

CURRICULUM VITAE

Bryan D. James, Ph.D. (he/him)

Weston Howland Jr. Postdoctoral Scholar
Marine Chemistry & Geochemistry/Biology
Woods Hole Oceanographic Institution
Woods Hole, MA 02543

Tel.: (352) 397-1665
E-mail: bjames@whoi.edu
ORCID: [0000-0002-6104-8310](https://orcid.org/0000-0002-6104-8310)
Twitter: [@bdbjames](https://twitter.com/bdbjames)
Website: bryandjames.com

EDUCATION

Woods Hole Oceanographic Institution, Postdoctoral Scholar Advisors: Christopher M. Reddy & Mark E. Hahn	Present
--	----------------

University of Florida, Ph.D. Materials Science & Engineering Thesis: <i>Engineering Complex Microenvironments & Their Applications to Sex-Specific Mechanobiology and Biomaterial Development</i> Advisor: Josephine B. Allen	May 2021
--	-----------------

University of Toronto, B.A.Sc. Materials Engineering Thesis: <i>Design and Testing of Anti-Fouling SLIPS Surfaces for Prevention of Zebra Mussel Adhesion</i> Advisor: Eli D. Sone	May 2017
---	-----------------

PROFESSIONAL EXPERIENCE

Marine Chemistry & Geochemistry Biology Woods Hole Oceanographic Institution <i>Woods Hole, MA</i>	Weston Howland Jr. Postdoctoral Scholar	Aug. 2021 – Present
Materials Science & Engineering University of Florida <i>Gainesville, FL</i>	NIH F31 Predoctoral Fellow Graduate Research Assistant	Sept. 2019 – May 2021 Aug. 2017 – Sept. 2019
Institute of Biomedical Engineering University of Toronto <i>Toronto, Canada</i>	Research Assistant	Apr. 2017 – July 2017
Materials Science & Engineering University of Toronto <i>Toronto, Canada</i>	Undergraduate Research Assistant	Sept. 2016 – Apr. 2017
Research & Development Air Liquide Laboratories <i>Tsukuba, Japan</i>	Process Engineer	June 2015 – May 2016
Marine Chemistry & Geochemistry Woods Hole Oceanographic Institution <i>Woods Hole, MA</i>	Undergraduate Lab Manager Guest Student Intern Volunteer	May 2014 – Sept. 2014 May 2013 – Aug. 2013 June 2012 – Aug. 2012 June 2011 – Aug. 2011

Published

2021

1. **James, B. D.***, Kimmins, K. M.*, Nguyen, M., Lausch, A. J., Sone, E. D. [Attachment of zebra and quagga mussel adhesive plaques to diverse substrates](#). *Scientific Reports*. **11**, 23998 (2021).
 - a. Press release by [U of T Engineering News](#)
2. de Vos, A., Aluwihare, L., DiBenedetto, M. H., Ward, C. P., Youngs, S., Michel, A. P. M., Colson, B. C., Mazzotta, M. G., Walsh, A. N., Nelson, R. K., Reddy, C. M., **James, B. D.** [The M/V X-Press Pearl nurdle spill: Contamination of burnt plastic and unburnt nurdles along Sri Lanka's beaches](#). *ACS Environmental Au.* (2021).
 - a. Press release by [WHOI](#)
 - b. Article in [Oceanus](#)
3. **James, B. D.**, Allen, J. B. [Sex-specific response to combinations of shear stress and substrate stiffness by endothelial cells in vitro](#). *Advanced Healthcare Materials*. **10**, 18, 2100735 (2021).
Selected for [Cover Art](#)
4. Roy, T., **James, B. D.**, Allen, J. B. [Anti-VEGF-R2 Aptamer and RGD Peptide Synergize in a Bifunctional Hydrogel for Enhanced Angiogenic Potential](#). *Macromolecular Bioscience*. **21**, 2, 2000337 (2021).
5. **James, B. D.**, Allen, J. B. [Self-assembled VEGF-R2 targeting DNA aptamer-collagen fibers stimulate an angiogenic-like endothelial cell phenotype](#). *Materials Science & Engineering: C*. **120**, 111683 (2021).
6. **James, B. D.**, Guerin, P., Allen, J. B. [Let's Talk About Sex– Biological Sex Is Underreported in Biomaterial Studies](#). *Advanced Healthcare Materials*. **10**, 1, 2001034 (2021).
 - a. Press release by [UF](#)
 - b. Covered by [Science Advanced News](#)

