# Christine E. Schmidt, Ph.D.

# Distinguished Professor and J. Crayton Pruitt Family Endowed Chair

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### **EXECUTIVE SUMMARY:**

Dr. Schmidt is a Distinguished Professor, the J. Crayton Pruitt Family Endowed Chair, and former Department Chair for the University of Florida J. Crayton Pruitt Family Department of Biomedical Engineering. She is also an affiliate faculty member in Chemical Engineering and Materials Science and Engineering, and a member of the McKnight Brain Institute and the Breathing Research and Therapeutics Center. Prior to joining UF, Dr. Schmidt was the B.F. Goodrich Endowed Professor at the University of Texas at Austin in both Biomedical Engineering (founding member) and Chemical Engineering. She was also a member of the Texas Materials Institute.

When Dr. Schmidt stepped down as Chair of the J. Crayton Pruitt Family Department of Biomedical Engineering in May 2023 after a decade, the department included 30 faculty, 500 undergraduates, 150 graduate students, and 21 staff. Under her leadership, UF's BME graduate and undergraduate programs ranked 12th and 10th, respectively, among national public institutions (U.S. News & World Report). The undergraduate program achieved ABET accreditation in 2019, and the graduate program ranking rose by more than 21 spots (public) and 30 spots (overall) since 2013. Dr. Schmidt launched initiatives to enhance the department's visibility, strengthen partnerships, expand interdisciplinary research, and promote the translation of engineering innovations into biomedical applications. During her tenure as Chair, she recruited 24 new faculty members. Research expenditures per faculty grew three-fold, and the department secured over \$3M in new gifts and industrial support. Before joining UF, Dr. Schmidt played a key role in developing the BME Department at UT Austin, where she was a founding member, inaugural Graduate Program Director, and chair of faculty recruitment efforts. In these roles, she helped to secure major Whitaker Education funding and NSF IGERT grants, among other initiatives.

Dr. Schmidt has held key leadership roles in major professional organizations, including the American Institute of Medical and Biological Engineering (AIMBE) and the Biomedical Engineering Society (BMES). As President of AIMBE (2018-2020), she led efforts to introduce a new nomination process focused on impact and launched the AIMBE Impact Awards. She also served as Chair of the College of Fellows and Conference Organizer for AIMBE's 25th Anniversary Meeting. For BMES, Dr. Schmidt was on the Board of Directors (2011-2015) and Conference Chair for the 2010 Annual Meeting, which attracted over 3,000 attendees. She has chaired the BMES National Meetings Committee, and is a recurring member of the Fellows Selection, Awards, and Nominations Committees.

Dr. Schmidt has over 28 years of experience in neural tissue engineering and wound healing, with more than \$25M in funding, over 185 peer-reviewed papers and book chapters (H-index = 69; >25,000 citations), and 37 issued U.S. patents, and many more globally. She has trained over 18 post-doctoral engineers and scientists, 45 graduate students, and hundreds of undergraduates in her laboratory. Dr. Schmidt is also active in innovation, commercialization, and clinical translation. Her work is foundational to the Avance Nerve Repair graft from Axogen (with over 100,000 grafts implanted) and VersaWrap from her affiliated start-up, Alafair Biosciences (over 22,000 grafts implanted). Alafair Biosciences was listed on the 2023 Inc. 5000 of fastest-growing companies. She is Section Editor for *Current Opinion in Biomedical Engineering*, former Deputy Editor-in-Chief for *Journal of Materials Chemistry B* (2012-2016), and serves on the editorial boards of multiple journals, including *Acta Biomaterialia* and *Journal of Neural Engineering*.

Dr. Schmidt has received numerous prestigious awards and recognitions. She is an elected member of the National Academies of Engineering (NAE) and Medicine (NAM) and a Fellow of the National Academy of Inventors (NAI), AIMBE, the Biomedical Engineering Society (BMES), the American Association for the Advancement of Science (AAAS), the International Academy of Medical and Biological Engineering (IAMBE), and the International Union of Societies for Biomaterials Science and Engineering (FBSE/IUSBSE). She is also an inductee into the Florida Inventors Hall of Fame and a member of the Florida Academy of Science, Engineering, and Medicine. Dr. Schmidt's other notable honors include AIMBE's Pierre Galletti Award, the BMES Athanasiou Medal of Excellence in Translational Bioengineering, the Clemson Award for Applied Research from the Society for Biomaterials, the American Competitiveness and Innovation Fellowship from the National Science Foundation, and the Chairmen's Distinguished Life Sciences Award from the Christopher Columbus Fellowship Foundation and the U.S. Chamber of Commerce.

**EDUCATION:** 

1988 **B.S. (with High Honors) in Chemical Engineering**, The University of Texas at Austin 1994 **Ph.D. in Chemical Engineering**, The University of Illinois at Urbana–Champaign

Advisor: Dr. Douglas Lauffenburger

1994 – 1996 NIH Postdoctoral Fellow in Chemical Engineering, MIT

Advisor: Dr. Robert Langer

#### **PROFESSIONAL EXPERIENCE:**

6/1/96-8/31/01	Assistant Professor, Chemical Engineering, University of Texas at Austin
9/1/99-8/31/09	Laurence E. McMakin, Jr. Centennial Fellow in Chemical Engineering
9/1/01-8/31/02	Assistant Professor, Biomedical Engineering, University of Texas at Austin
9/1/01-8/14/04	Graduate Adviser, Biomedical Engineering, Univ. of Texas at Austin
9/1/02-8/31/07	Associate Professor, Biomedical Engineering, University of Texas at Austin
9/1/07-12/31/12	Professor, Biomedical Engineering, University of Texas at Austin
9/1/09-12/31/12	B.F. Goodrich Endowed Professorship in Materials Engineering
1/1/13-5/15/23	Department Chair, Biomedical Engineering, University of Florida
1/1/13-8/15/23	Professor, Biomedical Engineering, University of Florida
1/1/13-present	J. Crayton Pruitt Family Endowed Chair, Biomedical Engineering, University of Florida
8/16/23-present	Distinguished Professor, Biomedical Engineering, University of Florida

### OTHER UNIVERSITY APPOINTMENTS AND INSTITUTE MEMBERSHIPS:

Graduate Faculty, Department of Chemical Engineering, University of Florida

Graduate Faculty, Department of Materials Science and Engineering, University of Florida

Member, McKnight Brain Institute, University of Florida

Member, Breathing Research and Therapeutics Center, University of Florida

#### **KEY PROFESSIONAL ACTIVITIES:**

#### **Professional Society Leadership Positions/Activities**

Chaired and organized over 50 sessions/symposia at national conferences.

Federal Demonstration Partnership, Faculty Representative for The University of Texas at Austin, 2007-December 2009.

Programming Chair, Area 8b (Biomaterials), American Institute of Chemical Engineers (AIChE), Fall 01-Fall 03.

Conference Chair, Biomedical Engineering Society Annual Fall Meeting, October 2010, Austin, Texas.

Board of Directors, Biomedical Engineering Society, Fall 2011 – Fall 2014.

Chair, National Meetings Committee, Biomedical Engineering Society (BMES), Fall 2012 – Fall 2015.

Chair-Elect, Chair, College of Fellows, American Inst. for Medical & Biological Eng. (AIMBE), 2014-15, 2015-16, resp.

Conference Chair, AIMBE 25th Anniversary Meeting, Washington DC, April 3-4, 2016.

President-Elect, President, Past-President, AIMBE, 2017-18, 2018-20, 2020-21, respectively.

# **Editorships and Editorial Boards**

Editorial Advisory Board, Encyclopedia of Biomaterials and Biomedical Engineering, Marcel Dekker. 2002-2008. Inaugural Deputy Editor-in-Chief, *Journal of Materials Chemistry B*, Royal Society of Chemistry, Fall 2012 - Fall 2016. Editorial Boards & Advisory Boards: *Biomedical Engineering Advances*, Fall 2020-present; *Tissue Engineering*, Spring 2020-present; *J. Biomaterials Science, Polymer Edition*, Spring 2006-present; *J. Biomedical Materials Research A*, Spring 2007-present; *Acta Biomaterialia*, Spring 2010-present; *J. Neural Engineering*, Fall 2014-present; *International Journal of Nanomedicine*, Spring 2006-present; *Nanomedicine*, Spring 2011-present; *Materials Horizons*, Royal Society of Chemistry (RSC), Fall 2013-present; *J. Materials Chemistry B*, RSC, Fall 2016-present.

Advisor, Cambridge Texts in Biomedical Engineering, Fall 2011 - present.

Section Editor for Neural Engineering, Current Opinion in Biomedical Engineering, Fall 2016 - present.

### **University Advisory Panels and External Review Boards**

Chair, External Advisory Panel, Neuroengineering IGERT Program, Univ. Illinois Urbana-Champaign, Fall 2010-2013. Chair, External Advisory Panel, Department of Chemical Engineering, University of Michigan, Fall 2010.

Member, External Advisory Committee, Emergent Behaviors of Integrated Cellular Systems (EBICS) Science and Technology Center (STC); MIT, University of Illinois, and Georgia Institute of Technology, 2010-2019.

Member, External Review Committee, Department of Biomedical Engineering, University of Florida, 2011.

Member, External Advisory Board, Biomedical Engineering, Univ. Alabama Birmingham, 2013-2015.

Member, External Review Committee, Department of Bioengineering, University of Illinois, 2014.

Chair, Academic Review Committee, Department of Biomedical Engineering, Texas A&M University, 2015.

Member, Academic Program Review Committee, Bioengineering Program, Georgia Tech, 2015.

# **University Advisory Panels and External Review Boards (continued)**

Member, External Advisory Board, Biomedical Engineering, WPI, Worcester, MA, 2016-present.

Member, Scientific Advisory Board for Columbia P41: Tissue Engineering Resource Center (TERC), 2020-present.

Advisory Session for BioE Chair Search, Faculty Search Committee, University of Washington, July 28, 2020.

Advisory Session for Bioengineering Chair Search, Dr. Robert Guldberg, University of Oregon, Oct. 14, 2021.

Advisory Session for New BME Department, Administrative Leadership Team, University of Mississippi, Oct. 27, 2021.

Chair, Academic Review Committee, Department of Biomedical Engineering, Texas A&M University, Spring 2023.

## Scientific Panels and National/Federal Advisory Groups

Panels and Site Review Teams: NSF: MRI, ERC, CAREER; NASA, NIH (SSS-M01, -M02 -M03, MDCN, MOSS G 01). Advisory Workshop for National Research Council (NRC) on "Challenges for the Chemical Sciences in the 21<sup>st</sup> Century: Health & Medicine", Beckman Center of the National Academies, Irvine, CA, Fall 2002.

Invited Speaker and Event Moderator, "Visions of Biological Engineering, UT Metroplex Days, UT-DFW Initiative for Biological Sciences/Engineering, Dallas, TX, Nov. 29, 2006.

Invited Speaker, Stem Cells in Regen. Medicine/Tissue Eng. Workshop, Multi-Agency Tissue Eng. Science (MATES) Interagency Working Group on Biotechnology, National Science & Technology Council, Arlington, VA, Feb. 1, 2007.

Invited Participant, American Chemical Society (ACS) Biochemical Technology Division (BIOT) Strategic Planning Meeting, Washington DC, June 6-8, 2008.

Invited Participant, IEEE EMBS Forum on Grand Challenges in Neuroengineering, Bethesda MD, May 7-8, 2010.

Invited Participant, NSF Biomaterials Workshop: Important Areas for Future Investment, Arlington, VA, June 19, 2012.

Invited Participant, NIBIB (NIH) Strategic Planning Meetings, Potomac MD, Jan. 2020.

Member, NIBIB Advisory Council, Fall 2024-present.

Member, Nominations Committee, National Academy of Engineering (NAE), Fall 2024-present.

Member, Peer Committee, National Academy of Engineering (NAE), Fall 2024-present.

Board of Directors, Academy of Science, Engineering and Medicine of Florida (ASEMFL), Fall 2024-present.

Member, Council Working Group on Re-envisioning the Postdoctoral Experience in Biomedical Imaging and Bioengineering, NIBIB Advisory Council, Spring 2025.

#### **HONORS AND AWARDS:**

1996	NSF Engineer	ring Education	Scholar	Carnegie 1	Mellon University
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- 1997 NSF CAREER Award
- 1998 Whitaker Young Investigator Award
- 1998 Most Outstanding Faculty Member in Chemical Engineering, Student Engineering Council, UT Austin
- 1998 Lockheed Martin Department of Chemical Engineering Teaching Award, UT Austin
- 1998 Halliburton/Brown and Root Young Faculty Excellence Award, UT Austin
- James W. Vick Texas Excellence Award for Academic Advising, UT Austin
- 1999 Laurence E. McMakin, Jr. Centennial Fellowship, UT Austin
- National Academy of Engineering (NAE) "Frontiers of Engineering" Symposium, Selected Participant
- 2000 NAE Gallery of Women Engineers ("Engineer Girl")
- 2000 Faculty Appreciation Award for Commitment to Teaching Excellence, Student Eng. Council, UT Austin
- 2000 Lockheed Martin College of Engineering Award for Outstanding Teaching, UT Austin
- 2002 El Paso Energy Foundation Faculty Achievement Award in Recognition of Teaching Excellence
- Whitaker Academic Leadership Program, Selected Participant, Leesburg, VA, February 27-March 2, 2003
- Protégé, 5<sup>th</sup> Annual Conference of The Academy of Medicine, Engineering & Science of Texas (TAMEST), required nomination by National Academy (NAE) member, Houston, TX, Jan. 10-11, 2008
- 2008 Chairmen's Distinguished Life Sciences Award, Christopher Columbus Foundation/US Chamber of Commerce
- 2009 Fellow, American Institute for Medical and Biological Engineering (AIMBE)
- 2010 Protégé, 7<sup>th</sup> Annual Conference of TAMEST, nomination by NAE Member, San Antonio, TX, Jan. 2010
- NSF American Competitiveness and Innovation (ACI) Award, Division of Materials Research, NSF
- 2010 Fellow, Biomedical Engineering Society (BMES)
- 2011 ING Professor of Excellence Award, UT Austin
- 2012 Cockrell School of Engineering Distinguished Alumnus Award, The University of Texas at Austin
- 2012 Fellow, International Union of Societies for Biomaterials Science and Engineering (FBSE/IUSBSE)
- 2013 Fellow, American Society for the Advancement of Science (AAAS)
- Women's Initiatives Committee's (WIC) Mentorship Excellence Award, AIChE
- 2017 Academy of Distinguished Chemical Engineers, Inaugural Class, Dept. Chemical Engineering, UT Austin

### **HONORS AND AWARDS (CONTINUED):**

- 2018 Fellow, National Academy of Inventors (NAI)
- 2019 Clemson Award for Applied Research, Society For Biomaterials (SFB)
- 2019 Fellow, International Academy of Medical and Biological Engineering (IAMBE)
- 2020 Inductee, Florida Inventors Hall of Fame (FIHF)
- 2020 Elected Full Member, Sigma Xi, The Scientific Research Honor Society
- Elected Member, Academy of Science, Engineering and Medicine of Florida (ASEMFL)
- 2021 TERMIS-AM (Tissue Eng./Regen. Med, Int. Soc., Americas Chapter) Commercialization/Innovation Award
- 2023 Pierre Galletti Award, AIMBE's highest distinguished career award
- 2023 Academy of Distinguished Biomedical Engineers, Inaugural Class, Dept. Biomedical Engineering, UT Austin
- 2023 BMES Diversity Award for UF BME Department, Department Representative
- Elected Member, National Academy of Engineering (NAE)
- Elected Member, National Academy of Medicine (NAM)
- 2024 BMES Athanasiou Medal of Excellence in Translational Bioengineering

### RESEARCH

### PUBLICATIONS: [H-INDEX=69, I<sub>10</sub>-INDEX=155, I<sub>100</sub>-INDEX=57; TOTAL CITATIONS >25,000; GOOGLE SCHOLAR]

#### **Refereed Archival Journal Publications** (\*denotes UG student co-author)

- 1. Barney, F., C. Schmidt\*, G. Georgiou (1990). Affinity immobilization of a genetically engineered bifunctional hybrid protein. <u>Enzyme and Microbial Technology</u> 12: 337-342.
- 2. Schmidt, C.E., A.F. Horwitz, D.A. Lauffenburger, M.P. Sheetz (1993). Integrin-cytoskeletal interactions in migrating fibroblasts are dynamic, asymmetric, and regulated. <u>Journal of Cell Biology</u> 123: 977-91.
- 3. Schmidt, C.E., T. Chen\*, D.A. Lauffenburger (1994). Simulation of integrin-cytoskeletal interactions in migrating fibroblasts. Biophysical Journal 67: 1-14.
- 4. Schmidt, C.E., D.A. Lauffenburger, M.P. Sheetz, A.F. Horwitz (1995). Integrin-cytoskeletal interactions in neuronal growth cones. <u>Journal of Neuroscience</u> 15: 3400-3407.
- 5. Schmidt, C.E., T. Chen\*, D.A. Lauffenburger (1995). Modulation of cell migration speed via site-directed manipulation of the integrin/cytoskeleton linkage. <u>Journal of Cellular Engineering</u> 1: 3-12.
- 6. Palecek, S.P., C.E. Schmidt, D.A. Lauffenburger, A.F. Horwitz (1996). Integrin dynamics on the tail region of migrating fibroblasts. Journal of Cell Science 109: 941-952.
- 7. Schmidt, C.E., V.R. Shastri, J.P. Vacanti, R. Langer (1997). Stimulation of neurite outgrowth using an electrically conducting polymer. Proceedings of the National Academy of Science USA 94: 8948-8953.
- 8. Hudson, T.W., G.R.D. Evans, C.E. Schmidt (1999). Engineering strategies for peripheral nerve repair. <u>Clinics in Plastic</u> Surgery 26: 617-628.
- 9. Collier, J.H., J.P. Camp\*, T.W. Hudson, C.E. Schmidt (2000). Synthesis and characterization of polypyrrole/hyaluronic acid composite biomaterials for tissue engineering. <u>Journal of Biomedical Materials Research</u> 50: 574-584.
- 10. Schmidt, C.E., J.M. Baier (2000). Acellular vascular tissues: natural biomaterials for tissue repair and tissue engineering. <u>Biomaterials</u> 21: 2215-2231.
- 11. Hudson, T.W., G.R.D. Evans, C.E. Schmidt (2000). Engineering strategies for peripheral nerve repair. Orthopedic Clinics of North America 31: 485-497. Reprinted from Clinics in Plastic Surgery
- 12. Kotwal, A., C.E. Schmidt (2001). Electrical stimulation alters protein adsorption and nerve cell interactions with electrically conducting biomaterials. Biomaterials 22:1055-1064.
- 13. Dixit, P., D. Hern-Anderson, J. Ranieri, C.E. Schmidt (2001). Vascular graft endothelialization: comparative analysis of canine and human endothelial cell migration on natural biomaterials. <u>Journal of Biomedical Materials Research</u> 56:545-555.
- 14. Winter, J.O., T.Y. Liu\*, B.A. Korgel, C.E. Schmidt (2001). Recognition molecule directed interfacing between semiconductor quantum dots and nerve cells. <u>Advanced Materials</u> 13: 1673-1677.
- 15. Fischbeck, J.A., J.M. Baier, R. Akella, D. Hern-Anderson, C.E. Schmidt (2001). Genetic modification of alphaGal expression in xenogeneic endothelial cells yields a complex immunological response. <u>Tissue Engineering</u> 7: 743-756.
- 16. Furnish, E.J., W. Zhou, C.C. Cunningham, J.A. Kas, C.E. Schmidt (2001). Gelsolin overexpression enhances neurite outgrowth in PC12 cells. FEBS Letters 508: 282-286.
- 17. Rivers, T.J., T.W. Hudson, C.E. Schmidt (2002). Synthesis of a novel, biodegradable electrically conducting polymer for biomedical applications. <u>Advanced Functional Materials</u> 12: 33-37.
- 18. Carnagey, J., D. Hern-Anderson, J. Ranieri, C.E. Schmidt (2003). Rapid endothelialization of PhotoFix natural biomaterial vascular grafts. <u>Journal of Biomedical Materials Research B: Applied Biomaterials</u>. 65B: 171-9.

- 19. Leach J.B., K.A. Bivens, C.W. Patrick Jr., C.E. Schmidt (2003). Photocrosslinked hyaluronic acid hydrogels: natural biodegradable tissue engineering scaffolds. <u>Biotechnology and Bioengineering</u>. 82 (5):578-589.
- 20. Schmidt, C.E., J.B. Leach (2003). Neural tissue engineering: strategies for repair and regeneration. <u>Annual Reviews</u> of Biomedical Engineering. 5:293–347.
- 21. Leach, J.B., K.A. Bivens, C.N. Collins\*, C.E. Schmidt (2004). Development of photocrosslinkable hyaluronic acid-polyethylene glycol-peptide composite hydrogels for soft tissue engineering. <u>Journal of Biomedical Materials</u> Research. 70A:74-82.
- 22. Hudson, T.W., S.Y. Liu\*, C.E. Schmidt (2004). Engineering an improved acellular nerve graft via optimized chemical processing. <u>Tissue Engineering</u>. 10: 1346-1358.
- 23. Hudson, T.W., S. Zawko, C. Deister, S. Lundy\*, C.Y. Hu\*, K. Lee\*, C.E. Schmidt (2004). Optimized acellular nerve graft is immunologically tolerated and supports regeneration. Tissue Engineering. 10: 1641-51.
- 24. Winter, J.O., N. Gomez, S. Gatzert\*, C.E. Schmidt, B.A. Korgel (2005). Variation of cadmium sulfide nanoparticle size and photoluminescence intensity with altered aqueous synthesis conditions. <u>Colloids and Surfaces A:</u> Physicochemical and Engineering Aspects. 254: 147–157.
- 25. Leach, J.B., C.E. Schmidt (2005). Characterization of protein release from photocrosslinkable hyaluronic acid-polyethylene glycol hydrogels. <u>Biomaterials</u> 26: 125-135.
- 26. Sanghvi, A.B., K.P-H. Miller, A.M. Belcher, C.E. Schmidt (2005). Biomaterials functionalization using a novel peptide that selectively binds to an electrically conducting polymer. <u>Nature Materials</u>. 4: 496-502.
- 27. Gomez, N., J.O. Winter, F. Shieh, A.E. Saunders, B.A. Korgel, C.E. Schmidt (2005). Challenges in quantum dot-neuron active interfacing. <u>Talanta</u> 67: 462-471.
- 28. Deister, C., C.E. Schmidt (2006). Optimizing neurotrophic factors combinations for neurite outgrowth. <u>Journal of Neural Engineering</u> 3: 172-179.
- 29. Lee, J.W., F. Serna, J. Nickels, C.E. Schmidt (2006). Carboxylic Acid-Functionalized Conductive Polypyrrole as a Bioactive Platform for Cell Adhesion. <u>Biomacromolecules</u>. 7: 1692-1695.
- 30. Lee, J.W., F. Serna, C.E. Schmidt (2006) Carboxy-endcapped conductive polypyrrole: biomimetic conducting polymer for cell scaffolds and electrodes. <u>Langmuir</u>. 22: 9816-9819.
- 31. Gomez, N., Y. Lu, S. Chen, C.E. Schmidt (2007). Immobilized nerve growth factor and microtopography have distinct effects on polarization versus axon elongation in hippocampal cells in culture. Biomaterials. 28: 271-284.
- 32. Gomez, N., C.E. Schmidt (2007). Nerve growth factor-immobilized polypyrrole: bioactive electrically conducting polymer for enhanced neurite extension. Journal of Biomedical Materials Research. 81A: 135-149.
- 33. Gomez, N., S. Chen, C.E. Schmidt (2007). Polarization of hippocampal neurons with competitive surface stimuli: contact guidance cues are preferred over chemical ligands. <u>J. Royal Society Interface</u>. 4: 223-233.
- 34. Gomez, N., J.Y. Lee, J.D. Nickels, C.E. Schmidt (2007). Micropatterned polypyrrole: combination of electrical and topographical characteristics for stimulation of cells. <u>Advanced Functional Materials</u>. 17: 1645-1653.
- 35. Deister, C., S. Aljabari\*, C.E. Schmidt (2007). Effects of collagen 1, fibronectin, laminin 1, and hyaluronic acid concentration on neurite extension. Journal of Biomaterials Science, Polymer Edition. 18: 983-997.
- 36. Guimard, N., N. Gomez, C.E. Schmidt (2007). Conducting polymers in biomedical applications. <u>Progress in Polymer Science</u>. 32: 876–92. (invited review)
- 37. Seidlits, S., J.Y. Lee, C.E. Schmidt (2008). Nanostructured scaffolds for neural applications. Nanomedicine 3:183-199.
- 38. Zawko, S.A., Q. Truong\*, C.E. Schmidt (2008). Drug binding hydrogels of hyaluronic acid functionalized with beta-cyclodextrin. Journal of Biomedical Materials Research. 87A: 1044-1052.
- 39. Gopal, A., Z. Luo, J.Y. Lee, K. Kumar, B. Li, K. Hoshino, C. Schmidt, P.S. Ho, X. Zhang (2008). Nano-optomechanical characterization of neuron membrane mechanics under cellular growth and differentiation. <u>Biomedical Microdevices</u>. 10(5): 611-622.
- 40. Fonner, J.M., L. Forciniti, H. Nguyen, J. Byrne\*, Y.-F. Kou\*, J. Syeda-Nawaz\*, C.E. Schmidt (2008). Biocompatibility Implications of Polypyrrole Synthesis Techniques. <u>Biomedical Materials</u>. 3: 034124.
- 41. Forciniti, L., C.E. Schmidt, M.H. Zaman (2009). Computational model provides insight into the distinct responses of neurons to chemical and topographical cues. <u>Annals of Biomedical Engineering</u>. 37: 363-374.
- 42. Zawko, S.A., S. Suri, Q. Truong\*, C.E. Schmidt (2009). Photopatterned anisotropic swelling of dual-crosslinked hyaluronic acid hydrogels. Acta Biomaterialia. 5: 14-22.
- 43. Guimard, N.K., J.L. Sessler, C.E. Schmidt (2009). Towards a biocompatible, biodegradable copolymer incorporating electroactive oligothiophene units. Macromolecules. 42: 502-511.
- 44. Lee, J.Y., J.-W. Lee, C.E. Schmidt (2009). Neuroactive conducting scaffolds: nerve growth factor conjugation on active ester functionalized polypyrrole. <u>J. Royal Society Interface</u>. 6: 801-10.
- 45. Suri, S., C.E. Schmidt (2009). Photopatterned collagen-hyaluronic acid Interpenetrating polymer network hydrogels. Acta Biomaterialia. 5: 2385-2397.
- 46. Lee, J.Y., C. Bashur, A. Goldstein, C.E. Schmidt (2009). Polypyrrole-coated electrospun PLGA nanofibers for neural tissue applications. <u>Biomaterials</u>. 30: 4325-4335.

- 47. Seidlits, S.K., C.E. Schmidt, J.B. Shear (2009). High-resolution patterning of hydrogels in three dimensions using direct-write photofabrication for cell guidance. <u>Advanced Functional Materials</u>. 19: 3543-3551.
- 48. Zawko, S., C. E. Schmidt (2010). Simple benchtop patterning of hydrogel grids for living cell microarrays. <u>Lab on a Chip. 10: 379-383</u>.
- 49. Lee, J.Y., C. Bashur, A. Goldstein, C.E. Schmidt (2010). Enhanced polarization of embryonic hippocampal neurons on micron scale electrospun fibers. <u>Journal of Biomedical Materials Research Part A</u>. 92A: 1398-1406.
- 50. Wang\*, Y., Z. Khaing, B. Hall, C.E. Schmidt, A. Ellington (2010). Aptamer antagonists of myelin-derived inhibitors promote axon growth. <u>PLoS ONE</u>. 5: e9726 (8 pp).
- 51. Suri, S., C.E. Schmidt (2010). Cell-laden hydrogel constructs of hyaluronic acid, collagen, and laminin for neural tissue engineering. <u>Tissue Engineering</u>. 16: 1703-1716.
- 52. Zawko, S., C. E. Schmidt (2010). Crystal Templating Dendritic Pore Networks and Fibrillar Micro-structure into Hydrogels. <u>Acta Biomaterialia</u>.6: 2415-2421.
- 53. Seidlits, S.K., Z.Z. Khaing, R.R. Petersen\*, J.D. Nickels, J.D. Vanscoy\*, J.B. Shear, C.E. Schmidt (2010). The effect of hyaluronic acid hydrogels with tunable mechanical properties on the differentiation of neural progenitor cells. Biomaterials. 31: 3930-3940.
- 54. Durgam, H., S. Sapp, C. Deister, Z. Khaing, E. Chang, S. Luebben, C.E. Schmidt (2010). Novel degradable copolymers of polypyrrole support cell proliferation and enhance neurite outgrowth with electrical stimulation. <u>Journal of Biomaterials Science</u>, Polymer Edition. 21: 1265-1282.
- 55. Zawko, S., C. E. Schmidt (2010). Assembly of sodium soap fibers and fibrillar particles triggered by dissolution of sodium chloride crystals. <u>Soft Matter</u>. 6: 3289-3297.
- 56. Han, L.S., S. Suri, C.E. Schmidt, S. Chen (2010). Fabrication of three-dimensional scaffolds for heterogeneous tissue engineering. <u>Biomedical Microdevices</u>. 12: 721-725.
- 57. Lee, J., C.E. Schmidt (2010). Pyrrole-hyaluronic acid conjugates for decreasing cell binding to metals and conducting polymers. <u>Acta Biomaterialia</u>. 6: 4396-4404.
- 58. Yang, Y., S.K. Seidlits, M.M. Adams, V.M. Lynch, C.E. Schmidt, E.V. Ansyln, J.B. Shear (2010). A highly selective, low-background fluorescent imaging agent for nitric oxide. <u>Journal of the American Chemical Society</u>. 132: 13114-13116.
- 59. Fonner, J.M., C.E. Schmidt, P. Ren (2010). A Combined Molecular Dynamics and Experimental Study of Doped Polypyrrole. <u>Polymer</u>. 51: 4985-4993.
- 60. Forciniti, L., N.K., Guimard, S. Lee\*, C.E. Schmidt (2010). Unique electrochemically synthesized polypyrrole:poly(lactic-co-glycolic acid) blends for biomedical applications. <u>Journal of Materials Chemistry</u>. 20: 8865–8874. (highlighted on inside front cover)
- 61. Fozdar, D.Y., J.Y. Lee, C.E. Schmidt, S. Chen (2010). Hippocampal neurons respond uniquely to topographies of various sizes and shapes. <u>Biofabrication</u>. 2(3):035005 (10 pp).
- 62. Khurshid, S.S., C.E. Schmidt, N.A. Peppas (2011). Optimization of molecularly imprinted polymers of serotonin for biomaterial applications. Journal of Biomaterials Science, Polymer Edition. 22: 343-362.
- 63. Fozdar, D.Y., J.Y. Lee, C.E. Schmidt, S. Chen (2011). Selective axonal growth of embryonic hippocampal neurons to competing topographical features of various size and shape. International Journal of Nanomedicine. 6:45-57.
- 64. Seidlits, S.K., C.T. Drinnan, R.R. Petersen\*, J.B. Shear, L.J. Suggs, C.E. Schmidt (2011). Fibronectin-Hyaluronic Acid Composite Hydrogels for Three-Dimensional Endothelial Cell Culture. <u>Acta Biomaterialia</u>. 7:2401–2409.
- 65. Zawko, S., C.E. Schmidt (2011). Fibrillar Films Obtained from Sodium Soap Fibers and Polyelectrolyte Multilayers. Journal of Biomedical Materials Research Part A. 98:287-95.
- 66. Nagao, R.J., S. Lundy\*, Z.Z Khaing, C.E Schmidt (2011). Functional Characterization of Optimized Acellular Peripheral Nerve Graft in a Rat Sciatic Nerve Injury Model. <u>Neurological Research</u>. 33(6):600-608.
- 67. Khaing, Z.Z., B.D. Milman\*, J.E. Vanscoy\*, S.K. Seidlits, R.J. Grill, C.E. Schmidt (2011). High molecular weight hyaluronic acid limits astrocyte activation and scar formation after spinal cord injury. <u>Journal of Neural Engineering</u>. 8: 046033.
- 68. Khaing, Z., D. Kang, A.M. Camelio, C.E. Schmidt, D. Siegel (2011). Hippocampal and Cortical Neuronal Growth Mediated by the Small Molecule Natural Product Clovanemagnolol. <u>Bioorganic & Medicinal Chemistry Letters</u>. 21: 4808-4812.
- 69. Broda, C.R., J.Y. Lee, S. Sirivisoot, C.E. Schmidt, B.S. Harrison (2011). A Chemically Polymerized Electrically Conducting Composite of Polypyrrole Nanoparticles and Polyurethane for Tissue Engineering. <u>Journal of Biomedical Materials Research Part A</u>. 98:509-516.
- 70. Suri, S., L.-H. Han, W. Zhang, A. Singh, S. Chen, C.E. Schmidt (2011). Solid Freeform Fabrication of Designer Scaffolds of Hyaluronic Acid for Nerve Tissue Engineering. <u>Biomedical Microdevices</u>. 13(6):983-993.
- 71. Khaing, Z.Z., S.A. Geissler, B.D. Milman\*, S.V. Aguilar, C.E. Schmidt, T. Schallert (2012). Assessing Forelimb Function after Cervical Spinal Cord Injury: Novel Forelimb Tasks Predict Lesion Severity and Recovery. <u>Journal of Neurotrauma</u>. 29(3):488-498.

- 72. Cheng, X., N. Harzdorf, Z. Khaing, D. Kang, A.M. Camelio, T. Shaw, C.E. Schmidt, D. Siegel (2012). Neuronal growth promoting sesquiterpene-neolignans; syntheses and biological studies. <u>Organic and Biomolecular Chemistry</u>. 10(2):383-393.
- 73. Lee, J.Y., C.A. Bashur, C.A. Milroy, L. Forciniti, A.S. Goldstein, C.E. Schmidt (2012). Nerve growth factor-immobilized electrically conducting fibrous scaffolds for potential use in neural engineering applications. <u>IEEE</u> Transactions on NanoBioscience. 11(1):15-21.
- 74. Spivey, E.C., Z.Z. Khaing, J.B Shear, C.E. Schmidt (2012). The fundamental role of subcellular topography in peripheral nerve repair therapies. Biomaterials. 33(17):4264-4276.
- 75. Khaing, Z.Z., C.E. Schmidt (2012). Advances in Natural Biomaterials for Nerve Tissue Repair. <u>Neuroscience Letters</u>. 519:103-114.
- 76. Zawko, S., C.E. Schmidt (2012). Giving hydrogels backbone: Incorporating physical architecture into soft biomaterials. <u>SurFACTS in Biomaterials</u>, Vol. 17, Issue 3: 13-14.
- 77. Spivey, E.C., E.T. Ritschdorff, J.M. Connell, C.A. McLennon, C.E. Schmidt, J.B. Shear (2013). Multiphoton lithography of unconstrained three-dimensional protein microstructures. <u>Advanced Functional Materials</u>. 23:333-339.
- 78. Nickels, J.D., C.E. Schmidt (2013). Surface Modification of Polypyrrole via Affinity Peptide: Quantification and Mechanism. <u>Journal of Materials Chemistry B</u>. 1: 1060-1066.
- 79. Nickels, J.D., C.E. Schmidt (2013). Surface Modification of the Conducting Polymer, Polypyrrole, via Affinity Peptide. <u>Journal of Biomedical Materials Research Part A</u>. 101(5):1464-1471.
- 80. Hardy, J.G., J.Y. Lee, C.E. Schmidt (2013). Biomimetic conducting polymer-based tissue scaffolds. <u>Current Opinion in Biotechnology</u> (invited review). 24(5):847-854.
- 81. Nguyen, H.T., C. Wei\*, J. Chow\*, L. Nguy\*, H.K. Nguyen\*, C.E. Schmidt (2013). Electric field stimulation through a substrate influences Schwann cell and extracellular matrix structure. J. Neural Engineering. 10(4):046011 (12 pp).
- 82. Nagao, R.J., Y. Ouyang\*, R. Keller\*, C. Lee\*, L.J. Suggs, C.E. Schmidt (2013). Preservation of Capillary-beds in Rat Lung Tissue through Optimized Chemical Decellularization. <u>Journal of Materials Chemistry B</u>. 1: 4801-4808.
- 83. Khaing, Z.Z., S.A. Geissler, T. Schallert, C.E. Schmidt (2013). Assessing Forelimb Function after Unilateral Cervical SCI using Novel Tasks: Limb Step-Alternation, Postural Instability and Pasta Handling. <u>Journal of Visualized Experiments</u> (JoVE). (79), e50955, doi:10.3791/50955 (6 pp + video).
- 84. Geissler, S.A., C.E. Schmidt, T. Schallert (2013). Rodent models and behavioral outcomes of cervical spinal cord injury. <u>Journal of Spine</u> (invited review). S4: 001.doi:10.4172/2165-7939.S4-001 (5 pp).
- 85. Nguyen, H.T., C. Wei\*, J. Chow\*, A. Nguyen\*, J. Coursen\*, S. Sapp, S. Luebben, E. Chang, R. Ross, C.E. Schmidt (2014). Electric field stimulation through a biodegradable polypyrrole substrate enhances neural cell growth. <u>Journal</u> of Biomedical Materials Research. 102(8):2554-64.
- 86. Martin, D., J. Flavio, A. De Almeida, M.A. Henry, Z.Z. Khaing, C.E. Schmidt, F.B. Teixeira, A. Diogenes (2014). Concentration-Dependent Effect of Sodium Hypochlorite on Stem Cells of Apical Papilla (SCAP) Survival and Differentiation. <u>Journal of Endodontics</u>. 40(1): 51-55.
- 87. Thompson, D.M., A.N. Koppes, J.G. Hardy, C.E. Schmidt (2014). Electrical Stimuli in the Central Nervous System Microenvironment. (invited review) Annual Reviews in Biomedical Engineering. 16:397-430.
- 88. Forciniti, L., J. Ybarra\*, M. Zaman, C.E. Schmidt (2014). Schwann cell response on polyprrole substrates upon electrical stimulation. <u>Acta Biomaterialia</u>. 10(6):2423-33.
- 89. Hardy, J.G., D.J. Mouser\*, N. Arroyo-Currás\*, S. Geissler, J.K. Chow\*, Lindsey Nguy\*, J.M. Kim\*, C.E. Schmidt (2014). Biodegradable electroactive polymers for electrochemically-triggered drug delivery. <u>Journal of Materials</u> Chemistry B. 39: 6809-6822.
- 90. Khaing, Z.Z., R.C. Thomas, S.A. Geissler, C.E. Schmidt (2014). Advanced Biomaterials for Repairing the Nervous System: What can Hydrogels do for the Brain? (invited review) <u>Materials Today</u>. 17(7): 332–340.
- 91. Allen, P., Z. Khaing, C. Schmidt, A. Ellington (2014). 3D printing with nucleic acid adhesives. <u>ACS Biomaterials Science & Engineering</u>. 1: 19-26.
- 92. Lee, J. C.E. Schmidt (2015). Amine-functionalized polypyrrole: inherently cell adhesive conducting polymer. <u>Journal</u> of Biomedical Materials Research: Part A 103(6):2126-2132.
- 93. Hardy, J.G., P. Lin\*, C.E. Schmidt (2015). Biodegradable hydrogels composed of oxime crosslinked poly(ethylene glycol), hyaluronic acid and collagen: a tunable platform for soft tissue engineering. <u>Journal of Biomaterials Science</u>, Polymer Edition. 26: 143–161.
- 94. Hardy, J.G., R.C. Cornelison, R.C. Sukhavasi\*, R.J. Saballos\*, P. Vu\*, D. Kaplan, C. Schmidt (2015). Electroactive Tissue Scaffolds with Aligned Pores as Instructive Platforms for Biomimetic Tissue Engineering. <u>Bioeng.</u> 2: 15-34.
- 95. Hardy, J.G., D. Hernandez, D.M. Cummings, F.A. Edwards, J.B. Shear, C.E. Schmidt (2015). Multiphoton microfabrication of conducting polymer-based biomaterials. <u>Journal of Materials Chemistry B</u>. 3:5001-5004.
- 96. Lee, J.Y., Z.Z. Khaing, J.J. Siegel, C.E. Schmidt (2015). Surface modification of neural electrodes with pyrrole-hyaluronic acid conjugate to attenuate reactive astrogliosis in vivo. <u>RSC Advances</u>. 5:39228-39231.

