (secondary appointment),  
Cleveland Functional Electrical Stimulation Center, Cleveland, OH  
**A National Center of Excellence of US Dept of Veterans Affairs**  
Rehabilitation Research and Development Service
- Jan 2007 – June 2009 Nord Distinguished Assistant Professor (primary appointment),  
Department of Biomedical Engineering, Case School of Engineering,  
**Case Western Reserve University**, Cleveland, OH.
- Aug 2004 – Dec 2006 Assistant Professor (primary appointment),  
Department of Biomedical Engineering, Case School of Engineering,  
**Case Western Reserve University**, Cleveland, OH.
- Aug 2003 – Aug 2004 Adjunct Assistant Professor,  
Department of Biomedical Engineering, Case School of Engineering,  
**Case Western Reserve University**, Cleveland, OH.

INDUSTRIAL  
APPOINTMENTS

- 2001 – 2002 **NeuroControl Corporation, Cleveland, OH.**  
Manager, Software Engineering,  
Biomedical Engineer III,  
Research and Development,
- 1995 – Present **Bear Software, LLC**, Cleveland, OH  
Founder/President

HONORS AND  
AWARDS

- Nominated for **Carl F. Wittke Award**, Excellence in Undergraduate Teaching, Case Western Reserve University, 2009  
*This is a university-wide, student-nominated award for excellence in UG teaching.*
- **Nord Distinguished Assistant Professor**, Case Western Reserve Univ, 2007-2010.  
*“This fund was established in 1984 by Eric T. Nord (CIT, 1939) to support an assistant professorship in the Case School of Engineering. The decision as to the specific field of this chair shall be left to the discretion of the dean.”*
- Case School of Engineering **Research Award**, 2008
- Case School of Engineering **Undergraduate Teaching Award**, 2008.
- Nat’l Academies **Keck Futures Initiative – Smart Prostheses**, 2006.  
*Selection to this Conference was competitive and limited to the leaders in the field of prosthetics, rehabilitation, and neural engineering.*
- **Scholarship to the 2<sup>nd</sup> Joint US-China Neural Interfaces Workshop**, Kunming, China, 2006  
*This competitive scholarship provided funds for a limited number of young investigators to attend this workshop for the leading US and Chinese scientists in neural engineering.*
- **Outstanding Professor** by the Sisters of AXΩ, CWRU, 2006.  
*Selected faculty are recognized by the Sisters of AXΩ for their teaching and contribution to their development at Case.*
- **Whitaker Foundation Graduate Research Fellowship**, Case Western Reserve University, 1993-1998.  
*This competitive fellowship was awarded to fund the PhD education.*
- **Finalist in the Whitaker Foundation Student Paper Competition**, 16th Annual IEEE-EMBS International Conference, Baltimore, MD, 1994.  
*This is an international competition for presentation of graduate research.*
- **Winner of the Whitaker Foundation Student Paper Competition**, 15<sup>th</sup> Annual IEEE-EMBS International Conference, San Diego, CA, 1993.  
*This is an international competition for presentation of graduate research*
- **National Science Foundation Graduate Student Fellowship**, Case Western Reserve University, 1993.  
*This is an international competition for presentation of graduate research.*
- **NIH Graduate Trainee Fellowship**, Case Western Reserve University, 1992-1993.
- **Michigan Technological University Scholar Award**, Michigan Technological Univ, 1988-1992.  
*This competitive fellowship was awarded to the top four students each year and funded 100% of the undergraduate education at Michigan Technological University, Houghton, MI.*
- **Michigan Technological University Merit Award**, Michigan Tech Univ, 1992.  
*Awarded to one female and one male student for outstanding campus leadership and service.*

## PUBLICATIONS

**Notes:** *Supervised students and researchers indicated by **bold face**.  
Interdisciplinary studies indicated by [I].  
Translational studies indicated by [T].  
CV name is underlined (DJ Tyler) for ready identification.*

**Dissertation**

D. J. Tyler,” Functionally selective stimulation of peripheral nerves: Electrodes that alter nerve geometry,” Ph.D., Case Western Reserve University, May 1999.

**Peer-Reviewed Journal Articles (reverse chronological order)**

1. [T] Fisher L, J Anderson, DJ Tyler, R Triolo, "Chronic stability and selectivity of four-contact spiral nerve-cuff electrodes in stimulating the human femoral nerve," *J Neural Eng*, 6 (2009), PMID: 19602729.
2. Grinberg Y, **MA Schiefer**, DJ Tyler, and KJ Gustafson, (2008) "Fascicular perineurium thickness, size, and position affect model predictions of neural excitation," *IEEE Trans Neural Syst Rehabil Eng*, 16(6), 572-581, PMID: 18990650.
3. [T] Fisher L, M Miller, SJ Nogan, JA Davis, Jr., JS Anderson, LM Murray, DJ Tyler, R Triolo, (2008) "Standing after Spinal Cord Injury with Four-contact Nerve-Cuff Electrodes for Quadriceps Stimulation: A Case Study," *IEEE Trans Neural Eng and Rehab*, 16(5), 473-8, PMID: 18990650.
4. [T] M. Broniatowski, S. Grundfest-Broniatowski, **N.S. Zobenica**, DJ Tyler, (2008) "Artificial Manipulation of Voice in the Human by an Implanted Stimulator," *Laryngoscope*, 118(10), 1889-93, PMID: 18758384.
5. [I] **J.R. Capadona**, K. Shanmuganathan, DJ Tyler, S.J. Rowan, C. Weder, (2008) "Stimuli-responsive polymer nanocomposites inspired by the sea cucumber dermis", *Science*, 319 (5868), 1370, PMID: 18323449.
6. [T] **Schiefer MA**, R Triolo, DJ Tyler, (2008) "A Model of Selective Activation of the Femoral Nerve with a Flat Interface Nerve Electrode for a Lower Extremity Neuroprosthesis," *IEEE Trans Neural Sys Rehab Eng*, 16(2) 195, PMID: 18403289. (Cover)
7. [I] **J.R. Capadona**, O. van den Berg, L.A. Capadona, M. Schroeter, S.J. Rowan, D.J. Tyler, C. Weder (2007). "Self-Assembled Nanofiber Templates: A Versatile Approach for Polymer Nanocomposites," *Nature: Nanotechnology*, 2 (12), 765, PMID: 18654428. (Cover)
8. [T] **Polasek, K**, H Hoyen, M. Keith, DJ Tyler, (2007) "Human nerve stimulation thresholds and selectivity using a multi-contact nerve cuff electrode," *IEEE Trans Neural Eng and Rehab*, 15(1): 76, PMID: 17436879.
9. Broniatowski, M, S. Grundfest-Broniatowski, H. Tucker, DJ Tyler, (2007) "Artificial Voice Modulation in the Canine by Recurrent Laryngeal Nerve Stimulation: Electrophysiological Confirmation of Anatomical Data," *Annals of Otolology, Rhinology & Laryngology* 2007;116(2):156-159, PMID: 17388239.
10. Tyler, DJ and D. M. Durand (2003). "Chronic response of the rat sciatic nerve to the flat interface nerve electrode." *Ann Biomed Eng* 31(6): 633-42, PMID: 12797612.
11. Tyler, DJ and DM Durand, "Functionally Selective Peripheral Nerve Stimulation with A Flat Interface Nerve Electrode," *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, 10(4), 294-303, 2002, PMID: 12611367.
12. [T] Broniatowski, M., S. Grundfest-Broniatowski, DJ Tyler, Scolieri P, Abbass F, Tucker HM, Brodsky S., (2001). "Dynamic laryngotracheal closure for aspiration: a preliminary report." *Laryngoscope* 111(11 Pt 1): 2032-40, PMID: 11801992.
13. Qi, H, DJ Tyler, and DM Durand, "Neurofuzzy adaptive controlling of selective stimulation for FES: a case study," *IEEE Transactions of Rehabilitation Engineering*, 7(2), 183-192, 1999, PMID: 10391589.
14. Tyler, DJ and DM Durand, "A Slowly Penetrating Interfascicular Nerve Electrode for Selective Activation of Peripheral Nerve Axons," *IEEE Transactions of Rehabilitation Engineering*, 5(1), 51-61, 1997, PMID: 9086385.

