

Brian P. Timko

Tufts University, Department of Biomedical Engineering
4 Colby Street, Room 266B, Medford, MA 02155

<https://sites.tufts.edu/timkolab/>

phone: (617) 627-0443

FAX: (617) 627-3231

e-mail: brian.timko@tufts.edu

Education

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|-----------|-------------------------------------|--|
| 2002-2009 | Harvard University
Cambridge, MA | <ul style="list-style-type: none">• Ph.D. in Chemistry (2009)• A.M. in Chemistry (2004) |
| 1998-2002 | Lehigh University
Bethlehem, PA | <ul style="list-style-type: none">• B.S. in Chemistry with Highest Honors (2002)• B.S. in Chemical Engineering with Highest Honors (2002)• Elected to Phi Beta Kappa and Tau Beta Pi honor societies |

Work Experience

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| 2016 - | Assistant Professor | Tufts University, Dept. of Biomedical Engineering, Medford MA |
| 2013-2016 | Instructor in Anaesthesiology | Boston Children's Hospital, Harvard Medical School, Boston MA |
| 2009-2013 | Postdoctoral Fellow | MIT Koch Institute for Integrative Cancer Research, Cambridge MA |

Awards and Honors

- 2023 Elected Fellow of the American Heart Association
- 2023 NSF CAREER Award
- 2023 AHA Transformational Project Award
- 2020 Tufts Research Advancement Fund Award
- 2018 Nano Research Young Innovators Award (NR45)
- 2017 Tufts Collaborates Award
- 2016 MIT Sloan Healthcare Innovations Prize
- 2016 Anesthesia Foundation Distinguished Trailblazer Award
- 2016 Finalist, MIT 100k Accelerate Competition
- 2015 Grand Prize and Audience Choice Award, MIT 100k Pitch Competition
- 2011 F32 NIH Ruth L. Kirschstein National Research Service Award (NRSA)
- 2008 Gold Award, Materials Research Society
- 2007 Finalist, National Collegiate Inventors Competition
- 2006 William H. Peterson Award, American Chemical Society
- 2002 NSF Graduate Research Fellowship Program (GRFP) recipient
- 2000 Barry M. Goldwater Scholarship (2 years support)
- 2000 Rotary Foundation Ambassadorial Scholarship
- 1996 Eagle Scout with Bronze Palm

Teaching and Mentoring Activities

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| 2023- | Faculty Advisor for Tau Beta Pi, Tufts Chapter |
| 2019- | Tufts Faculty Mentor for Fulbright Program Applicants (ca. 4 students/year) |
| 2020- | Tufts pre-major advisor (ca. 20 students) |
| 2017- | Tufts BME major advisor (ca. 20 students) |
| 2016- | Course Instructor at Tufts University: Introduction to Engineering in Computing (ES 2), Biomechanics (BME 11), Junior Research and Design (BME 5), Senior Design and Research (BME 7, BME 8) and Quantitative Physiology (BME 121) |
| 2009-2015 | Research Mentor for undergraduate students in Kohane and Langer Groups, MIT / Boston Children's Hospital |
| 2002-2009 | Research Mentor for undergraduate students in Lieber Group, Harvard University |
| 2002 | Teaching Fellow at Harvard University: Principles of Physical Chemistry (CHM 60) |

Editorial Roles

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| 2023- | Associate Editor, <i>Bioelectronic Medicine</i> |
| 2023- | Special Issue Editor, <i>Frontiers in Electronics</i> , Bioelectronics |
| 2019-2023 | Editorial Board Member, Young Star Editor, <i>Nano Research</i> |