- 97. Hardy, J.G., M.N. Amend\*, S. Geissler, V.M. Lynch\*, C.E. Schmidt (2015). Peptide-directed assembly of functional supramolecular polymers for biomedical applications: electroactive molecular tongue-twisters (oligoalanine–oligoaniline–oligoalanine) for electrochemically enhanced drug delivery. J. Materials Chemistry B. 3:5005-5009.
- 98. Hardy, J.G., C. Ghezzi, R. Saballos\*, D.L. Kaplan, C.E. Schmidt (2015). Supracolloidal assemblies as sacrificial templates for porous silk-based biomaterials. <u>International Journal of Molecular Sciences</u>. 16(9):20511-20522.
- 99. Hardy, J.G., S.A. Geissler, D. Aguilar Jr.\*, M.K. Villancio-Wolter\*, D.J. Mouser\*, R.C. Sukhavasi\*, R.C. Cornelison, L.W. Tien, R.C. Preda, R.S. Hayden, J.K. Chow\*, L. Nguy\*, D.L. Kaplan, C.E. Schmidt (2015). Instructive conductive 3D silk foam-based bone tissue scaffolds enable electrical stimulation of stem cells for enhanced osteogenic differentiation. Macromolecular Bioscience. 15:1490-1496.
- 100. Hardy, J.G., M.K. Villancio-Wolter, R.C. Sukhavasi\*, D.J. Mouser\*, D. Aguilar\*, S.A. Geissler, D.L. Kaplan, C.E. Schmidt (2015). Electrical stimulation of human mesenchymal stem cells on conductive nanofibers enhances their differentiation towards osteogenic outcomes. <u>Macromolecular Rapid Communications</u>. 36:1884-1890.
- 101. Spearman, B.\*, A.J. Hodge, J. Porter, J.G. Hardy, Z. Davis, T. Xu, X. Zhang, C.E. Schmidt, M.C. Hamilton, E.A. Lipke (2015). Conductive interpenetrating networks of polypyrrole and polycaprolactone encourage electrophysiological development of cardiac cells. <u>Acta Biomaterialia</u>. 28:109-120.
- 102. Hardy, J.G., Z.Z. Khaing, S. Xin, L.W. Tien, C.E. Ghezzi, D.J. Mouser\*, R.C. Sukhavasi\*, R.C. Preda, E.S. Gil, D.L. Kaplan, C.E. Schmidt (2015). Into the groove: instructive silk-polypyrrole films with topographical guidance cues direct DRG neurite outgrowth. Journal of Biomaterials Science, Polymer Edition. 26: 1327-1342.
- 103. Hardy, J.G., R.C. Sukhavasi\*, D. Aguilar\*, M.K. Villancio-Wolter\*, D.J. Mouser\*, S.A. Geissler, L. Nguy\*, J.K. Chow\*, D.L. Kaplan, C.E. Schmidt (2015). Electrical stimulation of human mesenchymal stem cells on biomineralized conducting polymers enhances their differentiation towards osteogenic outcomes. <u>Journal of Materials Chemistry B.</u> 3: 8059-8064.
- 104. Hardy, J.G., H. Li\*, J.K. Chow\*, S.A. Geissler, A.B. McElroy, L. Nguy\*, D.S. Hernandez, C.E. Schmidt (2015). Conducting polymer-based multilayer films for instructive biomaterial coatings. <u>Future Science OA</u>. 1(4): 1-10.
- 105. Harrison, R.\*, Z.K. Criss\*, L. Feller\*, S.P. Modi\*, J.G. Hardy, C.E. Schmidt, L.J. Suggs, M.B. Murphy (2016). Mechanical properties of α-tricalcium phosphate-based bone cements incorporating regenerative biomaterials for filling bone defects exposed to low mechanical loads. <u>Journal of Biomedical Materials Research: Part B Applied Biomaterials</u>. 104: 149–157.
- 106. Hernandez, D.S., E.T. Ritschdorff, S.K. Seidlits, C.E. Schmidt, J.B. Shear (2016). Functionalizing micro-3D-printed protein hydrogels for cell adhesion and patterning. <u>J. Materials Chemistry B.</u> 4:1818-1826.
- 107. Nagao, R.J., Y. Ouyang\*, R. Keller\*, S.Y. Nam, G.R. Malik\*, B.S.; S.Y. Emelianov, L.J. Suggs, C.E. Schmidt (2016). Ultrasound-guided photoacoustic imaging-directed re-endothelialization of acellular vasculature leads to improved vascular performance. <u>Acta Biomaterialia</u>. 32: 35–45.
- 108. Khaing, Z.Z., N.K. Agrawal, J.H. Park\*, S. Xin, G.C. Plumton\*, K.H. Lee\*, Y.J. Huang, A.L. Niemerski, C.E. Schmidt, J.W. Grau (2016). Localized and Sustained Release of brain-derived neurotrophic factor from Injectable Hydrogel/Microparticle Composites Fosters Spinal Learning after SCI. J. Materials Chemistry B. 4:7560-7571.
- 109. Thomas, R.C., P.E. Chung\*, S.P. Modi\*, J.G. Hardy, C.E. Schmidt (2017). Sacrificial crystal templating of hyaluronic acid-based hydrogels. European Polymer Journal. 87:487–496.
- 110. Wachs R.A., E.N. Hoogenboezem\*, H.I. Huda\*, S. Xin, S.L. Porvasnik, C.E. Schmidt (2017). Creation of an injectable in situ gelling tissue-specific matrix for nucleus pulposus tissue engineering. <u>The Spine Journal</u>. 17:435-44.
- 111. Thomas, R.C., P. Vu\*, S.P. Modi\*, P.E. Chung\*, R.C. Landis, Z.Z. Khaing, J.G. Hardy, C.E. Schmidt (2017). Sacrificial crystal templated hyaluronic acid hydrogels as biomimetic 3D tissue scaffolds for nerve tissue regeneration. ACS Biomaterials Science & Engineering. 3:1451–1459.
- 112. Garcia, A.R., C. Lacko, C. Snyder, A.C. Bohorquez, C.E. Schmidt, C. Rinaldi (2017). Processing-Size Correlations in the Preparation of Magnetic Alginate Microspheres Through Emulsification and Ionic Crosslinking. <u>Colloids and Surfaces A: Physicochemical and Engineering Aspects</u>. 529:119–127.
- 113. Mobini, S., B.S. Spearman, C.S. Lacko, C.E. Schmidt (2017). Recent advances in strategies for peripheral nerve tissue engineering. <u>Current Opinion in Biomedical Engineering</u>. 4:134–142.
- 114. Spearman, B.S., V.H. Desai, S. Mobini, M.D. McDermott, J.B. Graham, K.J. Otto, J.W. Judy, C.E. Schmidt (2018). Tissue-Engineered Peripheral Nerve Interfaces. Advanced Functional Materials. 28, 1701713 (18 pp).
- 115. Geissler, S., A., A.L. Sabin\*, R.R. Besser\*, O.M. Gooden\*, B.D. Shirk\*, Q.M. Nguyen\*, Z.Z. Khaing, C.E. Schmidt (2018). Biomimetic hydrogels direct spinal progenitor cell differentiation and promote functional recovery after spinal cord injury. J. Neural Engineering. 15, 025004 (16 pp).
- 116. Cornelison, R.C., E. Gonzalez-Rothi, S.L. Porvasnik, S.M. Wellman\*, J.H. Park\*, D.D Fuller, C.E. Schmidt (2018). Injectable hydrogels of optimized acellular nerve for injection in the injured spinal cord. <u>Biomedical Materials</u> 13 (3), 034110 (15 pp).

- 117. Cerqueira, S.R., Y.S. Lee, R.C. Cornelison, M.W. Mertz, R.A Wachs, C.E Schmidt, M.B. Bunge (2018). Decellularized nerve matrix supports Schwann cell transplants and axon growth following spinal cord injury. Biomaterials. 177: 176-185.
- 118. Jacobs, B., E. Lakes, A. Reiter, S. Lake, T. Ham, N. Leipzig, S. Porvasnik, C.E. Schmidt, R. Wachs, K. Allen (2018). The Open Source GAITOR Suite for Rodent Gait Analysis. <u>Scientific Reports</u>. 8: 9797 (14 pp).
- 119. Cornelison, R.C., S.M. Wellman\*, S.L. Porvasnik, J.H. Park\*, Y.H. Song, R.A. Wachs, C.E. Schmidt (2018). Development of an apoptosis-assisted decellularization method for maximal preservation of nerve tissue structure. Acta Biomaterialia. 77: 116-126.
- 120. Mobini, S., Y.H. Song, M.W. McCrary, C.E. Schmidt (2019). Advances in Ex Vivo Models and Lab-on-a-Chip Devices for Neural Tissue Engineering (invited review). <u>Biomaterials</u>. 198: 146-166.
- 121. Song, Y.H., N. Agrawal, J.M. Griffin, C.E. Schmidt (2019). Recent Advances in Nanotherapeutic Strategies for Spinal Cord Injury Repair (invited review). <u>Advanced Drug Delivery Reviews</u>. 148: 38-59.
- 122. Spearman, B., N. Agrawal, A. Rubiano, C. Simmons, S. Mobini, C. Schmidt (2020). Tunable Methacrylated Hyaluronic Acid-based Hydrogels as Scaffolds for Soft Tissue Engineering Applications. <u>Journal of Biomedical Materials Research</u>: Part A. 108:279-291.
- 123. Singh, I., C.S. Lacko, Z. Zhao, C.E. Schmidt, C. Rinaldi (2020). Preparation and evaluation of microfluidic magnetic alginate microparticles for magnetically templated hydrogels. <u>Journal of Colloid and Interface Science</u>. 561:647-658.
- 124. McCrary, M.M., N. Vaughn\*, N. Hlavac, Y.H. Song, R.A. Wachs, C.E. Schmidt (2020). Novel Sodium Deoxycholate-Based Chemical acellularization Method for Peripheral Nerve. <u>Tissue Engineering Part C.</u> 26:23-36.
- 125. Agrawal, N.K., P. Allen, Y.H. Song, R.A. Wachs, Y. Du, A.D. Ellington, C.E. Schmidt (2020). Oligonucleotide hybridized hydrogels for sustained release of small molecule (aptamer) therapeutics. <u>Acta Biomaterialia</u>. 102:315-325.
- 126. Azimi, M.S., J.M. Motherwell, N.A. Hodges, G.R. Rittenhouse, D. Majbour, S.L. Porvasnik, C. Schmidt, W.L. Murfee (2020). Lymphatic-to-Blood Vessel Transition in Adult Microvascular Networks: A Discovery Made Possible by a Top-Down Approach to Biomimetic Model Development. <u>Microcirculation</u>. 27, e12595 (11 pp).
- 127. Lacko, C.S., I. Singh, M.A. Wall\*, A.R. Garcia, S.L. Porvasnik, C. Rinaldi, C.E. Schmidt (2020). Magnetic Particle Templating of Hydrogels: Engineering Naturally Derived Hydrogel Scaffolds with 3D Aligned Microarchitecture for Nerve Repair. <u>Journal of Neural Engineering</u>. 17, 016057 (15 pp).
- 128. Hlavac, N., M. Kasper, C. Schmidt (2020). Progress toward finding the perfect match: Hydrogels for treatment of central nervous system injury (invited review). <u>Materials Today Advances</u>. 6, 100039 (13 pp).
- 129. Mayes, S., J. Davis\*, J. Scott\*, V. Aguilar, S.A. Zawko, S. Swinnea, D.L. Peterson, J.G. Hardy, C.E. Schmidt (2020). Polysaccharide-based films for the prevention of unwanted postoperative adhesions at biological interfaces. <u>Acta Biomaterialia</u>. 106:92-101.
- 130. Otto, K.J., C.E. Schmidt (2020). Neuron-targeted electrical modulation (invited perspective). Science. 367:1303-1304.
- 131. Spearman, B.S., C.A. Kuliasha, J.W. Judy, C.E. Schmidt (2020). Integration of Flexible Polyimide Arrays into Soft Extracellular Matrix-based Hydrogel Materials for a Tissue-Engineered Electronic Nerve Interface (TEENI). <u>Journal of Neuroscience Methods</u>. 341: 108762 (6 pp).
- 132. Bousalis, D., C.S. Lacko, N.M. Hlavac, F.F. Alkassis, R.A. Wachs, S. Mobini, C.E. Schmidt, H. Kasahara (2020). Extracellular Matrix Disparities in an Nkx2-5 Mutant Mouse Model of Congenital Heart Disease. <u>Frontiers in Cardiovascular Medicine</u>. 7:93 (11 pp).
- 133. McCrary, M.W., D. Bousalis, S. Mobini, Y.H. Song, C.E. Schmidt (2020). Decellularized Tissues as Platforms for In Vitro Modeling of Healthy and Diseased Tissues. Acta Biomaterialia. 111: 1-19.
- 134. Kasper, M., C. Deister, F. Beck, C.E. Schmidt (2020). Bench-to-Bedside Lessons Learned: Commercialization of an Acellular Nerve Graft (invited review). <u>Advanced Healthcare Materials</u>. 2000174 (15 pp).
- 135. Ngo, T.\*, B. Spearman, N. Hlavac, C. Schmidt (2020). 3D Bioprinted Hyaluronic Acid Hydrogel Test Beds for Assessing Neural Cell Responses to Competitive Growth Stimuli. <u>ACS Biomaterials Science & Eng.</u> 6: 6819-6830.
- 136. Ashton, M., I. Appen, M. Firlak, N. Stanhope, C. Schmidt, W. Eisenstadt, B. Hur, J. Hardy (2021). Wirelessly Triggered Bioactive Molecule Delivery from Degradable Electroactive Polymer Films. <u>Polymer Internat</u>. 70: 467-474.
- 137. Mobini, S., C.A. Kuliasha, Z.A. Siders, N.A. Bohmann\*, S.M. Jamal, J.W. Judy, C.E. Schmidt, A.B. Brennan (2021). Microtopographical Patterns Promote Different Responses in Fibroblasts and Schwann Cells: A Possible Feature for Neural Implants. Journal of Biomedical Materials Research: Part A. 109: 64-76.
- 138. Song, Y.H., M. Maynes\*, N. Hlavac, D. Visosevic\*, K. Daramola\*, S. Porvasnik, C.E. Schmidt (2021). Development of novel apoptosis-assisted lung tissue decellularization methods. Biomaterials Science. 9: 3485-3498.
- 139. Hlavac, N., D. Seroski, N. Agrawal, L. Astrab, R. Liu, G. Hudalla, C.E. Schmidt (2021). Chondroitinase ABC/Galectin-3 Fusion Proteins with Hyaluronan-based Hydrogels Stabilize Enzyme and Provide Targeted Enzyme Activity for Neural Applications. <u>J. Neural Engineering</u>. 18, 046090 (14 pp).
- 140. Hlavac, N., D. Bousalis, R.N. Ahmad\*, E. Pallack\*, A. Vela, Y. Li\*, S. Mobini, E. Patrick, C.E. Schmidt (2021). Effects of varied stimulation parameters on adipose-derived stem cell response to low-level electrical fields. <u>Annals of Biomedical Engineering</u>. 49: 3401-3411.

- 141. Kasper, M., B. Ellenbogen\*, R. Hardy\*, M. Cydis\*, J. Mojica-Santiago, A. Afridi\*, B.S. Spearman, I. Singh, C.A. Kuliasha, E. Atkinson, K. Otto, J.W. Judy, C. Rinaldi, C.E. Schmidt (2021). Development of a magnetically- aligned regenerative tissue-engineered-electronic-nerve-interface for peripheral nerve applications. <u>Biomaterials</u>. 279: 121212 (14 pp).
- 142. Bousalis, D., M.W. McCrary, N. Vaughn\*, N. Hlavac, A. Evering\*, S. Kolli\*, Y.H. Song, C. Morley, T. Angelini, C.E. Schmidt (2022). Decellularized Peripheral Nerve as an Injectable Delivery Vehicle for Neural Applications. <u>J.</u> Biomedical Materials Research: Part A.10:595-611.
- 143. Manousiouthakis, E., J. Park, J.G Hardy, J.Y. Lee, C.E. Schmidt (2022). Towards the Translation of Electroconductive Organic Materials for Regeneration of Neural Tissues (invited review). <u>Acta Biomaterialia</u>. 139: 22-42.
- 144. Giza, S., J. Mojica-Santiago, M. Parafati, L. Malany, D. Platt, C. Schmidt, P. Coen, S. Malany (2022). Microphysiological system for studying contractile differences in young, active and old, sedentary adult derived skeletal muscle cells. <u>Aging Cell</u>. 21(7): e13650 (17 pp).
- 145. Wachs, R.A., S.M. Wellman\*, S.L. Porvasnik, E.H. Lakes, R.C. Cornelison, Y.H. Song, K.D. Allen, C.E. Schmidt (2022). Apoptosis Decellularized Peripheral Nerve Scaffold Allows Regeneration Across Nerve Gap. <u>Cells Tissues Organs</u>. DOI: 10.1159/000525704 (11 pp).
- 146. Atkinson, E.W., C. Kuliasha, M. Kasper, A. Furniturewalla, A.S. Lim, L. Jiracek-Sapieha, A. Brake, A. Gormaley, B. Spearman, C.M. Rinaldi-Ramos, C.E. Schmidt, J.W. Judy, K.J. Otto (2022). Examining the in vivo Functionality of the Magnetically Aligned Regenerative Tissue-Engineered Electronic Nerve Interface (MARTEENI). <u>J. Neural Engineering</u>. 19, 056010 (16 pp).
- 147. Hlavac, N., D. Bousalis, E. Pallack\*, Y. Li\*, E. Manousiouthakis, R. Ahmad\*, C.E. Schmidt (2023). Injectable neural hydrogel as in vivo therapeutic delivery vehicle. <u>Regenerative Engineering and Translational Medicine</u>. https://doi.org/10.1007/s40883-022-00292-9 (7 pp).
- 148. Kasper, M.M., M. Cydis\*, A. Afridi\*, B. Smadi, Y. Li\*, A. Charlier, B.E. Barnes, J. Hohn, M.J. Cline, W. Carver, M. Matthews, D. Savin, C.M. Rinaldi-Ramos, C.E. Schmidt (2023). Development of a Bioactive Tunable Hyaluronic-Protein Bioconjugate Hydrogel for Tissue Regenerative Applications. J. Materials Chemistry B. 11: 7663-7674.
- 149. Kasper, M., B. Ellenbogen\*, Y. Li\*, C.E. Schmidt (2023). Temporal Characterization of Hyaluronidases after Peripheral Nerve Injury. PLOS One. 18 (8), e0289956 (17 pp).
- 150. Parafati, M., S. Giza, T.S. Shenoy, J.A. Mojica-Santiago, M. Hopf, L.K. Malany, D. Platt, I. Moore, Z.A. Jacobs, P. Kuehl, J. Rexroat, G. Barnett, C.E. Schmidt, W.T. McLamb, P.M. Coen, T. Clements, S. Malany (2023). Human Skeletal Muscle Tissue Chip Autonomous Payload Reveals Changes in Fiber Type and Metabolic Gene Expression Due to Spaceflight. Nature Microgravity. 9:7 (11 pp).
- 151. Agarwal, G., S. Shumard\*, M.W. McCrary\*, O. Osborne\*, J. Mojica Santiago, B. Ausec\*, C.E. Schmidt (2024). Decellularized Porcine Peripheral Nerve Based Injectable Hydrogels as a Schwann Cell Carrier for Injured Spinal Cord Regeneration. J. Neural Engineering. 21(4), 046002 (16 pp).
- 152. Agarwal, G., K. Moes\*, C.E. Schmidt (2025). Development and In Vitro Evaluation of Biomimetic Injectable Hydrogels from Decellularized Human Nerves for Central Nervous System Regeneration. <u>Materials Today Bio</u>, 101483 (21 pp).
- 153. Mojica-Santiago, J., G. Agarwal, S. Robles-Blasini\*, I. Young\*, V. Lopez\*, S. Giza, A. Choi, S. Malany, C.E. Schmidt (2025, submitted). Comparative Analysis of Matrigel and Tunable Collagen-Fibrin Blends for In Vitro Skeletal Muscle Models. ACS Biomaterials Science & Engineering.
- 154. Rivera-Llabres, V.G., Z.A. Fields\*, H.J. Good, E. Aikmann, E. Manousiouthakis, W. Stoppel, C.E. Schmidt, C.M. Rinaldi-Ramos (2025, submitted). Morphological Characterization of Magnetically Templated Hydrogels with Varying Porogen/Channel Diameters.

### Refereed and Published Conference Proceedings

- 1. Shastri, V.R., C.E. Schmidt, T. Kim, J.P. Vacanti, R. Langer (1996). Polypyrrole a potential candidate for stimulated nerve regeneration. <u>Materials Research Society Symposium Proceedings</u> 414: 113-118.
- 2. Schmidt, C.E. (2000). Electroactive polymers for tissue engineering. <u>Abstracts of Papers of the American Chemical Society</u>, 219: U548, 41-MACR Part 2.
- 3. Schmidt, C., T. Rivers, T. Hudson, J. Collier (2002). Modification of electroactive biomaterials for neural engineering applications. In: Rubinson, J.F, Mark, H.B., Jr., ed. <u>Conducting Polymers and Polymer Electrolytes: From Biology to Photovoltaics</u>, ACS Symposium Series 832, pp. 154-165.
- 4. Leach, J.B., C.W. Patrick, C.E. Schmidt (2002). Directing tissue regeneration via hyaluronic acid hydrogel scaffolds. <u>Proceedings of the Annual International Conference of the IEEE Engineering in Medicine and Biology Society</u>, pp. 753-754
- 5. Winter, J.O., C.E. Flynn, T.S. Liu\*, A.M. Belcher, B.A. Korgel, C.E. Schmidt (2002). Semiconductor-neural interfaces. <u>Proceedings of the Annual International Conference of the IEEE Engineering in Medicine and Biology Society</u>, pp. 1704-1705.

- 6. Sanghvi, A.B., Miller, K. P-H, Belcher, A.M., Schmidt, C.E. Fabrication of novel interactive biomaterials via peptide integration for tissue engineering application (2002). <u>Proceedings of the Annual International Conference of the IEEE</u> Engineering in Medicine and Biology Society, pp. 1836-1837.
- Sanghvi, A.B., Miller, K. P-H, Belcher, A.M., Schmidt, C.E. (2004). Development of a novel method of surface modification of synthetic polymer using combinatorial peptide screening technologies. <u>Materials Research Society Symposium Proceedings: "Architecture and Application of Biomaterials and Biomolecular Materials</u>", A.E. Barron, K. Harm-Anton, T.J. Deming, eds, Vol. EXS-1, pp. 281-283.
- 8. Winter, J.O., C.E. Schmidt, B.A. Korgel (2004). Optimization of quantum dot-nerve cell interfaces. <u>Materials Research Society Symposium Proceedings: "Quantum Dots: Nanopartiles, and Nanowires"</u>, P. Guyot-Sionnest, N.J. Halas, H. Mattoussi, Z.L. Wang, U. Woggon, eds, Vol. 789.
- 9. Leach, J.B., C.E. Schmidt (2004). Photocrosslinkable hyaluronic acid hydrogels for tissue engineering. <u>Materials Research Society Symposium Proceedings: "Architecture and Application of Biomaterials and Biomolecular Materials"</u>, A.E. Barron, K. Harm-Anton, T.J. Deming, eds, Vol. EXS-1, pp. 33-55.
- 10. Gomez, N., C.E. Schmidt. Studies on competitive responses in neurons to extracellular cues using microfabricated systems (2004). In: N.A. Peppas, K. Anseth, A.K. Dillow and C.E. Schmidt, eds., <u>Advances in Biomaterials</u>, <u>Bionanotechnology</u>, <u>Biomimetic Systems and Tissue Engineering</u>, AIChE, New York, NY, pages 257-260.
- 11. Lundy\*, S., C. Deister, S. Chen, C.E. Schmidt. Characterization of a novel decellularized peripheral nerve graft (2004). In: N.A. Peppas, K. Anseth, A.K. Dillow and C.E. Schmidt, eds., <u>Advances in Biomaterials</u>, <u>Biomanotechnology</u>, Biomimetic Systems and Tissue Engineering, AIChE, New York, NY, pages 139-142.
- 12. Sanghvi, A.B., K. P-H. Miller, A.M. Belcher, C.E. Schmidt (2004). Fabricating novel biomimetic polymers using combinatorial peptide screening technologies. <u>Abstracts of Papers of the American Chemical Society</u>, 227: U126-U126 024-BIOT part 1.
- 13. Winter, J.O., N. Gomez, B.A. Korgel, C.E. Schmidt (2005). Quantum Dots for Electrical Stimulation of Neural Cells, <u>Proceedings of SPIE: Nanobiophotonics and Biomedical Applications II</u>. Alexander N. Cartwright, Marek Osinski, Eds. 5705: 235-246.
- 14. Seidlits, S., J.B. Shear, C.E. Schmidt (2006). "Direct-write" of biologically relevant molecules into three-dimensional, submicron structures. Cytotherapy. 8: 14-15 047 Suppl. 2.
- 15. Zawko, S.A., C.E. Schmidt (2006). Preparation of a methacryloyl-beta-cyclodextrin monomer for hydrogel functionalization. <u>Abstracts of Papers of the American Chemical Society</u>, 232: 579.
- 16. Guimard, N.K., J.L. Sessler, C.E. Schmidt (2007). Design of a novel electrically conducting biocompatible polymer with degradable linkages for biomedical applications. Materials Research Society Symposium Proceedings. 950:99.
- 17. Gopal, A., Z. Luo, K. Kumar, J.Y. Lee, K. Hoshino, B. Li, C. Schmidt, P.S. Ho, X. Zhang (2007). Nano-grating force sensor for measurement of neuron membrane characteristics under growth and cellular differentiation. <u>International Solid-State Sensors</u>, Actuators and Microsystems Conference, 2007. TRANSDUCERS 2007. Pages 1239-1242
- 18. Khaing, Z.Z, S.K. Seidlits, R.J. Grill, C.E. Schmidt (2008). Biological properties of hyaluronic acid in glial scar formation after SCI. J. Neurotrauma. 25 (7), 931.
- 19. Schmidt, C.E. (2008). Optimized acellular nerve grafts with preserved collagen and laminin architecture for clinically relevant nerve injuries. Abstracts of Papers of the American Chemical Society, 235.
- 20. Guimard, N.K., S.A. Zawko, C.E. Schmidt (2008). Covalent surface modification of hyaluronic acid hydrogels for biomedical applications. Abstracts of Papers of the American Chemical Society, 235.
- 21. Lundy\*, S., S. Chen\*, C. Schmidt (2008). Functional evaluation of a novel acellular peripheral nerve graft. <u>J.</u> Investigative Medicine. 56(10): 153.
- 22. Guimard, N.L., S.A. Zawko, C.E. Schmidt (2008). Covalent surface modification of hyaluronic acid hydrogels for biomedical applications. <u>Polymer Preprints</u>. 49(1): 828.
- 23. Schmidt, C.E. (2008). Optimized acellular nerve grafts with preserved collagen and laminin architecture for clinically relevant nerve injuries. <u>Polymer Preprints</u>. 49(1): 868.
- 24. Khaing, Z.Z, S.K. Seidlits, R.R. Rosenberger\*, J.E. Vanscoy\*, C.E. Schmidt (2009). Culture of Ventral Midbrain Progenitors in Biocompatible 3D Hydrogels With Tunable Mechanical Properties. Cell Transplantation 18: 220.
- 25. Khaing, Z.Z, J.E. Vanscoy\*, S. K. Seidlits, R.J. Grill, C.E. Schmidt (2009). Implantation of Engineered Hyaluronic Acid Scaffolds Attenuate Inflammatory Cell Response and Glial Scar After SCI. Cell Transplantation 18: 220-221.
- 26. Khaing, Z.Z, S.A.Geissler, T. Schallert, R.J. Grill, C.E. Schmidt (2010). Hyaluronan and Laminin Hydrogels for Repair Strategies After Cervical Spinal Cord Injury. Cell Transplantation 19:345-346.
- 27. Khaing, Z. Z, B.D. Milman\*, J.E. Vanscoy\*, S.K. Seidlits, R.J. Grill, C.E. Schmidt (2011). High molecular weight hyaluronic acid limits astrocyte activation and scar formation after spinal cord injury. J. Neural Engineering. 8: 046033.
- 28. Cerqueira, S.R., Y.S. Lee, R.C. Cornelison, M.W. Mertz, R.A. Wachs, C.E. Schmidt, M.B. Bunge (2017). Improving Schwann Cell Tranplant Survival for Spinal Cord Repair. <u>J. Neurotrauma</u>. 34(13): A151.
- 29. Desai, V.H., B.S. Spearman, C.S. Shafor, S. Natt, B. Teem, J.B. Graham, E.W. Atkinson, R.A. Wachs, E.A. Nunamaker, K.J. Otto, C.E. Schmidt, J.W. Judy (2017). Design, fabrication, and characterization of a scalable tissue-engineered-

- electronic-nerve-interface (TEENI) device. <u>Proceedings of 8th International IEEE/EMBS Conference on Neural Engineering (NER)</u>, 203-206.
- 30. Nunamaker, E.A, B.S. Spearman, J.B. Graham, E.W. Atkinson, V.H. Desai, C.S. Shafor, S. Natt, R.A. Wachs, C.E. Schmidt, J.W. Judy, K.J. Otto (2017). Implantation methodology development for tissue-engineered-electronic-neural-interface (TEENI) devices. <u>Proc. of 8th International IEEE/EMBS Conference on Neural Engineering</u> (NER), 271-274.
- 31. Graham, J.B., E.W. Atkinson, E.A. Nunamaker, B.S. Spearman, V.H. Desai, C.S. Shafor, S. Natt, R.A. Wachs, C.E. Schmidt, J.W. Judy, K.J. Otto (2017). Histological evaluation of chronically implanted tissue-engineered-electronic-neural-interface (TEENI) devices. <u>Proceedings 8th International IEEE/EMBS Conf on Neural Eng</u> (NER), 275-278.

### **Invited Book Chapters**

- 1. Furnish, E.J., C.E. Schmidt (1998). Tissue Engineering of the Peripheral Nervous System. In: Patrick, C.W., Mikos, A.G., McIntire, L.V., eds. <u>Frontiers in Tissue Engineering</u>, Elsevier Science, pp. 512-535.
- 2. Schmidt, C.E., T. Rivers, T. Hudson, J.H. Collier (2002). Modification of Electroactive Biomaterials for Neural Engineering Applications. In: J.F. Rubinson, H.B. Mark, eds. <u>Conducting Polymers and Polymer Electrolytes: From Biology to Photovoltaics</u>. ACS Publications, Washington, DC. pp. 154-165.
- 3. Winter, J.O., C.E. Schmidt (2002). Biomimetic Strategies and Applications in the Nervous System. In: Dillow, A., Lowman, A., eds. <u>Biomimetic Materials and Design: Strategies for Interactive Biointerfacial Strategies, Tissue Engineering, and Targeted Drug Delivery, Marcel-Dekker. pp. 375-415.</u>
- 4. Leach, J.B., C.E. Schmidt (2004) Hyaluronan. <u>Encyclopedia of Biomaterials and Biomedical Engineering</u>, G.E. Wnek and G.L. Bowlin, eds, Marcel Dekker: New York, NY. pp. 779-789.
- 5. Sanghvi, A, J. Murray, C.E. Schmidt (2004). Tissue Engineering of Peripheral Nerve. <u>Encyclopedia of Biomaterials and Biomedical Engineering</u>, G.E. Wnek, G.L. Bowlin, eds, Marcel Dekker: New York, NY. pp. 1613-1621.
- 6. Suri, S., Singh, A., C.E. Schmidt (2009). Photofunctionalization of Materials to Promote Protein and Cell Interactions for Tissue-Engineering Applications. In: Puleo, D.A., Bizios, R., eds. <u>Biological Interactions on Materials Surfaces</u>, Springer. pp. 298-319.
- 7. Suri, S., G. Ruan, J. Winter, C.E. Schmidt (2012). Microparticles and Nanoparticles. In: Ratner, B., Hoffman, A., Schoen, F.J., Lemons, J.E., eds. Biomaterials Science: An Introduction to Materials in Medicine, 3<sup>rd</sup> ed, Academic Press.
- 8. Hardy, J.G., C.E. Schmidt (2015). Towards Organic Electronic Materials for Electrically Stimulated Gene Delivery. In: J. Ramsey and M.L. Forrest, eds. <u>Nanoparticles for Delivery of Biotherapeutics</u>. Future Science. Pages 58-70.

#### Other Publications

- 1. Schmidt, C.E. (1998). Tissue Engineering. In: Hatfield, C., ed. <u>Discovery: Research and Scholarship at the University of Texas at Austin</u>, 15 (1): 6-10.
- 2. Guimard, N., A. Sanghvi, C.E. Schmidt (2004). Conducting polymers in biomedical research. <u>Materials Chemistry</u> Forum Newsletter, Royal Society of Chemistry in London, Issue No. 7: 10-11.
- 3. Zawko, S., C.E. Schmidt (2012). Giving hydrogels backbone: Incorporating physical architecture into soft biomaterials. SurFACTS in Biomaterials, Vol. 17, Issue 3: 13-14.

#### Journal Editorials (Special Issues)

- 1. Shoichet, M., C.E. Schmidt (2001), Guest Editors, Special Issue: "Neurological Biomaterials" in Biomaterials, Vol. 22.
- 2. Eberhart, R., C.E. Schmidt (2007), Guest Editors, Special Issue: "Materials for Neural Engineering" in <u>Journal of Biomaterials Science</u>, Polymer Edition, Vol. 18.
- 3. Peppas, N.A., C.E. Schmidt (2015), Guest Editors, Special Issue: "Young Innovators" in <u>Cellular and Molecular Bioengineering Journal</u>, (Editor-in-Chief: Michael R. King).
- 4. Schmidt, C.E. (2017), Section Editor, Inaugural Issue: "Neural Engineering" in <u>Current Opinion in Biomedical Engineering</u> (Nov. 2017 Issue).

# **ISSUED U.S. PATENTS AND PATENT APPLICATIONS:**

- Shastri, V.R., C.E. Schmidt, J.P. Vacanti, R. Langer. "Neuronal Stimulation Using Electrically Conducting Polymers".
   <u>US Patent # 6,095,148</u>, EP Patent# 0,868,508, WO Patent# 1,997,016,545 (MIT; issue date: Aug. 1, 2000). *Licensed by Smith and Nephew*.
- 2. Rivers, T.J., C.E. Schmidt. "Biodegradable, Electrically Conducting Polymer for Tissue Engineering Applications". <u>US Patent # 6,696,575</u>, WO Patent# 2,002,076,288 (UT Austin; issue date: Feb. 24, 2004). *Licensed by Axogen, Inc.*
- 3. Hudson, T.W., C.E. Schmidt. "Cell-free tissue replacement for tissue engineering". <u>US Patent #s 7,402,319; 8,758,794; 9,597,429</u> (UT-Austin; issue dates: July 22, 2008; June 24, 2014; March 21, 2017, respectively). *Licensed by Axogen, Inc. for AVANCE<sup>TM</sup> Nerve Graft*.
- 4. Belcher, A.M., C.E. Schmidt, K.P.H. Miller, A. Sanghvi. "Composition, method and use of bi-functional biomaterials". <u>US Patent # 7,598,344</u>, EP Patent# 1,534,831, WO Patent# 2,004,035,612 (UT Austin; issue date: October 6, 2009). *Licensed by Saluria Technologies*.