**In Press**

15. [T] **Polasek K**, H Hoyen, M Keith, DJ Tyler, "Chronic Stability and Selectivity of Spiral Nerve Cuff Stimulation of Upper Extremity Nerves," accepted to *IEEE Trans Neural Sys Rehab Eng*.

**Accepted with Revision**

1. [T] **Polasek K**, **MA Schiefer**, R Triolo, G Pinnault, DJ Tyler, "Intraoperative Stimulation of Femoral Nerve with Spiral Cuff Electrodes," submitted to *J Neural Eng*.

***In Review******In Revision******In Preparation***

2. [T] **N Zobenica**, M Broniatowski, **J Huynh**, S Grundfest-Broniatowski, DJ Tyler, “Recurrent Laryngeal Stimulation for Prevention of Aspiration,” in preparation.
3. [T] **Schiefer MA**, DJ Tyler, “Realistic FEM Models for Optimization of Electrode Design,” in preparation.
4. [T] **Schiefer MA**, DJ Tyler, “Selective stimulation of Femoral Nerve with FINE,” in preparation.
5. **Huynh J**, **N Zobenica**, M Broniatowski, DJ Tyler, “Recruitment Properties of Recurrent Laryngeal Nerve Stimulation with Cuffs vs. Point Electrodes,” in preparation.
6. **Arguello EA**, **J Capadona**, DJ Tyler, “Biocompatibility of Rapid Prototyping of Nerve Electrodes,” in preparation.

***Reviews and Unrefereed Articles***

7. Tyler, D.J. and DM Durand, “Interfascicular Electrical Stimulation for Selective Activation of Surface and Deep Axon Populations,” IEEE Engineering in Medicine and Biology Magazine, 13(4), pp. 575-583, 1994.

***Book Chapters***

1. Tyler, D.J., “Neuroprostheses for management of dysphagia resulting from cerebrovascular disorders”, in Operative Neuromodulation - Volume 1: Functional Neuroprosthetic Surgery. An Introduction, D.E. Sakas, B.A. Simpson, and E.S. Krames, Editors. 2009, Springer Verlag: New York.
2. Tyler, D.J., K.H. Polasek “Electrodes for the Neural Interface,” in Textbook of Neuromodulation, E.S Krames, A. Rezai, P.H. Peckham, eds., 2009.

***Abstracts and Professional Conference Presentations***

1. **Harris JP**, Capadona JR, Shanmuganathan K, Hess A, Dunning J, Rowan S, Zorman C, Weder C, Tyler DJ, “Pliant Polymer Microprobes for Intracortical Electrodes,” at BMES Conference in Pittsburgh, PA, October 2009.
2. [I] **Harris, JP**, Capadona JR, Shanmuganathan K, Rowan SJ, Weder C, Tyler DJ, “Cortical Tissue Response to a Mechanically-Dynamic Polymer Nanocomposite,” at 38<sup>th</sup> Annual Society for Neuroscience, Washington, DC, Nov 2008.
3. **Syed Shah N**, Limnuson K, Mohseni P, Tyler DJ, “Synchronization of Laryngeal pacing with inspiration using Phrenic Electroneurogram Signals,” at 2008 BMES Annual Fall Meeting, St. Louis, MO, Oct 2008.
4. [I] **Hess, A. E.**, J. Dunning, **J. Harris**, **J. Capadona**, **K. Shanmuganathan**, D.J. Tyler, S. Rowan, C. Weder, C.A. Zorman, “Microfabrication of Mems-Based Neural Probes From a Bio-Inspired, Mechanically Dynamic Polymer Nanocomposite,” at AVS International Symposium and Exhibition, October 21, 2008, Boston, MA. (*Winner of Young Investigator Award and one of the best papers in the Young Investigator category*).
5. [I] **J. Capadona**, **K. Shanmuganathan**, **J. Harris**, **A. Hess**, J. Dunning, C. Zorman, D. Tyler, S. Rowan and C. Weder, "Bio-inspired Mechanically-Dynamic Polymer Nanocomposites for Intracortical Microelectrode Substrates," in PRiME 2008, October 14, 2008, Honolulu, HI.
6. Grinberg, Y., **M.A. Schiefer**, D. J. Tyler, K. J. Gustafson, “Physiologic fascicle size and perineurial thickness affect stimulation selectivity,” in BMES Annual Fall Meeting. 2007. Los Angeles, CA.
7. [I] **Harris, J.P.**, **J.R. Capadona**, **K. Shanmuganathan**, S.J. Rowan, C. Weder, D.J. Tyler, "Insertion of Materials into the Cortex: Forces and Biological Reactions," in Neural Engineering & Rehabilitation Lectures, June, 2007. Cleveland, OH.