2020

7. **James, B. D.**, Guerin, P., Iverson, Z., Allen, J. B. [Mineralized DNA-collagen complex-based biomaterials for bone tissue engineering](#). *International Journal of Biological Macromolecules*. **161**, 1127-1139 (2020).
 - a. Press release by [UF](#)
8. **James, B. D.**, Montoya, N., Allen, J. B. [MechanoBioTester: A Decoupled Multi-Stimulus Cell Culture Device for Studying Complex Microenvironments In-Vitro](#). *ACS Biomaterials Science & Engineering*. **6**, 6, 3673-3689 (2020).
9. **James, B. D.**, Saenz, S., van Gent, A., J. B. Allen. [Oligomer Length Defines the Self-Assembly of Single-Stranded DNA–Collagen Complex Fibers](#). *ACS Biomaterials Science & Engineering*. **6**, 1, 213-218 (2020).

2019

10. **James, B. D.**, Ruddick, W. N., Vasisth, S. E., Dulany, K., Sulekar, S., Porras, A., Marañon, A., Nino, J. C., Allen, J. B. [Palm Readings: Manicaria saccifera palm fibers are bioactive textiles with low immunogenicity](#). *Materials Science & Engineering: C*. **108**, 110484 (2019).
11. Kimmins, K., **James, B. D.**, Nguyen, M., Hatton, B. D., Sone, E. D. [Oil-infused polydimethylsiloxane prevents zebra mussel attachment](#). *ACS Applied Bio Materials*. **2**, 12, 5841-5847 (2019).
12. **James, B. D.***, Chen, M.*, Savguira, Y.*, MacInnis, J.*, Thorpe, S. J. [Power-to-Gas Design Project: Amphibious Yacht and Fueling Station](#). *International Journal of Hydrogen Energy*. **44**, 59, 31646-31669 (2019).

2018

13. **James, B. D.**, Allen, J. B. [Vascular Endothelial Cell Behavior in Complex Mechanical Microenvironments](#). *ACS Biomaterial Science & Engineering*. **4**, 11, 3818–3842 (2018).

Under Review

1. **James, B. D.**, de Vos, A., Aluwihare, L., Youngs, S., Ward, C.P., Nelson, R. K., Michel, A.P.M., Hahn, M. E., Reddy, C. M. Divergent Forms of Pyroplastic: Lessons Learned from the M/V X-Press Pearl Ship Fire. (*ACS Environmental Au*).

Submitted

1. Zhang, B., Lichlyter, D., **James, B. D.**, Poon, J., Major, S., Allen, J. B., Webb, A. Development of Carbon Monoxide Releasing Poly(diols-citrate) Biomaterials. (*Biomacromolecules*).

BOOK CHAPTERS

1. **James, B. D.***, Ursino, H. *, Ludtka, C. *, Allen, J. B. Bone Tissue Engineering. *Tissue Engineering Using Ceramics and Polymers, 3rd Edition*. Woodhead Publishing. (2021). ISBN [9780128205082](#).
2. **James, B. D.**, Allen, J. B. Engineering Vascular Grafts with Multiphase Structures. *Vascular Tissue Engineering*. Methods in Molecular Biology. Springer Nature. (2021). ISBN [978-1-0716-1707-6](#).

NON-REFEREED PUBLICATIONS

1. **James, B. D.**, Hahn, M. E., Reddy, C. M. (2022) [Biomaterials Science Can Offer a Valuable Second Opinion on Nature's Plastic Malady](#). *Environmental Science & Technology*. **56**, 3, 1475-1477.
2. **James, B.D.** (2021). [Choosing the right straw: when you get to think like a materials engineer](#). *Gainesville Sun*, posted on July 8.

HONORS AND AWARDS

ACADEMIC – Total funds received (\$443,920)

PMSE Future Faculty Scholar ACS PMSE Division	2022
Early Career Editorial Advisory Board ACS Biomaterials Science & Engineering	2022-2025
Attributes of a Gator Engineer – Leadership Herbert Wertheim College of Engineering – University of Florida	2021
Weston Howland Jr. Postdoctoral Scholar (\$93,375 over 18 months) Woods Hole Oceanographic Institution	2020
Gridley McKim-Smith Women's Health Fellowship Award (\$4,000) Foundation for Women's Wellness	2020
NextProf Nexus Workshop Alumni NextProf Nexus – University of Michigan, Georgia Tech, UC Berkeley	2020
New England Future Faculty Workshop Alumni New England Future Faculty Workshop – Northeastern University, UMass. Amherst	2020
Ruth L. Kirschstein Predoctoral Individual National Research Service Award (\$117,615 over 3 years) National Institutes of Health, National Heart, Lung, and Blood Institute	2019
Bette and Paul Holloway Fund Recipient (\$500) University of Florida – Materials Science & Engineering	2019
A. B. Platt Award (\$400) Toronto Section of the Society of Tribologists and Lubrication Engineers	2017
Iva and Norman Tuckett Institute for Computational Engineering Fellowship (\$4,000) University of Florida	2017