- 5. Zawko, S., C.E. Schmidt. "Dendritic Macroporous Hydrogels Prepared by Crystal Templating". <u>US Patent #s 8,668,863; 8,728,499; 9,320,827; 9,896,561; 10,442,911; 10,982,068; 11,760,858</u> (UT Austin; issue dates: March 11, 2014; May 20, 2014; April 26, 2016; Feb. 20, 2018; Oct. 15, 2019; April 20, 2021; Sept. 19, 2023, respectively). *Licensed by Alafair Biosciences for VersaWrap*®.
- 6. Mayes, S., C.E. Schmidt. "One-Step Processing of Hydrogels for Mechanically Robust and Chemically Desired Features". <u>US Patent #s 8,946,194; 10,279,042; 11,246,937; 11,890,344;</u> WO Patent# 2,012,048,283 (UT Austin; issue dates: Feb. 3, 2015; May 7, 2019; Feb. 15, 2022; Feb. 6, 2024, respectively). *Licensed by Alafair Biosciences for VersaWrap*®.
- 7. Mayes, S., C.E. Schmidt. "Anti-adhesive Barrier Membrane Using Hyaluronic Acid for Biomedical Applications". <u>US Patent #s 9,095,558; 9,656,001; 10,314,950; 11,058,802; 11,744,926; 11,857,701</u> (UT Austin; issue dates: Jan. 21, 2016; May 23, 2017; June 11, 2019; July 13, 2021; Sept. 5, 2023; Jan. 2, 2024, respectively). *Licensed by Alafair Biosciences for VersaWrap*®.
- 8. Mayes, S., S. Zawko, C.E. Schmidt. "Hydrogel membrane for adhesion prevention". <u>US Patent #s 9,662,424;</u> 10,272,184; 10,850,011; 11,565,027 (UT Austin; issue dates: May 30, 2017; April 30, 2019; December 1, 2020; January 31, 2023, respectively). *Licensed by Alafair Biosciences for VersaWrap*®.
- 9. Hardy, J., C.E. Schmidt. "Drug delivery using electrochemically-triggered biodegradable electroactive materials". <u>US Patent # 9,783,637</u> (University of Florida; issue date: Oct. 10, 2017).
- 10. Hardy, J.H., C.E. Schmidt. "Electroactive supramolecular polymeric assemblies, methods of making electroactive supramolecular polymeric assemblies". <u>US</u>

  <u>Patent #s 10,653,798; 11,007,278</u> (University of Florida; issue date: May 19, 2020; May 18, 2021, respectively).
- 11. Hardy, J., C.E. Schmidt. "Electroactive polymeric scaffolds and method for delivering nerve growth factor to nerve tissue". <u>US Patent # 10,597,636; 11,390,847</u> (University of Florida; issue date: March 24, 2020; July 19, 2022, resp.).
- 12. Schmidt, C.E., R.A. Wachs, R.C. Cornelison. "Tissue decellularization methods". <u>US Patent #10,898,609</u> (University of Florida; issue date: January 26, 2021).
- 13. Rinaldi, C., C.E. Schmidt, C. Lacko, Z. Khaing, A. Garcia. "Magnetically templated tissue engineering scaffolds and methods of making and using the magnetically templated tissue engineering scaffolds". <u>US Patent #10,918,767</u> (University of Florida; issue date: February 16, 2021). *Option to License Agreement with SANA Technologies*.
- 14. Hur, B., J. Hardy, W.R. Eisenstadt, C.E. Schmidt. "Drug delivery integrated circuit (ic) and system". <u>US Patent</u> #11,285,307 (University of Florida; issue date: March 29, 2022).
- 15. Judy, J., C.E. Schmidt, K. Otto, C. Rinaldi, C.A. Kuliasha. "Tissue-engineered electronic peripheral nerve interface". <u>US Patent # 11,376,005</u> (University of Florida; issue date: July 5, 2022).
- 16. Schmidt, C.E., S. Mobini "Electrical Stimulation of Cells to Induce Enhanced Secretome for Therapeutic Applications". <u>US Patent # 12,133,881</u> (University of Florida; issue date: Nov. 5, 2024).
- 17. Mobini, S., C.E. Schmidt, A.B. Brennan, C.A. Kuliasha, J. Judy. "Sharklet topographies to control neutral cell interactions with implanted electrodes". US Patent App. 16/485,685, 2020.
- 18. Agrawal, N., J. Griffin, C.E Schmidt, M.W. McCrary, D. Bousalis, Y.H. Song "Decellularized tissues, hydrogels thereof, and uses thereof". US Patent App. 16/968,941, 2021.
- 19. Schmidt, C.E., B.S. Spearman, T. Ngo "Bioprinted, 3D Scaffolds for Cellular Test Beds and Methods of Use Thereof". US Patent App. 17/236,352, 2021.
- 20. Hudalla, G.A., B.G. Keselowsky, D.T. Seroski, S.A. Farhadi, C.E. Schmidt, N.K. Agrawal "Targeted Chondroitinase ABC Fusion Proteins and Complexes Thereof". US Patent App. 17/288,435, 2022.
- 21. Schmidt, C.E., G. Agarwal, M.W. McCrary "Decellularized, Delipidated Tissues, Hydrogels Thereof, and Uses Thereof". PCT Application US2024/024739, filed April 16, 2024.

### **CLINICAL TRANSLATION & COMMERCIALIZED PRODUCTS:**

1. Avance Nerve Graft; Axogen Inc. [Licensed IP]

Licensed patents: US Patent #s 7,402,319; 8,758,794; 9,597,429

The Avance Nerve Graft is a decellularized allograft commercialized by Axogen Inc. in Alachua, Florida. Over 100,000 Avance grafts have been implanted in patients since its launch in 2007 and are used to repair peripheral nerves (such as those in the hands, arms, legs, face, breast, prostate, etc.) that have been damaged by accidental trauma or surgery.

2. VersaWrap; Alafair Biosciences [Start-up Company]

Licensed patents: US Patent #s 8,668,863; 8,728,499; 8,946,194; 9,095,558; 9,320,827; 9,656,001; 9,662,424; 9,896,561; 10,272,184; 10,279,042; 10,314,950; 10,442,911; 10,850,011; 10,982,068; 11,058,802; 11,246,937; 11,565,027; 11,744,926; 11,760,858; 11,857,701

VersaWrap is a Class II FDA-cleared medical device, a bioresorbable film made from alginate and hyaluronic acid, developed by Alafair Biosciences, an Austin-based start-up co-owned by Dr. Schmidt. Approved for use in tendon

(2017), nerve (2020), and ligament/skeletal muscle (2021), VersaWrap helps reduce postoperative scarring and protect soft tissues after surgery. With over 22,000 implants and usage in more than 400 facilities, it has been adopted by over 500 surgeons. Alafair Biosciences was ranked on the 2023 and 2024 Inc. 5000 list of fastest-growing private companies.

#### UNIVERSITY SEMINARS AND INVITED PLENARY TALKS:

- 1. Schmidt, C.E. "Molecular Analysis of Integrin-Cytoskeleton Interactions in Migrating Tissue Cells". <u>Biomedical Engineering Society (BMES) Annual Meeting</u>. University Park, PA. October 1996.
- 2. Schmidt, C.E. "The Role of Integrin-Cytoskeleton Coupling in Neurite Extension". <u>Biomedical Engineering Society</u> (BMES) Annual Meeting. University Park, PA. October 1996.
- 3. Schmidt, C.E. "Engineering Materials for Tissue Regeneration", <u>Lindsay Lecture in Chemical Engineering</u>, <u>Texas</u> A&M University, College Station, TX. March 1997.
- 4. Schmidt. C.E., "Tissue Engineering Strategies for Peripheral Nerve Regeneration", <u>Continuing Education Course</u> "Advances in Tissue Engineering", <u>Rice University</u>, Houston, TX. August 1997.
- 5. Fischbeck, J.A., D. Hern, R. Akella, J. Ranieri, C.E. Schmidt [speaker] "Genetically Modified Xenogeneic Endothelium for Tissue Engineered Vascular Grafts", <u>Surfaces in Biomaterials Annual Meeting</u>. Minneapolis, MN, August 1997.
- 6. Schmidt, C.E. "Engineering Therapies to Improve Nerve Regeneration". <u>Nonlinear Dynamics Center Seminar Series, University of Texas at Austin, Austin, TX, October 1997.</u>
- 7. Schmidt. C.E., "Tissue Engineering Strategies for Peripheral Nerve Regeneration", <u>Continuing Education Course</u> "Advances in Tissue Engineering", Rice University, Houston, TX, August 1998.
- 8. Schmidt, C.E. "Neural and Vascular Tissue Engineering". <u>Pittsburgh Tissue Engineering Initiative Seminar Series</u>, Pittsburgh, PA, August 1998.
- 9. Schmidt, C.E. "Tissue Engineering Strategies for Peripheral Nerve Regeneration". <u>Fourth Annual Neuroscience Symposium, University of Texas at Austin, TX, April 1999.</u>
- 10. Schmidt, C.E. "Polypyrrole/Hyaluronic Acid Composites for Peripheral Nerve Regeneration". <u>Biomedical</u> Engineering Department Seminar Series, Rice University, June 1999.
- 11. Schmidt. C.E., "Tissue Engineering Strategies for Peripheral Nerve Regeneration", <u>Continuing Education Course</u> "Advances in Tissue Engineering", Rice University, Houston, TX. August 1999.
- 12. Schmidt, C.E. "Polypyrrole/Hyaluronic Acid Composites for Peripheral Nerve Regeneration". <u>Chemical Engineering</u> Department Seminar Series, University of Colorado, Nov. 1999.
- 13. Schmidt, C.E. "Polypyrrole/Hyaluronic Acid Composite Biomaterials for Tissue Engineering Applications". <u>Patten Biotechnology Seminar Series, Chemical Engineering Department, University of Connecticut</u>, Storrs, CT, Dec. 1999.
- 14. Schmidt, C.E. "Electroactive Polymers for Tissue Engineering". <u>American Chemical Society Annual Meeting "Frontiers for Polymer Science in the 21st Century"</u>, San Francisco, CA, March 29, 2000.
- 15. Schmidt, C.E. "Biomaterials and Tissue Engineering: Novel Approaches for Biomedical Therapies". <u>Joel G. Hardman Student-Invited Pharmacology Forum on Stem Cell Research and Tissue Engineering, Vanderbilt University, Nashville, TN, April 11, 2000.</u>
- 16. Schmidt, C.E. "Electroactive Polymers for Tissue Engineering of Nerve". <u>The Fifth New Jersey Symposium on</u> Biomaterials Science, Somerset, NJ, Nov. 2000.
- 17. Schmidt, C.E. "Novel Approaches for Neural Tissue Engineering". <u>Biomedical Engineering Seminar Series, Texas</u> A&M University, College Station, TX, April 10, 2001.
- 18. Schmidt, C.E. "Novel Approaches for Neural Tissue Engineering". <u>Chemical Engineering Department Seminar Series, University of California at Davis</u>, Davis, CA, May 7, 2001.
- 19. Schmidt, C.E. "A Galaxy of Stars". <u>Future Directions in Chemical Engineering Education Panel, American Society of Engineering Education (ASEE) Annual Meeting</u>, Albuquerque, NM, June 26, 2001.
- 20. Schmidt, C.E. "Tissue Engineering Strategies for Nerve Regeneration". "Science At The Edge" Seminar Series, Electrical and Computer Engineering, Michigan State University, East Lansing, MI, Nov. 16, 2001.
- 21. Schmidt, C.E. "Cellular and Biomaterial Manipulations to Enhance Nerve Regeneration", Symposium on "Manipulations to Enhance Tissue Formation" organized by Dr. Frank Yin, <u>BMES/Experimental Biology Meeting</u>, New Orleans, LA, April 22, 2002.
- 22. Schmidt, C.E. "How to Grow Your Own Body Parts". <u>Opening Night Keynote Lecture, University of Texas Honors Colloquium</u>, Austin, TX, July 25, 2002.
- 23. Schmidt, C.E. "Biomaterials and Cell Engineering Approaches for Nerve Repair", <u>Chemical Engineering Department Seminar Series</u>, <u>University of Oklahoma</u>, Norman, OK, February 13, 2003.
- 24. Schmidt, C.E. "Biomaterials and Cell Engineering Approaches for Nerve Repair", <u>Biomedical Engineering Department Seminar Series, Tulane University</u>, New Orleans, LA, April 4, 2003.
- 25. Schmidt, C.E. "Biomaterials and Cell Engineering Approaches for Nerve Repair", <u>Biomedical Engineering Department Seminar Series</u>, Case Western Reserve University, Cleveland, OH, April 11, 2003.

- 26. Schmidt, C.E. "Biomaterials and Cell Engineering Approaches for Nerve Repair", <u>Separations Research Program Symposium</u>, <u>University of Texas at Austin</u>, Austin, TX, April 15, 2003.
- 27. Schmidt, C.E. "Interdisciplinary Graduate Student Education: IGERT Optical Molecular Bio-Engineering Program at the University of Texas", <u>Association of American Medical Colleges (AAMC) Graduate</u>, <u>Research</u>, and <u>Education (GREAT) Group Annual Meeting</u>, Austin, TX, April 24, 2004.
- 28. Schmidt, C.E. "Tissue Engineering Strategies for Nerve Regeneration", <u>Regenerate Conference: Tissue Engineering</u> the Human Body Symposium (hosted by the Pittsburgh Tissue Engineering Initiative (PTEI) and the Tissue Engineering Society International (TESI)), Seattle, WA, June 10, 2004.
- 29. Schmidt. C.E., "Materials for Neural Tissue Engineering", <u>Continuing Education Course "Advances in Tissue Engineering"</u>, <u>Rice University</u>, Houston, TX. August 14, 2004.
- 30. Schmidt, C.E. "Engineering and Biotechnology Strategies for Nerve Repair", <u>NSF IGERT Program in Bionanotechnology Seminar Series</u>, <u>Arizona State University</u>, Tempe, AZ, Sept. 9, 2004.
- 31. Schmidt, C.E. "Engineering and Biotechnology Strategies for Nerve Repair", <u>28th Annual Symposium for Macromolecular Science and Engineering, University of Michigan, Ann Arbor, MI, Oct. 28, 2004.</u>
- 32. Schmidt, C.E. "Engineering and Biotechnology Strategies for Nerve Repair", <u>Nanobiotechnology Center Seminar Series, Cornell University</u>, Ithaca, NY, November 23, 2004.
- 33. Schmidt, C.E. "Engineering and Biotechnology Strategies for Nerve Repair", <u>Biology Department Seminar Series</u>, Texas Women's University, Denton, TX, January 28, 2005.
- 34. Schmidt, C.E. "Engineering and Biotechnology Strategies for Nerve Repair", <u>Frontiers in Interdisciplinary Biosciences Seminar Series, Bio-X Program, Stanford University</u>, Palo Alto, CA, February 10, 2005.
- 35. Schmidt, C.E. "Engineering and Biotechnology Strategies for Nerve Repair", <u>Biocomplexity Institute Seminar Series</u>, <u>Indiana University</u>, March 1, 2005.
- 36. Schmidt. C.E., "Nerves and Tissue Engineering", <u>Tissue Engineering Symposium: An ISAKOS Approved Course</u>, <u>Wake Forest University Medical School</u>, Winston-Salem, NC, March 31, 2005.
- 37. Schmidt, C.E. "Engineering and Biotechnology Strategies for Nerve Repair", <u>Chemical Engineering Department Series</u>, Yale University, New Haven, CT, April 14, 2005.
- 38. Schmidt, C.E. "Strategies for Functional Nerve Repair", <u>Biomedical Engineering Department Seminar Series</u>, University of Michigan, Ann Arbor, MI, October 19, 2005.
- 39. Schmidt, C.E. "Strategies for Functional Nerve Repair", <u>Molecular Pharmacology</u>, <u>Physiology</u>, and <u>Biotechnology</u> Department Seminar Series, Brown University, Providence, RI, March 3, 2006.
- 40. Schmidt, C.E. "Strategies for Functional Nerve Repair", <u>Biomedical Engineering</u>, <u>University of California San</u> Diego, La Jolla, CA, March 13, 2006.
- 41. Schmidt, C.E. "Strategies for Functional Nerve Repair", <u>Chemical Engineering Department Seminar Series</u>, University of Delaware, Newark, DE, March 23, 2006.
- 42. Schmidt, C.E. "Engineering Biomolecular Materials for Nerve Regeneration", <u>Chemistry Department Seminar Series</u>, <u>Texas Christian University</u>, Ft. Worth, TX, April 7, 2006.
- 43. Schmidt, C.E. "Engineering Biomolecular Materials for Nerve Regeneration", <u>Section of Neurobiology Seminar</u> Series, University of Texas at Austin, Austin, TX, May 8, 2006.
- 44. Schmidt, C.E. "Interdisciplinary Graduate Student Training", <u>University of Texas Houston Graduate School of Biomedical Sciences (GSBS)</u> Faculty Retreat (invitation from Dean of GSBS), Clear Lake, TX, May 13, 2006.
- 45. Schmidt, C.E. "Advanced Material Designs for Stimulating and Analyzing Nerve Regeneration", <u>Biomedical</u> Engineering, Duke University, Durham, NC, Sept. 14, 2006.
- 46. Schmidt, C.E. "Engineering Biomolecular Materials for Nerve Regeneration", <u>Department of Kinesiology, University of Texas at Austin</u>, Austin, TX, Oct. 27, 2006.
- 47. Schmidt, C.E. "Advanced Material Designs for Stimulating and Analyzing Nerve Regeneration", <u>Biomedical Engineering</u>, <u>University of Florida</u>, Gainesville, FL, Nov. 1, 2006.
- 48. Schmidt, C.E. "Visions of Biological Engineering", UT Metroplex Days, <u>UT-DFW Initiative for Biological Sciences/Engineering</u>, Dallas, TX, Nov. 29, 2006.
- 49. Schmidt, C.E. "Advanced Material Designs for Stimulating and Analyzing Nerve Regeneration", <u>Biomedical Engineering</u>, <u>University of Alabama</u>, <u>Birmingham</u>, Birmingham, AL, Jan. 19, 2007.
- 50. Schmidt, C.E. "Engineering Approaches to Regenerating Damaged Neural Tissue", <u>Workshop on Stem Cells in Regenerative Medicine and Tissue Engineering</u>, Sponsored by Multi-Agency Tissue Engineering Science (MATES) Interagency Working Group Subcommittee on Biotechnology, National Science and Technology Council, National Science Foundation (NSF), Arlington, VA, Feb. 1, 2007.
- 51. Schmidt, C.E. "Advanced Material Designs for Stimulating and Analyzing Nerve Regeneration", <u>Biomedical Engineering</u>, <u>University of Texas Health Science Center at San Antonio</u>, San Antonio, TX, Feb. 15, 2007.
- 52. Schmidt, C.E. "Advanced Material Designs for Stimulating and Analyzing Nerve Regeneration", <u>Chemical Engineering and Biomedical Engineering</u>, Wayne State University, Detroit, MI, March 22, 2007.

- 53. Schmidt, C.E. "Engineering Approaches to Regenerating Damaged Neural Tissue", *PMRM 2007*, <u>International Symposium on Polymeric Materials for Regenerative Medicine, Industrial Materials Institute of the National Research Council of Canada, Boucherville, Canada, April 2, 2007.</u>
- 54. Schmidt, C.E. "Engineering Approaches for Functional Nerve Regeneration", <u>Chemical and Biological Engineering</u>, <u>University of Maryland</u>, <u>Baltimore County</u>, <u>Baltimore</u>, MD, October 8, 2007.
- 55. Schmidt, C.E. "Conductive Polymers For Nerve Guidance", <u>American Institute of Chemical Engineers (AICHE) Fall Annual Meeting</u>, Salt Lake City, UT, Nov. 9, 2007.
- 56. Schmidt, C.E. "Biologically Active and 3D Electrically Conducting Polymer Scaffolds for Neural Engineering", Materials Research Society (MRS) Fall Annual Meeting, Symposium QQ, Boston, MA, Nov. 27, 2007.
- 57. Schmidt, C.E. "Engineering Approaches for Functional Nerve Regeneration", <u>Biomedical Engineering</u>, <u>Rensselaer</u> Polytechnic Institute (RPI), Troy, NY, March 5, 2008.
- 58. Schmidt, C.E. "Electrically Responsive Biomaterials for Neural Engineering", <u>Materials Research Society (MRS)</u>
  <u>Spring Annual Meeting</u>, Symposium EE, San Francisco, CA, March 25, 2008.
- 59. Schmidt, C.E. "Optimized Acellular Nerve Grafts with Preserved Collagen and Laminin Architecture for Clinically Relevant Nerve Injuries", <u>American Chemical Society (ACS) Spring Annual Meeting</u>, Division of Polymer Chemistry, New Orleans, LA, April 9, 2008.
- 60. Schmidt, C.E. "Engineering Advanced Materials to Promote Axonal Regeneration", <u>Mission Connect Conference</u>, Houston, TX, May 9, 2008.
- 61. Schmidt, C.E. "Hyaluronan-Based Matrices for Neural Tissue Regeneration", <u>MacroMex: Mexican-American Conference on Advances in Polymer Science</u>, Los Cabos, Baja California Mexico, December 2008.
- 62. Schmidt, C.E. "Hyaluronan-Based Matrices for Neural Tissue Regeneration", <u>Chemical Engineering Department Seminar Series, University of Michigan</u>, Ann Arbor, MI, April 9, 2009.
- 63. Schmidt, C.E. "Engineering Constructs for Neural Regeneration", <u>Biomaterials and Tissue Engineering Gordon Research Conference</u>, Holderness, NH, July 22, 2009.
- 64. Schmidt, C.E. "Engineering Therapies for Functional Nerve Regeneration", <u>Department of Biomedical Engineering Distinguished Leaders in Tissue Engineering and Center for Translational Neuroscience Joint Seminar, Case Western Reserve University, Cleveland, OH, September 17, 2009.</u>
- 65. Schmidt, C.E. "Engineering Advanced Materials for Neural Regeneration and Neural Interfacing", <u>Institute for Regenerative Medicine Seminar, Wake Forest University</u>, Winston-Salem, NC, March 2, 2010.
- 66. Schmidt, C.E., "Engineering Therapies for Functional Nerve Regeneration", <u>Page Morton Hunter Bioengineering Distinguished Seminar, Clemson University</u>, Clemson, SC, April 1, 2010.
- 67. Schmidt, C.E., "Engineering Approaches for Neural Tissue Regeneration", <u>Joint Symposium on Neuroscience and Molecular Biology by the Federation of North Texas Area Universities</u>, University of North Texas, Denton, TX, April 9, 2010.
- 68. Schmidt, C.E., "Engineering Therapies for Functional Nerve Regeneration", <u>Chemical Engineering Department Seminar, Northeastern University</u>, Boston, MA, April 13, 2010.
- 69. Schmidt, C.E., "Engineering Therapies for Functional Nerve Regeneration", <u>Biomedical Engineering Department</u> Seminar, University of Florida, Gainesville, FL, April 19, 2010.
- 70. Schmidt, C.E., "Engineering Therapies for Functional Nerve Regeneration", <u>Chemical and Biomolecular Engineering Department Seminar, Georgia Institute of Technology</u>, Atlanta, GA, Sept. 1, 2010.
- 71. Schmidt, C.E., "Engineering Therapies for Functional Nerve Regeneration", <u>Chemical Engineering Department Seminar, Virginia Institute of Technology</u>, Blacksburg, VA, Sept. 15, 2010.
- 72. Schmidt, C.E., "Engineering Therapies for Functional Nerve Regeneration", <u>Chemistry and Biochemistry Department Seminar</u>, <u>Southern Illinois University</u>, Carbondale, IL, Dec. 15, 2010.
- 73. Schmidt, C.E., "Engineering Therapies for Functional Nerve Regeneration", <u>Chemical Engineering Department Seminar, City College of New York</u>, New York, NY, Feb. 28, 2011.
- 74. Schmidt, C.E., "Engineering Approaches for Functional Nerve Regeneration", <u>Keynote Speaker, 15th Annual Hilton Head Workshop</u>: "Regenerative Medicine: Innovations for Clinical Applications", Hilton Head, SC, March 17, 2011.
- 75. Schmidt, C.E., S. Mayes, D. Peterson, "Challenges of Adhesions in Neurosurgery", <u>Frontiers of Neuroscience</u> Seminar Series, The University of Texas at Austin, Austin, TX, March 29, 2011.
- 76. Schmidt, C.E., "Engineering Therapies for Nerve Regeneration", <u>First Annual Austin Translational Neuroscience Symposium</u>, <u>NeuroTexas Institute Research Foundation</u>, Austin, TX, April 2, 2011.
- 77. Schmidt, C.E., "Engineering Approaches for Functional Nerve Regeneration", <u>Biomedical Engineering Program</u>, <u>Colorado State University</u>, Fort Collins, CO, April 4, 2011.
- 78. Schmidt, C.E., "Engineering Approaches for Functional Nerve Regeneration", <u>Biomaterials Day, Texas A&M University</u>, College Station, TX, May 16, 2011.

- 79. Schmidt, C.E. "Engineering Materials for Neural Regeneration", Keynote Speaker for "Biocolloids and Biological Interfaces" Session, <u>85th ACS Colloid and Surface Science Symposium</u>, McGill University Montreal, Quebec, Canada, June 19 22, 2011.
- 80. Schmidt, C.E., "Tutorial on Engineering Therapies for Neural Regeneration", <u>Global Enterprise for MicroMechanics and Molecular Medicine (GEM<sup>4</sup>) Summer School on Biomechanics and Bioengineering</u>, Georgia Institute of Technology, Atlanta, GA, June 25, 2011.
- 81. Schmidt, C.E., "Engineering Approaches for Functional Nerve Regeneration", <u>Chemical and Biological Engineering</u>
  <u>Department, Tufts University</u>, Medford, MA, July 7, 2011.
- 82. Schmidt, C.E., "Engineering Approaches for Functional Nerve Regeneration", <u>Department of Bioengineering</u>, <u>University of Maryland, College Park</u>, College Park, MD, Sept. 16, 2011.
- 83. Schmidt, C.E., "Engineering Approaches for Functional Nerve Regeneration", <u>Department of Biomedical Engineering</u>, <u>Illinois Institute of Technology</u>, Chicago, IL, Sept. 21, 2011.
- 84. Schmidt, C.E. "Small, Simple Steps to Survival and Success". Invited Keynote Lecture, <u>Women's Initiatives Committee (WIC) Luncheon, American Institute of Chemical Engineers (AIChE) Annual Meeting</u>, Minneapolis, MN, October 17, 2011.
- 85. Schmidt, C.E., "Engineering Approaches for Functional Nerve Regeneration", <u>Department of Biomedical Engineering</u>, Purdue University, West Lafayette, IN, November 2, 2011.
- 86. Schmidt, C.E., "Engineering Novel Materials for Axonal Regeneration", <u>Gail F. Beach Lecture Series, Miami Project to Cure Paralysis</u>, Miami, FL, December 7, 2011.
- 87. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>Department of Chemical and Biomolecular Engineering</u>, The University of Illinois at Urbana-Champaign, Urbana, IL, February 14, 2012.
- 88. Schmidt, C.E., "Engineering Advanced Materials for Neural Regeneration", <u>Department of Materials Science and Engineering, University of Tennessee</u>, Knoxville, TN, March 6, 2012.
- 89. Schmidt, C.E., "Electrically Conducting Polymers for Neural Tissue Engineering", <u>Keystone Symposium</u>, <u>Regenerative Tissue Engineering and Transplantation</u>, Breckenridge, CO, April 1 6, 2012.
- 90. Schmidt, C.E. (invited panelist), "Crosscutting Topics in Regenerative Medicine: Stone Soup for Organ Regeneration", Keystone Symposium, Regenerative Tissue Engineering and Transplantation, Breckenridge, CO, April 1 6, 2012.
- 91. Schmidt, C.E., "Electroactive Materials for Neural Regeneration", <u>Department of Biomedical Engineering</u>, <u>The University of Florida</u>, Gainesville, FL, May 14, 2012.
- 92. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>Department of Biomedical Engineering</u>, <u>Boston University</u>, Boston, MA, June 4, 2012.
- 93. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>Department of Biomedical Engineering</u>, <u>Yale University</u>, New Haven, CT, Oct. 11, 2012.
- 94. Schmidt, C.E., "Electrically Conducting Polymers for Neural Engineering", <u>Biomedical Engineering Society (BMES)</u>
  <u>Annual Meeting</u>, Atlanta, GA, Oct. 26, 2012.
- 95. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>Department of Biomedical Engineering</u>, Texas A&M University, College Station, TX, Nov. 12, 2012.
- 96. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>Department of Chemical Engineering</u>, <u>The University of Utah</u>, Salt Lake City, UT, April 1, 2013.
- 97. Schmidt, C.E., "Neural Tissue Engineering", <u>Tissue Engineering Mini-Symposium</u>, <u>Institute for Cellular Engineering</u> and Regenerative Medicine (ICERM), The University of Florida, Gainesville, FL, April 11, 2013.
- 98. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>Department of Chemical Engineering</u>, <u>The University of Utah</u>, Salt Lake City, UT, April 1, 2013.
- 99. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>Department of Chemical Engineering</u>, <u>The University of Florida</u>, Gainesville, FL, September 30, 2013.
- 100. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>Department of Neuroscience, College of Medicine</u>, The University of Florida, Gainesville, FL, October 17, 2013.
- 101. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>Department of Chemical and Biomedical</u> Engineering, The University of South Florida, Tampa, FL, January 17, 2014.
- 102. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>Department of Biomedical Engineering</u>, The University of California, Irvine, CA, February 7, 2014.
- 103. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>Department of Biomedical Engineering</u>, <u>Carnegie Mellon University</u>, Pittsburgh, PA, March 3, 2014.
- 104. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", Whitney Marine Lab, St. Augustine, FL, April 11, 2014.
- 105. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>Department of Bioengineering</u>, <u>University of California, Riverside</u>, Riverside, CA, May 22, 2014.

- 106. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>Department of Biomedical Engineering</u>, <u>University of North Carolina/NC State</u>, Chapel Hill, NC, September 5, 2014.
- 107. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>School of Biological and Health Systems Engineering</u>, Arizona State University, Tempe, AZ, September 19, 2014.
- 108. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>Department of Chemical & Biochemical Engineering</u>, The University of Iowa, Iowa City, IA, October 8, 2014.
- 109. Schmidt, C.E., "Regenerating Nerve Tissue and Managing Scar Tissue in Wound Healing", Invited Speaker at Special Plenary Session: "Overcoming Challenges and Obstacles for Clinical Translation: From Bench to Bedside", Biomedical Engineering Society Annual Meeting, San Antonio, TX, October 23, 2014.
- 110. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>Department of Biomedical Engineering</u>, University of California, Davis, CA, January 8, 2015.
- 111. Schmidt, C.E., "Industrial Innovations in Biomaterials", Invited Speaker and Panelist, Chairs: A. Salamone and B. Ratner, Society for Biomaterials (SFB) Annual Meeting, Charlotte, NC, April 15, 2015.
- 112. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>Department of Biomedical Engineering</u>, Case Western Reserve University, Cleveland, OH, April 27, 2015.
- 113. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>Meinig School of Biomedical Engineering, Cornell University</u>, Ithaca, NY, September 10, 2015.
- 114. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>Department of Biomedical Engineering</u>, <u>University of Minnesota</u>, St. Paul, MN, September 28, 2015.
- 115. Schmidt, C.E., "Small, Simple Steps to Survival and Success", <u>Graduate Women in Biomedical Engineering Group, University of Minnesota</u>, St. Paul, MN, September 28, 2015.
- 116. Schmidt, C.E., "Engineering Advanced Materials for Nerve Regeneration", Plenary Speaker, <u>Third US-KOREA Joint Workshop in BME</u>, Biomedical Engineering Society (BMES) Annual Meeting, Tampa, FL, October 8-10, 2015.
- 117. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>Department of Chemical Engineering Centennial Lecture Series</u>, <u>University of Texas at Austin</u>, Austin, TX, October 13, 2015.
- 118. Schmidt, C.E., "Bridging the Gap: Engineering New Pathways for Regenerating Nerves", UF ChE Alumni Professional Speakers Series, <u>Department of Chemical Engineering</u>, The University of Florida, October 28, 2015.
- 119. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>Department of Biomedical Engineering</u>, University of Wisconsin-Madison, Madison, WI, November 9, 2015.
- 120. Schmidt, C.E., "Engineering Materials to Heal the Body: A Focus on Nerve Tissue", <u>School of Biological & Physical</u> Sciences "STEMinar Series, Daytona State College, Daytona, FL, January 25, 2016.
- 121. Schmidt, C.E., "Engineering Materials to Heal the Body: A Focus on Nerve", Keynote for <u>Junior Science, Engineering and Humanities Symposium</u>, University of Florida, Gainesville, FL, January 31, 2016.
- 122. Schmidt, C.E., "Making a Difference: The Innovation Life Cycle", Invited Speaker and Panelist, <u>A Celebration of Innovation</u>, The University of Florida, March 8, 2016.
- 123. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>Weinbaum Distinguished Lecture</u>, Department of Biomedical Engineering, Rensselaer Polytechnic Institute (RPI), Troy, NY, April 14, 2016.
- 124. Schmidt, C.E., "Small, Simple Steps to Survival and Success", <u>Women in Biomedical Engineering Group, RPI</u>, Troy, NY, April 14, 2016.
- 125. Schmidt, C.E. "Balancing Academic Pressures & Research Creativity: It's All About T&P (and, that's not Tenure and Promotion!)", Invited Speaker and Panelist for "Round Table Panel Discussion: Life-long learning", World Biomaterials Congress, Montreal, Canada, May 20, 2016.
- 126. Schmidt, C.E. "Engineering electroactive scaffolds for neural regeneration applications", Invited Keynote for New Frontiers Symposium "Bioelectrical field: from petri dish to tissue regeneration", <u>World Biomaterials Congress</u>, Montreal, Canada, May 22, 2016.
- 127. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>Department of Materials Science and Engineering, University of Michigan</u>, Ann Arbor, MI, September 8, 2016.
- 128. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>Department of Bioengineering</u>, <u>Rice</u> University, Houston, TX, September 19, 2016.
- 129. Schmidt, C.E., "ECM-Based Scaffolds for Neural Regeneration", <u>TERMIS Guest Symposium at the 2016 biennial American Society for Matrix Biology (ASMB) Meeting</u>, St. Petersburg, FL, November 13, 2016.
- 130. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>Department of Biomedical Engineering</u>, <u>University of Washington</u>, Seattle, WA, January 19, 2017.
- 131. Schmidt, C.E., "Engineering Materials for Functional Nerve Regeneration", <u>Department of Chemical and Biological Engineering, Colorado School of Mines</u>, Golden, CO, April 14, 2017.
- 132. Schmidt, C.E., "Biomaterials for Nerve Repair Therapies", <u>Department of Biomedical Engineering Distinguished Lecture Series</u>, <u>Worcester Polytechnic Institute</u>, Worcester, MA, October 26, 2017.

- 133. Schmidt, C.E., "Biomaterials for Nerve Repair Therapies", Nano@Wayne Seminar, Wayne State University, Worcester, MA, December 5, 2017.
- 134. Schmidt, C.E., "Biomaterials for Nerve Repair Therapies", <u>Department of Biomedical Engineering</u>, <u>University of Georgia</u>, Athens, GA, January 25, 2018.
- 135. Schmidt, C.E., "Biomaterials for Nerve Repair Therapies", <u>Department of Biomedical Engineering</u>, <u>University of Utah</u>, Salt Lake City, UT, February 8, 2018
- 136. Schmidt, C.E., "Engineered Therapies for Nerve Repair", Invited Keynote Lecture, <u>Symposium on Regenerative</u> Engineering, Northwestern University, Evanston, IL, May 31, 2018.
- 137. Schmidt, C.E., "Biomedical Clinical Translation", Invited Talk, <u>BioMed: Research to Reality -- Discovery, Innovation, Commercialization, UF-University of South Florida Symposium</u>, Lakewood Ranch, FL, August 8, 2018.
- 138. Schmidt, C.E., "Challenges in Translating BME Technologies", Plenary Panelist, <u>Carnegie Mellon Forum on Frontiers in Biomedical Engineering</u>, <u>Carnegie Mellon University</u>, Pittsburgh, PA, September 2, 2018.
- 139. Schmidt, C.E., "Engineering Natural-Based Biomaterials for Functional Nerve Regeneration", <u>Department of Biomedical Engineering, University of Arkansas</u>, Fayetteville, AR, September 28, 2018.
- 140. Schmidt, C.E., "Engineering Natural-Based Biomaterials for Functional Nerve Regeneration", <u>Department of Chemical Engineering</u>, The Ohio State University, Columbus, OH, November 29, 2018.
- 141. Schmidt, C.E., "Engineering Materials for Clinical Nerve Repair, and Other Applications Along the Way", <u>Clemson</u> Award for Applied Research Presentation, Society for Biomaterials Annual Meeting, Seattle, WA, April 4, 2019.
- 142. Schmidt, C.E., "Conversations with Women Leaders in the Life Sciences", Plenary Panelist, <u>BioFlorida Northeast</u> Chapter, University of Florida, Gainesville, FL, June 27, 2019.
- 143. Schmidt, C.E., "Engineering Natural-Based Biomaterials for Functional Nerve Regeneration", <u>Department of Biomedical Engineering, Washington University in St. Louis</u>, St. Louis, MO, August 28, 2019.
- 144. Schmidt, C.E., "Engineering Advanced Materials for Neural Regeneration", <u>Leaders in Biomaterials (invited session)</u>, <u>American Institute of Chemical Engineers Annual Meeting</u>, Orlando, FL, November 11, 2019.
- 145. Schmidt, C.E., "Engineering Materials for Clinical Application", <u>Meet the Innovators: Transforming the Future through Chemical Engineering (invited speaker and panelist)</u>, <u>American Institute of Chemical Engineers Annual Meeting</u>, Orlando, FL, November 12, 2019.
- 146. Schmidt, C.E., "Engineering Advanced Materials for Neural Regeneration", <u>Soft Matter Applied Research and Technology Symposium</u>, <u>University of Florida</u>, Gainesville, FL, January 31, 2020.
- 147. Schmidt, C.E., "Engineering Advanced Materials for Neural Regeneration", <u>Department of Biomedical Engineering</u>, <u>University of Pittsburgh</u>, Virtual Platform, September 24, 2020.
- 148. Schmidt, C.E., "Engineering Advanced Materials for Neural Regeneration and Wound Repair", <u>Tissue Talks Seminar Series, Columbia University</u>, Virtual Platform, February 3, 2021.
- 149. Schmidt, C.E., "Picture a Scientist: Building Diversity in Academia", Invited Speaker and Panelist, <u>Spring Plenary Symposium</u>, <u>Pitt Senate Research Committee</u>, <u>University of Pittsburgh</u>, Virtual Platform, April 8, 2021.
- 150. Schmidt, C.E., "Engineering Advanced Materials for Neural Regeneration", <u>Department of Biomedical Engineering</u>, University of Delaware, Virtual Platform, April 16, 2021.
- 151. Schmidt, C.E., "Engineering Advanced Materials for Neural Regeneration and Wound Repair", Business and Entrepreneurship in Medicine (BEIM) interest group, <u>College of Medicine</u>, <u>University of Florida</u>, Virtual Platform, May 17, 2021.
- 152. Schmidt, C.E., "Engineering Advanced Materials for Neural Regeneration", <u>Department of Biomedical Engineering</u>, Columbia University, Virtual Platform, May 21, 2021.
- 153. Schmidt, C.E., "Engineering Advanced Materials for Neural Regeneration", <u>Axogen 20<sup>th</sup> Anniversary Celebration Symposium</u>, Tampa, FL, May 16, 2022.
- 154. Schmidt, C.E., "Engineering Advanced Materials for Neural Regeneration", <u>Alan J. Hunt Memorial Lecture</u>, <u>Department of Biomedical Engineering, University of Michigan</u>, Ann Arbor, MI, Nov. 18, 2022.
- 155. Schmidt, C.E., "Amplifying Voices", Plenary Speaker, <u>Pierre Galletti Award Presentation</u>, <u>AIMBE Annual Meeting</u>, Arlington, VA, March 26, 2023.
- 156. Schmidt, C.E., "Amplifying Voices", Plenary Speaker, <u>Diversity Award Presentation (UF BME Representative)</u>, BMES Annual Meeting, Seattle, WA, October 12, 2023.
- 157. Schmidt, C.E. (panelist), "Artificial Intelligence (AI) in Biomedical Engineering (BME) Education", <u>BMES Annual Meeting</u>, Seattle, WA, October 12, 2023.
- 158. Schmidt, C.E., "Engineering Materials for Clinical Nerve Repair, and Other Applications Along the Way", Plenary Speaker, <u>Academy of Science Engineering and Medicine of Florida (ASEMFL) Annual Meeting</u>, Tampa, FL, November 4, 2023.
- 159. Schmidt, C.E., "Engineering Advanced Materials for Neural Regeneration", <u>BME Distinguished Seminar Speaker Series, University of California Irvine</u>, Irvine, CA, October 27, 2023.