Other Professional and Service Activities

- 2021- Member, Tufts Institutional Chemical Safety Committee
- 2020- Member, Tufts Undergraduate Awards Committee
- 2019 Symposium Organizer, 2019 MRS Fall Meeting, “Light-matter interactions at the Interface with Living Cells”
- 2017- Ad hoc reviewer: NSF DMR/Biomaterials, NSF CBET/Biosensing CAREER, NSF GRFP, NIH NANO Study Section, American Heart Association, Powe Awards, ACS Petroleum Research Fund, Israeli Science Foundation, Israel Ministry of Science and Technology, Swedish Knowledge Foundation
- 2016- Tufts Summer Scholars and Goldwater Scholarship selection/nomination committees
- 2016- Session co-Chair/Presider: ACS (Spring 2021), MRS (2020), World Biomaterials Conference (2016)
- 2010- First Round Judge, Collegiate Inventors Competition, National Inventors Hall of Fame
- 2004- Peer reviewer: *Acc. Mater. Res.*, *ACS Appl. Bio Mater.*, *ACS Appl. Mater. Interface.*, *ACS Biomater-Sci. Eng.*, *ACS Nano*, *ACS Omega*, *ACS Sens.*, *Acta Biomater.*, *Adv. Mater.*, *Adv. Mater. Interfaces*, *Adv. Nanobiomed Res.*, *Biophysics Rev.*, *Cell. Mol. Bioeng.*, *ChemMedChem*, *Chem. Rev.*, *Colloids Surf. B*, *J. Control. Release*, *Mater. Sci. Eng.*, *Nano Lett.*, *Nanobiotechnol.*, *Nanoscale*, *Nano Res.*, *Nanoscale Res. Lett.*, *Nanoscale Horiz.*, *Nature Comm.*, *NPJ Regen. Med.*, *Pure Appl. Chem.*, *PNAS*, *Science*, *Sci. Adv.*, *Sci. Rep.*, *Trends Chem.*, *et. al.*

Professional Societies

- 2019- Fellow, American Heart Association (elected Fellow in 2023)
- 2019- American Association for the Advancement of Science
- 2016- Biomedical Engineering Society
- 2014- American Institute of Chemical Engineers
- 2010- Society for Biomaterials
- 2004- Materials Research Society
- 2002- American Chemical Society
- 2001- Alpha Chi Sigma
- 1998- Sigma Xi

Current Funding

2239557, CAREER Award

9/2023-8/2028

Agency: NSF-EBMS

\$656,404

Title: CAREER: Bioelectronics-embedded hybrid brain tissues

Summary: We will develop a hybrid brain tissue model with integrated bioelectronic devices that monitor or modulate neuronal network activity

Role: PI

23TPA1057212, Transformational Project Award

7/2023-6/2026

Agency: American Heart Association

\$300,000

Title: Engineered hybrid cardiac tissues with integrated bioelectronics

Summary: We will develop a 3D cardiac tissue hybrid with an embedded network of bioelectronic devices that will record electrophysiological activity.

Role: PI

R21 EB034527

9/2023 - 8/2025

Agency: NIH-NIBIB

\$426,509

Title: Bioelectronics-embedded injectable hydrogel for neural regeneration

Summary: We will develop an injectable microporous hydrogel for neural regeneration. Embedded bioelectronics will monitor neural activity.

Role: MPI (with K.J. Jeong, University of New Hampshire)

Submitted Manuscripts

- 39. O.A. Bolonduro, Z. Chen, Y-R. Lai, M. Cote, A.A. Rao, H. Liu, E.S. Tzanakakis, **B.P. Timko**, “An Integrated Optogenetic and Bioelectronic Platform for Regulating Cardiomyocyte Function.” [*BioRxiv* preprint: <https://doi.org/10.1101/2023.12.15.571704>]

Publications (>8,600 total citations; h-index 27; [Google Scholar Profile](#))