8. Grinberg, Y., **M.A. Schiefer**, D. J. Tyler, K. J. Gustafson, "Effects of Fascicle Size and Perineurial Thickness on Stimulation Selectivity," in Neural Engineering & Rehabilitation Lectures, June, 2007, Cleveland, OH.
9. [T] **Schiefer, M.A., K.H. Polasek**, G.C. Pinnault, R.J. Triolo, D.J. Tyler, "Intraoperative Evaluation of the First Flat Interface Nerve Electrode for a Standing Neuroprosthesis," IEEE International Conference on Neural Engineering, Hawaii, May 2-5, 2007.
10. [T] **K.H. Polasek, Schiefer, M.A.**, G.C. Pinnault, R.J. Triolo, D.J. Tyler, "Intraoperative Evaluation of the Spiral Nerve Cuff Electrode for a Standing Neuroprosthetic," IEEE International Conference on Neural Engineering, Hawaii, May 2-5, 2007.
11. [I] **Hess, A. E.**, J. Dunning, D. J. Tyler, C. A. Zorman, "Development of a Microfabricated Flat Interface Nerve Electrode Based on Liquid Crystal Polymer and Polynorborene Multilayered Structures," IEEE International Conference on Neural Engineering, Hawaii, May 2-5, 2007.
12. [I] Hess, A.E., J. Dunning, D.J. Tyler, C. A. Zorman, "A Polynorborene-Based Microelectrode Array For Neural Interfacing," 14<sup>th</sup> International Conference on Solid State Sensors, Actuators, and Microsystems, Lyon, France, June 10-14, 2007.
13. **Polasek K**, Hoyen H, Keith M, Kirsch R, and Tyler D. Spiral Nerve Cuff Electrodes for an Upper Extremity Neuroprosthesis, 28th Annual International Conference: IEEE Engineering in Medicine and Biology Society, New York City, NY USA, September 2006.
14. **M.A. Schiefer**, R.J. Triolo, D.J. Tyler (2006) Models of Selective Stimulation with a Flat Interface Nerve Electrode for Standing Neuroprosthetic Systems. 28th International IEEE/EMBS Conference
15. **M.A. Schiefer**, K.J. Gustafson, R.J. Triolo, D.M. Durand, D.J. Tyler "Modeling Selective Stimulation with a FINE for Standing Neuroprosthetics," Case Western Reserve University ShowCASE, Cleveland, OH, 2006.
16. **Polasek K**, Kirsch R, Hoyen H, Keith M, and Tyler D. Chronic Human Testing of nerve Cuff Electrodes for an Upper Extremity Neuroprosthesis, presented at Biomedical Graduate Student Symposium, Cleveland OH, May 5, 2006
17. [T] **Zobenica, N, J Huynh**, M Broniatowski, D. J. Tyler, "Clinical Trials of Laryngotracheal Closure for the Prevention of Aspiration in Dysphagia", BMES Annual Conference, Chicago, IL, October 17, 2006.
18. **Suresh, S, L. Smith**, D. J. Tyler, "Fascicular Anatomy of Upper Extremity Nerves for Neuroprosthesis Development," Biomedical Engineering Society, Chicago, IL, Oct 2006.
19. Michael Broniatowski, MD, FACS, Sharon Grundfest-Broniatowski, MD, FACS, PhD, Harvey M Tucker, MD, FACS, Christopher Green, Dustin J Tyler, PhD, "Artificial Voice Modulation in the Canine By Recurrent Laryngeal Nerve Stimulation: Electrophysiological Confirmation of Anatomical Data," Combined Otolaryngological Spring Meeting (COSM), American Laryngological Association, Chicago, IL, 2006.
20. **Polasek K**, Kirsch R, Sams C, Hoyen H, Keith M, and Tyler D. Implanted Nerve Cuff Electrodes for Arm Function in High Tetraplegia, presented at American Paraplegia Society Annual Conference, Las Vegas, NV USA, September 5-7, 2006.
21. **Polasek K**, Kirsch R, Hoyen H, Keith M, and Tyler D. Chronic Human Testing of Nerve Cuff Electrodes for Neuroprostheses, presented at NIH Neural Interfaces Workshop, Bethesda MD, August 21-23, 2006
22. [T] **Zobenica, N, J Huynh**, M Broniatowski, D. J. Tyler, "Clinical Trials of Laryngotracheal Closure for the Prevention of Aspiration in Dysphagia", NIH Neural Interfaces Conference, Bethesda, MD, August 28, 2006.
23. **M.A. Schiefer**, R.J. Triolo, D.J. Tyler (2006) Selectively Stimulating the Human Femoral Nerve with a Flat Interface Nerve Electrode. 37th Annual NIH Neural Prosthesis Workshop
24. **Polasek K**, Kirsch R, Hoyen H, Keith M, and Tyler D. Chronic Human Testing of Nerve Cuff Electrodes for an Upper Extremity Neuroprosthesis, presented at Neural Engineering Research Lectures, Cleveland OH, June 2, 2006