- 160. Schmidt, C.E., "Engineering Materials for Clinical Nerve Repair, & Other Applications Along the Way", <u>UF</u>
  <u>Distinguished Professor Lecture Series, University of Florida, Gainesville, FL, November 16, 2023.</u>
- 161. Schmidt, C.E., "Engineering Advanced Materials for Neural Regeneration", <u>Department of Biomedical Engineering</u> Distinguished Seminar Series, University of Texas, Dallas, TX, December 1, 2023.
- 162. Schmidt, C.E., "Engineering Advanced Materials for Neural Regeneration", <u>Department of Biomedical Engineering Seminar Series</u>, Georgia Institute of Technology, Atlanta, GA, February 5, 2024.
- 163. Schmidt, C.E., "Engineering Materials for Clinical Nerve Repair, and Other Applications Along the Way", Plenary Speaker, <u>Athanasiou Medal of Excellence in Translational Bioengineering Lecture, Biomedical Engineering Society</u> (BMES) Annual Meeting, Baltimore, MD, October 25, 2024.

# **TECHNICAL CONFERENCE PRESENTATIONS:** (\*denotes UG student)

- 1. Schmidt, C.E. [speaker], A.F. Horwitz, D.A. Lauffenburger, M.P. Sheetz. Integrin-Cytoskeleton Interactions in Migrating Fibroblasts are Asymmetric, Dynamic and Regulated (Talk & Poster). Gordon Research Conferences: "Cell Contact and Adhesion". Andover, NH. June 1993.
- 2. Schmidt, C.E. [speaker], A.F. Horwitz, D.A. Lauffenburger. Integrin-Cytoskeleton Interactions in Migrating Fibroblasts are Asymmetric and Dynamic. <u>6th Annual NIH Cell and Molecular Biology / Molecular Biophysics Research Symposium</u>. Beckman Institute, Urbana, IL. May 1993.
- 3. Schmidt, C.E. [speaker], A.F. Horwitz, D.A. Lauffenburger. Integrin-Cytoskeleton Interactions in Migrating Fibroblasts. Biomedical Engineering Society (BMES) Annual Meeting. Memphis, TN. October 1993.
- 4. Schmidt, C.E. [speaker], A.F. Horwitz, D.A. Lauffenburger. Adhesion Receptor Dynamics in Migrating Fibroblasts. American Institute of Chemical Engineers (AIChE) Annual Meeting. San Francisco, CA. November 1994.
- 5. Schmidt, C.E. [presenter], V.R. Shastri, T.-H. Kim, J.P. Vacanti, R. Langer. Biomaterials for Neural Regeneration. <u>Keystone Conference on Tissue Engineering</u>. Taos, NM. January 1996.
- 6. Schmidt, C.E. [speaker], V.R. Shastri, J.P. Vacanti, R. Langer. Biomaterials for Stimulating Nerve Regeneration. <u>5th</u> World Congress of Chemical Engineering. San Diego, CA. June 1996.
- 7. Schmidt, C.E. [speaker], V.R. Shastri, J.P. Vacanti, R. Langer. Electrically Conducting Polymers for Neural Tissue Engineering. Workshop on Biomaterials and Tissue Engineering, Hilton Head, SC. February 1997.
- 8. Schmidt, C.E. [speaker], E.J. Furnish, J.A. Fischbeck. Cell and Tissue Engineering. <u>10th Annual Cellular and Molecular Biology Retreat</u>, University of Texas at Austin, Bandera, TX. October 1997.
- 9. Fischbeck, J.A. [presenter], D. Hern, J. Ranieri, C.E. Schmidt. Genetically Modified Xenogeneic Endothelium for Tissue Engineered Vascular Grafts (poster), <u>American Institute of Chemical Engineers (AIChE) Annual Meeting</u>. Los Angeles, CA. November 1997.
- 10. Schmidt, C.E. [speaker], V.R. Shastri, E.J. Furnish, R. Langer. Electrical Stimulation of Neurite Outgrowth and Nerve Regeneration. <u>17th Annual Southern Biomedical Engineering Conference</u>, San Antonio, TX. February 1998.
- 11. Schmidt, C.E. [speaker], Electrical Stimulation of Neurite Outgrowth and Nerve Regeneration. <u>16th Annual Meeting of the Houston Society for Engineering in Medicine and Biology</u>, Houston, TX. April 1998.
- 12. Furnish, E.J., J. Collier, C.E. Schmidt [speaker]. Electrical Stimulation of Neurite Outgrowth. <u>24th Annual Meeting of</u> the Society for Biomaterials, San Diego, CA. April 1998.
- 13. Schmidt, C.E. [speaker], Neural Tissue Engineering ⇔ Actin-Based Growth Cone Motility. <u>Conference on Breakthroughs in Ultraspectroscopy</u> and <u>Ultramicroscopy</u>, University of Texas at Austin, April 1999.
- 14. Collier, J.H., J.P. Camp, T.W. Hudson, C.E. Schmidt [presenter]. Polypyrrole/Hyaluronic Acid Composite Materials for Nerve Repair (poster). Gordon Conference: Tissue Engineering, Biomaterials, Biocompatibility. July 18-23, 1999.
- 15. Furnish, E.J. [presenter], C.C. Cunningham, J. Käs, C.E. Schmidt. Overexpression of Gelsolin in PC12 Cells to Enhance Neurite Outgrowth (poster). <u>AIChE Annual Meeting</u>, Dallas, TX, Nov.1999.
- 16. Rivers, T.J. [presenter], C.E. Schmidt. Synthesis of a Novel Biodegradable, Electrically Conducting Polymer for Nerve Regeneration Applications (poster). 18th Annual Meeting of the Houston Society for Engineering in Medicine and Biology. February 10-11, 2000.
- 17. Furnish, E.J. [speaker], C.C. Cunningham, J. Käs, C.E. Schmidt. Overexpression of Gelsolin in PC12 Cells to Enhance Neurite Outgrowth. 18th Annual Meeting of the Houston Society for Engineering in Medicine and Biology. February 10-11, 2000.
- 18. Furnish, E.J. [speaker], C.C. Cunningham, J. Käs, C.E. Schmidt. Enhanced Neurite Outgrowth by Overexpression of Gelsolin in Nerve Cells. <u>Center for Nonlinear Dynamics Seminar</u>, Austin, TX. Sept. 2000.
- 19. Rivers, T.J. [speaker], C.E. Schmidt. Synthesis of a Novel Biodegradable, Electrically Conducting Polymer for Biomedical Applications. <u>Biomedical Engineering Society (BMES) Annual Fall Meeting</u>. Seattle, WA. Oct. 2000.
- 20. Furnish, E.J. [speaker], C.C. Cunningham, J. Käs, C.E. Schmidt. Enhancing Neurite Outgrowth by Genetically Manipulating the Actin Cytoskeletal Migratory Machinery. <u>BMES Annual Fall Meeting</u>. Seattle, WA. Oct. 2000.

- 21. Korgel, B.A. [speaker], J. Winter, C.E. Schmidt. Directed Interfacing of Neurons and Semiconductors Using Quantum Dots Functionalized with Biological Recognition Molecules. <u>AIChE Annual Meeting</u>. Los Angeles, CA. Nov. 2000.
- 22. Schmidt, C.E. [speaker], J. Baier, E. Askenasy, J. Collier. Electrically Conducting Biomaterials Functionalized with Angiogenic Factors. AIChE Annual Meeting. Los Angeles, CA. Nov. 2000.
- 23. Furnish, E.J. [speaker], C.C. Cunningham, J.A. Käs, C.E. Schmidt. Remodeling the Actin Cytoskeleton to Enhance Neurite Outgrowth. AIChE Annual Meeting. Los Angeles, CA. Nov. 2000.
- 24. Rivers, T.J. [speaker], C.E. Schmidt. Synthesis of a Novel Biodegradable, Electrically Conducting Polymer for Biomedical Applications. AIChE Annual Meeting. Los Angeles, CA. Nov. 2000.
- 25. Rivers, T.J. [speaker], C.E. Schmidt. Synthesis of a Novel Biodegradable, Electrically Conducting Polymer for Biomedical Applications. <u>Materials Research Society (MRS) Annual Meeting</u>. Boston, MA. Dec. 2000.
- 26. Baier, J.M. [presenter], C.E. Schmidt. Hyaluronan Hydrogels as Angiogenic Tissue Engineering Scaffolds (poster). 19th Annual Meeting of the Houston Society for Engineering in Medicine and Biology. Houston, TX. February 2001.
- 27. Winter, J. [speaker], T. Liu, C.E. Schmidt, B.A. Korgel. Biomolecule-Directed Interfacing between Semiconductor Quantum Dots and Nerve Cells. 19th Annual Meeting of the Houston Society for Engineering in Medicine and Biology. Houston, TX. February 2001.
- 28. Furnish, E.J., C.E. Schmidt [presenter]. Mechanisms of Neurite Outgrowth: Role of Gelsolin (poster). Whitaker Investigator's Conference, La Jolla, CA August 9, 2001.
- 29. Hudson, T.W. [speaker], S. Liu, C.E. Schmidt. Engineering an Acellular Nerve Graft Via Detergent Processing. <u>BMES Annual Fall Meeting</u>. Durham, NC. Oct. 2001.
- 30. Baier, J.M. [speaker], G-Y Hwang, C.E. Schmidt. Angiogenic Hyaluronan Hydrogel Scaffolds for Tissue Regeneration. BMES Annual Fall Meeting. Durham, NC. Oct. 2001.
- 31. Hudson, T.W. [speaker], S. Liu, C.E. Schmidt. Processing of Nerve Tissue to Create Natural Biomaterial Grafts. <u>AIChE Annual Meeting</u>. Reno, NV. Nov. 2001.
- 32. Baier, J.M. [speaker], G-Y Hwang, C.E. Schmidt. Hyaluronan Hydrogel Scaffolds Designed for Tissue Regeneration. AIChE Annual Meeting. Reno, NV. Nov. 2001.
- 33. Winter, J.O. [speaker], C.E. Flynn, T.S. Liu, A.M. Belcher, B.A. Korgel, C.E. Schmidt. Semiconductor-Neural Interfaces. Second Joint EMBS/BMES Meeting, Houston, TX, Oct. 2002.
- 34. Sanghvi, A.B. [speaker], K.P.H Miller, A. Belcher, C.E. Schmidt. Fabrication of Novel Interactive Biomaterials Via Peptide Integration for Tissue Engineering Applications. <u>Second Joint EMBS/BMES Meeting</u>, Houston, TX, Oct. 2002.
- 35. Baier (Leach), J.M. [speaker], C.W. Patrick, Jr., C.E. Schmidt. Directing Tissue Regeneration via Hyaluronic Acid Hydrogel Scaffolds. <u>Second Joint EMBS/BMES Meeting</u>, Houston, TX, Oct. 2002.
- 36. Sanghvi, A.B. [presenter], K.P.H Miller, A. Belcher, C.E. Schmidt. Selection of Novel Polymer-Specific Peptides Using Phage Display (poster) 6th New Jersey Symposium on Biomaterials Science. Somerset, NJ. Oct. 2002.
- 37. Winter, J.O. [speaker], C. Flynn, T.S. Liu, A. Belcher, B. Korgel, C.E. Schmidt. Cell-Nanoparticle Interfaces Mediated by Biomolecular Recognition Molecules. <u>AIChE Annual Meeting</u>. Indianapolis, IN. Nov. 2002.
- 38. Sanghvi, A.B. [speaker], K.P.H Miller, A. Belcher, C.E. Schmidt. Selection of Novel Polymer-Specific Peptides Using Phage Display. AIChE Annual Meeting. Indianapolis, IN. Nov. 2002.
- 39. Baier (Leach), J.M. [speaker], C.W. Patrick, C.E. Schmidt. Angiogenic Hyaluronic Acid Hydrogels for Neural Tissue Engineering. <u>AIChE Annual Meeting</u>. Indianapolis, IN. Nov. 2002.
- 40. Sanghvi, A. B. [speaker], K. P. H. Miller, A. M. Belcher, C. E. Schmidt. "Fabrication of Novel Biomimetic Polymers Using Combinatorial Peptide Screening Technologies", <u>BMES Annual Fall Meeting</u>, Nashville, TN, October 1-4, 2003. [Winner graduate student travel award]
- 41. Winter, J. O. [speaker], BA Korgel, CE Schmidt. "Surface-Functionalized Quantum Dots for Nerve Cell Binding and Stimulation", <u>BMES Annual Fall Meeting</u>, Nashville, TN, Oct. 1-4, 2003. [Winner graduate student research award]
- 42. Winter, J. O. [speaker], B. A. Korgel, C. E. Schmidt. "Surface-Functionalized Quantum Dots for Nerve Cell Binding and Stimulation", <u>AICHE Annual Fall Meeting</u>, San Francisco, CA, Nov.17 22, 2003.
- 43. Leach, J. B. [speaker], C. E. Schmidt, "Photocrosslinkable Hyaluronic Acid Hydrogels for Tissue Engineering", Symposium F: Biomaterials for Tissue Engineering, MRS Annual Fall Meeting, Boston MA, Dec. 1-5, 2003.
- 44. Sanghvi, A. B. [speaker], K. P. H. Miller, A. M. Belcher, C. E. Schmidt, "Fabrication of Novel Biomimetic Polymers Using Combinatorial Peptide Screening Technologies", Symposium H: Biological and Bio-Inspired Materials Assembly, MRS Annual Fall Meeting, Boston MA, Dec. 1-5, 2003.
- 45. Winter, J. O. [presenter], B. A. Korgel, C. E. Schmidt. "Optimization of Quantum Dot Nerve Cell Interfaces" (poster), Symposium N: Quantum Dots, Nanoparticles, and Nanowires, <u>MRS Annual Fall Meeting</u>, Boston MA, Dec. 1-5, 2003. [Winner GOLD graduate student research award]
- 46. Sanghvi, A. B. [speaker], K. P. H. Miller, A. M. Belcher, C. E. Schmidt, "Fabricating novel biomimetic polymers using combinatorial peptide screening technologies", <u>American Chemical Society National Meeting</u>, Anaheim, CA, March 28-April 1, 2004.

- 47. Gomez, N. [speaker], C.E. Schmidt, S. Chen "Studies on Competitive Responses in Neurons to Extracellular Cues Using Microfabricated Systems", <u>BMES Annual Fall Meeting</u>, Philadelphia, PA, October 13-16, 2004.
- 48. Sanghvi, A.B. [speaker], K. P-H Miller, A.M. Belcher, C.E. Schmidt. "Surface Functionalization of Polypyrrole Using Combinatorial Peptide Screening Technologies", <u>Society for Biomaterials</u>, Philadelphia, PA October, 2004.
- 49. Lundy, S. [speaker], S. Zawko, C. Deister, C.E. Schmidt. "Optimized Acellular Nerve Graft is Immunologically Tolerated and Supports Regeneration", <u>AICHE Annual Fall Meeting</u>, Austin, TX, Nov 7-12, 2004.
- 50. Bivens, K.A. [presenter], C.E Schmidt. "Hyaluronan Oligosaccharide Based Biomaterials for Peripheral Nerve Regeneration" (poster), <u>AICHE Annual Fall Meeting</u>, Austin, TX, Nov 7-12, 2004.
- 51. Gomez, N. [speaker], C.E. Schmidt "Studies on Competitive Responses in Neurons to Extracellular Cues Using Microfabricated Systems", <u>AICHE Annual Fall Meeting</u>, Austin, TX, Nov 7-12, 2004.
- 52. Deister, C. [presenter], C.E. Schmidt. "Neurotrophic Factor Combinations for Peripheral Nerve Regeneration" (poster), <u>AICHE Annual Fall Meeting</u>, Austin, TX, Nov 7-12, 2004.
- 53. Sanghvi, A.B. [speaker], K. P-H Miller, A.M. Belcher, C.E. Schmidt. "Surface Functionalization of Polypyrrole Using Combinatorial Peptide Screening Technologies", AICHE Annual Fall Meeting, Austin, TX, Nov 7-12, 2004.
- 54. Schmidt, C.E. [speaker]. "Tutorial on Neural Engineering", Advances in Biomaterials, Bionanotechnology, Biomimetic Systems & Tissue Engineering: Tutorial Session II, <u>AICHE Ann. Fall Mtg</u>, Austin, TX, Nov 7-12, 2004.
- 55. Winter, J.O. [speaker], N. Gomez, B.A. Korgel, C.E. Schmidt. "Biocompatible Quantum Dots for Electrical Stimulation of Neural Cells", <u>SPIE Photonics West</u>, San Jose, CA, Jan. 2005.
- 56. Zawko, S. [presenter], C.E. Schmidt. "Synthesis of a Photocrosslinked Hyaluronic Acid-Cyclodextrin Hydrogel" (poster). BMES Annual Fall Meeting, Baltimore, MD, Sept. 29 Oct. 1, 2005.
- 57. Gomez, N. [speaker], S. Chen, C.E. Schmidt. "Neuron Responses to Simultaneous and Competing Extracellular Cues". <u>BMES Annual Fall Meeting</u>, Baltimore, MD, Sept. 29 Oct. 1, 2005.
- 58. Deister, C. [speaker], C.E. Schmidt. "Neurotrophic Factor Combinations for Peripheral Nerve Regeneration". <u>BMES</u> Annual Fall Meeting, Baltimore, MD, Sept. 29 Oct. 1, 2005.
- 59. Bivens, K. [speaker], C.E. Schmidt. "Hyaluronan Oligosaccharides -- Bioactivity and Biomaterials". <u>BMES Annual Fall Meeting</u>, Baltimore, MD, Sept. 29 Oct. 1, 2005.
- 60. Gomez, N. [speaker], S. Chen, C.E. Schmidt. "Neuron Responses to Simultaneous and Competing Extracellular Cues". MRS Annual Fall Meeting, Boston, MA, Nov. 27 Dec. 1, 2005.
- 61. Bivens, K. [presenter], C.E. Schmidt. "Hyaluronan Oligosaccharides -- Bioactivity and Biomaterials" (poster). Regenerate World Congress on Tissue Engineering and Regenerative Medicine, Pittsburgh, PA, April 24-27, 2006.
- 62. Deister, C [presenter], CE Schmidt. "Neurotrophic Factor Combinations for Peripheral Nerve Regeneration" (poster). Regenerate World Congress on Tissue Engineering and Regenerative Medicine, Pittsburgh, PA, Apr 24-27, 2006.
- 63. Seidlits, S. [presenter], J.B. Shear, C.E. Schmidt. "'Direct-Write' of Biologically Relevant Molecules into Three Dimensional, Submicron Structures" (poster). <u>Regenerate World Congress on Tissue Engineering and Regenerative Medicine</u>, Pittsburgh, PA, April 24-27, 2006.
- 64. Nickels, J.D. [presenter], F. Serna, J.W. Lee, C.E. Schmidt. "Carboxyl Functionalized Polypyrrole for Surface Modification in Tissue" (poster). Society for Biomaterials, Pittsburgh, PA, April 28-29, 2006.
- 65. Seidlits, S. [speaker], J.B. Shear, C.E. Schmidt. "'Direct-Write' of Biologically Relevant Molecules into Three Dimensional, Submicron Structures" (poster). 2nd International Conference: Strategies in Tissue Engineering, sponsored by TERMIS. Wurzburg, Germany, May 31-June 2, 2006.
- 66. Khaing, Z.Z. [speaker], C.E. Schmidt. "Neuroscience Meets Engineering" <u>Graduate Student Retreat hosted by the Department of Neurobiology at UT-Austin</u>, Kerrville, TX. September 8, 2006.
- 67. Zawko, S. [speaker], C.E. Schmidt. "Preparation of a methacryloyl-beta-cyclodextrin monomer for hydrogel functionalization". ACS Annual Fall Meeting, San Francisco, CA, Sep. 10-14, 2006.
- 68. Seidlits, S.K. [speaker], J.B. Shear, C.E. Schmidt. "'Direct-Write' of 3D, Submicron Biomolecule Structures in Hydrogel Materials". <u>Biomedical Engineering Society Annual Meeting</u>, Chicago, IL, Oct. 11-14, 2006.
- 69. Khaing, Z.Z. [speaker], C.E. Schmidt. "Acellular Grafts for Spinal Cord Injuries" <u>Current Concepts in Spine</u> Regeneration sponsored by Seton Family of Hospitals, Austin TX. November 4, 2006.
- 70. Guimard, N. K. [presenter], J.L. Sessler, C.E. Schmidt "A Novel Electrically Conducting, Biocompatible, Biodegradable Polymer for Nerve Regeneration" (poster). <u>8th New Jersey Symposium Biomaterials Science:</u> Therapeutic and Diagnostic Applications of Biomaterials, New Brunswick, NJ, Nov. 8-10, 2006.
- 71. Zawko, S. [speaker], C.E. Schmidt. "Photocured Hyaluronic Acid Films Functionalized with Cyclodextrin". <u>AICHE Annual Meeting</u>, San Francisco, CA, Nov. 12-17, 2006.
- 72. Guimard, N.K. [speaker], J.L. Sessler, C.E. Schmidt "Synthesis of a Novel Electrically Conducting, Biocompatible, Biodegradable Polymer for Biomedical Applications". MRS Annual Fall Meeting, Boston, MA, Nov. 27, 2006.
- 73. Suri, S. [presenter], C.E. Schmidt. "Photocrosslinkable Interpenetrating Networks of Collagen and Hyaluronic Acid for Neural Tissue Engineering" (poster). 24<sup>th</sup> Annual <u>Houston Society of Engineering in Medicine and Biology Conference (HSEMB)</u>, Houston, TX. Feb. 8-9, 2007.

- 74. Smith\*, J. [speaker], Z. Khaing, C.E. Schmidt. "Bioengineering grafts for spinal cord injury", 24<sup>th</sup> Annual <u>Houston Society of Engineering in Medicine and Biology Conference (HSEMB)</u>, Houston, TX. Feb. 8-9, 2007.
- 75. Fechtel\*, B. [presenter]., Z. Bevis, Z. Khaing, C. Schmidt. "Behavioural Characterization of CNS Regeneration Using an Accellular Peripheral Nerve Graft" (poster). Biomedical Engineering Department, UT-Austin. May 4, 2007.
- 76. Bevis\*, Z.J. [presenter], Z. Khaing, C. Schmidt. "CNS regeneration Using Acellular Nerve Grafts" (poster). <u>Biomedical Engineering Department</u>, UT-Austin. May 4, 2007.
- 77. Smith\*, J. [presenter] Z.Z. Khaing, C.E. Schmidt. "Olfactory Ensheathing Glia and Spinal Cord Injuries" (poster). Biomedical Engineering Department, UT-Austin. May 4, 2007.
- 78. Kot\*, K. [presenter], J. Vanscoy\*, B. Fechtel\*, Z. Bevis\*, J. Smith\*, Z. Khaing, C.E. Schmidt. "Histological Analysis of Rat Spinal Cord after Transection" (poster). <u>Biomedical Engineering Department</u>, <u>UT-Austin</u>. May 4, 2007.
- 79. Vanscoy\*, J. [presenter], K. Kot\*, Z. Khaing, C.E. Schmidt. "Spinal Cord Injury: Histological Analysis of Regeneration" (poster). <u>Biomedical Engineering Department, UT-Austin</u>. May 4, 2007.
- 80. McCarty\*, K.R. [presenter], S.K. Seidlits, R.R. Rosenberger\*, J.M. Heisler\*, C.T. Drinnan, L.J. Suggs, C.E. Schmidt. "Modification of hyaluronic acid biomaterials" (poster), 24<sup>th</sup> Annual <u>Houston Society of Engineering in Medicine and Biology Conference (HSEMB)</u>, Houston, TX. Feb. 8-9, 2007.
- 81. Rosenberger\*, R.R. [speaker], S.K. Seidlits, C.T. Drinnan, J.M. Heisler\*, L.J. Suggs, C.E. Schmidt. "Photocrosslinkable fibronectin-hyaluronic acid 3D scaffolds", 24<sup>th</sup> Annual <u>Houston Society of Engineering in Medicine and Biology</u> Conference (HSEMB), Houston, TX. Feb. 8-9, 2007.
- 82. Suri, S. [speaker], C.E. Schmidt. "Synthesis and Characterization of a Photocrosslinkable Collagen-Hyaluronan Interpenetrating Network for Neural Tissue Engineering: An ECM mimic". <u>Society of Biomaterials Annual Meeting</u>, Chicago, IL, Apr. 18-21, 2007.
- 83. Lee, J. Y. [presenter], N. Gomez, J. Nickels, C.E. Schmidt "Polypyrrole Micropatterns for Electrical and Topological Stimulation of Hippocampal Neurons" (poster). <u>Society of Biomaterials Annual Meeting</u>, Chicago, IL, April 2007.
- 84. Nickels, J.D. [presenter], D. Hunter\*, C.E. Schmidt. "Affinity Peptide for Surface Modification of Polypyrrole" (poster). Society of Biomaterials Annual Meeting, Chicago, IL, Apr. 18-21, 2007.
- 85. Rosenberger\*, R.R. [presenter], C.T. Drinnan, S.K. Seidlits, J.M. Heisler\*, L.J. Suggs, C.E. Schmidt. "Photocrosslinkable Fibronectin-Hyaluronic Acid Hydrogels as 3D Scaffolds" (poster). Society of Biomaterials Annual Meeting, Chicago, IL, Apr. 18-21, 2007.
- 86. Suri, S. [speaker], J.S. Tang, C.E. Schmidt. "Synthesis and Characterization of a Photocrosslinkable Collagen-Hyaluronan Interpenetrating Network for Neural Tissue Engineering: An ECM mimic". <u>Biomedical Engineering</u> Society Annual Meeting, Los Angeles, CA, Sept. 24-29, 2007.
- 87. Guimard, N.K. [presenter], J.L. Sessler, C.E. Schmidt. "Design of a Novel Conducting, Cytocompatible Polymer with Degradable Linkages for Nerve Regeneration" (poster). <u>Biomedical Engineering Society Annual Meeting</u>, Los Angeles, CA, Sept. 24-29, 2007.
- 88. Seidlits, S.K. [speaker], J.B. Shear, C.E. Schmidt. "'Direct-Write' of 3D, Submicron Biomolecule Structures in Hydrogel Materials". <u>Biomedical Engineering Society Annual Meeting</u>, Los Angeles, CA, Sept. 24-29, 2007.
- 89. Guimard, N.K. [presenter], J.L. Sessler, C.E. Schmidt. "An Electroactive, Degradable Thiophene and Ester-Based Copolymer for Neural Applications" (poster). MRS Annual Fall Meeting, Boston, MA, Nov. 25 30, 2007.
- 90. Forciniti, L. [presenter], C.E. Schmidt, M. Zaman. "A Computational approach describing the distinct effects topographical and chemical Cues have on axogenesis" (poster). <u>52nd Annual Meeting of the Biophysical Society and 16th IUPAB International Biophysics Congress</u>, Long Beach CA, February 2-6, 2008.
- 91. Hyunth\*, S. [presenter], S. Suri, C.E. Schmidt. "Collagen-Hyaluronic Acid Photocrosslinkable Interpenetrating Networks for Tissue Engineering" (poster). <u>The Houston Society for Engineering in Medicine and Biology 2008 Annual meeting</u>, Houston, TX, February 7-8, 2008.
- 92. Fechtel\*, B [speaker], Z. Bevis\*, J. Smith\*, J. Vanscoy\*, K. Kot\*, Z. Khaing, C.E. Schmidt. "CNS Regeneration Using Acellular Nerve Grafts". The Houston Society for Engineering in Medicine and Biology, Houston, TX, Feb. 7-8, 2008.
- 93. Heisler\*, J.M. [presenter], S.K. Seidlits, M.A. Salmon\*, R.R. Rosenberger\*, C.E. Schmidt. "Photocrosslinkable, 3D Scaffolds Composed of Hyaluronic Acid and Fibronectin" (poster). <u>The Houston Society for Engineering in Medicine and Biology</u>, Houston, TX, February 7-8, 2008.
- 94. Rosenberger\*, R.R. [presenter], Seidlits, S.K., C.M. Massingill\*, Z.K. Khaing, C.E. Schmidt. "Effect of Substrate Stiffness on Neural Progenitor Differentiation" (poster) <u>The Houston Society for Engineering in Medicine and Biology</u>, Houston, TX, February 7-8, 2008.
- 95. Guimard, N.K. [speaker], J.L. Sessler, C.E. Schmidt. "Synthesis of an Electroactive Polymer with Degradable Linkages for Tissue Engineering Applications". <u>Am. Chemical Society National Meeting</u>, New Orleans, LA, April 6-10, 2008.
- 96. Guimard, N.K. [speaker], S.A. Zawko, C.E. Schmidt. "Covalent Surface Modification of Hyaluronic Acid Hydrogels for Biomedical Applications". <u>American Chemical Society National Meeting</u>, New Orleans, LA, April 6-10, 2008.

- 97. Byrne, J.D. [presenter], J. Fonner, L. Forciniti, H. Nguyen, Y.-F. Kou\*, J. Syeda-Nawaz\*, C.E. Schmidt. "Biocompatibility Implications of Polypyrrole Synthesis Techniques" (poster). <u>National Conference for Undergraduate Research</u>, Salisbury, MD, April 10-12, 2008.
- 98. Seidlits, S.K. [speaker], J.B. Shear, C.E. Schmidt. "3D Direct-write Modification of Hydrogels with Photocrosslinked, Bioactive Structures as Neural Scaffolds". <u>World Biomaterials Congress</u>, Amsterdam, Netherlands, May 28-Jun 1, 2008.
- 99. Khaing, Z.Z. [speaker], S. Seidlits, R. Grill, C.E. Schmidt. "Biological Properties of Hyaluronic Acid in Glail Scar Formation after SCI". National Neurotrauma Symposium, Orlando, FL. July 27-30, 2008.
- 100. Suri, S. [speaker], S. Zawko, Q. Trong\*, C.E. Schmidt. "Superswelling and Patterned Dual-Crosslinked Hyaluronic Acid Hydrogels: Zonal Distribution of Hydrogel Properties". <u>Society for Biomaterials Annual Meeting</u>, Atlanta, GA, Sep. 11-13, 2008.
- 101. Suri, S. [presenter], S. Zawko, Q. Trong\*, C.E. Schmidt. "Superswelling and Dual Crosslinked Hyaluronic Acid Hydrogels with Micro- and Macro-patterned Zonal Distribution of Hydrogel Properties" (poster). <u>Biomedical Engineering Society Annual Meeting</u>, St. Louis, MO, Oct. 1-4, 2008.
- 102. Forciniti, L. [speaker], C.E. Schmidt, M.H. Zaman. "Computational model provides insight into distinct responses of neurons to chemical & topographical cues". <u>Biomed. Engineering Society Ann. Meeting</u>, St. Louis, MO, Oct. 1-4, 2008.
- 103. Fonner, J.M. [speaker], C.E. Schmidt, P. Ren. "Development of a Molecular Mechanics Model for Chloride-Doped Polypyrrole". <u>Biomedical Engineering Society Annual Meeting</u>, Saint Louis, MO, Oct. 1-4, 2008.
- 104. Long, Su, D.P. Desai\* [presenter], K. Kumar, C.C. Chen, P. Ingram, C.E. Schmidt, X. Zhang. "Droplet-based microfluidic system for encapsulation and culture of neuron cells in micro-gel-particles" (poster). <u>MicroTas 2008: 12th</u> International Conference on Miniaturized Systems for Chemistry and Life Sciences, San Diego, CA, Oct.12 -16, 2008.
- 105. Khaing, Z.Z. [presenter], S. Seidlits, R. Grill, C.E. Schmidt. "Biological Properties of Hyaluronic Acid in Glail Scar Formation after SCI" (poster). <u>Society for Neuroscience Annual Meeting</u>, Wash. DC, November 15-19, 2008.
- 106. Khaing, Z.Z. [presenter], S.K. Seidlits, J. Vanscoy\*, R.J. Grill, C.E. Schmidt. "Biological properties of hyaluronic acid in glial scar formation after SCI" (poster). <u>Houston Society for Engineering in Medicine and Biology Annual Meeting</u>, Houston, TX, March 19-20, 2009.
- 107. Lee, J.Y. [presenter], C.E. Schmidt. "Electrochemical Coating of Hyaluronic Acid on Conducting Substrates for a Potential Neural Electrode Application (poster)". <u>Soc. Biomaterials Annual Mtg</u>, San Antonio, TX, April 22-25, 2009.
- 108. S. Suri [presenter], C.E. Schmidt. "Engineered Extracellular Matrix-Mimicking Hydrogels with Embedded Schwann Cells for Neural Tissue Engineering (poster)". Society for Biomaterials Ann. Meeting, San Antonio, April 22-25, 2009.
- 109. Spivey, E.C. [presenter], S. Seidlits, C.E. Schmidt, J.B. Shear. "Multiphoton Fabricated Biopolymer Matrices as Scaffolds for Neuronal Networks" (poster). Soc. for Biomaterials Ann. Meeting, San Antonio, TX, April 22-25, 2009.
- 110. Fonner, J.M. [speaker], C.E. Schmidt, P. Ren. "Development of a Molecular Mechanics Model for Chloride-Doped Polypyrrole". <u>Society for Biomaterials Annual Meeting</u>, San Antonio, TX, April 22-25, 2009.
- 111. Seidlits S.K. [presenter], Z.Z. Khaing, R.R. Rosenberger\*, J.E. Vanscoy\*, C.E. Schmidt. "Hyaluronic acid hydrogels with tunable material properties for the culture of ventral midbrain progenitors." (poster) <u>Society for Biomaterials</u> Annual Meeting, San Antonio, TX, April 22-25, 2009.
- 112. Khaing, Z.Z. [presenter], S.K. Seidlits, R.R. Rosenberger\*, J.D. Nickels, J.E. Vanscoy\*, C.E. Schmidt. "Culture of Ventral Midbrain Progenitors in Biocompatible 3D Hydrogels with Tunable Mechanical Properties" (poster). <u>American Society for Neural Therapy & Repair</u>, Clearwater FL, April 30-May 2, 2009.
- 113. Khaing, Z.Z. [presenter], J.E. Vanscoy\*, S.K. Seidlits, R.J. Grill, C.E. Schmidt. "Implantation of engineered hyaluronic acid scaffolds attenuate inflammatory cell response and glial scar after SCI" (poster). <u>American Society for Neural Therapy & Repair</u>, Clearwater FL, April 30-May 2, 2009.
- 114. Seidlits, S.K. [presenter], Z.Z. Khaing, R.R. Rosenberger\*, J.D. Nickels, K.M. Silverberg\*, J.E. Vanscoy\*, C.E. Schmidt. "Hyaluronic Acid Hydrogels with Tunable Material Properties for Neural Progenitor Culture" (poster). "Biomaterials & Tissue Engineering" Gordon Research Conference, Holderness, NH, July 19-24, 2009.
- 115. Lee, J.Y. [presenter], J.D. Nickels, C.E. Schmidt. "Electroconductive Pyrrole-Hyaluronic Acid Coatings for Passivating Electrodes" (poster) <u>Biomedical Engineering Society Annual Meeting</u>, Pittsburgh, PA, Oct 7-10, 2009.
- 116. Spivey, E.C. [speaker], S.K. Seidlits, C.E. Schmidt, J.B. Shear. "Tuning Mechanical and Chemical Properties of Multiphoton-Fabricated Cell Scaffolds". Biomedical Eng. Society Ann. Meeting, Pattsburgh, PA, Oct 7-10, 2009.
- 117. Khaing, Z.Z. [presenter], S.A. Geissler\*, T. Schallert, R.J. Grill, C.E. Schmidt. "Hyaluronan & Laminin Hydrogels for Repair Strategies after Cervical Spinal Cord Injury" (poster). 14th Ann. Neuroscience Symp., Austin TX, Jan. 16, 2010.
- 118. Khaing, Z. [speaker], S. Geissler, S. Aguilar, T. Schallert, C.E. Schmidt. "Hyaluronic Acid Scaffolds for Repair Strategies after Cervical Spinal Cord Injury". <u>Biomedical Eng. Society Ann. Meeting</u>, Austin, TX, Oct 6-9, 2010.
- 119. Seidlits, S. [speaker], E. Ritschdorff, D. Hernandez, E. Spivey, C.E. Schmidt, J. Shear. "Three-Dimensional Gradients of Immobilized Factors". <u>Biomedical Engineering Society Annual Meeting</u>, Austin, TX, Oct 6-9, 2010.