38. V. Raghuram, A.D. Datye, S.I. Fried, **B.P. Timko**, “Transparent and Conformal Microcoil Arrays for Spatially Selective Neuronal Activation.” *Device*, Accepted, in press. [*BioRxiv* preprint: <https://doi.org/10.1101/2021.12.07.471184>.]
37. C.P. Fucetola, J.T. Wang, O.A. Bolonduro, C.M. Lieber, **B.P. Timko**, “Single-crystal silicon nanotubes, hollow nanocones, and branched nanotube networks.” *ACS Nano*, Published online 16 January 2024. <https://doi.org/10.1021/acsnano.3c11841>.
36. **B.P. Timko**, “Neural implants without brain surgery.” *Science*, **381**, 6665 (2023). **Invited Perspective**.
35. K. Cullion, C. Ostertang-Hill, M. Pan, **B.P. Timko**, E. Boscolo, D.S. Kohane, “Ablation of venous malformations by photothermal therapy with intravenous gold nanoshells.” *Nano Lett.*, **23**, 7092 (2023).
34. V. Raghuram, P. Werginz, S.I. Fried, **B.P. Timko**, “Morphological Factors that Underlie Neural Sensitivity to Stimulation in the Retina.” *Adv. NanoBiomed. Res.*, **1**, 2100069 (2021). **Featured on the cover of the Sept. 2021 issue**.
33. J. Ju, N. Hu, D.M. Cairns, H. Liu, **B.P. Timko**, “Photo-crosslinkable, insulating silk fibroin for bioelectronics with enhanced cell affinity,” *Proc. Natl. Acad. Sci. USA.*, **117**, 15482 (2020).
32. H. Liu, O.A. Bolonduro, N. Hu, J. Ju, A.A. Rao, B.M. Duffy, Z. Huang, L.D. Black, **B.P. Timko**, “Heart-on-a-chip Model with Integrated Extra- and Intra-cellular Bioelectronics for Monitoring Cardiac Electrophysiology under Acute Hypoxia,” *Nano Lett.*, **20**, 2585 (2020). **Featured as ACS Editors’ Choice (8 March 2020)**.
31. O.A. Bolonduro, B.A. Duffy, A.A. Rao, L.D. Black, **B.P. Timko**, “From Biomimicry to Bioelectronics: Smart Materials for Cardiac Tissue Engineering,” *Nano Res.*, **13**, 1253 (2020).
30. T. Dvir, **B.P. Timko**, D.S. Kohane, R. Langer. “Nanotechnological Strategies for Engineering Complex Tissues.” In: Balogh, L.P., editor. *Nano-Enabled Medical Applications*. Boca Raton, FL: CRC Press; 2020. p. 351.