25. [T] **Zobenica, N, J Huynh, M Broniatowski, D. J. Tyler,** “Clinical Trials of Laryngotracheal Closure for the Prevention of Aspiration in Dysphagia”, Neural Engineering and Rehabilitation Lectures, Cleveland, OH, June 6, 2006.
26. **M.A. Schiefer, R.J. Triolo, D.J. Tyler** (2006) Models of Selective Stimulation with a Flat Interface Nerve Electrode for Standing Neuroprosthetic Systems. Neural Engineering and Rehabilitation Lectures
27. **M.A. Schiefer, R.J. Triolo, D.J. Tyler** (2006) Models of Selective Stimulation with a Flat Interface Nerve Electrode for Standing Neuroprosthetic Systems. 29th Annual Biomedical Graduate Student Symposium
28. **M.A. Schiefer, R.J. Triolo, D.M. Durand, D.J. Tyler** “Models of Selective Stimulation with a Flat Interface Nerve Electrode for Standing Neuroprosthetic Systems,” Case Western Reserve University ShowCASE, Cleveland, OH, 2005.
29. **Polasek K, Kirsch R, Hoyen H, Keith M, and Tyler D.** Intraoperative Testing of Selective Nerve Cuff Electrodes for Neuroprostheses, presented at Research ShowCase, Cleveland OH, April 7, 2005.
30. [T] **Zobenica, N, J Huynh, M Broniatowski, D. J. Tyler,** “Clinical Trials of Laryngotracheal Closure for the Prevention of Aspiration in Dysphagia”, Case ShowCase, Cleveland, OH, April 5, 2006.
31. **Polasek K, Kirsch R, Hoyen H, Keith M, and Tyler D.** Chronic Human testing of Nerve Cuff Electrodes for an Upper Extremity Neuroprosthesis, presented at Case Biomedical Engineering Research Day, October 15, 2005.
32. **M.A. Schiefer, K.J. Gustafson, R.J. Triolo, D.M. Durand, D.J. Tyler** (2005) Modeling Selective Stimulation with a FINE for Standing Neuroprosthetics. BME Research ShowCASE
33. Michael Broniatowski, MD, FACS, Sharon Grundfest-Broniatowski, MD, FACS, Harvey M Tucker, MD, FACS, **Dustin J Tyler, PhD,** " The Case For Electronic Manipulation Of The Larynx In Voice Disorders," London UK Royal Academy of Music, London, Sept., 2005.
34. **Polasek K, Kirsch R, Hoyen H, Keith M, and Tyler D.** Intraoperative Testing of Selective Nerve Cuff Electrodes for Neuroprostheses, presented at NIH Neural Prosthetics Workshop, Bethesda MD, Sept 7-9, 2005.
35. **Polasek K, Hoyen H, Keith M, Kirsch R, and Tyler D.** Intraoperative Testing of Selectivity of Spiral Nerve Cuff Electrodes, presented at 10th Annual Conference of the International FES Society, Montreal, Canada, July 6-9, 2005.
36. **M.A. Schiefer, R.J. Triolo, D.M. Durand, D.J. Tyler** “Modeling Selective Stimulation with a FINE for Standing Neuroprosthetics,” 10th Annual Conference of the International Functional Electrical Stimulation Society, Montreal, Quebec, CA, 2005.
37. **Polasek K, Kirsch R, Hoyen H, Keith M, and Tyler D.** Intraoperative Testing of Selective Nerve Cuff Electrodes for Neuroprostheses, presented at Neural Engineering Research Lectures, Cleveland OH, June 3, 2005.
38. **M.A. Schiefer, R.J. Triolo, D.M. Durand, D.J. Tyler** “Modeling Selective Stimulation with a FINE for Standing Neuroprosthetics,” Neural Engineering and Rehabilitation Day, Cleveland, OH, 2005.
39. **Polasek K, Kirsch R, Hoyen H, Keith M, and Tyler D.** Intraoperative Testing of Selectivity of Spiral Nerve Cuff Electrodes, presented at IEEE Conference on Neural Engineering, Washington D.C., March 16-19, 2005.
40. **M.A. Schiefer, R.J. Triolo, D.M. Durand, D.J. Tyler** “Modeling Selective Stimulation with a Flat Interface Nerve Electrode for Standing Neuroprosthetic Systems,” 2nd International IEEE/EMBS Conference on Neural Engineering, Washington, DC., 2005.
41. **Huynh, J. C., N. S. Zobenica, Michael Broniatowski, Dr. Dustin Tyler,** “Reduction of Aspiration through Stimulation of the Recurrent Laryngeal Nerves: A Chronic Analysis” – Neural Interfaces Workshop, Besthesda, Maryland, 2005
42. **M.A. Schiefer, R.J. Triolo, D.M. Durand, D.J. Tyler** (2005) Models of Selective Stimulation with a Flat Interface Nerve Electrode for Standing Neuroprosthetic Systems. ShowCASE (highlight of research at Case Western Reserve University)

43. **M.A. Schiefer**, K.J. Gustafson, R.J. Triolo, D.M. Durand, D.J. Tyler “Models of Selective Stimulation with a Flat Interface Nerve Electrode for Standing Neuroprosthetic Systems,” 28th Annual Biomedical Graduate Student Symposium, Cleveland, OH, 2005.
44. **M.A. Schiefer**, R.J. Triolo, D.M. Durand, D.J. Tyler “Modeling Selective Stimulation with a FINE for Standing Neuroprosthetics,” BMES Annual Conference, Baltimore, MD, 2005.
45. **Polasek K**, Kirsch R, Hoyen H, and Tyler D. Intraoperative Testing of Selective Nerve Cuff Electrodes for Neuroprostheses, presented at NIH Neural Prosthetics Workshop, Bethesda MD, Nov 15-17, 2004.
46. **Polasek K**, Hoyen H, Kirsch R, and Tyler D. Intraoperative Testing of Selectivity of Spiral Nerve Cuff Electrodes, 26th Annual International Conference: IEEE Engineering in Medicine and Biology Society, San Francisco, CA USA, September 2004.
47. **Polasek K**, Kirsch R, Hoyen H, Keith M, and Tyler D. Intraoperative Testing of Selective Nerve Cuff Electrodes for Neuroprostheses, presented at Neural Engineering and Rehabilitation Day, Cleveland OH, August 27, 2004.
48. **Polasek K**, Kirsch R, Hoyen H, Keith M, and Tyler D. Intraoperative Testing of Selective Nerve Cuff Electrodes for Neuroprostheses, presented at Research ShowCase, Cleveland OH, April 2, 2004.
49. **Polasek K**, Kirsch R, Hoyen H, Keith M, and Tyler D. “An Installation Tool for Nerve Cuff Electrodes,” Neural Engineering and Rehabilitation Day, Cleveland OH, September 12, 2003.
50. **M.A. Schiefer**, R.J. Triolo, K.J. Gustafson, D.J. Tyler “Optimized Contact Location on a Flat Interface Nerve-Cuff Electrode for Use in Standing Neuroprosthetic Systems,” Neural Engineering and Rehabilitation Day, Cleveland, OH, 2004.
51. **Polasek K**, Kirsch R, Hoyen H, Keith M, and Tyler D, “An Installation Tool for Nerve Cuff Electrodes,” MetroHealth Medical Center Research Days, Cleveland OH, September 11-13, 2003.
52. **Polasek K**, Kirsch R, Hoyen H, Keith M, and Tyler D, “Intraoperative Testing of Selective Nerve Cuff Electrodes for Neuroprostheses,” NIH Neural Prosthetics Workshop, Bethesda MD, October 21-23, 2003.
53. **M.A. Schiefer**, R.J. Triolo, D.M. Durand, D.J. Tyler “Optimized Contact Location on a Flat Interface Nerve-Cuff Electrode for Use in Standing Neuroprosthetic Systems,” 35th Annual NIH Neural Prosthesis Workshop, Washington, DC., 2004.
54. Michael Broniatowski, MD, FACS, Sharon Grundfest-Broniatowski, MD, FACS, Dustin J Tyler, PhD, Harvey M Tucker, MD, FACS, Sheryl Brodsky, MA-CCCP/SLP, “A Human Laryngeal Pacemaker: Dynamic Laryngotracheal Closure for the Control of Aspiration,” 7th International Workshop on Voice Surgery and Voice Care. Paris, France, 2002.
55. Tyler, DJ, Broniatowski, M., Grundfest-Broniatowski, S., Brodsky, S., “Recurrent Laryngeal Nerve Stimulation To Reduce Aspiration: Demonstration Of Clinical Feasibility,” IFESS Meeting, Cleveland, OH, 2001.
56. Broniatowski, M, Grundfest-Broniatowski, S, Tyler, DJ, Tucker, HM, Scolieri, P, Brodsky, S, “Clinical use of an implanted pacemaker for aspiration. A Preliminary Report,” 104th Annual Meeting of the American Laryngological, Rhinological, and Otolological Society, Palm Desert, CA, 2001.
57. Tyler, DJ and DM Durand, “Small, Asymmetric Force Applied to a Peripheral Nerve: Chronic Affects of Nerve Reshaping Electrodes,” Annals of Biomedical Engineering, 26 (S1), S-132, 1998.
58. Tyler, DJ and DM Durand, “Alteration of Nerve Geometry for Selective Stimulation,” Proc. of IEEE-EMBS 19th Int’l Conference, Chicago, IL, USA, 1997.
59. Qi, H, DJ Tyler, and DM Durand, “NeuroFuzzy Adaptive Control of Selective Stimulation: A Case Study,” 2nd International Functional Electrical Stimulation Society Conference, Vancouver, Canada, 1997.
60. Tyler, DJ and DM Durand, “Functional Peripheral Nerve Recruitment from a Flat Interface Nerve Electrode,” 1st International Functional Electrical Stimulation Society Conference, Cleveland, Ohio, 1996.