- 120. Milman\*,B. [speaker], Z. Khaing, S. Geissler, C.E. Schmidt. "Laminin modified hyaluronic acid hydrogels promote axonal regeneration following spinal cord injury in rats". <u>Biomedical Engineering Society Annual Meeting</u>, Austin, TX, Oct 6-9, 2010.
- 121. Spivey, E.[speaker], C.E. Schmidt, J.B. Shear. "Tuning Mechanical Properties of Multiphoton-Fabricated, Biological Macromolecular Scaffolds". <u>Biomedical Engineering Society Annual Meeting</u>, Austin, TX, Oct 6-9, 2010.
- 122. Thomas, R. [presenter], C.E. Schmidt. "Characterization of Salt Templated Hyaluronic Acid Hydrogels for Neural Wound Healing" (poster). <u>Biomedical Engineering Society Annual Meeting</u>, Austin, TX, Oct 6-9, 2010.
- 123. Milroy, C. [presenter], J. Lee, C.E. Schmidt. "Neural tissue engineering scaffolds with simultaneous nanofibrous, electrical, & neurotrophic cues" (poster). <u>Biomedical Engineering Society Annual Meeting</u>, Austin, TX, Oct 6-9, 2010.
- 124. Forciniti, L. [presenter], N. Guimard, S. Lee\*, C.E. Schmidt "Unique electrochemically synthesized polypyrrole:poly(lactic-co-glycolic acid) blends for biomedical applications" (poster). <u>Biomedical Engineering Society Annual Meeting</u>, Austin, TX, Oct 6-9, 2010.
- 125. Hernandez, D. [presenter], S. Seidlits, C.E. Schmidt, J. Shear. "Guiding Neuronal Cells in 3-Dimensions Using a Composite Scaffold System" (poster). <u>Biomedical Engineering Society Annual Meeting</u>, Austin, TX, Oct 6-9, 2010.
- 126. Nagao, R. [presenter], C.E. Schmidt. "Analysis of Cellularity and ECM Composition in a Decellularized Vascular Construct" (poster). <u>Biomedical Engineering Society Annual Meeting</u>, Austin, TX, Oct 6-9, 2010.
- 127. Fonner, J. [presenter], C.E. Schmidt, P. Ren "Selective Binding of Peptides on Conducting Polymers" (poster). Biomedical Engineering Society Annual Meeting, Austin, TX, Oct 6-9, 2010.
- 128. Mayes, S. [presenter], C.E. Schmidt "Nerve Injury Isolation: A novel anti-adhesion film from natural materials" (poster). <u>Biomedical Engineering Society Annual Meeting</u>, Austin, TX, Oct 6-9, 2010.
- 129. Forciniti, L. [presenter], J. Ybarra\*, J. Maldonado\*, C.E. Schmidt. "Investigating Schwann cell response on polypyrrole substrates upon electrical stimulation" (poster). <u>Biomedical Engineering Society Annual Meeting</u>, Austin, TX, Oct 6-9, 2010.
- 130. Khaing, Z. [presenter], S. Seidlits, K. Sliverberg\*, S. Geissler, C.E. Schmidt. "Tunable 3D Hyaluronic Acid Hydrogels for Differentiation of Progenitors into Dopamine Neurons" (poster). <u>Biomedical Engineering Society Annual Meeting</u>, Austin, TX, Oct 6-9, 2010.
- 131. Forciniti, L. [speaker], J. Ybarra\*, J. Maldonado\*, C.E. Schmidt. "Investigating Schwann cell response on polypyrrole substrates upon electrical stimulation". <u>AICHE Annual Meeting</u>, Salt Lake City, UT, Nov. 7-12, 2010.
- 132. Thomas, R. [speaker], C.E. Schmidt. "Characterization of Salt Templated Hyaluronic Acid Hydrogels for Neural Wound Healing". <u>AICHE Annual Fall Meeting</u>, Salt Lake City, UT, Nov. 7-12, 2010.
- 133. Thomas, R.C. [presenter], C.E. Schmidt. "Characterization of Salt Templated Hyaluronic Acid Hydrogels for Neural Wound Healing" (Poster). NSBE Region 5 Fall Regional Conference, New Orleans, LA, Nov 19-21, 2010.
- 134. Thomas, R.C. [presenter], C.E. Schmidt. "Natural Polymer Scaffolds to Treat Nerve Injury" (Poster). <u>American Institute for Medical and Biological Engineering</u>, Washington, DC, Feb 20-22, 2011.
- 135. Nguyen, H.T. [presenter], S. Sapp, S. Luebben, C.E Schmidt. "Electric field enhances axon length and directionality of dorsal root ganglia embedded in hydrogel on a conductive polypyrrole substrate" (poster). <u>Society for Biomaterials</u> Annual Meeting, Orlando, FL, April 13-16, 2011.
- 136. Spivey [presenter], E.C., C.E. Schmidt, J.B. Shear. "Tuning the Young's Modulus of Multiphoton-Fabricated Hydrogels" (poster). <u>Society for Biomaterials 2011 Biomaterials Day</u>, Texas A&M University, College Station, TX, May 2011.
- 137. Mayes, S. [speaker], D. Peterson, S. Aguilar, J. Scott\*, J. Davis\*, C. Brown, B. Coopwood, D. Lopez, C. Schmidt. "Designing the next generation adhesion barrier: a natural polymer-based film with robust handling properties". <u>Biomedical Engineering Society Annual Meeting</u>, Hartford, Conn., Oct. 12–15, 2011.
- 138. Davis, J. [presenter]\*, S. Mayes, C.E. Schmidt. "Methacrylation Methods of Hyaluronic Acid Based Biomaterials Alter Wound Healing Capabilities" (poster). <u>Biomedical Engineering Society Annual Meeting</u>, Hartford, Conn., Oct. 12–15, 2011.
- 139. Thomas, R.C. [presenter], J.G. Hardy, S.P. Modi\*, L. Forciniti, C.E. Schmidt. "The Incorporation of Electrically Conducting Polymer within Natural-Polymer Hydrogels" (poster). <u>AICHE Annual Meeting</u>, Minneapolis, MN, Oct. 19, 2011.
- 140. Thomas, R.C. [speaker], C.E. Schmidt. "The In Vitro Cellular Response to Three-Dimensional Hyaluronic Acid Hydrogels Templated by Self-Assembled Poragen Architecture" (poster). <u>AICHE Annual Meeting</u>, Minneapolis, MN, Oct. 20, 2011.
- 141. Khaing, Z.Z. [presenter], W. Alilain, H. Sharma, J. Silver, C.E. Schmidt. "Optimized acellular grafts support functional recovery after cervical spinal cord injury" (poster). <u>Society for Neuroscience Annual Meeting</u>, Washington DC, November 2011.
- 142. Khaing, Z.Z. [presenter], W. Alilain, J. Silver, C.E. Schmidt. "Optimized acellular grafts support functional recovery after cervical spinal cord injury" (poster). <u>International Symposium on Neural Regeneration (ISNR) Meeting</u>, Pacific Grove, CA, December 2011.

- 143. Khaing, Z.Z. [presenter], W. Alilain, J. Silver, C.E. Schmidt. "Optimized acellular grafts support functional recovery after cervical spinal cord injury" (poster). <u>Mission Connect Annual Symposium</u>, Houston, TX, December 2011.
- 144. Thomas, R.C. [presenter], B. McGhee\*, C.E. Schmidt. "Peptide Conjugation in Hyaluronic Acid Hydrogels" (poster). TERMIS-North America 2011 Conference and Exposition Houston, TX, December 12, 2011.
- 145. Thomas, R.C. [presenter], J.G. Hardy, S.P. Modi\*, C.E.Schmidt. "The Incorporation of Electrically Conducting Polymers within Biopolymer Hydrogels" (poster). <u>TERMIS-North America</u> 2011 Conference and Exposition, Houston, TX, December 12, 2011.
- 146. Thomas, R.C. [speaker], C.E. Schmidt. "Three-Dimensional Hyaluronic Acid Hydrogels Templated by Self-Assembled Poragen Architecture". <u>TERMIS-North America</u> 2011 Conference and Exposition, Houston, TX, December 13, 2011.
- 147. Milroy, C.A. [speaker], C. Ellison, C.E Schmidt. "Elastic Conductive Polymer Nanofiber Scaffolds for Tissue Regeneration". <u>Materials Research Society Spring Meeting</u>, San Francisco, CA, April 10, 2012.
- 148. Mayes, S.M. [speaker], J. Scott\*, S.V. Aguilar, D.L. Peterson, C.E. Schmidt. "Promoting nerve injury isolation and regeneration with a bilayer polysaccharide-based hydrogel film", <u>Seventh Annual Symposium on Biologic Scaffolds</u> for Regenerative Medicine, Napa Valley, CA, April 26 28, 2012.
- 149. Khaing, Z.Z. [presenter], T.A. Evans, D.S. Barkauskas\*, A.Y. Huang, C.E. Schmidt, J. Silver. "High resolution, real time imaging of regenerating axons in acellular peripheral nerve grafts in vivo" (poster). <u>Society for Neuroscience Annual Meeting</u>, New Orleans LA, October 2012.
- 150. Mayes, S., J. Scott\*, J. Davis\*, D. Peterson, S. Zawko, C. Schmidt, "Wound Healing Bilayer Polysaccharide-based Hydrogel Film", <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Atlanta, GA, Oct. 27, 2012.
- 151. Thomas, R.C. [presenter], P. Chung\*, C.E. Schmidt. "The Manipulation of Hydrogel Lumen Architecture for Potential Biomedical Applications" (poster), Biomedical Eng. Society (BMES) Ann. Meeting, Seattle, WA, Sept. 25-28, 2013.
- 152. Geissler, S.A. [presenter], A.L. Sabin\*, Z.Z. Khaing, C.E. Schmidt. "Directing Spinal Progenitor Cell Differentiation Toward Oligodendrocytes Using Multi-Component Hydrogels" (poster), <u>15th International Symposium on Neural Regeneration</u>, Pacific Grove, CA, Dec. 11-15, 2013.
- 153. Khaing, Z.Z. [presenter], J. Grau, C.E. Schmidt. "Hydrogels and Microparticles for BDNF Delivery after Spinal Cord Injury" (poster), 15th International Symposium on Neural Regeneration, Pacific Grove, CA, Dec. 11-15, 2013.
- 154. Cornelison, R.C. [presenter], C.E. Schmidt. "Extracellular Matrix Hydrogels Derived from optimized Acellular Peripheral Nerve" (poster), <u>Society for Biomaterials (SFB) Annual Meeting</u>, Denver CO, April 16-19, 2014.
- 155. Geissler, S. [presenter], A. Sabin\*, O. Gooden\*, R. Besser\*, C. Schmidt. "Directing NPC Differentiation with Natural Biomaterials: Implications for Spinal Cord Repair" (poster), <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, San Antonio, TX, October 22-25, 2014.
- 156. Geissler, S. [presenter], A. Sabin\*, O. Gooden\*, R. Besser\*, C. Schmidt. "Directing NPC Differentiation with Natural Biomaterials: Implications for Spinal Cord Repair" (poster), <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, San Antonio, TX, October 22-25, 2014.
- 157. Khaing, Z. [speaker], J. Park\*, J. Grau, K. Lee, A. Niemerski, C. Schmidt. "Local and Sustained Delivery of BDNF Mediates Spinal Learning after Injury", <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, San Antonio, TX, October 22-25, 2014.
- 158. Cornelison, C. [speaker], V. Nguyen\*, C. Schmidt. "Peripheral Nerve Extracellular Matrix Hydrogels for Treating Spinal Cord Injury", <u>American Institute of Chemical Engineers (AICHE) Annual Meeting</u>, Atlanta, GA, Nov. 18, 2014.
- 159. Wachs, R.A. [presenter], A. Hyti, R.C. Cornelison, C.E. Schmidt, "Development of a Tissue Specific Acellular Extracellular Matrix for Intervertebral Disc Regeneration Using a Gentle Decellularization Process" (poster), <u>Society for Biomaterials (SFB) Annual Meeting</u>, Charlotte, NC, April 14-18, 2015.
- 160. Lacko, C. [presenter], A. Garcia, C. Rinaldi, C.E. Schmidt. "Magnetically Templated Hydrogels for Peripheral Nerve Repair" (poster), 2015 Regenerative Medicine Workshop, Hilton Head, SC, May 13-16, 2015.
- 161. Wachs, R.A. [presenter], R.C. Cornelison, S. Xin, H. Huda\*, S.L. Porvasnik, C.E. Schmidt. "Development of Proteoglycan Rich Matrix for Nucleus Pulposus Regeneration" (poster), <u>2015 Regenerative Medicine Workshop</u>, Hilton Head, SC, May 13-16, 2015.
- 162. Cornelison, R.C. [presenter], J. Park\*, C.E. Schmidt. "Injectable Acellular Nerve Hydrogels to Promote Spinal Cord Regeneration" (poster), 2015 Regenerative Medicine Workshop, Hilton Head, SC, May 13-16, 2015.
- 163. Lacko, C. [presenter], A. Garcia, C. Rinaldi, C. Schmidt. "Magnetically Templated Hydrogels for Peripheral Nerve Repair" (poster), Biomedical Engineering Society (BMES) Annual Meeting, Tampa, FL, October 8-10, 2015.
- 164. Wachs, R.A. [presenter], S. Xin, H.I. Huda\*, E.N. Hoogenboezem\*, D.N. Stanton\*, S.L. Porvasnik, C.E. Schmidt. "Targeted Engineering of the Nucleus Pulposus Using a Tissue Specific Acellular Matrix" (poster), <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Tampa, FL, October 8-10, 2015.
- 165. Agrawal, N. [presenter], J. Park\*, S. Xin, K. Lee\*, J. Grau, C. Schmidt, Z. Khaing, A. Niemerski. "A Composite Hydrogel-Microparticle Platform for Controlled Delivery of BDNF after Spinal Cord Injury" (poster), <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Tampa, FL, October 8-10, 2015.

- 166. Cornelison, C., J. Park\*, R. Wachs [presenter], S. Wellman\*, C. Schmidt. "Harnessing Apoptosis for Enhanced Tissue Preservation during Decellularization" (poster), <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Tampa, FL, October 8-10, 2015.
- 167. Agrawal, N.K. [presenter], Y. Du, P. Allen, A. Ellington, Z.Z. Khaing, C.E. Schmidt. "Oligonucleotide Hybridized Hydrogels for Sustained Release of Aptamer Antagonists to Promote Axon Growth" (poster), <u>2016 Regenerative</u> Medicine Workshop Discovery Technologies and Translation, Hilton Head, SC, March 16-19, 2016.
- 168. Spearman, B.S. [presenter], R.A. Wachs, C.E. Schmidt. "Mechanically tuned Natural Hydrogel Scaffolds for Peripheral Nerve Regeneration" (poster), <u>2016 Regenerative Medicine Workshop Discovery Technologies and Translation</u>, Hilton Head, SC, March 16-19, 2016.
- 169. Mertz, M.W. [presenter], R.C. Cornelison, R.A. Wachs, M.B. Bunge, C.E. Schmidt. "Novel Injectable Acellular Peripheral Nerve Scaffold for Cell Delivery to Enhance Spinal Cord Regeneration After Injury" (poster), 2016 Regenerative Medicine Workshop Discovery Technologies and Translation, Hilton Head, SC, March 16-19, 2016.
- 170. Mertz, M.W. [speaker], R.C. Cornelison, R.A. Wachs, M.B. Bunge, C.E. Schmidt. "Novel Injectable Acellular Peripheral Nerve Scaffold for Cell Delivery to Enhance Spinal Cord Regeneration After Injury" (selected rapid fire oral presentation), 2016 Regenerative Medicine Workshop Discovery Technologies and Translation, Hilton Head, SC, March 16-19, 2016.
- 171. Hardy, J.G. [speaker], C. E. Schmidt, "Electroactive Polymers for Drug Delivery and Tissue Engineering." <u>Advanced Functional Polymer Meeting</u>, Galway, Ireland, March 23, 2015.
- 172. Hardy, J.G. [speaker], C. E. Schmidt, D. L. Kaplan "Electroactive biomaterials for drug delivery and tissue engineering." 12th International Conference on Materials Chemistry (MC12), York, UK, July 20, 2015.
- 173. Hardy, J.G. [speaker], C. E. Schmidt, D. L. Kaplan "Electroactive biomaterials for drug delivery and tissue engineering." Recent Appointees in Polymer Science Conference, Birmingham, UK, September 2, 2015.
- 174. Hardy, J.G. [speaker], C. E. Schmidt, D. L. Kaplan "Electroactive biomaterials for drug delivery and tissue engineering." Recent Appointees in Materials Science Conference, Warwick, UK, September 16, 2015.
- 175. Hardy, J.G. [speaker], C. E. Schmidt, "Electroactive biomaterials for drug delivery and tissue engineering." <u>RSC Biomaterials Chemistry Specialist Interest Group Annual Conference</u>, Birmingham, UK, January 7, 2016.
- 176. Desai, V. [presenter], C. Shafor, B. Spearman, R. Wachs, J. Graham, E. Atkinson, E. Nunamaker, K. Otto, C. Schmidt, J. Judy. "Design and Fabrication of a Scalable Tissue-Engineered Electronic Nerve Interface" (poster), 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS), Orlando, FL, August 17-20, 2016.
- 177. Spearman, B. [presenter], R. Wachs, V. Desai, C. Shafor, J. Graham, E. Atkinson, E. Nunamaker, K. Otto, C. Schmidt, J. Judy. "Development of Mechanically Tunable Hydrogel Scaffold for a Regenerative Peripheral Nerve Interface" (poster), 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS), Orlando, FL, August 17-20, 2016.
- 178. Graham, J. [presenter], E. Atkinson, E. Nunamaker, B. Spearman, R. Wachs, V. Desai, C. Shafor, K. Otto, C. Schmidt, J. Judy. "Histological Evaluation of Implanted Tissue-Engineered Electronic Neural Interface (TEENI) Devices" (poster), 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS), Orlando, FL, August 17-20, 2016.
- 179. Lacko, C. [speaker], S. Porvasnik, M. Wall\*, A. Garcia, C. Rinaldi, C.E. Schmidt. "Three-Dimensionally Templated Hydrogels for Peripheral Nerve Injury Repair", <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Minneapolis, MN, October 5-8, 2016.
- 180. Cerqueira, S.R. [presenter], Y.S. Lee, R.C Cornelison, M.W Mertz, R.A Wachs, C.E Schmidt, M.B. Bunge. "Acellular Nerve as an Injectable Matrix to Support Schwann Cell Graft Survival Following Spinal Cord Injury" (poster), University of Miami Neural Engineering Research Symposium, Miami, FL, October 13, 2016.
- 181. Cornelison, R.C., M.W Mertz [presenter], R.A Wachs, S.R Cerqueira, Y.S. Lee, M.B. Bunge, C.E Schmidt. "Development of an Injectable Acellular Peripheral Nerve Scaffold for Schwann cell Therapies after Spinal Cord Injury" (poster), University of Miami Neural Engineering Research Symposium, Miami, FL, October 13, 2016.
- 182. Agrawal, N. [speaker], Y. Du, P. Allen, A. Ellington, S. Khaing, C. Schmidt. "Oligonucleotide Hybridized Hydrogels for Sustained Release of Small Molecular (Aptamer) Therapeutics", <u>2017 Society for Biomaterials Annual Meeting and Exposition</u>, Minneapolis, MN, April 5-8, 2017.
- 183. Spearman, B.S. [speaker], R.A. Wachs, V.H. Desai, C.S. Shafor, J.B. Graham, E.W. Atkinson, E.A. Nunamkaer, K.J. Otto, J.W. Judy, C. Schmidt. "Mechanically tunable Extracellular Matrix Hydrogel Scaffold for Use in a Tissue-Engineered Electronic Nerve Interface (TEENI)", 2017 Society for Biomaterials Annual Meeting and Exposition, Minneapolis, MN, April 5-8, 2017.
- 184. Mertz, M.W. [presenter], N.E. Vaughn\*, R.A. Wachs, C.E. Schmidt. "Balancing Cell Removal and Preservation of Intricate ECM Microstructures during Chemical Decellularization of Peripheral Nerve" (poster), <u>2017 Society for Biomaterials Annual Meeting and Exposition</u>, Minneapolis, MN, April 5-8, 2017.

- 185. Nunamaker, E. [presenter], B. Spearman, J. Graham, E. Atkinson, V. Desai, C. Shafor, S. Natt, R. Wachs, C. Schmidt, J. Judy, K. Otto. "Implantation Methodology Development for Tissue-Engineered Electronic Neural Interface (TEENI) Devices" (poster), 8th Internat. IEEE EMBS Conference on Neural Engineering, Shanghai, China, May 25-28, 2017.
- 186. Graham, J. [presenter], E. Atkinson, E. Nunamaker, B. Spearman, V. Desai, R. Wachs, C. Schmidt, J. Judy, K. Otto. "Histological Evaluation of Chronically Implanted Tissue-Engineered-Electronic-Neural-Interface (TEENI) Devices" (poster), 8th International IEEE EMBS Conference on Neural Engineering, Shanghai, China, May 25-28, 2017.
- 187. Desai, V. [presenter], B. Spearman, C. Shafor, S. Natt, B. Teem, J. Graham, E. Atkinson, R. Wachs, E. Nunamaker, K. Otto, C. Schmidt, J. Judy. "Design, Fabrication, and Characterization of a Scalable Tissue-Engineered Electronic Nerve Interface" (poster), 8th International IEEE EMBS Conference on Neural Engineering, Shanghai, China, May 25-28, 2017.
- 188. Bohmann, N.\*[presenter], E. Patrick, C. Schmidt, S. Mobini. "Inducing Myelination in Schwann Cells Using Brief Electrical Stimulation" (poster), <u>Biomedical Eng. Society (BMES) Annual Meeting</u>, Phoenix, AZ, Oct 11-14, 2017.
- 189. Agrawal, N. [presenter], R. Wachs, Y. Du, P. Allen, A. Ellington, Z. Khaing, C. Schmidt. "Oligonucleotide Hybridized Hydrogels for Sustained Release of Small Molecule (Aptamer) Therapeutics" (poster), <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Phoenix, AZ, October 11-14, 2017.
- 190. Griffin, J. [presenter], N.K. Agrawal, R.C. Cornelison, R.A. Wachs, C.E. Schmidt. "Injectable Hydrogels Derived from Apoptosis Decellularized Sciatic Nerve" (poster), <u>Regen. Medicine Workshop</u>, Isle of Palms, SC, March 21-24, 2018.
- 191. Agrawal, N. [presenter], R. Wachs, Y. Du, P. Allen, A. Ellington, Z. Khaing, C. Schmidt. "Oligonucleotide Hybridized Hydrogels for Sustained Release of Small Molecule (Aptamer) Therapeutics" (poster), <u>Regenerative Medicine</u> Workshop, Isle of Palms, SC, March 21-24, 2018.
- 192. Spearman, B. [presenter], S. Mobini, N. Agrawal, A. Rubiano, C. Simmons, C. Schmidt "Tunable Methacrylated Hyaluronic Acid-based Hydrogels for Tissue Engineering" (poster), <u>Regenerative Medicine Workshop</u>, Isle of Palms, SC, March 21-24, 2018.
- 193. Bousalis, D. [speaker], C. Lacko, R.A. Wachs, H. Kasashara, C.E. Schmidt. "Engineering Cardiac Tissue Mimics as In Vitro Test Beds to Investigate Congenital Heart Disease", <u>2018 Society for Biomaterials Annual Meeting and Exposition</u>, Atlanta, GA, April 11-14, 2018.
- 194. McCrary, M. [presenter], N. Vaughn\*, Y.H. Song, C. Schmidt. "Addressing the Effect of DNase Treatment on ECM Preservation and Cell Removal during Sodium Deoxycholate Based Chemical Decellularization of Peripheral Nerve" (rapid fire talk & poster), 2018 Society for Biomaterials Ann. Meeting & Exposition, Atlanta, GA, April 11-14, 2018.
- 195. Mobini, S. [speaker], C. Kuliasha, N. Bohmann\*, J. Judy, K. Otto, C. Schmidt, A. Brennan. "Engineered Microtopographies to Guide and Control Cellular Response of Fibroblasts and Schwann Cells: Sharklet<sup>TM</sup> Versus Channels", 2018 Society for Biomaterials Annual Meeting and Exposition, Atlanta, GA, April 11-14, 2018.
- 196. McCrary, M. [speaker], N. Vaughn\*, Y.H. Song, and C. Schmidt. "Optimization of Sodium Deoxycholate Based Chemical Decellularization and Solubilization for the Generation of Peripheral Nerve Extracellular Matrix-Based Scaffolds", Tenth Annual Symposium on Biologic Scaffolds for Regenerative Medicine, Napa, CA, May 3-5, 2018.
- 197. Bousalis, D. [presenter], C. Lacko, R.A. Wachs, H. Kasashara, C.E. Schmidt. "Engineering Cardiac Tissue Mimics as In Vitro Test Beds to Investigate Congenital Heart Disease" (poster), <u>Tenth Annual Symposium on Biologic Scaffolds</u> for Regenerative Medicine, Napa, CA, May 3-5, 2018.
- 198. Griffin, J. [presenter], M.W. McCrary, S.R. Cerqueira, M.B. Bunge, C.E. Schmidt. "Injectable Schwann Cell Carrier for SCI Derived from Clinically Marketed Product" (poster), <u>Tenth Annual Symposium on Biologic Scaffolds for Regenerative Medicine</u>, Napa, CA, May 3-5, 2018.
- 199. Agrawal, N. [speaker], J. Griffin, D. Seroski, R. Cornelison, R. Wachs, G. Hudalla, C. Schmidt. "Injectable hydrogels derived from apoptosis decellularized peripheral nerve for spinal cord injury repair", <u>Tenth Annual Symposium on Biologic Scaffolds for Regenerative Medicine</u>, Napa, CA, May 3-5, 2018.
- 200. McCrary, M. [speaker], Y.H. Song, S. Porvasnik, R. Wachs, A. Fosang, C. Schmidt, "Discovering Spatiotemporal Patterns Of Aggrecan Fragmentation After Spinal Cord Injury", <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Atlanta, GA, October 17-20, 2018.
- 201. Bousalis, D. [presenter], C. Lacko, R. Wachs, S. Mobini, H. Kasahara, C. Schmidt, "Engineering Cardiac Tissue Mimics as In Vitro Test Beds to Investigate Congenital Heart Disease" (poster), <u>Biomedical Engineering Society</u> (BMES) Annual Meeting, Atlanta, GA, October 17-20, 2018.
- 202. Song, Y.H. [presenter], D. Visosevic\*, K. Daramola\*, S. Porvasnik, C. Schmidt, "Apoptosis-Mediated Decellularization Approaches for Lung Tissue Engineering" (poster), <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Atlanta, GA, October 17-20, 2018.
- 203. Spearman, B. [presenter], E. Atkinson, S. Mobini, C. Kuliasha, E. Nunamaker, K. Otto, C. Rinaldi, J. Judy, C. Schmidt, "Templated Extracellular Matrix-Based Hydrogel for Peripheral Nerve Regeneration in a Tissue-Engineered Electronic Nerve Interface (TEENI)" (poster), <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Atlanta, GA, October 17-20, 2018.

- 204. Kasper, M.M. [presenter], C.S. Lacko, I. Singh, M.A. Wall\*, C. Rinaldi, C.E. Schmidt, "Tunable Mechanical Properties of Magnetically Templated Hydrogels for Peripheral Nerve Repair" (poster), <u>Biomedical Engineering</u> Society (BMES) Annual Meeting, Atlanta, GA, October 17-20, 2018.
- 205. Vaughn, N.\* [presenter], M. McCrary, Y.H. Song, C. Morley, T. Angelini, C. Schmidt, "Generation of Thermal ECM-Based Hydrogels Derived from Chemically Decellularized Peripheral Nerve" (poster), <u>Biomedical Engineering</u> Society (BMES) Annual Meeting, Atlanta, GA, October 17-20, 2018.
- 206. Daramola, K.\* [presenter], D. Visosevic\*, S. Porvasnik, Y.H. Song, C. Schmidt, "Lung Decellularization Methods Through Apoptosis" (poster), <u>Biomedical Engineering Society (BMES) Ann. Meeting</u>, Atlanta, GA, Oct 17-20, 2018.
- 207. Ngo, T.\* [presenter], B. Spearman, S. Mobini, C. Schmidt, "Rheological Properties of Methacrylated Hyaluronic Acid-Based Solutions as Bioinks for 3D Bioprinting" (poster), <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Atlanta, GA, October 17-20, 2018.
- 208. Henderson, A.\* [speaker], N. Bohmann\*, E. Patrick, C. Schmidt, S. Mobini, "Secretome from Electrically Stimulated Cells Increases Neurite Outgrowth & Angiogenesis In Vitro", <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Atlanta, GA, October 17-20, 2018.
- 209. Nieves, E.\* [presenter], P. Lim\*, D. Bousalis, M. McCrary, Y.H. Song, C.E. Schmidt, "Characterization of Tissue-Derived Extracellular Matrices Following Chemical Decellularization" (poster), <u>Annual Biomedical Research Conference for Minority Students (ABRCMS)</u>, Indianapolis, IN, Nov. 14-17, 2018.
- 210. Vaughn N.E., M.W. McCrary [presenter], Y.H. Song, C.D. Morley, T.E. Angelini, C.E. Schmidt. "Characterization of Injectable Chemically Decellularized Peripheral Nerve Scaffolds" (poster), <u>Regenerative Medicine Workshop</u>, Charleston, SC, March 18-21, 2019.
- 211. McCrary, M.W. [speaker and presenter], Y.H. Song, S. Porvasnik, R. Wachs, A. Fosang, C. Schmidt, "In Vitro Model to Mimic Aggrecan Fragmentation Profiles After Spinal Cord Injury" (poster and rapid-fire talk), <u>Society for Biomaterials Annual Meeting and Exposition</u>, Seattle, WA, April 3-6, 2019.
- 212. McCrary, M.W. [speaker and presenter], Y.H. Song, S. Porvasnik, R. Wachs, A. Fosang, C. Schmidt, "In Vitro Model to Mimic Aggrecan Fragmentation Profiles After Spinal Cord Injury" (poster and rapid-fire talk), <u>Society for Biomaterials Annual Meeting and Exposition</u>, Seattle, WA, April 3-6, 2019.
- 213. Song, Y.H. [speaker and presenter], D. Visosevic\*, K. Daramola\*, S. Porvasnik, M. Maynes\*, C. Schmidt, "Apoptosis-Mediated Decellularization Approaches for Lung Tissue Engineering" (poster and rapid-fire talk), Society for Biomaterials Annual Meeting and Exposition, Seattle, WA, April 3-6, 2019.
- 214. Bousalis, D. [speaker], C. Lacko, P. Lim\*, H. Kasahara, C. Schmidt, C. Rinaldi, "Cardiac Tissue Mimic", <u>Society for</u> Biomaterials Annual Meeting and Exposition, Seattle, WA, April 3-6, 2019.
- 215. Singh, I., M. Kasper, C. Lacko, C. Schmidt, C. "Effects of Microarchitecture on Schwann Cell Migration and Proliferation in Magnetically Templated Hydrogels in vitro" (poster), <u>Society for Biomaterials Annual Meeting and Exposition</u>, Seattle, WA, April 3-6, 2019.
- 216. Sedwick\*, F. [presenter], A. Czeiszperger, E. Atkinson, B. Spearman, C. Kuliasha, A. Furniturewalla, C. Schmidt, J. Judy, K. Otto. "Analyzing Distal Sciatic Nerve Growth and Structure In An Implanted Peripheral Nerve Interface" (poster), Biomedical Engineering Society (BMES) Annual Meeting, Philadelphia, PA, October 16-19, 2019.
- 217. Maynes\*, M. [presenter], Y. Song, C. Schmidt. "Apoptosis-Mediated Lung Tissue Decellularization and Hydrogel Formation" (poster), <u>Biomedical Engineering Society</u> (BMES) Annual Meeting, Philadelphia, PA, Oct. 16-19, 2019.
- 218. Nieves\*, E. [presenter]. P. Lim\*, D. Bousalis, M. McCrary, Y. Song, C. Schmidt. "Characterization of Tissue-Derived Extracellular Matrices Following Chemical Decellularization" (poster), <u>Biomedical Engineering Society (BMES)</u> Annual Meeting, Philadelphia, PA, October 16-19, 2019.
- 219. Ngo\*, T. [presenter], B. Spearman, C. Schmidt. "3D Bioprinted Hyaluronic Acid Hydrogels as In Vitro Testbeds for Peripheral Nerve Regeneration" (poster), <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Philadelphia, PA, October 16-19, 2019.
- 220. Alilovic\*, K. [presenter], J. Mojica Santiago, C. Schmidt. "Developing Natural Based Thermally Gelling Bio-inks For 3D Tissue Engineering" (poster), <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Philadelphia, PA, October 16-19, 2019.
- 221. Ahmad\*, R. [presenter], N. Hlavac, D. Bousalis, C. Schmidt. "Evoking Regenerative Properties of Adipose-derived Stem Cells Using Electrical Stimulation" (poster), <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Philadelphia, PA, October 16-19, 2019.
- 222. Lopez\*, V. [presenter], J. Mojica-Santiago, I. Young\*, S. Malany, C. Schmidt. "Mechanical Characterization Of Hydrogels To Mimic Skeletal Muscle ECM" (poster), <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Philadelphia, PA, October 16-19, 2019.
- 223. Ngo\*, T.B. [presenter], B.S. Spearman, C.E. Schmidt. "Design and Characterization of Hyaluronic Acid Bioinks to 3D Bioprint In Vitro Testbeds for Nerve Regeneration" (poster), <u>Annual Biomedical Research Conference for Minority Students (ABRCMS)</u>, Anaheim, CA, November 2019.

- 224. Ngo\*, T.B. [presenter], B.S. Spearman, C.E. Schmidt. "Novel Approach to Peripheral Nerve Repair: 3D Bioprinted Methacrylated Hyaluronic Acid Hydrogel" (poster), <u>UG Research Showcase</u>, <u>Florida Capitol</u>, Tallahassee, FL, February 10, 2020.
- 225. Ngo\*, T.B. [presenter], B.S. Spearman, C.E. Schmidt. "Novel Approach to Peripheral Nerve Repair: 3D Bioprinted Methacrylated Hyaluronic Acid Hydrogel In Vitro Testbeds" (poster), <u>World Biomaterials Congress (WBC)</u>, Glasgow, Scotland, May 19-24, 2020. (Meeting canceled due to COVID)
- 226. Kuliasha, C. [speaker], E. Atkinson, B. Spearman, I. Singh, M. Kasper, C. Rinaldi, C. Schmidt, K. Otto, J. Judy. "Design and In Vivo Assessment of Tissue-Engineered Electronic Neural Interfaces (TEENI)", <u>World Biomaterials Congress (WBC)</u>, Glasgow, Scotland, May 19-24, 2020. (Meeting canceled due to COVID)
- 227. Kasper, M. [speaker], B. Spearman, I. Singh, C. Kuliasha, J. Judy, C. Rinaldi, C. Schmidt, "Integration of Tissue-Engineered-Electronic-Nerve-Interface (TEENI) Threads into Magnetically Templated Hydrogels", <u>World Biomaterials Congress (WBC)</u>, Glasgow, Scotland, May 19-24, 2020. (Meeting canceled due to COVID)
- 228. Kasper, M. [presenter], B. Spearman, I. Singh, C. Rinaldi, C. Schmidt, "Integration of Tissue-Engineered-Electronic-Nerve-Interface (TEENI) Threads into Magnetically Templated Hydrogels" (poster), <u>Biomedical Engineering Society (BMES) Annual Meeting</u> (virtual), October 6-9, 2020.
- 229. Bousalis, D. [presenter], N. Hlavac, M. McCrary, N. Vaughn, C. Schmidt, "Decellularized Extracellular Matrix Hydrogel as Injectable Delivery Vehicle for Stem Cell Secretome" (poster), <u>Biomedical Engineering Society (BMES)</u> Annual Meeting (virtual), October 6-9, 2020.
- 230. Choi, A.\* [presenter], J. Mojica Santiago, S. Malany, C. Schmidt, "Mechanical and Diffusive Properties of Matrigel-Collagen Hydrogels for Skeletal Muscle In Vitro Models" (poster), <u>Biomedical Engineering Society (BMES) Annual Meeting (virtual)</u>, October 6-9, 2020.
- 231. Alilovic, K.\* [presenter], J.A. Mojica Santiago, M.W. McCrary, C.E. Schmidt, "Developing Photo-crosslinkable Bioinks From Decellularized Tissue For Nerve In Vitro Models" (poster), <u>Biomedical Engineering Society (BMES) Annual Meeting</u> (virtual), October 6-9, 2020.
- 232. Kasper, M. [speaker], B. Spearman, I. Singh, C. Kuliasha, J. Judy, C. Rinaldi, C. Schmidt, "Integration of Tissue-Engineered-Electronic-Nerve-Interface (TEENI) Threads into Magnetically Templated Hydrogels", <u>11<sup>th</sup> World</u> Biomaterials Congress (WBC) (virtual), December 11 16, 2020.
- 233. Ngo\*, T.B. [presenter], B.S. Spearman, C.E. Schmidt. "Novel Approach to Peripheral Nerve Repair: 3D Bioprinted Methacrylated Hyaluronic Acid Hydrogel In Vitro Testbeds" (poster), 11<sup>th</sup> World Biomaterials Congress (WBC) (virtual), December 11 16, 2020.
- 234. Bousalis, D. [speaker], M. McCrary, N. Hlavac, A. Evering\*, N. Vaughn\*, C.E. Schmidt, "Assessing the Potential of a Decellularized Peripheral Nerve-based Hydrogel as a Spinal Cord Injury Therapeutic Delivery Vehicle", <u>Society for Biomaterials Annual Meeting</u> (Virtual), April 20-23, 2021.
- 235. Kasper, M. [speaker], M. Cydis\*, A. Afridi\*, C.E. Schmidt, "Development of a Hyaluronan Polymer-Protein Conjugate for Peripheral Nerve Applications", <u>Soc. Biomaterials (SFB) Annual Meeting</u> (Virtual), April 20-23, 2021.
- 236. Hlavac, N. [speaker], D. Seroski, N. Agrawal, L. Astrab, G. Hudalla, C. Schmidt, "Combination Therapeutics for Neural Injury Using Natural-based Hydrogels and Chondroitinase ABC-Galectin-3", <u>Society for Biomaterials (SFB)</u> Annual Meeting (Virtual), April 20-23, 2021. (Nora Hlavac Postdoc Research Award Finalist)
- 237. Hlavac, N. [speaker], D. Seroski, N. Agrawal, L. Astrab, G. Hudalla, C. Schmidt, "Combination Therapeutics for Neural Injury Using Natural-based Hydrogels and Chondroitinase ABC-Galectin-3", <u>Society for Biomaterials (SFB) Annual Meeting</u> (Virtual), April 20-23, 2021.
- 238. Robles-Blasini, S.\* [speaker], J. Mojica-Santiago, C.E. Schmidt, "Development of Hydrogels Using Decellularized Porcine Muscle Matrix and Collagen Blends", <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Orlando, FL, October 6-9, 2021.
- 239. Mojica-Santiago, J.A. [speaker], K. Alilovic\*, C.E. Schmidt, "Biochemical Constitution of Injectable Nerve Hydrogels Affect Efficacy for Pre-Clinical Applications", <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Orlando, FL, October 6-9, 2021.
- 240. Manousiouthakis, E. [presenter], C.E. Schmidt, "Photocrosslinkable and Conductive Hyaluronic Acid Hydrogels using Carbon Nanotubes for 3D Printing" (poster), <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Orlando, FL, October 6-9, 2021.
- 241. Lim, A.S. [speaker], C.E. Schmidt, K.J. Otto, "Electrochemical Characterization of MARTEENI Devices Integrating Sputtered Iridium Oxide", <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Orlando, FL, October 6-9, 2021.
- 242. Lim, A.S. [presenter], E.W. Atkinson, L. Jiracek-Sapieha, M. Kasper, V. Rivera-Llabres, C. Kuliasha, C.M. Rinaldi-Ramos, C.E. Schmidt, J.W. Judy, K.J. Otto, "Magnetically aligned regenerative tissue-engineered electronic nerve interfaces: functional and histological evaluation and future directions" (poster), <u>Society for Neuroscience Annual Meeting</u>, Chicago, IL, November 13–16, 2021.