29. H. Liu, B. Haider, H.R. Fried, J. Ju, O. Bolonduro, V. Raghuram, **B.P. Timko**, “Nanobiotechnology: 1D nanomaterial building blocks for cellular interfaces and hybrid tissues,” *Nano Res.*, **11**, 5372 (2018).
28. C. Zhan, W. Wang, C. Santamaria, B. Wang, A. Rwei, **B.P. Timko**, D.S. Kohane, “Ultrasensitive Phototriggered Local Anesthesia,” *Nano Lett.*, **17**, 660 (2017).
27. T.D. Nguyen, **B.P. Timko**. “Bionics in Tissue Engineering.” In: Hasan A., editor. *Tissue Engineering for Artificial Organs*. Darmstadt, Germany: Wiley-VCH; 2017. p. 717.
26. C. Zhan, W. Wang, J.B. McAlvin, S. Guo S, **B.P. Timko**, C. Santamaria, *et. al.*, “Phototriggered Local Anesthesia,” *Nano Lett.*, **16**, 177 (2016).
25. **B.P. Timko**, D.S. Kohane, “Remote Controlled Drugs,” *The Medicine Maker*, Issue #0315, April 9, 2015.
24. I.P. Monteiro, D. Gabriel, **B.P. Timko**, M. Hashimoto, S. Karajanagi, R. Tong, A.P. Marques, R.L. Reis, D.S. Kohane, “A two-component pre-seeded dermal-epidermal scaffold,” *Acta Biomater.*, **10**, 4928 (2014).
23. **B.P. Timko**, M. Arruebo, S.A. Shankarappa, J. B. McAlvin, O.S. Okonkwo, B. Mizrahi, C. Stefanescu, L. Gomez, J. Zhu, A. Zhu, J. Santamaria, R. Langer, D.S. Kohane, “Near-infrared Actuated Devices for Remotely Controlled Drug Delivery,” *Proc. Natl. Acad. Sci. USA*, **111**, 1349 (2014). **Featured as Editors’ Choice, Science Translational Medicine (12 Feb. 2014) and in “The Distillery,” Nature / Science-Business eXchange (SciBX)**.
22. **B.P. Timko**, D.S. Kohane (Editorial): “Prospects for near-infrared technology in remotely-triggered drug delivery,” *Expert Opin. Drug Del.*, **12**, 4928 (2014).
21. **B.P. Timko**, D.S. Kohane, “Drug Delivery Systems for Customized and Localized Drug Release,” *Isrl. J. Chem.*, **53**, 728 (2013).
20. B. Mizrahi, S.A. Shankarappa, J. Hickey, J. Dohlman, **B.P. Timko**, K.A. Whitehead, J-J. Lee, R. Langer, D.G. Anderson, Daniel S. Kohane, “A Stiff Injectable Biodegradable Elastomer,” *Adv. Funct. Mater.* **23**, 1527 (2013).