61. Tyler, DJ and DM Durand, "Selective Stimulation with a Chronic Slowly Penetration Interfascicular Nerve Electrode," Proc. of IEEE-EMBS 18th Int'l Conference, Amsterdam, Netherlands, 1996.
62. Tyler, DJ and DM Durand, "Electrodes that Alter Peripheral Nerve Geometry to Enhance Functional Selectivity of Peripheral Nerve Stimulation," Biomedical Engineering Research Day, Case Western Reserve University, Cleveland, OH, 1996.
63. Tyler, DJ and DM Durand, "Combined Modulation of Pulse Width and Pulse Amplitude to Enhance Functional Selectivity of Neural Stimulation," Proc. of IEEE-EMBS 17th Int'l Conference, Montreal, Quebec, Canada, 1995.
64. Tyler, DJ and DM Durand, "Selective Activation of Fasciculated Peripheral Nerves by an Interfascicular Electrode," Engineering Foundation Conference on Neural Prostheses, Motor Systems IV, Mt. Sterling, Ohio, 1994.
65. Tyler, DJ and DM Durand, "A Method of Quantifying Electrode Performance Based on Non-Invasive Three dimensional Isometric Torque Data," Proc. of IEEE-EMBS 16th Int'l Conference, Baltimore, MD, 1994.
66. Tyler, DJ and DM Durand, "Design and Acute Tests of a Slowly Penetrating Interfascicular Nerve Electrode," Biomedical Engineering Research Day, Case Western Reserve University, Cleveland, OH, 1994.
67. Tyler, DJ and DM Durand, "Design and Acute Test of a Radially Penetrating Interfascicular Nerve Electrode," Proc. of IEEE-EMBS 15th Int'l Conference, San Diego, CA, 1993.

#### ***Invited Professional Presentations***

1. Tyler, D.J., "Bioelectrical Interfaces at the Nanoscale," Abiotic/Biotic Interfaces Workshop as part of the NIH Roadmap Nanomedicine Initiative and the Trans-NIH Nano Task Force, Natcher Conference Center, NIH Campus, April 8, 2009.
2. Tyler, D.J., "Design in the Biomedical Engineering Curriculum," Invited Seminar, Johns Hopkins University, Baltimore, MD, Oct, 2008.
3. Tyler, D.J., "Direct Sensory Feedback," Panelist on Neurotechnology for Sensory Restoration for Prosthetic Limbs, Neural Interfaces Conference, Cleveland, OH June 18, 2008.
4. Tyler, D.J., "Selective Peripheral Nerve Stimulation in Human Subjects," Biomedical Engineering Society, Los Angeles, CA, September 28, 2007.
5. Tyler, D.J., "Clinical Progress in Peripheral Nerve Electrodes," Biomedical Engineering Society, Chicago, IL, 12 October 2006.
6. Tyler, D.J., "Clinical Implementation of Peripheral Nerve Stimulation," Panther Grand Rounds, University of Pittsburg, 20 Sept 2006.
7. Tyler, D.J., Department of Biomedical Engineering, Univ of Texas, Dallas, 25 June 2006.
8. Tyler, D.J., "Stimulus-responsive, Mechanically-dynamic Nanocomposite for Cortical Electrodes," Materials Research Society – Electrobiological Interfaces Symposium, San Francisco, CA, April 2006.
9. Tyler, D.J., "Electrical Stimulation for Dysphagia Management following Stroke," 7th Meeting of the International Neuromodulation Society, Rome, Italy, June 2005.
10. Tyler, D.J., "New Strategies for Treatment of Dysphagia after Stroke," Scientific Basis of Neurorehabilitation for Spinal Cord Injury and Stroke, American Society of Neurorehabilitation, Cleveland, OH, Aug 2003.

#### ***Patents and Technology Invention Disclosures***

##### Patents and Patent Applications

1. Tyler, DJ and DM Durand, "Corrugated Nerve Electrode," U. S. Patent No. 5,634,46.
2. Durand, DM and DJ Tyler, "Slowly Penetrating Interfascicular Nerve Electrode," U.S. Patent No. 5,400,784.
3. Tyler, DJ and DM Durand, "Flat Interface Nerve Electrode and A Method for Use," U.S. Patent No. 6,456,866.

4. Fang, ZP, G Thrope, A Ignagni, S Pourmehdi, D Tyler, R Strother, M Walker, T Winter, J Demchak, J Mrva, A Spzak, "System and Methods for Performing Prosthetic or Therapeutic Neuromuscular Stimulation Using a Programmable Universal External Controller Using an External, Battery Powered Controller with Power Conservation Features," U.S. Patent No. 6,587,728.
5. Fang, ZP, G Thrope, A Ignagni, S Pourmehdi, D Tyler, R Strother, M Walker, T Winter, J Demchak, J Mrva, A Spzak, "System and Methods for Performing Prosthetic or Therapeutic Neuromuscular Stimulation Using a Programmable Universal External Controller Providing Different Selectable Neuromuscular Stimulation Functions," U.S. Patent No. 6,625,494.
6. Fang, ZP, G Thrope, A Ignagni, S Pourmehdi, D Tyler, R Strother, M Walker, T Winter, J Demchak, J Mrva, A Spzak, "System and Methods for Performing Prosthetic or Therapeutic Neuromuscular Stimulation Using a Programmable Universal External Controller Having a Graphical User Interface," U.S. Patent No. 6,678,563 B2.
7. Fang, ZP, G Thrope, A Ignagni, S Pourmehdi, D Tyler, R Strother, M Walker, T Winter, J Demchak, J Mrva, A Spzak, "System and Methods for Performing Prosthetic or Therapeutic Neuromuscular Stimulation Using a Programmable Universal External Controller Accommodating Different Control Inputs and/or Different Control Outputs," U.S. Patent No. 6,701,189.