- 243. Gentry\*, K. [presenter], V. Rivera-Llabres, M. Kasper, C. Schmidt, C. Rinaldi-Ramos, "Fabrication of Size Controllable MAMs as Sacrificial Templates for Magnetic Templating" (poster), <u>Annual Biomedical Research</u> Conference for Minority Students (ABRCMS) (Virtual), November 11, 2021.
- 244. Manousiouthakis, E. [speaker], R. Mishra, C. Schmidt, B.C. Bonning, D. Stanley, C. Goodman, "3D Cell Culture Modeling of the Midgut Epithelium of an Agricultural Pest to Aid Crop Management", 37<sup>th</sup> Southern Biomedical Engineering Conference (SBEC), New Orleans, LA, Dec. 3-5, 2021. [Best Overall Presentation Award]
- 245. Hlavac, N., D. Bousalis, E. Pallack\* [speaker], Y. Li\*, C.E. Schmidt, "Optimizing Stem Cell Secretome for Combination with Injectable Decellularized Scaffolds for Neural Applications", 37th Southern Biomedical Engineering Conference (SBEC), New Orleans, LA, Dec. 3-5, 2021. [Best Student Presentation Award]
- 246. Kasper, M.M. [speaker], J.A. Mojica-Santiago, B. Spearman, I. Singh, C.A. Kullasha, J.W. Judy, C.M. Rinaldi-Ramos, C.E. Schmidt, "Development of a Magnetically Aligned Regenerative Tissue Engineered Electronic Nerve Interlace for Peripheral Nerve Applications", 37<sup>th</sup> Southern Biomedical Engineering Conference (SBEC), New Orleans, LA, Dec. 3-5, 2021.
- 247. Evering\*, A.[speaker], E. Manousiouthakis, V. Subramaniam, A. Campbell, S. Danis\*, E. Pallack\*, T. Angelini, C.E. Schmidt, "Exploring the mechanical properties of polyethylene glycol and glycidyl methacrylate hyaluronic acid in developing in vitro spinal cord injury testbeds", 48th Annual National Conference for NSBE, Anaheim, CA, March 25, 2022. [3<sup>rd</sup> Place Oral Presentation Award]
- 248. Mojica-Santiago, J. [speaker], M. Parafati, L. Malany, D. Platt, C.E. Schmidt, P. Coen, S. Malany, "Electrical pulse stimulation and compounds with anti-atrophic potential influence contractile response of patient-derived skeletal muscle cells in a microphysiological system", <u>Microphysiological Systems World Summit 2022</u>, New Orleans, LA, May 30 June 3, 2022.
- 249. Bousalis, D., A. Campbell [presenter], G. Agarwal, E. Nieves\*, M. McCrary, S. Kolli\*, Y.H. Song, C.E. Schmidt, "Technical Considerations and Recommendations for Assessment of Decellularized Tissues" (poster), <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, San Antonio, TX, Oct. 12-15, 2022.
- 250. Kasper, M., B.M. Smadi [presenter], A. Afridi\*, M. Cydis\*, Y. Li\*, C.E. Schmidt, "Functional Tunability of a Hyaluronan-Protein Bioconjugate for Peripheral Nerve Applications" (poster), <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, San Antonio, TX, Oct. 12-15, 2022.
- 251. Manousiouthakis, E. [presenter], S. Danis\*, A. Evering\*, E. Pallack\*, L. Repmann\*, N. Ordonez\*, C.E. Schmidt, "Conductive Hyaluronic Acid Biomaterial for Extrusion 3D Bioprinting" (poster), <u>Biomedical Engineering Society</u> (BMES) Annual Meeting, San Antonio, TX, Oct. 12-15, 2022.
- 252. Pallack\*, E. [presenter], E. Manousiouthakis, E. Rothi-Gonzalez, V. Chandran, G. Mitchell, C.E. Schmidt, "Differential Expression of Transcripts in Spinal Cord Injury for Development of a Biomimetic Testbed" (poster), Biomedical Engineering Society (BMES) Annual Meeting, San Antonio, TX, Oct. 12-15, 2022.
- 253. Agarwal, G. [presenter], A. Campbell, A. Wanchoo, J. Fuhr\*, O. Osborne\*, B.G. Keselowsky, C.E. Schmidt, "Injectable and Immunomodulatory Hydrogels for Promoting Axonal Regeneration in Injured Spinal Cord" (poster), Society for Biomaterials Annual Meeting, San Diego, CA, April 19-22, 2023.
- 254. Manousiouthakis, E. [speaker], W.T. Stamps, R. Mishra, S. Danis\*, D. Bousalis, A. Evering\*, Q. Song, B.C. Bonning, D. Stanley, C.L. Goodman, C.E. Schmidt, "Toward Insect Gut Epithelia-on-a-Chip: 3D In Vitro Systems for Modeling the Invertebrate Gut Epithelium", In Vitro Biology Meeting, Norfolk, VA, June 10-15, 2023.
- 255. Agarwal, G. [speaker], S. Shumard\*, O. Osborne\*, S. Robles Blasini\*, M.W. McCrary, J. Mojica Santiago, B. Ausec\*, C.E. Schmidt, "Decellularized and Crosslinked Porcine Peripheral Nerve Based Hydrogel for Neural Tissue Regeneration", <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Seattle, WA, October 12, 2023.
- 256. Manousiouthakis, E. [speaker], E. Pallack\*, V. Subramaniam, I. Zmirska\*, E. Rothi-Gonzalez, V. Chandran. G. Mitchell, T.E. Angelini, C.E. Schmidt, "Resolving Differential Gene Expression After Therapeutic Hypoxia Treatment for Spinal Cord Injury for the Development of a Biomimetic Hydrogel", <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Seattle, WA, October 12, 2023.
- 257. Agarwal, G. [presenter], A. Campbell, A. Wanchoo, J. Fuhr\*, S. Robles Blasini\*, B.G. Keselowsky, P. Bose, C.E. Schmidt, "Localized Delivery of Indoleamine-2,3-dioxygenase (IDO)-Galectin 3 Fused Enzyme Using Decellularized Rat Sciatic Nerve for Axonal Regeneration in Injured Rat Spinal Cord" (poster), <u>Biomedical Engineering Society</u> (BMES) Annual Meeting, Seattle, WA, October 12, 2023.
- 258. Machado\*, A. [presenter], A. Lysandrou II\*, E. Manousiouthakis, V. Subramaniam, S. Kolli\*, A. Evering\*, T.E. Angelini, C.E. Schmidt, "Minimizing natural polymer bioink diffusion during embedded 3D bioprinting process for spinal cord tissue mimics" (poster), <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Seattle, WA, October 12, 2023.
- 259. Shumard\*, S. [presenter], G. Agarwal, S. Robles Blasini\*, C.E. Schmidt, "Injectable Decellularized Porcine Peripheral Nerve Based Hydrogel for Schwann Cells Delivery in Injured Spinal Cord" (poster), <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Seattle, WA, October 12, 2023.

- 260. Agarwal, G. [speaker], S. Shumard\*, K. Moes\*, S. Robles Blasini\*, O. Osborne\*, M. Mertz McCrary, J. Santiago Mojica, B. Ausec\*, C.E. Schmidt, "Clinically relevant injectable formulations for injured spinal cord regeneration" (invited talk), <u>UF BREATHE SCI Symposium</u>, <u>University of Florida</u>, Gainesville, FL, December 1, 2023.
- 261. Agarwal, G. [speaker], C.E. Schmidt, "Decellularized Scaffold Based Injectable Hydrogels for Injured Spinal Cord Regeneration" (invited keynote talk), <u>UF Biomaterials Day, University of Florida</u>, Gainesville, FL, March 28, 2024.
- 262. Moes\*, K. [presenter], G. Agarwal, C.E. Schmidt, "Decellularized Human Peripheral Nerve Base Injectable Hydrogel for Injured Spinal Cord Regeneration" (poster), <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Baltimore, MD, October 24, 2024.
- 263. Agarwal, G. [speaker], S. Shumard\*, M.W. McCrary, O. Osborne\*, J. Mojica Santiago, B. Ausec\*, C.E. Schmidt, "Decellularized Porcine Peripheral Nerve Based Injectable Hydrogel as a Schwann Cell Carrier for Injured Spinal Cord Regeneration", <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Baltimore, MD, October 24, 2024.
- 264. Shumard\*, S. [presenter], G. Agarwal, J. Hardy, C.E. Schmidt, "Rheological Properties of Self-Healing and Electroconductive Hydrogels for Injured Spinal Cord Regeneration" (poster), <u>Biomedical Engineering Society</u> (BMES) Annual Meeting, Baltimore, MD, October 25, 2024.
- 265. Agarwal, G. [speaker], A. Campbell, A. Wanchoo, I. Zmirska\*, P. Bose, B. Keselowsky, C.E. Schmidt, G. Hudalla, "Localized Delivery of Indoleamine-2,3-dioxygenase (IDO)-Galectin 3 Fused Enzyme Using Decellularized Rat Sciatic Nerve for Immune-modulation and Axonal Regeneration in Injured Rat Spinal Cord", <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Baltimore, MD, October 24, 2024.

#### **GRANT SUPPORT:**

# **Current Support:**

Title: Localized Delivery of Chondroitinase ABC via Decellularized Human Peripheral Nerve-Based Injectable Hydrogels for Spinal Cord Regeneration

Agency: McKnight Brain Institute Accelerator Award

PI: Schmidt, Co-Is: Fuller, Hudalla

**Total Award:** \$50,000 **Dates:** 1/17/25 – 1/16/26

#### **Pending Support:**

Title: Deployment Ready [ChABC-Gal3]3/Injectable Human Peripheral Nerve Therapeutic for Spinal Cord Injury

Agency: Department of Defense (DOD) / Dept. of the Army -- USAMRAA

PI: Schmidt Co-I: Hudalla Total Request: \$750,314

Title: Brain on the Bench: Brain-mimic Models and Machine Learning to Characterize and Predict Mechanical Changes Associated with Acute Brain Injuries (Phase I)

Agency: W. M. Keck Foundation

PI: Pizzi Co-Is: Schmidt, Murfee, Huang, Shickel

Total Request: \$150,00

Title: Engineering Stabilized Chrondroitinase ABC Combination Therapies for Targeted Regeneration and Recovery following Chronic SCI

Agency: Craig Neilsen Foundation
PI: Schmidt Co-I: Hudalla
Total Request: \$547,000

Past Support:

**Title: Tissue-Engineered Electronic Nerve Interfaces (TEENI)** 

**Agency:** National Institutes of Health (NINDS)

**PI:** Judy, **Co-Is:** Schmidt, Rinaldi, Otto **Grant Number:** R01 NS111518 **Total Award:** \$2,393,344 **Dates:** 4/15/19 - 12/31/24

Title: Functionalized Enzyme Treatments for Dual-Targeting of Inflammation in Spinal Cord Injury

**Agency:** National Institutes of Health (NINDS)

PIs: Schmidt, Keselowsky Co-I: Bose Grant Number R21 NS123596

Title: Electrical Stimulation of Human Myocytes in Microgravity: An In Vitro Model to Evaluate Therapeutics to

**Counteract Muscle Wasting** 

Agency: National Institutes of Health (NCATS)

PI: Malany, Co-I: Schmidt Grant Number: UH3 TR002598

**Total Award (Schmidt):** \$576,435 **Dates:** 9/1/20 - 8/31/23

Title: 3d-Printed Multicomponent and Spatial Temporal Model of Spinal Cord Injury

Agency: Florida Department of Health

 PI: Schmidt
 Grant Number: P01 81008

 Total Award (Schmidt): \$48,000
 Dates: 8/16/20 - 12/31/22

Title: 3D Cell Culture modeling of the Spodoptera frugiperda (Sf) midgut epithelium

Agency: CAMTech

**PI:** Schmidt **Grant Number:** P01 52195 **Total Award (Schmidt):** \$59,863 **Dates:** 7/1/20 - 12/31/22

Title: Combination of Secretome from Electrically Stimulated ASCs & Injectable ECM Scaffolds as SCI Therapy

**Agency:** National Institutes of Health (NINDS)

PI: Schmidt, Co-Is: March, Patrick Grant Number: R21 NS111398

Title: Engineering Tissue Mimics to Investigate Congenital Heart Disease

**Agency:** National Institutes of Health (NICHD)

PIs: Schmidt, Kasahara Grant Number: R21 HD090608

Title: Harnessing the Power of Apoptosis to Create Regenerative Acellular Biologic Scaffolds

**Agency:** National Science Foundation

PI: Schmidt Grant Number: CBET 1605223

**Total Award:** \$299,998 **Dates:** 8/1/16 - 7/31/19

Title: Tissue-Engineered Electronic Nerve Interfaces (TEENI)
Agency: Defense Advanced Research Projects Agency (DARPA)

PI: Judy (UF ECE), Co-Is: Schmidt, Otto Grant Number: DARPA-14-30-AS-HAPTIX-FP-014

Title: Engineering In Vitro ECM Test Beds to Mimic Injury

**Agency:** National Institutes of Health (NINDS)

PI: Schmidt Grant Number: R21 NS096330

Title: A new injectable matrix to maximize Schwann cell transplantation efficacy following spinal cord injury

Agency: Conquer Paralysis Now (CPN) Challenge, Collaboration Award

PI: Bunge (U. Miami), Co-I: Schmidt

Title: Magnetically Templated Regeneration Scaffolds for Nerve Injury Repair

Agency: National Institutes of Health (NINDS)

PI: Rinaldi (UF BME), Co-I: Schmidt Grant Number: R21 NS093239

Title: Development of Multiferroic Nanocomposites for 3D Electroactive Cell Scaffolds

**Agency:** National Science Foundation

PI: Andrew (UF MSE), Co-PI: Schmidt Grant Number: DMR 1410564

**Total Award:** \$390,000 **Dates:** 7/15/14 - 6/30/18

Title: Hydrogels and Oligonucleotide Hybridization for Sustained Delivery of Small Molecule Therapeutics

**Agency:** National Science Foundation

PI: Schmidt, Co-PI: Ellington (UT Austin) Grant Number: CBET 1355713

 **Title: Engineering Tissue Mimics to Investigate Congenital Heart Disease** 

Agency: University of Florida Opportunity Fund

PI: Schmidt, Co-I: Kasahara (UF COM)

**Total Award:** \$85,000 **Dates:** 6/1/15 – 5/31/17

Title: Novel Acellular Grafts with PTP-sigma Receptor Inhibition after SCI

Agency: Craig Neilsen Foundation

**PI:** Schmidt **Grant Number:** 222456 **Total Award:** \$300,000 **Dates:** 6/1/12 - 2/28/16

Title: 3D Acellular Vascular Beds: Characterization and Re-endothelialization

**Agency:** National Institutes of Health (NIBIB)

PI: Schmidt, Co-I: Suggs Grant Number: R21 EB013358

Title: Crystal Templated Polysaccharide Hydrogels

**Agency:** National Science Foundation

PI: Schmidt Grant Number: DMR 0805298 Total Award: \$655,000 Dates: 8/15/08 - 7/31/14

Title: Hydrogel Systems for Purification and Differentiation of Mid-Brain NPCs

**Agency:** National Institutes of Health (NINDS)

PI: Schmidt Grant Number: R21 NS074162

Title: Neurotrophin Delivery Using Injectable Hydrogels for Increased Plasticity after Spinal Cord Injury

**Agency:** Mission Connect

PI: Grau (Texas A&M), Co-I: Schmidt

**Total Award:** \$50,000 **Dates:** 10/1/12 - 9/31/13

Title: Alafair Biosciences develops cross-linked polysaccharide hydrogel films to address post-surgical

complication of adhesion or tethering between opposing tissues (STTR subcontract)

**Agency:** National Institutes of Health

PI: Schmidt

Title: Cross-linking Polysaccharide Hydrogel Films to Address Postsurgical Complication of Adhesion, or

**Tethering Between Opposing Tissue Surfaces** 

Agency: Alafair Biosciences

PI: Schmidt

**Total Award:** \$120,000 **Dates:** 12/1/11 - 11/30/13

Title: Decellularized Graft for Improved Angiogenesis

**Agency:** Remeditex

PI: Schmidt

Title: Development of Lung Tissue for Vascularized Tissue Scaffolds

Agency: Gillson-Longenbaugh Foundation

PI: Schmidt

**Total Award:** \$50,000 **Dates:** 6/1/11 - 5/30/12

Title: Development of Lung Tissue for Vascularized Tissue Scaffolds

**Agency:** Anderson Charitable Foundation

PI: Schmidt

**Total Award:** \$50,000 **Dates:** 7/1/11 - 6/30/12

Title: "Direct Write" Techniques to Create Submicron, Arbitrary Protein Structures in Hyaluronan Hydrogels

Agency: National Science Foundation

PI: Schmidt, Co-PI: Shear Grant Number: CBET 0829166

 Title: Anti-adhesion barrier validation in rat peritoneal model

Agency: University Medical Center at Brackenridge, Seton Medical Center

PI: Peterson, Co-I: Schmidt

**Total Award:** \$45,000 **Dates:** 5/21/11 - 5/21/12

Title: Neural Progenitor Cell (NPC) Differentiation in 3D Hydrogels

Agency: Gillson-Longenbaugh Foundation

PI: Schmidt

**Total Award:** \$50,000 **Dates:** 6/1/10 - 5/30/11

Title: Neural Progenitor Cell (NPC) Differentiation in 3D Hydrogels

Agency: Anderson Charitable Foundation

PI: Schmidt

**Total Award:** \$50,000 **Dates:** 7/1/10 - 6/30/11

Title: 2010 Biomedical Engineering Society Fall Meeting

**Agency:** National Science Foundation

PI: Schmidt

**Total Award:** \$17,000 **Dates:** 8/1/10 – 7/31/11

Title: Fabrication of Novel Biomimetic Polymers Using Combinatorial Peptide Screening Technologies

**Agency:** National Institutes of Health (NIBIB)

PI: Schmidt Grant Number: R01 EB004529

**Total Award:** \$ 1,051,393 **Dates:** 7/1/05 - 6/30/10

Title: Micro- and Nano-mechanical and Chemical Guidance of Neurons

**Agency:** National Institutes of Health (NIBIB)

PI: Schmidt, Co-I: Chen Grant Number: R21 EB003416

**Total Award:** \$ 397,220 **Dates:** 9/1/07 - 8/30/10

Title: MRI-R2: Acquisition of High-Resolution Environmental Scanning Electron Microscope (ESEM) for

Characterization of Hydrogels, Nano-/Micro-Structures, & Cell-Material Interfaces

**Agency:** National Science Foundation

 PI: Schmidt, Co-PIs: Roy, Shear
 Grant Number: CBET 0959037

 Total Award: \$ 544,314
 Dates: 12/31/09 - 11/31/10

Title: MRI: Acquisition of a Time-of-Flight Secondary Ion Mass Spectrometer

**Agency:** National Science Foundation

PI: Barbara, Co-PIs: Korgel, Schmidt, Zhu Grant Number: DMR 0923096

**Total Award:** \$ 698,600 **Dates:** 8/1/09 - 7/30/10

Title: Novel In Situ Crystallization Patterning of 3D Hydrogels for Regeneration of Branched Nerve Networks

Agency: Texas Higher Education Coordinating Board, Advanced Research Program

PI: Schmidt

**Total Award:** \$ 150,000 **Dates:** 6/1/08 - 5/31/10

Title: SBIR Phase I - Transcutaneous electrical stimulation of conductive polymers to promote nerve repair

**Agency:** National Institutes of Health (SBIR Sub-contract from TDA Research, Inc.) **Subcontract PI**: Schmidt **Grant Number:** R43 NS062593-01

**Subcontract Amount:** \$ 40,000 **Dates:** 10/1/08 - 10/1/10

Title: Processing Human Nerve Tissue for Immunohistological Analysis

**Agency:** Buncke Clinic

PI: Schmidt

**Total Award:** \$ 6,804 **Dates:** 4/1/09 - 12/31/09

Title: Detection of Cytokine Secretion by Antibody-linked Hydrogel Grids

Agency: Gillson-Longenbaugh Foundation

PI: Schmidt

 Title: Detection of Cytokine Secretion by Antibody-linked Hydrogel Grids

Agency: Anderson Charitable Foundation

PI: Schmidt

**Total Award:** \$ 25.000 **Dates:** 7/1/2009 - 6/30/10

Title: Identifying Nucleic Acids and Small Molecules that Promote Nerve Growth

Agency: Welch Foundation (TI-3D, University of Texas at Austin)

PI: Ellington, Co-PI: Schmidt

**Total Award:** \$ 75,000 **Dates:** 7/1/08 - 6/30/09

Title: Fibrillar Hyaluronic Acid Hydrogels as Engineered Skin Substitutes

Agency: Texas Ignition Fund (University of Texas System)

PI: Schmidt

**Total Award:** \$ 50,000 **Dates:** 7/1/08 - 1/31/09

Title: Novel In Situ Crystallization Patterning of 3D Hydrogels for Regeneration of Branched Nerve Networks

Agency: Gillson-Longenbaugh Foundation

PI: Schmidt

Title: Novel In Situ Crystallization Patterning of 3D Hydrogels for Regeneration of Branched Nerve Networks

Agency: Anderson Charitable Foundation

PI: Schmidt

**Total Award:** \$ 43,000 **Dates:** 7/1/08 - 6/30/09

Title: IGERT (Integrative Graduate Education and Research Training) - Cellular and Molecular Imaging for

**Diagnostics and Therapeutics** 

**Agency:** National Science Foundation

PI: Peppas, Co-PIs: Schmidt, Brodbelt Grant Number: DGE 0333080

**Total Award:** \$ 3,871,200 **Dates:** 9/1/03 - 8/30/08

Title: CAREER Award - Understanding Molecular Mechanisms of Growth Cone Motility & Nerve Regeneration

**Agency:** National Science Foundation

PI: Schmidt Grant Number: CBET 9733156

**Total Award:** \$ 272,000 **Dates:** 6/1/97 - 5/31/03

Title: Angiogenic Hydrogel Biomaterials to Promote Nerve Regeneration

**Agency:** National Science Foundation

PI: Schmidt Grant Number: CBET 0336403

**Total Award:** \$ 304,200 **Dates:** 6/1/02 - 5/31/06

Title: Hyaluronan-based Materials and Size-dependent Mechanisms of Wound Healing

**Agency:** National Science Foundation

PI: Schmidt Grant Number: CBET 0500969

**Total Award:** \$ 300,000 **Dates:** 6/1/05 - 5/31/08

Title: NER (Nanoscale Exploratory Research) - Nanocrystal Quantum Dot Interfacing with Living Cells

Agency: National Science Foundation

PI: Schmidt, Co-PI: Korgel Grant Number: CBET 0303442

**Total Award:** \$ 100,000 **Dates:** 7/1/03 - 6/30/04

Title: Research Opportunity Award (ROA)

Agency: National Science Foundation

PI: Schmidt

Title: Research Planning Grant - Biodegradable Electrically Conducting Polymers for Nerve Regeneration

**Agency:** National Science Foundation

PI: Schmidt

**Total Award:** \$ 18,000 **Dates:** 9/1/97 - 2/28/00

**Title: CAREER Award Industrial Matching Funds** 

**Agency:** Sulzer Medica Corporation

PI: Schmidt

**Total Award:** \$ 25.000 **Dates:** 12/1/99 - 11/30/00

**Title: CAREER Award Industrial Matching Funds** 

**Agency:** LifeCell Corporation

PI: Schmidt

**Total Award:** \$ 25,000 **Dates:** 10/1/98 - 9/30/99

Title: Quantitative Analysis of Neurite Outgrowth in Response to an Electrical Stimulus

**Agency:** Whitaker Foundation **PI:** Schmidt

Title: Development Award - Molecular Based Diagnosis, Treatment, and Prevention of Disease: Vertically

**Integrated Biomedical Engineering Education and Research** 

Agency: Whitaker Foundation PI: Diller, Co-PIs: Kortum, Schmidt, Pandy

**Total Award:** \$ 3,000,000 **Dates:** 9/1/01 - 8/31/05

Title: Electronic Nanoparticle-tissue Composites for Targeted Biomolecule Delivery Agency: Texas Higher Education Coordinating Board, Advanced Research Program (ARP)

PI: Schmidt, Co-PI: Korgel

**Total Award:** \$ 244,520 **Dates:** 1/1/02 - 5/31/04

Title: Synthesis of a Biodegradable, Electrically Conducting Polymer

Agency: Welch Foundation PI: Schmidt

**Total Award:** \$ 150,000 **Dates:** 6/1/02 - 5/31/05

Title: SBIR Phase II - New Electrically Conducting Copolymers for Nerve Regeneration Applications

**Grant Number:** R44 NS041686

Agency: National Institutes of Health (SBIR Sub-contract from TDA Research, Inc.)

PI: Luebben, TDA Research, Inc., UT-Austin Subcontract PI: Schmidt Total Award (subcontract): \$ 200,000 Dates: 1/1/05 - 12/30/06

Title: SBIR Phase I - New Electrically Conducting Block Co-polymers for Nerve Regeneration Applications

Agency: National Institutes of Health (SBIR Sub-contract from TDA Research, Inc.)

PI: Luebben, TDA Research, Inc., UT-Austin Subcontract PI: Schmidt Total Award: \$ 100,000 (sub-award: \$ 28,000) Dates: 10/1/01 - 3/31/03

Title: SBIR Phase II - Ink-Jet Printed Nerve Conduits

Agency: National Institutes of Health (SBIR Subcontract from MicroFab, Corp.)

PI: Hayes, MicroFab Corp., UT-Austin Subcontract PI: Schmidt Total Award: \$ 107,500 (sub-award) Dates: 7/1/03 - 6/30/05

Title: SBIR Phase I - Microdispensing Technology for Bioabsorbable Polymer-Based Nerve Conduits

Agency: National Institutes of Health (SBIR Subcontract from MicroFab, Corp.)

PI: Hayes, MicroFab Corp., UT-Austin Subcontract PI: Schmidt Total Award: \$ 100,000 (sub-award: \$ 14,000) Dates: 10/1/01 - 8/31/02

Title: Neural Tissue Engineering Approaches Agency: Gillson-Longenbaugh Foundation

PI: Schmidt

**Total Award:** \$ 644,500 **Dates:** 6/1/99 - 5/30/08

Title: Hyaluronan-based Interpenetrating Networks for Spinal Cord Injury Regeneration

**Agency:** Anderson Charitable Foundation

PI: Schmidt

Title: Study protocol for evaluation and development of detergent treatment process for human peripheral nerve

**Grant Number:** UTA06-101

Agency: Axogen Inc. (Sponsored Research Agreement)

PI: Schmidt

**Total Award:** \$49,311 **Dates:** 1/1/06 - 9/30/06

Title: Use of Bioengineered Nerve Grafts for Spinal Cord Injury Model in Rats

Agency: David Van Wagener Spinal Cord Fund

PI: Schmidt

**Total Award:** \$ 10,000 **Dates:** 3/1/07 - 2/28/08

Title: Development of Human Acellular Grafts for Nerve Regeneration

Agency: Lone Star Paralysis Foundation

PI: Schmidt

**Total Award (subcontract only):** \$ 10,000 **Dates:** 1/1/06 - 12/30/06

Title: Ultrafast Nanoscale Optical Imaging Spectroscopy Research Facility

**Agency:** The W.M. Keck Foundation

PI: Shih

**Total Award:** \$1,100,000 **Dates:** 1/1/99 - 5/31/00

**Title: Research Intern Award** 

Agency: The University of Texas at Austin, Office of Graduate Studies

PI: Schmidt

Title: Research Experience for Undergraduates - REU (grant supplement)

**Agency:** National Science Foundation

PI: Schmidt

**Total Award:** \$12,000 **Dates:** 1/30/01 – 5/31/03

**Title: Endothelial Migration on SIS Tissue** 

Agency: Cook Biotech Inc. (Sponsored Research Agreement)

PI: Schmidt

**Total Award:** \$8,277 **Dates:** 7/1/02 - 6/30/03

Title: Cell Seeding and Analysis of Tissue-Engineered Tubular Prostheses

**Agency:** Sulzer Innotec (Sponsored Research Agreement)

PI: Schmidt

**Total Award:** \$ 70,000 **Dates:** 6/1/96 -5/31/01

Title: Research Grant -- Development of Angiogenic Hydrogels for Nerve Regeneration Studies

Agency: The University of Texas at Austin

PI: Schmidt

**Total Award:** \$ 6,000 **Dates:** 12/1/00 - 8/31/01

Title: BME Seed Grant - Role of Neovascularization in Spinal Cord Injury: A Multidisciplinary Approach

**Agency:** BME Center at Texas Medical Center (funded in part by Whitaker Foundation)

PI: Narayana; Co-PIs: Patrick, Schmidt

Agency: Texas Higher Education Coordinating Board

PI: Schmidt, Co-PI: Korgel

**Total Award:** \$3,600 **Dates:** 5/1/03 - 7/1/03

# **EDUCATION & TEACHING**

# PH.D. SUPERVISIONS COMPLETED (30 TOTAL):

Name	Degree, Date, Fellowships	Thesis	Current Employment
Tyrell J. Rivers	PhD Chemical Engineering July 2, 2001 NIH Training Grant GEM Fellowship; UT Austin	"Design, Synthesis, and Characterization of a Novel Bio- degradable, Electrically Conducting Biomaterial"	Executive Director, Corporate Development AstraZeneca Gaithersburg, MD
Elizabeth J. Furnish	PhD Chemical Engineering July 16, 2001 NSF Graduate Research Fellowship; UT Austin	"The Role of Gelsolin Upregulation and Overexpression in Neurite Outgrowth for PC12 Cells"	Business Entrepreneur, Chandler, AZ
Terry W. Hudson	PhD Chemical Engineering April 21, 2003 NIH Training Grant; UT Austin	"Creation of Decellularized Nerve Tissue"	Denali Therapeutics Draper, Utah
Jennie M. Baier Leach	PhD Chemical Engineering July 31, 2003 NIH Training Grant; UT Austin	"Hyaluronic Acid Hydrogel Biomaterials for Soft Tissue Engineering Applications"	Associate Professor Chemical & Biological Engineering Univ. Maryland-Baltimore County
Jessica O. Winter	PhD Chemical Engineering July 30, 2004 NSF Graduate Research Fellowship; NSF IGERT Fellowship; UT Austin	"Development and Optimization of Quantum Dot-Neuron Interfaces"	Distinguished Professor Chemical Engineering Ohio State University
Archit Sanghvi	PhD Biomedical Engineering May 18, 2005; UT Austin	"Phage Display Technology for Surface Functionalization of a Synthetic Biomaterial"	Regional Manager Pearl Hospitality Houston, TX
Natalia Gomez	PhD Chemical Engineering August 4, 2006; UT Austin	"Studies on Neuron Responses to Simultaneous & Competing Extracellular Cues"	Amgen Thousand Oaks, CA
Curt Deister	Ph.D. Chemical Engineering December 2006 NSF IGERT Fellowship; UT Austin	"Neurotrophic Factor Combinations & Extracellular Matrix-based Hydrogels for Nerve Regeneration"	Axogen, Inc. Alachua, FL
Scott Zawko	Ph.D. Chemical Engineering June 2008; UT Austin	"Modification of Hyaluronan Materials"	Kymanox Durham, NC
Nathalie Guimard	Ph.D., Chemistry, Dec. 2008; UT Austin	"Synthesis of Novel Biodegradable Electroactive Materials"	Smith and Nephew Zurich, Switzerland
Jonathan D. Nickels	Ph.D., Biomedical Engineering, December 2009; UT Austin	"Characterization and Applications of Affinity-based Surface Modification of Polypyrrole"	Associate Professor Chemical Engineering University of Cincinnati
Shalu Suri	Ph.D., Biomedical Engineering, February 2010; UT Austin	"Photopolymerizable Scaffolds of Native Extracellular Matrix Components for Tissue Engineering Applications"	Associate Director of the NSF Cell Manufacturing ERC, Georgia Institute of Technology
Jae Lee	Ph.D., Chemical Engineering, May 2010; UT Austin	"Electroconductive Neural Interfaces for Neural Tissue Applications"	Associate Professor Gwangju Institute of Science & Technology, Korea

Name	Degree, Date, Fellowships	Thesis	Current Employment
Stephanie K. Seidlits	Ph.D., Biomedical Engineering, May 2010 NSF IGERT Fellowship; UT Austin	"Defined Hydgrogel Microenvironments for Optimized Neuronal Culture"	Associate Professor Biomedical Engineering University of Texas, Austin
Leandro Forciniti	Ph.D., Chemical Engineering, May 2011; UT Austin	"Directing Neuronal Behavior Via Polypyrrole Based Conductive Biomaterials"	Becton Dickinson Franklin Lakes, NJ
John Fonner	Ph.D., Biomedical Engineering, Aug 2011; UT Austin	"Molecular Investigation of Polypyrrole and Surface Recognition by Affinity Peptides"	Texas Advanced Computing Center Austin, TX
Eric Spivey	Ph.D., Biomedical Engineering, April 2012; UT Austin	"Multiphoton Lithography Of Mechanically And Functionally Tunable Hydrogels"	Research Assistant Professor, Vanderbilt University
Hieu Nguyen	Ph.D., Biomedical Engineering, Dec. 2012 NDSEG Graduate Fellowship; UT Austin	"Controlling neural cell behavior with electric field stimulation across a conductive substrate"	Research Scientist University of Texas at Austin
Sarah Mayes	Ph.D., Biomedical Engineering, May 2013; UT Austin	"Hyaluronic Acid and Alginate Blend Hydrogel Films for the Prevention of Postsurgical Adhesions"	Chief Scientific Officer and Co- Founder, Alafair Biosciences Austin TX
Ryan Nagao	Ph.D., Biomedical Engineering, May 2013; UT Austin	"Creation of an Optimized Acellular Scaffold or Improved Vascular Engineering"	Nova Nordisk Seattle, WA
Richelle Thomas	Ph.D., Chemical Engineering, December 2013; UT Austin	"Novel Templating of Three Dimensional Hyaluronic Acid Soft Tissue Scaffolds"	Owens Corning, OH
Sydney Geissler	Ph.D., Biomedical Engineering, August 2014; NSF Graduate Research Fellowship; UT Austin	"Natural Biomaterials for Enhanced Oligodendrocyte Differentiation and Spinal Cord Injury Repair"	Straumann Group Basel, Switzerland
Derek Hernandez	Ph.D., Chemical Engineering, August 2014; UT Austin	"Micron scale three-dimensional printing techniques to modulate chemical, mechanical, and topographical cues for cell applications"	ION Biosciences San Marcos, TX
R. Chase Cornelison	Ph.D., Chemical Engineering, August 2015; UT Austin	"Injectable Peripheral Nerve Matrix for Spinal Cord Injury Repair"	Assistant Professor, Biomedical Engineering, University of Massachusetts, Amherst
Nikunj Agrawal	Ph.D., Biomedical Engineering, Dec. 2018; Univ. of Florida	"Biomaterial Platforms Engineered for Controlled Release of Small Molecule Therapeutics in Spinal Cord Injury Applications"	Product Development Engineer, Axogen, Inc. Alachua, Florida
Christopher Lacko	Ph.D., Biomedical Engineering, Dec. 2018; Univ. of Florida	"Magnetically Templated Scaffolds: A Novel Tissue Engineered Hydrogel for Peripheral Nerve Injury Repair"	Integra LifeSciences Scotch Plains, New Jersey
Benjamin Spearman	Ph.D., Biomedical Engineering, Dec. 2019; Univ. of Florida	"Advanced Uses for Methacrylated Hyaluronic Acid in Peripheral Nerve Tissue Engineering"	Product Development Engineer, Axogen, Inc. Alachua, Florida
Michaela Mertz McCrary	Ph.D., Biomedical Engineering, May 2020; Univ. of Florida	"Development of Spinal Cord Injury In Vitro Model Systems and In Vivo Therapeutic Strategies"	DHHS/NIH/NCI Technology Transfer Center (TTC) Fellow Washington DC
Deanna Bousalis	Ph.D., Biomedical Engineering, May 2021; Univ. of Florida	"Decellularized Tissues as Platforms for Disease Understanding and Therapeutic Development"	Center for Devices and Radiological Health at FDA Washington DC
Mary Kasper	Ph.D., Biomedical Engineering, May 2022; Univ. of Florida	"Engineering Bioactive Hyaluronan- Based Hydrogel Scaffolds for Peripheral Nerve Applications"	STEM Outreach Director University of Chicago Chicago, IL

## M.S. THESIS SUPERVISIONS COMPLETED (13 TOTAL):

Joel Collier, Biomedical Engineering, UT Austin, Graduated Aug. 1998.