19. **B.P. Timko**, D.S. Kohane, "Materials to Clinical Devices: Technologies for Remotely-triggered Drug Delivery," *Clin. Ther.* **34**, S25 (2012).
18. **B.P. Timko**, D.S. Kohane, Research Highlights, *Nanomedicine* **7**, 315 (2012).
17. **B.P. Timko***, T. Dvir*, M.D. Brigham, S.R. Naik, S.S. Karajanagi, O. Levy, H. Jin, K.K. Parker, R. Langer, D.S. Kohane, "Nanowired three-dimensional cardiac patches," *Nat. Nanotechnol.* **6**, 720 (2011). (*I am listed second on this paper but with equal first contribution.)
16. T. Dvir, **B.P. Timko**, D.S. Kohane, R. Langer, "Tissue engineering in the era of nanotechnology," *Nat. Nanotechnol.* **6**, 13 (2011).
15. **B.P. Timko**, K. Whitehead, W. Gao, D. Kohane, O. Farokhzad, D. Anderson, R. Langer, "Advances in Drug Delivery," *Ann. Rev. Mater. Res.*, **41**, 1 (2011).
14. **B.P. Timko**, T. Dvir, D.S. Kohane, "Remotely triggerable drug delivery systems," *Adv. Mater.* **22**, 4925 (2010).
13. **B.P. Timko**, T. Cohen-Karni, Q. Qing, B. Tian, C.M. Lieber, "Design and implementation of functional nanoelectronic interfaces with biomolecules, cells and tissue using nanowire device arrays," *IEEE Trans. Nanotechnol.* **9**, 269 (2010).
12. **B.P. Timko***, T. Hoare, J. Santamaria, G.F. Goya, S. Irusta, S. Lau, C.F. Stefanescu, D. Lin, R. Langer, D.S. Kohane, "Magnetically Triggered Nanocomposite Membranes: A Versatile Platform for Triggered Drug Release," *Nano. Lett.* **11**, 1395 (2011). (*I am listed second on this paper but with equal first contribution)
11. T. Dvir, M.R. Banghart, **B.P. Timko**, R. Langer, D.S. Kohane, "Photo-Targeted Nanoparticles," *Nano. Lett.* **10**, 250 (2010).
10. **B.P. Timko**, T. Cohen-Karni, Guihua Yu, C.M. Lieber, "Electrical Recording from Hearts using Flexible Nanowire Device Arrays." *Nano. Lett.* **9**, 914 (2009).
9. T. Cohen-Karni, **B.P. Timko**, L.E. Weiss, C.M. Lieber, "Flexible electrical recording from cells using nanowire transistor arrays," *Proc. Natl. Acad. Sci. USA* **106**, 7309 (2009).
8. N.A. Kotov, I. Clements, J. Winter, **B.P. Timko**, E. Jan, S. Campidelli, S. Pathak, R.V. Bellamkonda, A. Mazzatenta, L. Ballerini, M. Prato, F. Patolsky, C.M. Lieber, D. Da Silva, N.W.S. Kam, A. Curtis, A. Beattie, C.D.W. Wilkinson, M. Riehle, "Nanomaterials for Neural Interfaces," *Adv. Mater.* **21**, 3970 (2009).
7. F. Patolsky, **B.P. Timko**, G. Zheng, C.M. Lieber, "Nanowire-Based Nanoelectronic Devices in the Life Sciences," *MRS Bull.* **32**, 142 (2007).
6. **B.P. Timko***, F. Patolsky,* G. Yu, Y. Fang, A.B. Greytak, G. Zheng, C.M. Lieber, "Detection, Stimulation, and Inhibition of Neuronal Signals with High-Density Nanowire Transistor Arrays," *Science*. **313**, 1100 (2006). (*I am listed second on this paper but with equal first contribution) **Featured as one of the "Top Five Nanotech Breakthroughs of 2006" in the Forbes/Wolfe Nanotechnology Report and "The Top 100 Science Stories in 2006" in Discover Magazine.**
5. Q. Qing, S. K. Pal, B. Tian, X. Duan, **B.P. Timko**, T. Cohen-Karni, V.N. Murthy, C.M. Lieber, "Nanowire transistor arrays for mapping neural circuits in acute brain slices," *Proc. Natl. Acad. Sci. USA* **107**, 1882 (2010).
4. W. Lu, J. Xiang, **B.P. Timko**, Y. Wu, C.M. Lieber, "One-dimensional hole gas in germanium/silicon nanowire heterostructures," *Proc. Natl. Acad. Sci. USA* **102**, 10046 (2005).
3. D. C. Bell, Y. Wu, C. J. Barrelet, S. Gradecak, J. Xiang, **B.P. Timko**, C.M. Lieber, "Imaging and Analysis of Nanowires," *Microsc. Res. Techniq.* **64**, 373 (2004).
2. T. Reuther, V. M. Hultgren, **B.P. Timko**, A. M. Bond, W.R. Jackson, A.G. Wedd. "Electrochemical Investigation of Photooxidation Processes Promoted by Sulfo-polyoxometalates: Coupling of Photochemical and Electrochemical Processes into an Effective Catalytic Cycle," *J. Am. Chem. Soc.* **125**, 10133 (2003).
1. M. C. Henry, C.-C. Hsueh, **B.P. Timko**, M.S. Freund. "Reaction of Pyrrole and Chloroauric Acid: a New Route to Composite Colloids," *J. Electrochem. Soc.* **148**, K155 (2001).