#### Invention Disclosures (not including those patented)

1. Tyler, DJ, "Hybrid System for Laryngeal Control with Detection of Physiologically Relevant Control Signals," submitted to Case TTO, February 2009.
2. Triolo, R.J., D.J. Tyler, K.J. Gustafson, "Ankle Control via Selective Nerve Cuff Electrodes," submitted to Case TTO, February 2009.
3. Tyler, D.J., "BioChip – A Platform for Bioelectric Applications," disclosed to Case TTO, August 2008.
4. Zorman, C.A., D.J. Tyler, A. Hess, J. Dunning, "A Method to Fabricate a Flat Interface Nerve Electrode Using Micromachining Techniques," disclosed to Case TTO, March 2007.
5. 2005-1088 Electrode for Hands Free Intraoperative Monitoring, Disclosed to Case Western Reserve University
6. 2005-1051 Hands Free Intraoperative Monitoring, Disclosed to Case Western Reserve University
7. 2005-1036 Flat Interface Nerve Electrode Double-Ended Closure Mechanism, Disclosed to Case Western Reserve University
8. 2005-1037 Flat Interface Nerve Electrode Strain Relief, Disclosed to Case Western Reserve University

#### RESEARCH

##### ***Research Interests***

- Neuroprosthesis for dynamic control of aspiration, design and clinical implementation
- Neuroprosthesis design and implementation, particularly nerve electrodes, for restoration of function in SCI and Stroke patients
- Biomimetic, integrated neural interfaces, utilizing nano- and micro- fabricated systems
- Translation of neural interfaces to clinical implementation and commercial success

#### PROFESSIONAL SERVICE

##### ***Conference Organization and Service***

- IEEE-EBMS Engineering in Medicine and Biology Society, 31<sup>st</sup> Annual International Conference, Track Chair, Track 9.6, "Safety and Medical Device Design", Minneapolis, MN, Sept. 2009.
- IEEE-EBMS Engineering in Medicine and Biology Society, 31<sup>st</sup> Annual International Conference, Session Co-Organizer (with P. Mohseni), "Neural Recording", Minneapolis, MN, Sept. 2009.

- Biomedical Engineering Society (BMES) Annual Fall Meeting, Session Co-Chair (with K. Gustafson), “Clinical Implementation of Medical Devices,” Pittsburgh, PA, October 2009.
- MBEC (Midwest Biomedical Engineering Conference) – Co-ops and Internships Panel Moderator, Cleveland, OH, 2007
- MRS (Material Research Society) – Annual Spring Meeting, San Francisco, CA: Invited Speaker, Session Chair (2006), Co-Organizer (with D. Kipke, S. Lacour, and B. Morrison) for Symposium U: “Advanced Materials for Neural Interfaces,” Session Chair (2007).
- IEEE-EMBS Engineering in Medicine and Biology Society 28<sup>th</sup> Annual International Conference, Associate Editor, Track 10.0 Neural and Rehabilitation Engineering, and Neuromuscular Systems, New York, New York, Aug 30 – Sept 3, 2006

### ***Proposal Review Panels***

- NIH Center for Scientific Review Special Emphasis SSS-5, Muscular, Skeletal, and Dental Integrated Review, Feb 2002 – Feb 2004
- NIH Center for Scientific Review BDCN-MRS, Invited Temporary Member, March 2004.
- NIH Center for Scientific Review Special Emphasis Panel BDCN-K (10), “Clinical Neurophysiology, devices and Neuroprosthetics,” Feb 2005
- NIH Center for Scientific Review Special Emphasis Panel BDCN-E (16 M), “Clinical Neuroscience and Disease,” March 2005
- NIH Center for Scientific Review Special Emphasis Panel BDCN-K (10), “Clinical Neurophysiology, devices and Neuroprosthetics,” June 2005.
- NIH Center for Scientific Review Special Emphasis Panel BDCN-K (10), “Clinical Neurophysiology, devices and Neuroprosthetics,” Oct 2005.
- NSF Mail Review, Dec 2005.
- NIH Center for Scientific Review Special Emphasis Panel BDCN-K (10), “Clinical Neurophysiology, devices and Neuroprosthetics,” Feb 2006.
- NIH Center for Scientific Review Special Emphasis Panel BDCN-K (10), “Clinical Neurophysiology, devices and Neuroprosthetics,” June 2006.
- NIH Center for Scientific Review Special Emphasis Panel BDCN-K (10), “Clinical Neurophysiology, devices and Neuroprosthetics,” Nov 2006.
- NIH Center for Scientific Review Special Emphasis Panel BDCN-K (10), “Clinical Neurophysiology, devices and Neuroprosthetics,” Feb 2007.
- Dept. Veteran’s Affairs RR&D Ad Hoc Special Emphasis Panel, March 2007.
- NIH Center for Scientific Review Special Emphasis Panel ZNS1 SRB-M (44), “NINDS K99 Award Review Panel,” March 2007.
- Shriner’s Hospital System, CURE, invited review, August 2007.
- NIH Center for Scientific Review Special Emphasis Panel BDCN-E (10), “Clinical Neurophysiology, devices and Neuroprosthetics,” Oct 2007.
- NIH Center for Scientific Review Special Emphasis Panel BDCN-E (10), “Clinical Neurophysiology, devices and Neuroprosthetics,” Feb 2008.
- NIH Center for Scientific Review Special Emphasis Panel BDCN-E (10), “Clinical Neurophysiology, devices and Neuroprosthetics,” June 2008.
- NIH Center for Scientific Review Special Emphasis Panel ETTN-A (03), “Neural Technology,” July 2008.