Current Employment: Theodore Kennedy Professor, Biomedical Engineering, Duke University.

John Carnagey, Chemical Engineering, UT Austin, Graduated Dec. 1999.

Prachi Dixit, Chemical Engineering, UT Austin, Graduated May 1999.

Julie Fischbeck, Chemical Engineering, UT Austin, Graduated August 1999.

Aruna Kotwal, Chemical Engineering, UT Austin, Graduated Dec. 1999.

Francisco Serna, Biomedical Engineering, UT Austin, Graduated May 2007.

Mike Hixson, Biomedical Engineering, UT Austin, Graduated December 2001.

Shangjing Xin, Biomedical Engineering, University of Florida, Graduated May 2015.

Alex Hyyti, Biomedical Engineering, University of Florida, Graduated Dec. 2014.

Brittany Russ, Biomedical Engineering, University of Florida, Graduated May 2016.

Jonathan Griffin, Biomedical Engineering, University of Florida, Graduated August 2018.

Nicole Bohmann, Biomedical Engineering, University of Florida, Graduated May 2020.

Bryan Ibarra, Biomedical Engineering, University of Florida, Graduated August 2021.

## POSTDOCTORAL AND RESEARCH ASSOCIATE SUPERVISIONS COMPLETED (16 TOTAL):

Jeff Moehlenbruck (Postdoctoral Associate), Ph.D. Neurobiology, University of Texas at Austin, 1996 -1997.

Joo-Woon Lee (Postdoctoral Associate), Ph.D. Analytical Chemistry, SUNY Buffalo, NY, Fall 2004-2006.

Eduardo Pena (Postdoctoral Associate), Ph.D., Materials Science, Spring 2008 - Spring 2009.

Scott Zawko (Postdoctoral Associate and Research Associate), Ph.D. Chemical Engineering, UT Austin, Summer 2008 – 2010, Spring 2012 – May 31, 2013, respectively. *Current Employment*: Kymanox, Durham, NC

Diana Guiterrez (Research Associate), B.S. Biotechnology, Tecnologico de Monterrey, Mexico, July 2012-May 31, 2013.

John Hardy (Postdoctoral Associate), Ph.D. Chemistry, University of York, England, Sept. 1, 2010 – June 30, 2014. *Current Employment*: Assistant Professor, Lancaster University.

Hyma Durgam (Research Associate/Lab Manager), M.S. Biology, Osmania University, India, Oct. 2000-May 31, 2013.

Zin Khaing (Postdoctoral Associate and Research Assistant Scientist), Ph.D. Neurobiology, Mount Sinai School of Medicine, New York, NY, Spring 2006 – Sept. 2014. *Current Employment*: Research Professor, Univ. Washington.

Sydney Geissler (Postdoctoral Associate), Ph.D. Biomedical Eng., UT Austin, Sept. 2014 – Dec. 2014. *Current Employment*: Straumann Group, Basel, Switzerland.

Rebecca Wachs (Postdoctoral Associate), Ph.D. Biomedical Eng., RPI, Troy NY, July 1, 2014 – Nov. 2016.

Current Employment: Associate Professor, Arizona State University.

Sahba Mobini (Postdoctoral Associate), Ph.D. Biomedical Eng., Amirkabir Univ. of Technology, Sept 2016 – Sept. 2018. *Current Employment*: Faculty, Cuenta oficial del Consejo Superior de Investigaciones Científicas (CSIC)

Stacy Porvasnik (Research Associate/Lab Manager), M.S., Medical Sciences, March 2013 – March 2019.

Young Hye Song (Postdoctoral Associate), Ph.D. Biomedical Eng., Cornell, July 2016 – June 2019.

Current Employment: Assistant Professor, University of Arkansas.

Nora Hlavac (Postdoctoral Associate), Ph.D. Biomedical Engineering, Virginia Tech, January 2019-June 2021.

Current Employment: STEM Director, Charleston County School District, South Carolina.

Jorge Alexis Mojica Santiago (Postdoctoral Associate), Ph.D. Biomedical Engineering, Cornell, July 2018-2022. *Current Employment*: Precision for Medicine, Houston, Texas.

Eleana Manousiouthakis (Postdoctoral Associate), Ph.D. Biomedical Engineering, Tufts, November 2019-2023. *Current Employment*: Novel Farms, Berkeley, California.

## M.S. SUPERVISIONS IN PROGRESS (1 TOTAL):

Ethan McMillan, Biomedical Engineering

## PH.D. SUPERVISIONS IN PROGRESS (2 TOTAL):

Alexander Lim, Biomedical Engineering (Co-Supervised with Dr. Kevin Otto)

Allison Campbell, Biomedical Engineering

## POSTDOCTORAL AND RESEARCH ASSOCIATE SUPERVISIONS IN PROGRESS (3 TOTAL):

Blanca Ostmark (Research Associate/Lab Manager), B.S., Agriculture/ Plant Science, May 2019-present.

Gopal Agarwal (Postdoctoral Associate), Ph.D. Biotechnology, National Institute of Pharmaceutical Education and Research-Ahmedabad, India, January 2022-present.

Dr. Amanda de Castro Juraski (Postdoctoral Associate), Ph.D. Chemical Engineering, University of São Paulo, São Paulo, Brazil, January 2025-present.

## UNDERGRADUATE STUDENT RESEARCH SUPERVISIONS (200+ TOTAL OVER CAREER)

## STUDENT RESEARCH AWARDS AND HONORS (SELECTED):

## Graduate Students and Postdocs:

Selected Participant and Travel Award, Nathalie Guimard, European School of Nanosciences and Nanotechnology (ESONN) 2006 Summer School Grenoble, France, Aug. 28-Sept. 16, 2006.

Graduate Student GOLD Research Award, Jessica Winter, MRS Annual Fall Meeting, Boston, Dec. 1-5, 2003.

Graduate Student Research Award, Jessica Winter, BMES Annual Fall Meeting, Nashville, October 1-4, 2003.

*Graduate Student Travel Awards*, Archit Sanghvi, BMES Annual Fall Meeting, Nashville, October 1-4, 2003; Shalu Suri, BMES Annual Fall Meeting, St. Louis, MO, October 2008.

Doh Wonsuk Memorial Award for Research, U.S. Chapter of Korean Institute of Chemical Engineering: Jae Lee, 2009.

60th Interdisciplinary Meeting of Nobel Laureates, Leandro Forciniti, Lindau, Germany, Summer, 2010.

Acta Student Award for manuscript: "Photopatterned collagen-hyaluronic acid interpenetrating...", Shalu Suri, 2010. Baxter Early Career Development Award, Stephanie Seidlits, 2010.

Second Place, Most Outstanding Poster, First Annual Translational Neuroscience Symposium (NeuroTexas Institute Research Foundation, St. David's HealthCare), Sydney Geissler, Spring 2011.

International Research Fellowship Award, ICMR (International Center for Materials Research), Richelle Thomas, 2011. National Science Foundation Graduate Research Fellowship, Sydney Geissler, 2011.

Fulbright Scholarship, Richelle Thomas, University of the West Indies in Barbados, Summer 2012.

Burroughs Wellcome Collaborative Research Travel Grant, Richelle Thomas, U. West Indies (Barbados), Summer 2012.

Burroughs Wellcome Collaborative Research Travel Grant, Craig Milroy, Univ. Wollongong (Australia), Summer 2012.

NSF East Asia Pacific Summer Institutes (EAPSI) award, Craig Milroy, Univ. Wollongong (Australia), Summer 2012.

Whitaker International Summer Grant, Univ. Wollongong (Australia), Craig Milroy, Summer 2012.

BMES Innovation and Career Development Award, Dr. Zin Khaing, Fall 2013.

BMES Innovation and Career Development Award, Dr. Becky Wachs, Fall 2014.

National Science Foundation Graduate Research Fellowship, Benjamin Spearman, 2016.

UF Outstanding International Student Award, Nik Agrawal, 2017.

UF BME Department Excellence Award for Postdocs, Dr. Young Hye Song, 2018.

NIH F31 Research Grant Award, Deanna Bousalis, 2019.

UF BME Department Graduate Student Excellence Award, Deanna Bousalis, 2020.

UF BME Department Excellence Award for Postdocs, Dr. Nora Hlavac, 2020.

Breathing Research and Therapeutics (BREATHE) Postdoctoral Fellowship, Dr. Eleana Manousiouthakis, 2022.

Best Overall Presentation Award, 37th Southern Biomedical Engineering Conference, Dr. Eleana Manousiouthakis, 2022.

UF BME Department Excellence Award for Postdocs, Dr. Eleana Manousiouthakis, 2022.

UF BME Department Excellence Award for Postdocs, Dr. Gopal Agarwal, 2023.

## **Undergraduate Students:**

Undergraduate Research Fellowship (URF) (\$1000 Grant for Research Project), UT-Austin:

M. Velasquez (1998–99); K. Wouters (1998–99); J. Camp (1998–99; 1999-00); E. Askenasy (1999–00; 2000-01); N. Porbandarwalla (2000–01; 2001–02); K. Larsen (2000–01); G. Hwang (2000–01); T. Liu (2000–01); A. Wentz (2001–02); L. Humphries (2001-02); K. Lee (2002-03); C. Collins (2002-03); S. Lundy (2004-05); S. Hsu (2004-05); P. Hossain (2004-05; 2005-06); R. Rosenberger (2004-05; 2005-06); R. Lee (2005-06); M. Jen (2005-06; 2006-07); J. Tang (2006-07); T. Shu (2006-07); C. Smid (2006-07); K. McKarty (2006-07); Z. Bevis (2007-08); B. Fechtel (2007-08); C. Massingill (2007-08); J. Heisler (2007-08); S. Huyhn (2007-08); I. Buchanan (2007-08); J. Syeda-Nawaz (2007-08); Y. Kou (2007-08).....

UG Research Poster Presentation Award, Chemical Engineering, UT-Austin: P. Dixit (Sp '97); J. Camp (Sp '98); R. Thakar (Fa '99); E. Askenasy (Sp '00); K. Larsen (Sp '00)

UG Research Poster Presentation Award, Biomedical Engineering, UT-Austin: J. Smith (Fa '06); P. Hossain (Fa '06) Univ. Co-op/George H. Mitchell Award for Academic Excellence in UG Research, UT: S. Lundy (Sp'05, \$5000 Award) Beckman Research Scholar, UT-Austin: Yafei Ouyang (2011, \$19,000 Award)

Biomedical Engineering Summer Fellowship, UT-Austin: Brian Milman (Summer 2011, \$4000 Award)

Whitaker International Summer Grant, Ross Malik, Universidad Carlos III de Madrid (Spain), Summer 2012.

13th NSF International Summer School, Biocomplexity, Biodesign, Bioinnovation, Istanbul, Turkey, Alex Sabin, Su 2014 National Science Foundation Graduate Research Fellowship, Philip Vu, 2014.

National Science Foundation Graduate Research Fellowship, Ella Hoogenboezem, 2017.

Attribute of a Gator Engineering Award, Ella Hoogenboezem, 2017.

McNair Scholarship, Tran Ngo, 2019.

National Science Foundation Graduate Research Fellowship, Monica Wall, 2019.

C. William Hall Scholarship and BME UG Excellence Award, Tran Ngo, 2020.

UF BME Department UG Student Excellence Award, Kata Alilovic, 2020.

Best Student Presentation Award, 37th Southern Biomedical Engineering Conference, Emily Pallack, 2022.

Barry Goldwater Scholarship, Emily Pallack, 2022.

National Science Foundation Graduate Research Fellowship, Tran Ngo, 2022.

3<sup>rd</sup> Place Oral Presentation, 48th Annual NSBE Conference, Ashley Evering, 2022.

National Science Foundation Graduate Research Fellowship, Emily Pallack, 2023.

Barry Goldwater Scholarship, Izabela Zmirska, 2024.

## PH.D. THESIS COMMITTEES:

Over 80 committees during time at UT Austin; Over 50 committees to date at UF.

## GRADUATE STUDIES (UT)/AFFILIATE (UF) COMMITTEE MEMBERSHIPS:

UT: Chemical Engineering, Molecular Biology, Biochemistry, Neuroscience, Materials Science

UF: Chemical Engineering, Materials Science and Engineering

## FORMAL COURSE INSTRUCTION:

## Graduate School and Postdoctoral:

Teaching assistant and guest lecturer (Fluid Dynamics), U. Illinois
Teaching assistant (Unit Operations Laboratory), U. Illinois
Teaching assistant (Independent Projects Laboratory), U. Illinois
Guest lecturer (Graduate Cellular Bioengineering), U. Illinois, MIT

Faculty (UT-Austin):

Fall 1996 CHE 354, Unit Operations I, 30 students Spring 1997 CHE 354, Unit Operations I, 41 students

Fall 1997 CHE 379/384 (undergrad/grad), Cell and Tissue Engineering, 52 students

Spring 1998 CHE 354, Unit Operations I, 41 students Fall 1998 CHE 354, Unit Operations I, 44 students Spring 1999 CHE 354, Unit Operations I, 35 students

Fall 1999 CHE 379/384, BME 385 (undergrad/grad), Cell and Tissue Engineering, 42 students

Spring 2000 CHE 354, Unit Operations I, 72 students

Fall 2002 BME 314, Engineering Foundations of BME, 9 students

Spring 2003 BME 379/385, CHE 384 (undergrad/grad), Cell and Tissue Engineering, 42 students

Spring 2004 BME 314, Engineering Foundations of BME, 58 students

Fall 2004 BME 379/CHE 379 (undergraduate only), Cell and Tissue Engineering, 26 students

Spring 2005 BME 314, Engineering Foundations of BME, 40 students

Fall 2005 BME 382J (graduate only), Cell and Tissue Engineering, 7 students

Spring 2006
BME 314, Engineering Foundations of BME, 37 students
BME 379/CHE 339T, Cell and Tissue Engineering, 73 students
Spring 2007
BME 314, Engineering Foundations of BME, 30 students
BME 379/CHE 339T, Cell and Tissue Engineering, 55 students
BME 379/CHE 339T, Cell and Tissue Engineering, 55 students
Spring 2008
BME 301, World Health and Biotechnology, 50 students
Spring 2009
BME 301, World Health and Biotechnology, 60 students
Fall 2009
BME 379/CHE 339T, Tissue Engineering, 35 students

Spring 2010 UGS 303 (Undergraduate Signature Course), Biotechnology and World Health, 50 students

Fall 2010 BME 382J, Cell and Tissue Engineering, 14 students

Spring 2011 UGS 303 (Undergraduate Signature Course), Biotechnology and World Health, 54 students

Fall 2011 BME 379, Tissue Engineering, 42 students

Spring 2012 UGS 303 (Undergraduate Signature Course), Biotechnology and World Health, 53 students

Fall 2012 BME 382J, Cell and Tissue Engineering, 8 students

Faculty (UF):

Fall 2013 Guest Lecture in BME1008, Introduction to Biomedical Engineering

Fall 2013 Guest Lecture in BCH4905, Science for Life

Fall 2014, 2015, 2016 Guest Lecture in BME1008, Introduction to Biomedical Engineering

Fall 2019, 2020 Guest Lecture in IDH3931, Bench to Market Regenerative Medicine, UF Honors Program
Spring 2023, 2024 Guest Lecture in IDH3931, Bench to Market Regenerative Medicine, UF Honors Program
Fall 2024 Guest Lecture in Cell and Tissue Engineering, Department of Biomedical Engineering
BME 4931/6938, Bench to Bedside Clinical Translation, 25 students [newly developed class]

Spring 2025 BME 6018, Clinical Correlations, 31 students

#### TEACHING AND MENTORING HONORS AND AWARDS:

1991 & 1992 University of Illinois Excellence in Teaching Award

June 1996 NSF Engineering Education Scholar, Carnegie Melon University

1998 Lockheed Martin Departmental Teaching Award

Halliburton/Brown and Root Young Faculty Excellence Award
James W. Vick Texas Excellence Award for Academic Advising

2000 & 2001 Nominee for Friar Centennial Teaching Fellowship

2000 Lockheed Martin College of Engineering Award for Outstanding Engineering Teaching by an

**Assistant Professor** 

2000 Faculty Appreciation Award in Recognition of Commitment to Excellence in Teaching, Student

**Engineering Council** 

2001 Invited "Rising Star" panelist for "A Galaxy of Stars" Future Directions in Chemical Engineering

Education Panel, American Society of Engineering Education (ASEE) Annual Meeting,

Albuquerque, NM, June 26, 2001.

2002 El Paso Energy Foundation Faculty Achievement Award for Teaching Excellence 2014 Women's Initiatives Committee's (WIC) Mentorship Excellence Award, AIChE

## **EDUCATIONAL-RELATED INVITED TALKS, PANELS, AND TUTORIALS:**

Schmidt, C.E., "Preparing for an Academic Career", ASEE Student Chapter, University of Texas at Austin, Fall 1998.

Panel member, "A Galaxy of Stars" Panel on "Future Directions in Chemical Engineering Education", <u>American Society of Engineering Education (ASEE) Annual Meeting</u>, Albuquerque, NM, June 26, 2001.

Schmidt, C.E. "Interdisciplinary Graduate Student Education: IGERT Optical Molecular Bio-Engineering Program at the University of Texas", <u>Association of American Medical Colleges (AAMC) Graduate</u>, <u>Research</u>, and <u>Education (GREAT) Group Annual Meeting</u>, Austin, TX, April 24, 2004.

Speaker & Panelist, "Negotiating the Ideal Faculty Position: Workshop for Women in Engineering", <u>UT Austin</u>, Oct. 2004. Schmidt, C.E. "Tutorial on Neural Engineering", Advances in Biomaterials, Bionanotechnology, Biomimetic Systems and Tissue Engineering: Tutorial Session II, AICHE Annual Fall Meeting, Austin, TX, Nov 7-12, 2004.

Schmidt, C.E. "Interdisciplinary Graduate Student Training", <u>University of Texas Houston Graduate School of Biomedical</u> Sciences (GSBS) Faculty Retreat (invitation from Dean of GSBS), Clear Lake, TX, May 13, 2006.

Schmidt, C.E. "Insights into Mentoring/Teaching Students in the Lab and the Classroom", Graduate Student Chalk Talk, Biomedical Engineering, Duke University, Durham, NC, Sept. 14, 2006.

Schmidt, C.E. "Ethical Responsibilities in an Academic Career", <u>NSF IGERT (Integrative Graduate Education and Research Training) Program in Cellular and Molecular Imaging for Diagnostics and Therapeutics</u>, Austin, TX, 2006-07.

Schmidt, C.E. "Juggling Motherhood and a Career in Bioengineering" Panel Speaker, <u>Women in BMES Luncheon</u>, <u>Biomedical Engineering Society Annual Meeting</u>, Austin TX, Oct. 8, 2010.

Schmidt, C.E. "Small, Simple Steps to Survival and Success". Invited Keynote Lecture, <u>Women's Initiatives Committee</u> (WIC) Luncheon, American Institute of Chemical Engineers (AIChE) Annual Meeting, Minneapolis, MN, Oct 17, 2011.

Schmidt, C.E. "Small, Simple Steps to Survival and Success", <u>Graduate Women in Biomedical Engineering Group</u>, University of Minnesota, St. Paul, MN, September 28, 2015.

Schmidt, C.E. "Small, Simple Steps to Survival & Success", Women in BME Group, RPI, Troy, NY, April 14, 2016.

Schmidt, C.E. "Balancing Academic Pressures & Research Creativity: It's All About T&P (and, that's not Tenure & Promotion!)", Invited Speaker & Panelist, <u>World Biomaterials Congress</u>, Montreal, Canada, May 20, 2016.

Schmidt, C.E., "Picture a Scientist: Building Diversity in Academia", Invited Speaker and Panelist, <u>Spring Plenary Symposium</u>, <u>Pitt Senate Research Committee</u>, <u>University of Pittsburgh</u>, Virtual Platform, April 8, 2021.

## **OTHER MAJOR EDUCATIONAL EFFORTS:**

2000 - 2003 One of key faculty involved with implementing new Biomedical Engineering Department at

UT-Austin and developing new undergraduate BME curriculum

## **CONTINUING EDUCATION INSTRUCTION:**

Aug. 1997- 1999, 2004 Guest Faculty: "Engineering Strategies for Nerve Regeneration", Continuing Education

Course "Advances in Tissue Engineering", Rice Univ., Houston, TX.

March 2005 Guest Faculty: "Nerves and Tissue Engineering", Tissue Engineering Symposium: An

ISAKOS Approved Course, Wake Forest University Medical School, Winston-Salem, NC.

## **EDUCATIONAL WORKSHOP & PANEL PARTICIPATION:**

June 1996 NSF Engineering Education Scholars Workshop; Pittsburgh, PA

August 1996 ASPEN Process Simulation Course, Cambridge, MA

#### **EDUCATIONAL-RELATED GRANT SUPPORT:**

Title: IGERT (Integrative Graduate Education and Research Training) - Cellular and Molecular Imaging for Diagnostics and Therapeutics

**Agency:** National Science Foundation

PI: Peppas (previously, Richards-Kortum), Co-PIs: Schmidt, Broadbelt

Dates: 9/1/03 - 8/30/08

**Total Award Amount:** \$ 3,871,200

Title: Development Award - Molecular Based Diagnosis, Treatment, and Prevention of Disease: Vertically

**Integrated Biomedical Engineering Education and Research** 

**Agency:** Whitaker Foundation

PI: Diller, Co-PIs: Kortum, Schmidt, Pandy

Dates: 9/1/01 - 8/31/05

**Total Award Amount:** \$ 3,000,000

Title: Supplemental Grant for High School Science & Math Teachers

Agency: Texas Higher Education Coordinating Board

**Total Award Amount: \$3,600** 

Title: CAREER Award - Understanding the Molecular Mechanisms of Growth Cone Motility & Nerve

Regeneration

**Agency:** National Science Foundation

**PI:** Schmidt **Dates:** 6/1/97 - 5/31/03

**Total Award Amount:** \$ 272,000

## LEADERSHIP, ADMINISTRATION & SERVICE

#### ADMINISTRATIVE APPOINTMENTS AND LEADERSHIP ACCOMPLISHMENTS:

*University of Florida:* 

Department Chair, Biomedical Engineering, Jan. 1, 2013 – May 15, 2023

- More than doubled faculty size by hiring 24 faculty members
- More than tripled department staff size from 5 to 21
- Increased women faculty from 2 to 16 and URM faculty from 1 to 7
- Three to four-fold increase in research expenditures from 2013 to 2023
- Undergraduate BME program first became ABET accredited in Fall 2019
- UG program ranked #10 among public BME UG programs in 2023 (U.S. News & World Report, USNWR)
- Graduate program rank climbed ~30 spots total since 2013 (ranked #12 among public BME programs in 2023)
- Secured dedicated teaching labs and \$300K for Cell/Tissue Engineering Teaching Lab
- Introduced a new "BME alumni pinning" tradition for all BME graduates (also, a fundraising initiative)
- Created a new Industry Partners Program, with nine members participating in various levels of engagement; established cash fund resulting in over \$250k in philanthropic gifts
- Secured foundation gifts to support faculty research (\$350k; Adenbaum and Longenbaugh Foundations)
- Secured endowment for a new named professorship (\$1M; Integra LifeSciences)
- Secured endowments for community outreach (\$75k) and student scholarships (\$100k)
- Secured bequest to endow the William Harper Graduate Scholarship (\$450k)
- Created three new endowed faculty fellowships for assistant professors (\$150K each)
- Executed strong marketing/communications effort (e.g., CrossLink magazine, 9 issues), with new dedicated staff
- Implemented a highly successful Distinguished Leadership Seminar Series
- Added new faculty professional development and mentoring programs (e.g., external mentor program)
- Initiated many new technical, networking, and social events to foster collaboration and community
- Implemented proactive honors and awards nominations process, with many successful recognitions
- Created a strong standing External Advisory Board (EAB) with industry and academic members
- Created engaged Alumni Advisory Board (AAB) with contributing alumni
- Restructured administrative team to allow for more innovation in academic programs

University of Texas at Austin:

Executive Committee of BME, 1999 - 2004 and 2010 - 2012

Graduate Adviser of BME, 2001 - 2004

Graduate Recruiter of BME, 2001 – 2004

• Founding member of BME Department at UT Austin.

- Helped secure Whitaker Education and NSF IGERT training grants for department and new building
- Implemented departmental-wide graduate recruiting event (versus individual recruiting)
- Worked with college on hiring women engineering faculty through targeted initiatives

## FORMAL LEADERSHIP TRAINING/WORKSHOPS:

Whitaker Academic Leadership Program, Selected Participant, Leesburg, VA, February 27-March 2, 2003.

Institute for Academic Leadership (IAL) Department Chairs Workshop, State University System of Florida, Howie-in-the-Hills, FL, Sept. 15-19, 2013.

Advanced Leadership for Academics and Professionals (ALAP), University of Florida, Fall 2013 - Spring 2014.

"Implicit Bias: Understanding the Unconscious Roots of Thought", Annual Provost Symposium, January 26-27, 2017.

"The Role of University and UF Faculty in Addressing the Rise of Extremism on Campus and in the Nation", Annual Provost Symposium, February 1-2, 2018.

Strategic Communication for Engineering Scholars Workshop, University of Florida, Sept. - Oct. 2018.

Stronger Together Webinar Series: "Understanding and Cultivating Your Cultural Intelligence", University of Florida, September - October 2021.

AIMBE Diversifying Academic Leadership Workshop, virtual format, Jan. 27-28, 2022.

## **DEPARTMENTAL COMMITTEE ASSIGNMENTS AND SERVICE:**

*University of Florida:* 

Member, Ex Officio, Departmental Seminar Committee, Biomedical Engineering, 2013-2023.

Member, Ex Officio, Honors and Awards Committee, Biomedical Engineering, 2013-2023.

Member, Ex Officio, Executive Committee, Biomedical Engineering, 2013-2023.

Member, Ex Officio, Faculty Search Committee, Biomedical Engineering, 2013-2023.

Member, Ex Officio, Engagement, Outreach and Public Relations Committee, Biomedical Engineering, 2021-2023.

Affiliate Faculty Member, Chemical Engineering, April 2013-present.

Affiliate Faculty Member, Materials Science and Engineering, April 2013-present.

Member, Departmental Comprehensive Exam Committees (2-3 annually), Biomedical Engineering, 2015-present.

Member, BME Graduate Program Committee, MS Program Subcommittee, Fall 2024-present.

Member, BME Engagement, Outreach and Public Relations (EOPR) Committee, Fall 2024-present.

Member, BME Honors and Awards Committee, Fall 2024-present.

University of Texas at Austin, Chemical Engineering (CHE):

Member, CHE 353 Curriculum Review Committee, CHE, 1996.

Member, Ad Hoc Committee to Evaluate Ph.D. Degree Requirements, CHE, Fall 1997.

Member, Ad Hoc Committee on TA Policy, Chemical Engineering, Fall 1998.

Member, Ad Hoc Committee to Examine Team Building, Chemical Engineering, Spring 1999.

Member, Transport Qualifying Exam Committee, Chemical Engineering: 1996 - 2001

University of Texas at Austin, Biomedical Engineering (BME):

Member, Graduate Curriculum Subcommittee, Biomedical Engineering Program, Spring 1997.

Member, Curriculum Subcommittee, BME Program/Department, 2001 - 2008.

Member, Graduate Admission Committee, BME Program/Department, 2001 - 2005.

Member, Fellowship Committee, Department, 2002 - 2004.

Chair, Graduate Studies Committee for BME, Fall 2002 - Summer 2004.

Member, Graduate Studies Executive Committee for BME, Fall 2002 – Fall 2008.

Member, BME Department Chair Search Committee, 2007-2008.

Chair, BME Department Chair Search Committee, 2008 - 2010.

Chair, BME Department Faculty Search Committee, 2008 - 2012.

Member, BME Department Graduate Studies Executive Committee, 2011-2012.

Member, BME Qualifying Exam Coordinating Committee, 2012 – 2012.

## COLLEGE AND UNIVERSITY COMMITTEE ASSIGNMENTS AND SERVICE:

University of Florida, 2013-present

Member, Innovations For International Development Working Group, Fall 2013.

Member, President's Goal Setting Task Force for UF (Chair: Winfred Phillips), Spring 2015-Fall 2015.

Chair, Department Chair Search Committee for Materials Science and Engineering, Spring 2015.

Faculty Representative, University Athletic Association (UAA) Board of Directors, July 1, 2013 – June 30, 2021.

Member, Audit Committee, UAA Board, July 1, 2013 – June 30, 2021.

Member, Internal Advisory Board, NINDS T32 "Interdisciplinary Training in Movement Disorders", 2019-present.

Member, Internal Research Advisory Committee, Emerging Pathogens Institute, 2018-present.

Member, UF ASPIRE - SEA Change Inclusive Hiring Best Practices Task Force, UF Provost's Office, Sp-Su 2022.

Member, Associate Dean for Research and Facilities Search Committee, UF HWCOE, Summer 2022.

Member, Panel, Provost's Office New Chairs' Orientation, UF Human Resources Center, Jan. 10, 2025.

University of Texas at Austin, College of Engineering, 1996-2012

Chair, Women in Engineering Program Committee, College of Engineering, Fall 1999 – Spring 2001.

Member, Women in Engineering Program Committee, College of Engineering, Fall 1996 – Summer 1999.

Member, Scholastic Appeals Committee, Spring 2000 - Spring 2001.

Member, Women in Engineering Program Committee, College of Engineering, Fall 2002 – 2010.

Member, Hocott Award Review Committee (Chair: B. Streetman), College of Engineering, Summer 2005

Member, Lockheed Martin Awards Review Committee, College of Engineering, Spring 2007

Member, Lockheed Martin Awards Review Committee, College of Engineering, Spring 2008

University of Texas at Austin, Inter-College and University, 1996-2012

Member, "Explore UT" University Committee, Spring 2000 – March 2001.

Chair/Organizer, "Biotechnology, Bioinformatics and Biosensors" graduate track in the Cell and Molecular Biology Graduate Program, Spring 2000.

Member, Advisory Group to the Graduate and Professional Education Committee of the Commission of 125 (Chair: W. Powers), Fall 2002.

Member, Co-op (Mitchell) Awards Committee, Spring 2002, Spring 2003, Spring 2004.

Member, Office of Sponsored Projects (OSP) Director Search Committee (Chair: S. Brown), Spring 2005 - Fall 2005.

Co-Director, NSF IGERT Program in Cellular and Molecular Imaging for Diagnostics and Therapeutics, 2003 - 2008.

Member, NSF IGERT Steering Committee, 2001 - 2008.

Member, Faculty Council, Fall 2005 - 2007.

Member, Research Policy Committee, 2006-2007.

Organizer and Founder, "Frontiers of Neuroscience: From Basic Research to Clinical Applications" Seminar Series (joint seminar series between UT Austin and Austin Medical Community, 2008-2010.

Member, Institute for Cellular and Molecular Biology (ICMB) Advisory Committee, College of Natural Sciences, September 1, 2006 – Aug. 31, 2009.

University Faculty Representative, Federal Demonstration Partnership (FDP), Summer 2007 – Fall 2009.

Faculty Grievance Committee, Fall 2010 – 2012.

Member, Steering Committee, Texas Materials Institute, 2010 – 2012.

## SERVICE TO UNIVERSITY STUDENT ORGANIZATIONS:

Faculty Advisor, FIMRC UT Chapter, UT Austin, 2009 – 2012.

Faculty Advisor, Biomedical Engineering Society (BMES), UT Austin, 2003.

Faculty Advisor, Society of Women Engineers (SWE), UT Austin, 1997 - 2001.

Faculty Advisor, Omega Chi Epsilon (CHE Honor Society), UT Austin, 2000 - 2001.

## NATIONAL/PROFESSIONAL SERVICE ACTIVITIES:

Aug. 1997, 1998, 1999	Invited Guest Faculty – Topic: "Tissue Engineering Strategies for Peripheral Nerve		
	Regeneration", Continuing Education Course "Advances in Tissue Engineering", Rice		
	University, Houston, TX.		
June 1997 – April 1998	Membership Chair, Tissue Engineered Products Special Interest Group (TEPSIG), Society for		
	Biomaterials.		
April 1998 – Aug. 2000	Program Chair, Hybrid Artificial Organs Special Interest Group, Society for Biomaterials.		
April 1998 – Aug. 2000	Vice-Chairperson, Tissue Engineering Special Interest Group (TESIG), Society for Biomaterials.		
Fall 1999 – Fall 2001	Vice Programming Chair, Area 8b (Biomaterials), American Institute of Chemical Engineers		
	(AIChE) National Chapter.		
Fall 2001 – Fall 2003	Programming Chair, Area 8b (Biomaterials), American Institute of Chemical Engineers (AIChE)		
	National Chapter.		
Fall 2002	Advisory Workshop for National Research Council on "Challenges for the Chemical Sciences in		
	the 21st Century: Health & Medicine", Beckman Center, National Academies, Irvine, CA		
Fall 2004 – Spring 2005	Member, International Program Committee, The IASTED (International Association of Science		

and Technology for Development) Conference on Biomedical Engineering: BioMED 2005,

Innsbruck, Austria, Feb. 2005.

Fall 2006 – Spring 2007 Member, International Program Committee, The IASTED (International Association of Science

and Technology for Development) Conference on Biomedical Engineering: BioMED 2007,

Innsbruck, Austria, Feb. 2007.

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Spring 2006	Member, Awards and Nominations Committee, Society for Biomaterials.
Fall 2007 – Spring 2008	Member, International Program Committee, The IASTED (International Association of Science
1 0	and Technology for Development) Conference on Biomedical Engineering: BioMED 2008,
	Innsbruck, Austria, Feb. 2008.
Fall 2007	Invited Workshop Leader, NIH Grant Writers Workshop, Biomedical Engineering Society
	Meeting, Los Angeles, CA, Sept. 2007.
Fall 2007 – Fall 2009	Federal Demonstration Partnership, Faculty Representative for The Univ. of Texas at Austin.
Spring 2008	Invited Participant, American Chemical Society (ACS) Biochemical Technology Division (BIOT) Strategic Planning Meeting, Washington DC, June 6-8, 2008.
Fall 2008 – Fall 2009	MESD (Materials Engineering and Science Division) Director, AICHE.
Spring 2009	Local Liaison of the ChE Division of American Society of Engineering Education (ASEE).
Summer 2009	NSF ADVANCE Career Mentor, Northeastern University, Chemical Engineering
Fall 2010	Women in BME Luncheon Panel on Balancing Personal Life and a Professional Career, BMES
	Annual Meeting, Austin, TX, October 8, 2010.
Fall 2010 – Fall 2012	Chair, Diversity Committee, Biomedical Engineering Society (BMES).
Fall 2011 – Fall 2014	Board of Directors, Biomedical Engineering Society (BMES).
Fall 2013	Chair, Rehabilitation and Neuroengineering AIMBE Fellows Election Committee.
Spring 2014 – 2015	Chair-Elect, College of Fellows, AIMBE.
Fall 2012 – Fall 2015	Chair, National Meetings Committee, BMES.
Fall 2013 – Fall 2015	Member, Fellows Selection Committee, BMES.
Spring 2015 – Sp 2017	Member, Awards and Nominations Committee, Society for Biomaterials (SFB).
Spring 2015 – Sp 2016	Chair, College of Fellows, AIMBE.
April 2016	Conference Chair, 25 <sup>th</sup> Anniversary Meeting, AIMBE, Washington DC, April 3-4, 2016.
April 2017 - April 2018	President-Elect and Board of Directors, AIMBE
April 2018 - April 2020	President and Board of Directors, AIMBE.
Spring 2018 – Sp 2019	Member, Nominations Committee, BMES.
April 2020 - April 2021	Past-President and Board of Directors, AIMBE.
Fall 2019 – Spring 2020	NIBIB Strategic Planning Committee.
Sp 2020 – Fall 2020	Member, COVID-19 Task Force for Annual Meetings, BMES.
Su 2020 - Fall 2020	Member, Fellows Selection Committee, BMES.
Spring 2022	Judge, Life Sciences Division, Blavatnik National Awards for Young Scientists, New York Academy of Sciences
Spring – Fall 2022	Member, Nominations Committee, Academy of Science, Eng & Medicine of Florida (ASEMFL)
Fall 2024	Member, Nominations Committee, Academy of Science, Eng & Medicine of Florida (ASEMFL)
Spring 2023	Member, Executive Director Search Committee, AIMBE.
Spring 2024	Member, Acta Biomaterialia Gold Medal Selection Committee.
Fall 2024-present	Member, NIH NIBIB Advisory Council.
Fall 2024-present	Member, Council Working Group on Re-envisioning the Postdoctoral Experience in Biomedical
P	Imaging and Bioengineering, NIBIB Advisory Council.
Fall 2024-present	Member, Nominations Search Committee, Section 2, National Academy of Engineering (NAE).
Fall 2024-present	Board of Directors, Academy of Science, Engineering and Medicine of Florida (ASEMFL).
Spring 2025	Chair, Ad Hoc Subcommittee on Associate Membership, ASEMFL.
	EXTERNAL ADVISORY COMMITTEES:
Fall 2016 – present	Section Editor for Neural Engineering, Current Opinion in Biomedical Engineering
Fall 2012 – Fall 2016	Deputy Editor-in-Chief, Journal of Materials Chemistry B.