Published Patents (U.S.)

2. T. Dvir, D.S. Kohane, R.S. Langer & **B.P. Timko** 2013, *Nanowired Three Dimensional Tissue Scaffolds*, 9,114,009.
1. C.M. Lieber, W. Lu, J. Xiang, Y. Wu, **B.P. Timko** & H. Yan 2008, *Nanowire Heterostructures*, 7,858,965.

Invited Presentations (since starting at Tufts)

21. **B.P. Timko**, “Hybrid bioelectronic tissues: interfaces for monitoring and modulating function,” MRS Spring Meeting, Seattle WA (*upcoming*, April 2024).
20. **B.P. Timko**, “Hybrid cardiac tissues: bioelectronic interfaces for monitoring and modulating cardiac function,” Polytechnique Montréal, Dept. of Engineering Physics Seminar Series, Montréal, Canada (Jan. 11, 2024).
19. **B.P. Timko**, “Engineered tissue hybrids for bioelectronic recording and control,” Harvard University, Squishy Physics Seminar Series, Cambridge MA (Nov. 1, 2023).
18. **B.P. Timko**, “Hybrid tissues with Optogenetic and Bioelectronic Interfaces for Closed-loop Control,” Massachusetts Institute of Technology, Media Lab, NanoBio Seminar Series, [webinar](#) (Sept. 21, 2023).
17. **B.P. Timko**, “Hybrid cardiac tissues: bioelectronic interfaces for monitoring and modulating cardiac function,” Cornell University, Smith School of Chemical and Biomolecular Engineering Seminar, Ithaca NY (Sept. 11, 2023).
16. **B.P. Timko**, “Hybrid cardiac tissues: bioelectronic interfaces for monitoring and modulating cardiac function,” Carnegie Mellon University, Biomedical Engineering Dept. Seminar, Pittsburgh PA (Apr. 27, 2023).
15. **B.P. Timko**, “Integrated Optoelectronic and Bioelectronic Approaches Toward Monitoring and Modulating Cardiomyocyte Function,” Lehigh University, Bioengineering Dept. Seminar, Bethlehem PA (Sept. 23, 2022).
14. **B.P. Timko**, “Bioelectronics for two-way interfaces with engineered tissues,” Tufts@Kendall: Advances in Immunology and Inflammation: The Intersection of Health and Disease, Cambridge MA (Apr. 27, 2022).
13. **B.P. Timko**, “A Bioelectronic Platform for 3D Integration with Engineered Brain and Cardiac Tissues,” Abbott Laboratories, Custom Integrated Circuits Forum, *virtual* (Mar. 21, 2022).
12. **B.P. Timko**, “Bioelectronics in Tissue Engineering and Disease Modeling,” University College London, Chemical & Physical Society Meeting, London, England, [virtual](#) (Mar. 1, 2022).
11. **B.P. Timko**, “Bioelectronics in Tissue Engineering and Disease Modeling,” MRS Fall Meeting, Boston MA (Dec. 1, 2021).
10. **B.P. Timko**, “Bioelectronic heart-on a chip model for modeling hypoxia,” 6th Bioengineering & Translational Medicine Conference, American Institute of Chemical Engineers (AIChE), *virtual* (Oct. 19, 2021).
9. **B.P. Timko**, “Photo-crosslinkable, Insulating Silk Fibroin for Bioelectronics with Enhanced Cell Affinity,” ACS Spring Meeting, Division of Polymeric Materials Science and Engineering, *virtual* (Apr. 8, 2021).
8. **B.P. Timko**, “Bioelectronic Devices and Materials for Engineered, 3D Hybrid Tissues,” Materials Research Society Spring/Fall Meeting, *virtual* (Nov. 2020).
7. **B.P. Timko**, “Bioelectronics in Tissue Engineering and Disease Modeling,” University of New Hampshire, Chemical Engineering Dept. Seminar, *virtual* (Oct. 16, 2020).
6. **B.P. Timko**, “Bioelectronics in Tissue Engineering and Disease Modeling,” Dalhousie University, Chemistry Dept. Seminar, *virtual* (Sept. 24, 2020).
5. **B.P. Timko**, “Bioelectronics in Tissue Engineering and Disease Modeling,” Arizona State University, Biological Physics Seminar, *virtual* (Sept. 16, 2020).

4. **B.P. Timko**, “Bioelectronics in Tissue Engineering and Disease Modeling,” Boston Children’s Hospital, *virtual* (Sept. 17, 2020).
3. **B.P. Timko**, “Nanoelectronic Devices for Cellular Interfaces and Hybrid Tissues,” Tufts Clinical and Translational Science Institute, Translational Research Day, Boston MA (Nov. 14, 2017).
2. **B.P. Timko**, “Functional Nanomaterial Interfaces with Biological Systems,” University of Connecticut, Mechanical Engineering Dept. Seminar Series, Storrs CT (Dec. 2, 2016).
1. **B.P. Timko**, “Functional Nanomaterial Interfaces with Biological Systems,” Tufts University, BME Dept. Seminar Series, Medford MA (Feb. 19, 2016).

Contributed Presentations (since starting at Tufts)