### ***Ad Hoc Grant Proposal Reviews***

National Science Foundation (NSF)

National Institutes of Health (NIH)

Dept. of Veteran’s Affairs, Rehabilitation Research and Development (VA RRD)

### ***Ad Hoc Journal Reviews***

Neuromodulation

IET Systems Biology

Biomaterialia

Archives of Physical Medicine and Rehabilitation  
Journal of Neuroscience Methods  
Clinical Anatomy (Wiley)  
IEEE Trans BME (IEEE)  
IEEE Trans Neural Sys and Rehab Eng (IEEE)  
Journal of Rehabilitation Research and Development (VA)  
Journal of Neural Engineering (IoP)

PROFESSIONAL  
SERVICE

***Professional Societies***

IEEE Engineering in Medicine and Biology Society (1992-Present)  
American Association for Advancement of Science (2001-Present)  
Biomedical Engineering Society (2004 – Present)  
Material Research Society (2005 – Present)  
Tau Beta Pi (1990 – Present)

***Collaborations Outside of Case***

Lee Miller (Northwestern University)  
David Zealear (Vanderbilt University)  
Douglas Weber (University of Pittsburgh)  
Michael Broniatowski (University Hospitals)  
Ronald Triolo (VA Medical Center)  
Harry Hoyen (MetroHealth Medical Center)  
Michael Keith (MetroHealth Medical Center)  
Doug Shire (Cornell University)

UNIVERSITY  
SERVICE

***Committee and Other Service Assignments***

Case School of Engineering

Department of Biomedical Engineering, Undergraduate Education Committee, Member, 2004-present  
(Responsible for redesigned BME Design Sequence; bioelectricity UG sequence chair;  
responsible for several undergraduate recruiting events; BME High School Scholarship cmt  
(2006); BME HS Visitor cmt.)

Chair of Student Recruitment Sub-committee of BME UGEC.

BME Freshman contact, 2007 – Present.

BME Co-op Advisor, 2005 – Present.

BME Sages Advisor, 2006 – Present.

Department of Biomedical Engineering, Judge, ShowCASE Poster competition, 2004.

ENGR 131 Oversight Committee, Member, 2006.

University-Wide

Member, University Strategic Planning Committee for Experiential Learning/Innovative Curriculum  
Task Force, 2008.

Co-Chair, Neural Engineering and Rehabilitation Lectures, Annual Conference, 2004 – Present.

Co-organizer, Neural Prosthesis Seminar Series, 2002 – 2006.

VA Medical Center

Chair, Conflict of Interest Sub-Committee of R&D Committee, 2005-Present

***Interdisciplinary Center and Research Group Affiliations***

Cleveland Functional Electrical Stimulation Center (FESC), Member, 2002 – Present.

Cleveland Advanced Platform Technology Center (APT), Associate Director, 2005 – Present.

Laboratory for Neuromimetic and Neural Interfacing Systems (LNNIS), Director, 2004 – Present.

Neural Engineering Center (NEC), Member, 2002 – Present.

VA Neural Interfacing and Advanced Biomaterials Laboratory, Co-Director, 2006 – Present.

LOCAL  
COMMUNITY  
SERVICE

Judge, Hathaway-Brown School Science Fair, Feb. 2007.  
 Judge, St. Paschal-Baylon School Science Fair, Feb 2008, 2009.  
 Invited Speaker, Great Lakes Science Center, Educators Evening, October, 2007.  
 Invited Speaker, Great Lakes Science Center, April 2008.

ADVISING AND  
TRAINING***Number of Undergraduate Advisees:***

Academic Year	Freshman	Sophomores	Juniors	Seniors
2004/2005		1		
2005/2006		2	2	
2006/2007		4	2	9
2007/2008	Freshman Rep	3	5	2
Current	Freshman Rep	4	3	5

***Undergraduate research supervised:***

Academic Year	Name	Approx. Hrs/Wk	Year	Senior. Project?
Summer 2004	Amber Ballard (Univ Maryland Baltimore County)	40	Sr	N (P)
	Hareesh Singham (Case BME)	40	So	N (P)
	Chris Pulliam (Case BME)	40	Jr	N (P)
2004/2005	Nina Zobineca (Case BME)	20	So	N (P)
Summer 2005	Nina Zobineca (Case BME)	40	So	N (P)
	Swetha Suresh (Case BME)	40	Jr	N (P)
	Lauren Smith (Case BME)	40	Jr	N (P)
	Jason Hoellwarth (Case Biochemistry)	40	Jr	N (P)
	Joshua Cosidine (Case BME)	40	So	N (P)
	Alex Merlino (Case BME)	40	So	N (P)
	Ashley Mckee (Case BME)	10	Fr	N (P)
2005/2006	Nina Zobineca (Case BME)	20	So	N (P)
	Swetha Suresh (Case BME)	20	Jr	N (P)
	Lauren Smith (Case BME)	10	Jr	N (P)
	Jason Hoellwarth (Case Biochemistry)	15	Jr	N (P)
	Shefali Shah (Case BME)	20	Sr	Y (CR)
Summer 2006	Nina Zobineca (Case BME)	40	Sr	N (P)
	Swetha Suresh (Case BME)	40	Sr	N (P)
	Jason Hoellwarth (Case Biochemistry)	30	Sr	N (P)
	Shefali Shah (Case BME)	40	Sr	Y (CR)
	Nora Lee (Case BME)	40	Jr	N (V)
2006/2007	Nina Zobineca (Case BME)	20	Sr	N/Y (P/CR)
	Swetha Suresh (Case BME)	20	Sr	N/Y (P/CR)
	Jason Hoellwarth (Case Biochemistry)	5/20	Sr	N/Y (P/CR)
	Ashley Mckee (Case BME)	5/10	So	N (V/P)
	Avelino Javier (Case BME, Exchange student from Tecnológico de Monterrey – Mexico)	10	Sr	Y (CR)
	Nora Lee	20	Sr	Y (CR)
Summer 2007	Ashley Mckee (Case BME)	5/10	So	N (V/P)
	Carl Hacker (Case BME, Pre-med)	20	Jr	N (P)
	Josh Considine (Case BME)	20	Sr	N (P)

Academic Year	Name	Approx. Hrs/Wk	Year	Senior. Project?
2007/2008	Ashley Mckee (Case BME)	5/10	So	N (V/P)
	Carl Hacker (Case BME, Pre-med)	20	Jr	N/Y (V/CR)
	Josh Considine (Case BME)	20	Sr	N (P)
2008/2009	Ashley Mckee (Case BME)	20	Jr	N (P)
2009	Kevin White (Case BME)	20	So	N (V/P)