EDITORNIE DOMEDS &	SATER THE TREE TO THE COMMITTEES.
Fall 2016 – present	Section Editor for Neural Engineering, Current Opinion in Biomedical Engineering
Fall 2012 – Fall 2016	Deputy Editor-in-Chief, Journal of Materials Chemistry B.
Spring 2006 - present	Editorial Board, International Journal of Nanomedicine.
Spring 2006 - present	Editorial Board, Journal of Biomaterials Science, Polymer Edition.
Spring 2007 - present	Editorial Board, Journal of Biomedical Materials Research, Part A.
Fall 2010 - present	Editorial Board, Nanomedicine
Fall 2014 - present	Editorial Board, Journal of Neural Engineering
Fall 2002 – Fall 2008	Editorial Advisory Board of the Encyclopedia of Biomaterials and Biomedical Engineering
	(EBBE), Marcel Dekker.
Fall 2011 – present	Advisor, Cambridge Texts in Biomedical Engineering, Series Editors: Chien, Saltzman

Advisor, Camoriage Texts in Biomedical Engineering, Series Editors: Chien, Santzman

Spring 2013 – 2015 Member, Engineering Advisory Board, Biomedical Engineering, University of Alabama,

Birmingham, AL.

Fall 2010 Chair, External Review Committee for the Department of Chemical Engineering, College of

Engineering, The University of Michigan, Ann Arbor, MI.

Fall 2010 – Fall 2012	Chair, External Advisory Committee, NeuroEngineering IGERT Program, The University of
	Illinois at Urbana-Champaign, Urbana, IL.
Fall 2010 – Su 2019	Member, External Advisory Committee, Science and Technology Center on Emergent Behaviors
	of Integrated Cellular Systems (EBICS) (MIT, University of Illinois at Urbana-Champaign and
	Georgia Institute of Technology)
Fall 2011	Member, External Review Committee, Department of Biomedical Engineering, Univ. Florida.
Fall 2014	Member, External Review Committee, Dept. Bioengineering, Univ. Illinois, Urbana, IL.
Spring 2015	Chair, External Review Committee, Department of Biomedical Engineering, Texas A&M
	University, College Station, TX.
Fall 2016 – present	Member, External Advisory Board, Biomedical Engineering, WPI, Worcester, MA.
Spring 2020 – present	Member, Scientific Advisory Board for Columbia U. P41: Tissue Engineering Resource Center.
Spring 2023	Chair, External Review Committee, Department of Biomedical Engineering, Texas A&M
	University, College Station, TX.

## SYMPOSIA AND CONFERENCES ORGANIZED:

- 1. "Young Faculty Forum", co-organized with Kristi Anseth (University of Colorado), <u>American Institute of Chemical Engineers (AIChE) National Meeting</u>, Los Angeles, CA, November 1997.
- 2. "Young Faculty Forum", co-organized with Anne Robinson (University of Delaware), <u>American Institute of Chemical</u> Engineers (AIChE) Annual Meeting, Miami, FL, November 1998.
- 3. "Neurological Biomaterials Symposium", co-organized with Molly Shoichet (University of Toronto) and Ravi Bellamkonda (Case Western Reserve University), Materials Research Society (MRS) Annual Fall Meeting, Boston, MA, December 2000. (funding secured from the Whitaker Foundation)
- 4. "Biomaterials for Tissue Engineering Symposium", co-organized with Joyce Wong, Lonnie Shea, Christopher Chen, Anne Plant, Art Coury, Materials Research Society (MRS) Annual Fall Meeting, Boston, MA, December 2003. (funding secured from the Whitaker Foundation and industrial sponsors)
- 5. Symposium organizer: "Topical Conference", co-organized with Nicholas Peppas, Kristi Anseth, Angela Dillow, AICHE Annual Fall Meeting, Austin, TX, November 2004.
- 6. "Electroactive and Conductive Polymers and Carbon Nanotubes for Biomedical Applications" (Symposium QQ), coorganized with Tracy Cui, Diane Hoffman-Kim, Silvia Luebben, <u>Materials Research Society (MRS) Annual Fall Meeting</u>, Boston, MA, November 2007. (*funding secured from industrial sponsors*)
- 7. Symposium organizer: "Biomaterials", co-organized with Carmen Scholz and Gabriel Luna, <u>MacroMex: Mexican-American Conference on Advances in Polymer Science</u>, Los Cabos, Baja California Mexico, December 2008.
- 8. Symposium organizer: "Honorary Series in Biomaterials", <u>American Institute of Chemical Engineers (AIChE) National Meeting</u>, Nashville, TN, November 2009.
- 9. Conference Chair, BMES Annual Meeting, Austin, TX, Sept. 2010.
- 10. Co-Track Chair (with Kevin Otto), "Neural Engineering Track", BMES Annual Meeting, San Antonio, TX, Oct. 2014.
- 11. Symposium Co-Chair (with Nicholas Peppas and Michael King), "Cell and Molecular Bioengineering (CMB) Young Innovators Session", <u>BMES Annual Meeting</u>, Tampa, FL, October 2015.
- 12. Conference Organizer, AIMBE Annual Event, Washington DC, April 2016.

## CONFERENCE SESSIONS CHAIRED/ORGANIZED:

- 1. "Cell Adhesion and Migration", co-organized with Richard Dickinson (University of Florida), <u>American Institute of Chemical Engineers (AIChE) National Fall Annual Meeting</u>, Chicago, IL November 1996.
- "Tissue Engineering Workshop and Panel", Chair and Panel Moderator, <u>Surfaces in Biomaterials Annual Meeting</u>, Minneapolis, MN, September 1997.
- 3. "Genes/Development", Chair, <u>10th Annual Cellular and Molecular Biology Retreat</u>, University of Texas at Austin, Bandera, TX, October 1997.
- 4. "Cell/Tissue Interactions with Biomaterials", co-organized with Scott Diamond (University of Pennsylvania), <u>American Institute of Chemical Engineers (AIChE) National Fall Ann. Meeting</u>, Los Angeles, CA, November 1997.
- 5. "Brain and Neural Engineering", chair, <u>17th Southern Biomedical Engineering Conference</u>, San Antonio, TX, Feb 1998.
- 6. "Cell Adhesion and Migration", co-organized with Josef Käs (University of Texas), <u>Biomedical Engineering Society</u> (BMES) Annual Meeting, Cleveland, OH, October 1998.
- 7. "Neural Tissue Engineering", co-organized with Molly Shoichet (University of Toronto), <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Cleveland, OH, October 1998.
- 8. "Nanotechnology in Biomedical Engineering", co-organized with Robin Coger (University of North Carolina), American Institute of Chemical Engineers (AIChE) National Fall Annual Meeting, Miami, FL, November 1998.
- 9. "Neural Tissue Engineering", co-organized with Molly Shoichet (University of Toronto), <u>Annual Meeting of the Society for Biomaterials</u>, Providence, RI, April 1999.

- 10. "Cell Polymer Constructs in Tissue Engineering", co-organized with Howard Matthew (Wayne State University), American Institute of Chemical Engineers (AIChE) National Fall Annual Meeting, Dallas, TX, November 1999.
- 11. "Cell Surface-Biomaterials Interactions", chair and organizer, <u>American Institute of Chemical Engineers (AIChE)</u>
  National Fall Annual Meeting, Dallas, TX, November 1999.
- 12. "Protein and Cell Interactions with Materials", co-chaired with Thomas Webster, <u>Biomedical Engineering Society</u> (BMES) Annual Meeting, Seattle, WA, October 2000.
- 13. "Cardiovascular Tissue Engineering IV", co-chaired with Andreas Kern (Advanced Tissue Sciences Inc.), <u>Biomedical Engineering Society (BMES) Annual Meeting</u>, Seattle, WA, October 2000.
- 14. "Biomaterials", co-organized with Padma Naraya (National Starch and Chemical Co.), <u>American Institute of Chemical Engineers (AIChE) National Fall Annual Meeting</u>, Los Angeles, CA, November 2000.
- 15. "Nanotechnology in Bioengineering", co-organized with Surya Mallapragada (Iowa State University), <u>American Institute of Chemical Engineers (AIChE) National Fall Annual Meeting</u>, Los Angeles, CA, November 2000.
- 16. "Cardiovascular Tissue Engineering", chair, Biomed Eng Society (BMES) Annual Meeting, Durham, NC, Oct 2001.
- 17. "Biomimetic Approaches to Materials Design", co-organized with Efrosini Kokkoli (University of Massachusetts at Amherst), American Institute of Chemical Engineers (AIChE) National Fall Annual Meeting, Reno, NV, Nov 2001.
- 18. "Fundamentals of Tissue Engineering", chair, Biomed Eng Society (BMES) Annual Meeting, Houston, TX, Oct 2001.
- 19. "Biomaterials I", co-organized with M. Lane Gilchrist (CCNY), <u>American Institute of Chemical Engineers (AIChE)</u>
  National Fall Annual Meeting, Reno, NV, November 2001.
- 20. "Fundamentals of Tissue Engineering", chair, <u>The Second Joint Meeting of the IEEE Engineering in Medicine and Biology Society And the Biomedical Engineering Society</u>, Houston, TX, October 2002.
- 21. "Biomaterials II", co-organized with M. Lane Gilchrist (CCNY), <u>American Institute of Chemical Engineers (AIChE)</u>
  <u>National Fall Annual Meeting</u>, Indianapolis, IN, November 2002.
- 22. "Bioinspired and Biomimetic Polymeric Materials I" and "Bioinspired and Biomimetic Polymeric Materials II", coorganized and co-chaired with Annelise Barron (Northwestern Univ.), <u>AICHE Annual Fall Meeting</u>, San Francisco, CA, Nov.17 22, 2003.
- 23. "F2: Overview and Challenges in Biomaterials II", co-organized and co-chaired with Joyce Wong (Boston University), MRS Annual Fall Meeting, Boston MA, Dec. 1-5, 2003.
- 24. "F4: Natural and Artificial Polymers", co-organized and co-chaired with Lonnie Shea (Northwestern University) MRS Annual Fall Meeting, Boston MA, Dec. 1-5, 2003.
- 25. "Tissue engineering and biomaterials", chair, ACS Spring Annual Meeting, Annaheim, CA, March 28 April 1, 2004.
- 26. "Advances in Biomaterials, Bionanotechnology, Biomimetic Systems and Tissue Engineering: PlenarySession II", coorganized and co-chaired with Angela Dillow, <u>AICHE Annual Fall Meeting</u>, Austin, TX, Nov. 2004.
- 27. "Biomimetic Materials for Cellular Interactions", co-organized and co-chaired with Sikavitsas, <u>AICHE Annual Fall Meeting</u>, Austin, TX, Nov. 2004.
- 28. "Biofunctional Scaffolds to Control Cell Function", co-organized and co-chaired with Laura Suggs, <u>AICHE Annual</u> Fall Meeting, Austin, TX, Nov. 2004.
- 29. "Smart/Conducting Biomaterials", co-organized and co-chaired with Christopher Brazel, <u>AICHE Annual Fall Meeting</u>, Austin, TX, Nov. 2004.
- 30. "Electroactive and Conductive Polymers for Biomedical Applications Actuators and Tissue Engineering", MRS Annual Fall Meeting, Boston, MA, Nov. 2007.
- 31. "Biomaterials, Matrices and Scaffolds II", co-chaired with Anthony Atala, <u>Keystone Symposium</u>, <u>Regenerative Tissue</u> Engineering and Transplantation, Breckenridge, CO, April 1 6, 2012.
- 32. "Biomaterial Strategies for Innervation, Nerve Repair and Integration", co-organized with Jeffrey Capadona and Shelly Sakiyama-Elbert, <u>Society For Biomaterials Fall Symposium</u>, New Orleans, LA, October 4-6, 2012.
- 33. "Biosensors, Nanobio Interfaces & Implantable Devices II", co-chaired with Dr. Anthony Guiseppi-Elie, Biomedical Engineering Society (BMES) Annual Meeting, Atlanta, GA, Oct. 26, 2012.

#### **SCIENTIFIC PEER REVIEWS:**

## Journal Reviews (over 500 total reviews)

Acta Biomaterialia, Advanced Drug Delivery Reviews, Advanced Materials, Advanced Functional Materials, Angewandte Chemie, Annals of Biomedical Engineering, Artificial Organs, Biomacromolecules (ACS journal), Biomaterials, Biophysical Journal, Biotechnology and Bioengineering, Biotechnology Progress (ACS journal), Cells and Materials, Chemistry of Materials (ACS journal), FASEB Journal, Industrial and Engineering Chemistry Research (ACS journal), Interface (a journal of the Royal Society of London), Journal of Applied Polymer Science, Journal of the American Chemical Society (JACS), Journal of Biomaterials Science - Polymer Edition, Journal of Biomedical Materials Research, Journal of Cellular Engineering, Journal of Controlled Release, Journal of Membrane Science, Journal of Neuroscience, Journal of Theoretical Biology, Langmuir (ACS journal), Macromolecules (ACS journal), Macromolecular Biosciences, Medical and Biological Engineering and Computing, Nature Biotechnology, Nature Materials, Neuroscience, Proceedings of the National Academy of Sciences, Tissue Engineering, Science Advances, Science

## Reviews for US and International Granting Agencies and Foundations

National Institutes of Health (RO1, R21, R03, BRP)

National Science Foundation (Individual, ERC, SBIR, CAREER, MRI)

National Aeronautics and Space Administration (NASA)

Petroleum Research Foundation

Whitaker Foundation

<u>Other Countries</u>: Canadian Institutes of Health Research; Natural Sciences and Engineering Research Council of Canada (NSERC); Research Grants Council (RGC) of Hong Kong; University of Padua, Italy; Austrian Science Fund (FWF); Australian Research Council (ARC)

## Other Peer-Reviews

Arizona State University Bioengineering Seed Grant Program, December 2000.

Oklahoma Bioengineering Center Seed Grant Program, September 1999.

Whitaker Foundation, Proposal Review for "Teaching Materials" Grant Proposal, August 1999.

Whitaker Individual Research Grant Proposals, Summer 2002.

Oxford University Press, "Tissue Engineering" Textbook by Saltzman, Summer 2002.

Kentucky Science & Engineering Foundation R&D Excellence Program Proposals, Summer 2002.

South Carolina Spinal Cord Injury Fund, Spring 2004.

Yale University Pepper Grant Program, Spring 2005.

Cornell University Biomedical Engineering Seed Grant Program, Summer 2007.

Wayne State University Research Enhancement Program, Spring 2008.

## Review Panels and Site Visits

NSF Major Research Instrumentation (MRI) Review Panel, Biomedical Instrumentation, Wash D.C., May 1997.

NSF Engineering Research Center (ERC) Site Visit Panel, Tissue Eng. Center, Georgia Tech, Atlanta, GA, Jan 1998.

NASA Microgravity Biotechnology Panel, Washington D.C., July 1998.

NSF Engineering Research Center (ERC) Review Site Visit Panel (2<sup>nd</sup> year review), Engineered Biomaterials, University of Washington, Seattle, WA, July 1998.

NSF CAREER Panel, Biotechnology Program, Washington D.C., December 1998.

NSF Engineering Research Center (ERC) Review Site Visit Panel (1<sup>st</sup> year review), Tissue Engineering Center, Georgia Tech, Atlanta, GA, May 1999.

NIH Bioengineering Research Partnership (BRP) Review Panel (SSS-M02), Wash DC, March 22-23, 2000.

NIH Bioengineering R01 Grant Review Panel (SSS-M01), Washington DC, March 24, 2000.

NIH Bioengineering Research Partnership (BRP) Review Panel (SSS-M03), Washington DC, Nov.15, 2000.

NIH Bioengineering R01 Grant Review Panel (SSS-M01), Washington DC, March 23, 2001.

NSF CAREER Panel, Biotechnology Program, Washington D.C., December 2001.

NIH SSS-MO1 Panel, Nov. 17, 2003.

NIH MDCN Panel, Jan. 16, 2004.

NIH MOSS G 01 Panel, July 14, 2004.

NHLBI Programs of Excellence in Nanotechnology review panel, December 9, 2004.

NIH Neurodifferentiation, Plasticity, and Regeneration Study Section, Molecular, Cellular and Developmental Neuroscience Integrated Review Group, Ad-hoc reviewer, October 27, 2005.

NIH Special Emphasis Panel/Scientific Review Group 2006/10 ZDE1 MK (92) meeting, August 4, 2006.

NIH Special Emphasis Panel ZRG1 MDCN-F 91 S, August 2007.

NSF CAREER Panel, Biotechnology Program, Washington D.C., November 2007.

NSF Panel, CBET, Washington D.C., June 8-9, 2009.

NIH Panel, ZDC1 SRB –Y Special Emphasis Panel for NIH PAR-07-287, Washington DC, November 2009.

NIH Panel, Neurotechnology (NT) Study Section, San Francisco, CA, Jan. 2010.

Veterans Administration Rehabilitation Research and Development (REHAB R&D) Grant Review Panel, Feb. 2010.

NSF Panel, Biomaterials Review Panel 5 (PGM1), Washington D.C., February 7, 2011.

NIH Panel, Emerging Technologies and Neurosciences, November 8, 2011.

## COMMUNITY SERVICE AND OUTREACH ACTIVITIES (SELECTED):

## Presentations and Panels

- 1. Speaker, "Tissue Engineering", Welch Summer Scholar Program (advanced high school summer program), University of Texas at Austin, Summer 1997.
- 2. Speaker, "Engineering Neural and Vascular Replacements for the Future", Texas Energy Society Symposium (TESS) (high school summer program), University of Texas at Austin, June 1997.
- 3. Speaker, "Tissue Engineering Approaches for Nerve and Vascular Repair". Biomedical Engineering Society Student Chapter, University of Texas at Austin, October 1997.
- 4. Speaker, "Tissue Engineering", Minority Introduction to Engineering (MITE) High School Outreach Program, University of Texas at Austin, Spring 1997, 1998.
- 5. Speaker, "Graduate School as an Option". Panel Member, Society of Women Engineers (SWE) Student Chapter, University of Texas at Austin, February 1998.
- 6. Speaker, "What is Biomedical Engineering?". Panel Member, Biomedical Engineering Society Student Chapter, University of Texas at Austin, February 1998.
- 7. Speaker, "Technology and the 21st Century", Panel Member, Honors Colloquium (advanced high school summer program), University of Texas at Austin, July 1998.
- 8. Speaker, "Engineering Human Tissues", Honors Colloquium (advanced high school summer program), University of Texas at Austin, July 1998.
- 9. Speaker, "Preparing for an Academic Career", ASEE student chapter, University of Texas at Austin, Fall 1998.
- 10. Speaker, "Tissue Engineering". 1999 Student AIChE Southwest Regional Conference, University of Texas at Austin, February 1999.
- 11. Speaker, "Tissue Engineering". Society of Women Engineers (Southwest Regional Professional Chapter), University of Texas at Austin, February 1999.
- 12. Speaker, "Engineering of Human Tissues". UT Interactive (University open house to community), University of Texas at Austin, March 1999.
- 13. Speaker, "The Future of Biomedical Therapies". Westminster Manor (Retirement Center), Austin, TX, Summer '99.
- 14. Speaker, "Tissue Engineering". Society of Women Engineers Southwest Regional Professional Conference, Marriott, Austin, TX, November 1999.
- 15. Speaker, "Advances in Biomedical Engineering", Texas Energy Society Symposium (TESS) (high school summer program), University of Texas at Austin, June 2000.
- 16. Speaker, "Tissue Engineering". Lakeway Men's Breakfast Club (retirement club), Lakeway, TX, October 4, 2000.
- 17. Speaker, "Biomedical Research and Informed Consent", NSF IGERT (Integrative Graduate Education and Research Training) Program in Optical Biomedical Engineering, Ethics Seminar Series, Austin, TX, 2001-2005.
- 18. Speaker, "Ethical Responsibilities in Academia", NSF IGERT (Integrative Graduate Education and Research Training) Program in Cellular & Molecular Imaging for Diagnostics/Therapeutics, Ethics Seminar Series, Austin, TX, 2006-07.
- 19. Speaker, "Recent Advances in Biomedical Engineering Research". UT Retired Faculty-Staff Association, Austin, TX, January 31, 2001.
- 20. Speaker, "Build Your Own Body Parts". Talk at "Explore UT" Open House (University open house to community), Austin, TX, March 3, 2001.
- 21. Speaker, "Biomedical Engineering Therapies of the Future", Texas Energy Society Symposium (TESS) (high school summer program), University of Texas at Austin, June 2001.
- 22. "Engineering New Biomedical Therapies", University of Texas Alumni Association, U. Texas at Austin, June 2001.
- 23. Speaker, "Build Your Own Body Parts: Novel Biomedical Engineering Therapies". Scholia (Faculty Club), University of Texas at Austin, Austin, TX, January 14, 2002.
- 24. "Engineering New Biomedical Therapies". UT Retired Faculty-Staff Association, Health Interest Group, Austin, TX, February 4, 2002.
- 25. Speaker, "Build Your Own Body Parts". Talk at "Explore UT" Open House (University open house to community), Austin, TX, March 2, 2002.
- 26. Speaker, "Grow Your Own Body Parts". Talk for LAMP (Learning Activities for Mature People), The University of Texas at Austin, Austin, TX, March 27, 2002.

- 27. Speaker, "Neural Tissue Engineering". Honor's Colloquium Lecture, Univ. Texas, Austin, TX, July 26, 2002.
- 28. Speaker, "Tissue Engineering". Westminster Manor (Retirement Center), Austin, TX, December 2002.
- 29. Speaker, "Build Your Own Body Parts". Talk at "Explore UT" Open House (University open house to community), Austin, TX, March 2003.
- 30. Speaker, "Build Your Own Body Parts". Zilker Elementary Girl's Brown Bag Series, Zilker Elementary School, Austin, TX, March 31, 2003.
- 31. Speaker, "Tissue Engineering". Biomedical Engineering Society Student Chapter, Univ. Texas at Austin, Feb. 2004.
- 32. Speaker, "Interdisciplinary Graduate Student Education: IGERT Optical Molecular Bio-Engineering Program at the University of Texas", Association of American Medical Colleges (AAMC) Graduate, Research, and Education (GREAT) Group Annual Meeting, Austin, TX, April 24, 2004.
- 33. Speaker and Panel Participant, "Negotiating the Ideal Faculty Position: A Workshop for Women in Engineering", University of Texas at Austin, October 2004.
- 34. Panel Participant, Women in Engineering (WEP) workshop & panel on "Building your Lab", University of Texas at Austin, October 22, 2004.
- 35. Speaker, "BME Research in the College of Engineering", Parent's Weekend, College of Engineering Meeting, University of Texas at Austin, October 29, 2005.
- 36. Speaker, Panel Participant, Women in Engineering (WEP) panel on "Negotiations and Networking", University of Texas at Austin, Feb. 1, 2006.
- 37. Speaker, "Interdisciplinary Graduate Student Training", University of Texas Houston Graduate School of Biomedical Sciences (GSBS) Faculty Retreat (invitation from Dean of GSBS), Clear Lake, TX, May 13, 2006.
- 38. "Insights into Mentoring/Teaching Students in the Lab and the Classroom", Graduate Student Chalk Talk, Biomedical Engineering, Duke University, Durham, NC, Sept. 14, 2006.
- 39. Speaker and Panel Participant, "BME Research Panel", BME Freshman Interest Group, University of Texas at Austin, Austin TX, October 3, 2007.
- 40. Speaker and Panel Participant, "Research Opportunities", BMES Student Organization, University of Texas at Austin, Austin TX, October 24, 2007.
- 41. Guest Lecture in BIO 101C Introductory Biology Class on 'Tissue Engineering', April 29, 2008.
- 42. Speaker, "Engineering Functional Nerve Tissue", NSF REU Summer Undergraduate Research Program in Cellular and Molecular Imaging for Diagnostics and Therapeutics, Austin, TX, July 10, 2008.
- 43. Speaker, "Grow Your Own Body Parts", Honors Colloquium (for high school students), University of Texas at Austin, Austin TX, July 25, 2008.
- 44. Speaker, "Tissue Engineering: Developing Therapies for Damaged Neural Tissue". Exchange Club (http://austinexchange.clubexpress.com/), Radisson Hotel, Middle Fiskville Road, Austin, TX, January 21, 2009.
- 45. Guest Lecture in BIO 101C Introductory Biology Class on "Neural Tissue Engineering", March 9, 2009.
- 46. Speaker, "Grow Your Own Body Parts", Minority Introduction to Engineering (for high school minority students), University of Texas at Austin, Austin TX, June 18, 2009.
- 47. Guest Lecture in BIO 101C Introductory Biology Class on "Neural Tissue Engineering", Feb. 8, 2010.
- 48. Speaker, "What it Takes to Make it in College", College Forward Programs for Reagan and LBJ High Schools, LBJ High School, Austin TX, April 20, 2010. (College Forward provides college access and college persistence services to motivated, economically disadvantaged students, in order to facilitate their transition to college)
- 49. Speaker, "Biomedical Engineering", Longhorn Engineering Program (high school students), University of Texas at Austin, August 6, 2010.
- 50. Speaker, "Biomedical Engineering and Tissue Engineering", My Introduction to Engineering (MITE) (minority high school students), University of Texas at Austin, June 9, 2011.
- 51. Speaker, "Regenerative Therapies". Westminster Manor (Retirement Center), Austin, TX, Sept. 22, 2011.
- 52. Speaker, "Small, Simple Steps to Survival and Success". Invited Keynote lecture at Women's Initiatives Committee (WIC) Luncheon, American Inst. of Chemical Engineers (AIChE) Annual Meeting, Minneapolis, MN, Oct. 17, 2011.
- 53. Speaker, "Engineering Therapies for Wound Healing and Neural Repair". Talk for LAMP (Learning Activities for Mature People), Thompson Conference Center, The University of Texas, Austin, TX, January 18, 2012.
- 54. Speaker, "Latest and Greatest Advances in UT Engineering: Biomedical Engineering". UT NOVA, Osher Lifetime Learning Institute, Thompson Conference Center, The University of Texas, Austin, TX, January 25, 2012.
- 55. Speaker, "Biomedical Engineering, Regenerative Medicine, and the Role of Engineering in Health Care", Department of Biomedical Engineering, BME1008: Introduction to Biomedical Engineering, University of Florida, Fall 2013, 2014, 2015, and 2016.
- 56. Speaker, "Regenerative Medicine and the Role of Engineering in Health Care", UF "Science for Life" Course, The University of Florida, November 12, 2013.
- 57. Speaker, "Regenerative Medicine and the Role of Engineering in Health Care", UF ChE Alumni Professional Speakers Series, <u>Department of Chemical Engineering</u>, The University of Florida, January 30, 2014.

- 58. Speaker, "Simple Tips for Success", <u>Graduate Women in Biomedical Engineering Group, University of Minnesota</u>, St. Paul, MNZ, September 28, 2015.
- 59. Speaker, "Bridging the Gap: Engineering New Pathways for Regenerating Nerves", UF ChE Alumni Professional Speakers Series, Department of Chemical Engineering, The University of Florida, October 28, 2015.
- 60. Speaker, "Engineering Materials to Heal the Body: A Focus on Nerve Tissue", <u>School of Biological & Physical Sciences</u> "STEMinar Series, Daytona State College, Daytona, FL, January 25, 2016.
- 61. Speaker, "Engineering Materials to Heal the Body: A Focus on Nerve", Keynote for <u>Junior Science</u>, <u>Engineering and</u> Humanities Symposium, University of Florida, Gainesville, FL, January 31, 2016.
- 62. Speaker, "Simple Tips for Success", Women in Biomedical Engineering Group, RPI, Troy, NY, April 14, 2016.
- 63. Speaker, "Engineering Materials to Heal the Body", <u>Society For Biomaterials Student Chapter</u>, <u>University of Florida</u>, Gainesville, FL, April 21, 2016.
- 64. Speaker, "Growing New Body Parts: Fact or Fiction?", <u>SF2UF Bridge to Baccalaureate Program, Santa Fe College</u>, Gainesville, FL, October 18, 2016.
- 65. Speaker, "Biomedical Clinical Translation", UF Innovation Station Sarasota County, Sarasota, FL, August 8, 2018.
- 66. Speaker, "Engineering Day at GHS: What is Engineering?", Gainesville High School, Gainesville, FL, Nov. 13, 2018.
- 67. Speaker, "Path to Biomedical Engineering", <u>Girls Engaged in Engineering Program</u> (middle school and high school state-wide outreach), University of Florida, Gainesville, FL, March 12, 2019.
- 68. Speaker, "Biomedical Clinical Translation", <u>Engineering Innovation Program</u>, University of Florida, Gainesville, FL, March 12, 2019.
- 69. Speaker, "Path to Biomedical Engineering", <u>Biomedical Engineering Society Student Organization</u>, University of Florida, Gainesville, FL, March 13, 2019.
- 70. Panelist, "Overcoming Adversities/Work-Life Balance", Guest Speaker, <u>Women's History Month Celebration</u>, University of Florida, Gainesville, FL, March 15, 2019.
- 71. Panelist, "Conversations with Women Leaders in the Life Sciences" <u>BioFlorida Northeast Chapter</u>, University of Florida, Gainesville, FL, June 27, 2019.
- 72. Guest Lecture in IDH3931 "Bench to Market Regenerative Medicine" class on "Neurologic Regenerative Medicine Development: Academic Perspective", Honors Program, University of Florida, Gainesville FL, October 25, 2019.
- 73. Speaker (remote talk), "Growing New Body Parts: Fact or Fiction?", <u>AH High School Summer Research Program</u>, American Heritage (AH) School (invited by Leya Joykutty, Director Science Research), Plantation, FL, June 26, 2020.
- 74. Guest Lecture in IDH3931 "Bench to Market Regenerative Medicine" class on "Product development from the Academic Perspective", Honors Program, University of Florida, Gainesville FL, October 17, 2020.
- 75. Schmidt, C.E., "Picture a Scientist: Building Diversity in Academia", Invited Speaker & Panelist, Spring Plenary Symposium, Pitt Senate Research Committee, University of Pittsburgh, Virtual, April 8, 2021.
- 76. Speaker and Panelist, "Future of BME", <u>Virtual Internship in Biomedical Engineering (VIBE) Program</u> (international free internship program for undergraduate students), Worcester Polytechnic Institute (WPI), July 7, 2021.
- 77. Speaker and Panelist, "Future of BME", <u>Virtual Internship in Biomedical Engineering (VIBE) Program</u>, Worcester Polytechnic Institute (WPI), July 24, 2022.
- 78. Guest Lecture in IDH3931 "Bench to Market Regenerative Medicine" class on "Product development from the Academic Perspective", <u>Honors Program, University of Florida</u>, Gainesville FL, March 28, 2023.
- 79. Guest Lecture in IDH3931 "Bench to Market Regenerative Medicine" class on "Product development from the Academic Perspective", Honors Program, University of Florida, Gainesville FL, April 15, 2023.

## Selected Outreach and Mentor Activities

- 1. Proposal Reviewer, National Conference on Undergraduate Research Austin, TX (1996)
- 2. <u>Faculty Mentor</u>, Engineering Fall Gathering, a semester-long program to mentor freshmen engineering students during their first semester at the University Austin, TX (1996 2003)
- 3. <u>Fireside Chats</u>, host small undergraduate student gatherings in home to promote interactions with students; hosted for SWE, Tau Beta Pi, and Omega Chi Epsilon (1996 present) (usually 1-3 firesides hosted each semester)
- 4. Research Sponsor/Mentor for High School Student, The Science Academy of Austin LBJ High School Internship Program Austin, TX (1997)
- 5. <u>Faculty Fellow (Mentor)</u>, Moore-Hill Dormitory, served as advisor for one floor of the engineering dormitory, which involved meeting with students socially on a regular basis to provide informal advice and feedback Austin, TX (1997)
- 6. <u>Laboratory Demonstrations</u>, Careers in Engineering for Women (CEW), a week-long, UT-based program for 7th grade girls around Texas to build confidence through the completion of an engineering design project Austin, TX (1997)
- 7. <u>Laboratory Demonstrations</u>, Minority Introduction to Engineering (MITE), a week-long, UT-based program for high school minority students to increase awareness of education and research in engineering Austin, TX (1997, 2000)

- 8. <u>Cluster Facilitator</u>, LeaderShape Texas Institute, a week-long leadership development program for UT undergraduate organization leaders Austin, TX (1997, 1998)
- 9. <u>Advising Engineer (Mentor)</u>, Careers in Engineering for Women (CEW), a week-long, UT-based program for 7th grade girls around Texas to build confidence through the an engineering design project Austin, TX (1997, 1998)
- 10. High School Student Research Mentor, Welch Summer Scholars Chemistry Program, UT-Austin, (Summer 2000)
- 11. Women in Engineering Program First Year Initiative Program, student mentoring, UT-Austin (Spring 2001)
- 12. NSF "Nifty 50" Middle School Outreach, Supervise engineering team demos and projects to eight 6th-grade classes, O'Henry Middle School (teacher: Pam Cox), Austin TX (May 3-4, 2001)
- 13. WE@UT 2001 Program, student luncheon with 10-20 high school senior girls to expose them to the exciting field of engineering and to highlight UT's COE for recruiting purposes. July 26, 2001.
- 14. <u>YOU@UT Program</u>, Presentation: "Engineering at UT", Women in Engineering Program, YOU@UT high school outreach program, University of Texas, Austin, TX, November 19, 2001.
- 15. <u>WEP New Student Orientation</u>, Mentorship: Women in Engineering Program, New Student Orientation and Luncheon, February 5, University of Texas, Austin, TX, 2002.
- 16. Mentorship: Supervised Bradley Eisemann from Houston, TX for research in Summer 2003 as part of the Welch Summer Scholars Program.
- 17. Mentorship: Sponsored Michael (Mike) Gormley for research during summer 2003 (Mike was student at Duke).
- 18. <u>Mentorship</u>: Sponsored Dr. Charlotte May, a high school math teacher from Bowie High School in Austin, as part of the ARP/ATP summer teacher supplement program, Summer 2003.
- 19. <u>Host and Organizer</u> of Event for Women Graduate Students: "Developing a Roadmap for a Successful Career", The Engineering Faculty Women's Organization, The University of Texas at Austin, Austin, TX, January 23, 2004.
- 20. Mentoring: Fireside Chat, Biomedical Engineering Society Student Chapter, Univ. of Texas at Austin, March 10, 2004.
- 21. <u>Mentoring</u>: Research Interview and Presentation, Edwina Lai, Omega Chi Epsilon Student Chapter, University of Texas at Austin, April 12, 2004.
- 22. Tour of laboratory facilities and research summary: Women in Natural Sciences Program, Oct. 18, 2004.
- 23. Tour of laboratory facilities and research summary: Girls School of Austin; Teacher: Maggie Bowman (2004, 2006).
- 24. Mentor/Supervisor: REU Student, Mike Mojica, University of Florida, Summer 2006.
- 25. Mentor/Supervisor: Scott Burger, St. Stephen's Episcopal High School, Austin TX, Summer 2006.
- 26. NIH (NIDDK) STEP-UP Mentor for Kelly Huang, Summer 2009.
- 27. <u>Faculty Advisor</u>, Foundation of International Medical Relief of Children (FIMRC), University of Texas at Austin Chapter, Spring 2009-present.
- 28. <u>Presentation and Lab Tours</u>, Body Forward Challenge, Bionic Bots First Lego League team, Laurel Mountain Elementary School (4<sup>th</sup> grade), Austin, TX, October 13, 2010.
- 29. "Science Mondays", Science Lessons & Interactive Experiments, Mrs. Langham's Kindergarten Class, Hill Elementary, Austin, TX, Jan. 27, 2010; Nov. 29, 2010; Dec. 6, 2010; Jan. 24, 2011; Jan. 31, 2011; March 28, 2011; May 2, 2011.
- 30. Interactive Science Demos and Lab Tours, Austin Area Homeschoolers High School Science Team, Nov. 21, 2011.
- 31. Tour of laboratory facilities and demos, Girls School of Austin; Teacher: Maggie Bowman, May 8, 2012.
- 32. "UT Lab Day" Interactive Science Demos and Lab Tours, Parkside Montessori School, Austin, Tx, 1<sup>st</sup>-3<sup>rd</sup> grade classes (60 students), May 31, 2012.
- 33. Career Day, Lawton Chiles Elementary, Gainesville, FL, interactive demos to 3<sup>rd</sup> & 4<sup>th</sup> grade classes, May 17, 2013.
- 34. Lab Tours, Junior Science, Engineering and Humanities Symposium lab visits for K-12 Teachers, January 27, 2014.
- 35. Lab Outreach to Middle School Children, Lincoln Middle School, Gainesville FL, Spring 2014.
- 36. <u>Host for Two Elementary School Teachers</u> (Rebekah Prevatt and Marlina Romano from Norton Elementary School), NSF Multidisciplinary Research Experiences for Teachers (MRET) (PI: Chelsey Simmons), Summer 2019.
- 37. <u>SURF (Summer Undergraduate Research at Florida) Mentor</u> (Antonio Kalil from University of Puerto Rico Mayaguez), University of Florida, Summer 2019.
- 38. <u>SURF (Summer Undergraduate Research at Florida) Mentor</u> (Lauren Repmann from Rowan University), Virtual internship, University of Florida, Summer 2021.
- 39. SURF (Summer Undergraduate Research at Florida) Mentor (Sue Chong, U. Michigan), Univ. Florida, Summer 2022.
- 40. BME SURE (Summer UG Research Experience) Mentor (Alejandro Machado, UF), Univ. Florida, Summer 2023.
- 41. BME SURE (Summer UG Research Experience) Mentor (Kennedy Moes, UF), Univ. Florida, Summer 2024.