18. C. Fucetola, J. Wang, **B.P. Timko**, “On the Frits: An Approach Toward High-yield Silicon Nanowire Synthesis,” Biomedical Engineering Society (BMES) Annual Meeting, Seattle, WA. (*poster*, Oct. 12, 2023).
17. **B.P. Timko**, “Hybrid tissues: bioelectronic interfaces for monitoring and modulating tissue function,” Gordon Research Conference - Bioelectronics, Andover NH (*poster*, June 2023).
16. **B.P. Timko**, “An Integrated Optogenetic and Bioelectronic Platform for Regulating Cardiomyocyte Function,” BMES Annual Meeting, San Antonio TX (*oral*, 2022).
15. M. Cote, A. Rao, **B.P. Timko**, “Development and Characterization of a Bioelectronic Scaffold for 3D Tissue Integration” BMES Annual Meeting, San Antonio, TX (*poster*, 2022).
14. O.A. Bolonduro, Z. Chen, E.S. Tzanakakis, **B.P. Timko**, “Monitoring the activity of optogenetically engineered cardiomyocytes using microelectrode arrays chips,” AIChE Annual Meeting, Phoenix AZ (*oral*, 2022).
13. A. Rao, **B.P. Timko**, “Fabrication and Characterization of a Flexible Bioelectronic Scaffold Suitable for 3D Cell Cultures.” Tufts Graduate Research Symposium, Medford MA. (*poster*, 2022).
12. Y. Kim, **B.P. Timko**, “Development and Characterization of a Bioelectronic Scaffold for a Hybrid Brain Mode.” Tufts Summer Scholars Symposium, Medford MA (*oral*, 2021).
11. B. Haider, “Monitoring Central Nervous System Neural Function Using Planar and Mesh Microelectrode Arrays,” 2nd Annual NDSEG Conference (*virtual, oral*, 2021).
10. A. Lewis, **B.P. Timko**, “Developing a Long Term Multiplexed Bioelectronic Interface with Human Stem Cell Derived Neurons,” Tufts Summer Scholars Symposium (*virtual, oral*, 2020).
9. V. Raghuram, A.D. Datye, S.I. Fried, **B.P. Timko**, “A Flexible, Transparent Microcoil Array for Precise Neuronal Stimulation” MRS Fall Meeting, Boston MA (*oral*, 2020).
8. A. Rao, O. Bolonduro, **B.P. Timko**, “Heart-on-a-Chip Model with Integrated Bioelectronics for Monitoring Cardiac Electrophysiology under Acute Hypoxia,” American Chemical Society Spring Meeting (*virtual, poster*, 2020).
7. A. Rao, **B.P. Timko**, “Multiplexed electrophysiology in HL-1 cardiac tissue using multi-electrode arrays,” Tufts Summer Scholars Symposium, Medford MA (*oral*, 2019).
6. O.A. Bolonduro, **B.P. Timko**, “Heart-on-a-Chip Model with Integrated Extra- and Intracellular Bioelectronics for Monitoring Cardiac Electrophysiology under Acute Hypoxia,” MRS Fall Meeting (*virtual, oral*, 2020).
5. O.A. Bolonduro, H. Liu, **B.P. Timko**, “Heart-on-a-chip Model with Integrated Extra- and Intra-cellular Bioelectronics for Monitoring Cardiac Electrophysiology under Acute Hypoxia,” Nanotech France, Paris. (*oral*, 2020, could not attend because of COVID).
4. O.A. Bolonduro, H. Liu, A.A. Rao, L.D. Black, **B.P. Timko**, “Ischemia-on-a-Chip Model with Integrated Extra- and Intra-Cellular Bioelectronic Interfaces for Monitoring Cardiac Electrophysiology under Acute Hypoxic Stress,” MRS Fall Meeting, Boston MA. (*poster*, 2019).

3. A. Rao, **B.P. Timko**, “Heart-on-a-Chip Model with Integrated Bioelectronics for Monitoring Cardiac Electrophysiology under Acute Hypoxia,” Tufts Undergraduate Research Symposium, Medford MA (*poster*, 2019).
2. B. Haider, M. Kurzman, H. Fried, Mattia Bonzanni, E. Peirent, **B.P. Timko**, “Conducting Polymer Coatings For Improved Neural Adhesion And Measurements In 3D Tissue Models,” BMES Annual Meeting, Atlanta GA (*poster*, 2018).
1. O.A. Bolonduro, **B.P. Timko**, “A 3D Bioprinter for Nanocomposite Vascularized Tissue Constructs,” BMES Annual Meeting, Atlanta GA (*poster*, 2018).