***Graduate Students Advised (If student has graduated, degree date is indicated):***

Name	A=Academic (%)* R=Research (%)* *If co-advised with another faculty member	Indicate M.S. (Plan A or Plan B); Ph.D.; or Post-Doc	Student Start Date	Degree Date
Erik Peterson	A/R (100%)	MS (B) / PhD	Fall 2008	
Smruta Koppaka	A/R (100%)	PhD	Fall 2008	
Nemath Syed Shah	A/R (100%)	PhD	Sum 2007	
Aaron Hadley	A/R (100%)	MS (A) / PhD	Fall 2007	
Daniel Tan	A/R (100%)	MS (A) / PhD	Fall 2007	
Natalie Brill	A/R (100%)	MS (A) / PhD	Fall 2007	
Olivier Izad	A/R (100%)	MS (Plan A)	Spr 2006	MS(A) 5/08
Allison Hess	R (50%)	PhD	Spr 2008	
Katharine Polasek	R (50%)	MS (Plan B)	Fall 2001	MS(B) 5/04
	A/R (100%)	PhD		PhD 8/07 (Successfully defended on 3/26/07)
		Post-Doc	Fall 2007	
James Harris	A/R	PhD	Fall 2005	
Nina Zobenica	A/R	BS/MS (Plan A)	Fall 2003	BS 5/07 MS(A) 5/07
Matthew Schiefer	A/R	PhD EECS	Fall 2003	
Jeffrey Huynh	A/R	MS (Plan A)	Fall 2004	MS(A) 8/07
Edward Arguello	A/R	MS (Plan B)	Fall 2005	MS(B) 8/07
Emily Lahowetz	A/R	MS (Plan A)	Fall 2004	Transferred to Drs. Peckham / Kilgore Summer 2005
Sara McBride	A/R	MS (Plan A)	Fall 2005	Transferred to Dr. Knothe-Tate Summer 2006
Jeffrey Capadona	R	Post-Doc	Summer 2005	Spring 2005 (Georgia Tech)

***Other Thesis Guidance Committees***

Hyunjoo Park (MS/PhD)	Fall 2003-Present	D. Durand (A/R)
Lee Fisher (MS/PhD)	Fall 2005 – Present	R. Kirsch / R. Triolo (A/R)
Wondi Testafyesus (PhD)	Fall 2002 - present	D. Durand (A/R)
Beth Lewandowski (PhD)	Fall 2002 – Spring 2009	K. Gustafson (A/R)
Tim Bruns (MS/PhD)	Fall 2005 – Spring 2009	K. Gustafson (A/R)
Brian Tomayko (MS – 2005)	Fall 2004 – Spring 2005	K. Gustafson (A/R)

Alisson Hess (MS, EECS)	Spr 2006 – Spr 2008	C. Zorman (A/R)
Yanina Grinberg (MS, BME)	Fall 2005 – Spr 2008	K. Gustafson (A/R)
Kanokwan Limnusun (MS, EECS)	Fall 2006 – Spr 2008	P. Moshini (A/R)

***Undergraduate Student Summer Research (Funded)***

<i>Name</i>	<i>Year</i>	<i>Source</i>
Nina Zobenica	2005	Research Assistant (VA)
	2006	Research Assistant (VA)
Swetha Suresh	2005	Research Assistant
	2006	SOURCE Summer Research Program
Nora Lee	2006	SPUR Summer Program in UG Research
Jason Hoellwarth	2005	Research Assistant
	2006	Research Assistant
Lauren Smith	2005	Research Assistant
Joshua Considine	2005	Research Assistant
	2007	Research Assistant
Alex Merlino	2005	Research Assistant
Ashley Mckee	2005	Research Assistant
Amber Ballard	2004	BME Department

***Postdoctoral Researchers***

Jeffery Capadona, Ph.D., Aug. 2005 – June 2006

Katharine Polasek, Ph.D., May 2007 – Present

***Professional Mentoring***

Jeffery Capadona, Ph.D. (Cleveland VA Medical Center)

Aug. 2008 – Present, Primary Mentor, Cleveland APT Associate Investigator and VA AI Career Development Award level 2, CDA-2

Aug. 2005 – 2008, Primary Mentor, Cleveland APT Associate Investigator and VA AI Career Development Award, CDA-1

Katharine Polasek, Ph.D., (Case Western Reserve Univ, Dept BME)

Aug 2007 – May 2008, Primary Mentor, Post-doctoral training

May 2008 – Present, Primary Mentor, Musculoskeletal T32 Post-doctoral training fellow

***Medical Student Research Training***

Name:	Mentoring Role:	Dates
Tyler Gifford (Case School of Medicine)	Research Adviser	Summer 2006

***Student Advisee Awards***

James Harris

- 2009 **F31 Mentored NIH Fellowship**
- 2008 **T32 Pre-doctoral Training Award**
- 2008 **ShowCase Poster Award** – Honorable mention for all posters at ShowCase 2008

Natalie Brill

- 2008 **T32 Pre-doctoral Training Award**
- 2008 **ShowCase Poster Award** – Honorable mention for BME posters at ShowCase 2008

Aaron Hadley

- 2008 **ShowCase Poster Award** – Second prize for all posters at ShowCase 2008

Yanina Grinberg (Co-Advise with K. Gustafson)

- **BMES Undergraduate Research Award**, BMES Conf, Los Angeles, CA, Sept. 2007.

Matthew Schiefer

- 2008 **ShowCase Poster Award** – Honorable mention for BME posters at ShowCase 2008
- 2006 **Ohio Third Frontier Graduate Student Fellowship** - Awarded to Graduate Students conducting research in areas deemed important by the State of Ohio
- 2005, 2006 **Robbie Robinson Award** - 2nd Place PhD Poster Competition, Neural Engineering and Rehabilitation Day
- 2005 **Marcus Singer Award** - Best Poster Presentation, Biomedical Graduate Student Symposium
- 2003 **BMES Travel Award** - For presentation of PhD research at the BMES National Conference
- 2003 **Robbie Robinson Award** - 3rd Place PhD Poster Competition, Neural Engineering and Research Day

Katharine Polasek

- 2008 **T32 Post-doctoral Training Award**
- 2006 **Robbie Robinson Award** – 1<sup>st</sup> Place PhD Poster Competition, Neural Engineering and Rehabilitation Day
- 2004 **NIH Neural Prosthesis Workshop**, Travel award

Allison Hess

- 2008 **Young Investigator Award and best paper for Young Investigators at AVS International Symposium and Exhibition**, Boston, MA.

Jeffrey Huynh

- 2005-2006, **Medtronic Graduate Fellowship**.

Edward Arquello

- 2006 **NIH Neural Prosthesis Workshop**, Travel award

Nina Zobenica

- 2006 **NIH Neural Prosthesis Workshop**, Travel award