Dow Chemical Graduate Fellowship (\$5,000) <i>University of Florida</i>	2017
Graduate School Preeminence Award (\$218,130 over 5 years) <i>University of Florida</i>	2017-2019
U.S. Steel Canada Undergraduate Scholarship (\$1500 annually) <i>University of Toronto</i>	2013-2015
Dean's List <i>University of Toronto</i>	2012-2017
COMPETITION – Total funds received (\$1,500)	
1 st Place, Biomaterials Education Challenge (\$1,500) <i>Society For Biomaterials</i>	2019
1 st Place, Hydrogen Student Design Contest <i>Hydrogen Education Foundation</i>	2018
ORGANIZATION – Total funds raised (\$6,000)	
Biomaterials Day Grant (\$2,500) <i>Society For Biomaterials</i>	2020
Office of Research Award for Meetings, Workshops and Conferences (\$3,000) <i>University of Florida</i>	2020
Local Section Science Café Mini-Grant (\$500) <i>American Chemical Society – Florida Chapter</i>	2018
CONFERENCE – Total funds received (\$700)	
Society For Biomaterials Tissue Engineering Special Interest Group Student Abstract Award (\$100) <i>Society For Biomaterials Tissue Engineering SIG</i>	2020
Society For Biomaterials Chapter Travel Award (\$300) <i>University of Florida Society For Biomaterials Student Chapter</i>	2018, 2019
GRANTS	
NIH NHLBI F31 Predoctoral Fellowship: 1 F31 HL147445-01 Vascular cell sexual dimorphism in complex mechanical microenvironments (awarded, \$117,615 over 3 years)	2019 – 2021
PATENT APPLICATIONS	
<ol style="list-style-type: none"> Patent pending. PCT/US2020/013177. Allen, J. B. and James, B. D. Bioreactor chamber and systems thereof. (Filed January 10, 2020). Patent pending. PCT/US2020/048488. Allen, J. B. and James, B. D. Aptamer assemblies for protein crosslinking. (Filed August 28, 2020). Patent pending. PCT/US2021/049833. Allen, J. B., James, B. D., Andrew, J. S., Ferson, N. D. DNA-Collagen Complexes and Magnetolectric Janus Materials for Biomedical Applications. (Filed September 10, 2021). Patent pending. PCT/US2021/072653. Allen, J. B., James, B. D., Aptamer assemblies for protein crosslinking. (Filed December 1, 2021). 	
ABSTRACTS AND PROCEEDINGS (presenter is underlined)	
ORAL PRESENTATIONS (Total Presenting Author = 10)	
<ol style="list-style-type: none"> <u>James, B. D.</u> <i>Engineering Complex Microenvironments and Their Applications to Sex-Specific Mechanobiology.</i> 9th World Congress of Biomechanics, Hybrid. Taipei, Taiwan. July 10 – 14. (Invited). 	

2. **James, B. D.** *The M/V X-Press Pearl nurdle spill: Characterizing burnt and unburnt nurdles collected along Sri Lanka's beaches.* University of Connecticut, Marine Sciences Seminar, Hybrid. Groton, CT. April 8, 2022. (Invited).
3. **James, B. D.** *Engineering Complex Microenvironments and Their Applications to Sex-Specific Mechanobiology and Biomaterial Development.* Woods Hole Oceanographic Institution, Biology Department Seminar, Virtual, January 13, 2022.
4. **James, B. D.** *The M/V X-Press Pearl nurdle spill: Characterizing burnt and unburnt nurdles collected along Sri Lanka's beaches.* Woods Hole Oceanographic Institution, Marine Chemistry and Geochemistry Department Seminar, Hybrid. Woods Hole, MA. October 19, 2021.
5. **James, B. D.**, Saenz, S., Guerin, P., Allen, J. B. *Nucleic Acid-Collagen Complexes (NACC): Engineering Tunable Hard and Soft ECM Mimics.* The Society For Biomaterials 2021 Annual Meeting and Exposition, Virtual. Apr. 20-23, 2021.
6. **Saenz, S., James, B. D.**, Allen, J. B. *Nucleic Acid Elastin Collagen Complex (NAECC) Fibers and Gels Working Towards an ECM Mimic.* The Society For Biomaterials 2021 Annual Meeting and Exposition, Virtual. Apr. 20-23, 2021.
7. **Guerin, P., James, B. D.**, Allen, J. B. *Nucleic Acid-Collagen Complexes (NACCs) Stabilization via Physiological Ions.* The Society For Biomaterials 2021 Annual Meeting and Exposition, Virtual. Apr. 20-23, 2021.
8. **James, B. D.**, Allen, J. B. *DNA aptamer-collagen complex-based biomaterials.* World Biomaterials Congress 2020, Virtual. December 11-16, 2020.
9. **James, B. D.**, Montoya, N., Allen, J. B. *The MechanoBioTester: A Decoupled Multi-Stimulus Device for Studying Complex Microenvironments In-Vitro.* World Biomaterials Congress 2020, Virtual. December 11-16, 2020.
10. **James, B. D.**, Montoya, N., Allen, J. B. *A Multi-Stimulus Culture Model for Studying Complex Chemo-Mechanical Microenvironments In Vitro.* Biomedical Engineering Society Annual Meeting, Virtual. October 14-17, 2020.
11. **James, B. D.**, Allen, J. B. *DNA aptamer-collagen complex-based biomaterials.* UF Soft Matter Applied Research and Technology Symposium, Gainesville, FL. January 20, 2020.
12. Lichlyter, D., **James, B. D.**, Webb, A. [Cellular Effects of Carbon Monoxide Releasing Poly\(diols-citrate\) Polymers](#). The Society For Biomaterials 2019 Annual Meeting and Exposition, Seattle, WA. April 3-6, 2019.
13. **James, B. D.**, Zupanska, A., Allen, J. B. [Microgravity Effects on the Function of Vascular Endothelial Cells](#). The American Society for Gravitational and Space Research 2018 Meeting, Bethesda, MD. October 31 – Nov 3, 2018.
14. **James, B. D.**, Chen, M., Savguira, Y., MacInnis, J., Thorpe, S. J. [Amphibious Yacht and Fueling Station](#). U.S. Department of Energy Hydrogen and Fuel Cells Program 2018 Annual Merit Review and Peer Evaluation Meeting, Washington, D.C. June 13-15, 2018.

POSTER PRESENTATIONS

1. **Young, S.**, Michel, A. P. M., de Vos, A., DiBenedetto, M. H., **James, B. D.**, Reddy, C. M. *Chemical Analysis of Nurdles from the M/V X-Press Pearl Fire: A Study of Rapid Degradation, Weathering, and Metal Accumulation.* Ocean Sciences Meeting, Virtual, February 24 - March 4, 2022.
2. **James, B. D.**, Allen, J. B. *VEGF-R2 Targeting DNA Aptamer-Collagen Fibers Stimulate an Angiogenic-Like Endothelial Cell Phenotype.* Biomedical Engineering Society Annual Meeting, Virtual. October 14-17, 2020.

3. **James, B. D.**, Wiggins, S. *Development of a High School-Level Introduction to Biomaterials Science and Engineering Course*. Biomedical Engineering Society Annual Meeting, Virtual. October 14-17, 2020.
4. **James, B. D.**, Guerin, P., Iverson, Z., Allen, J. B. *Mineralized DNA-Collagen Complex-Based Biomaterials for Bone Tissue Engineering*. Biomedical Engineering Society Annual Meeting, Virtual. October 14-17, 2020.
5. **James, B. D.**, Montoya, N., Ruddick, W., Allen, J. B. *A Decoupled Multi-Stimulus Bioreactor for Studying Complex Chemo-Mechanical Microenvironments In Vitro*. TERMIS-AM Annual Conference & Exhibition, Orlando, FL. December 2-5, 2019.
6. **James, B. D.**, Guerin, P., Iverson, Z., Allen, J. B. *DNA aptamer-Collagen Complex-based Biomaterials*. Pruitt Research Day 2019, Gainesville, FL. November 22, 2019.
7. **James, B. D.**, Montoya, N., Ruddick, W., Allen, J. B. *A Decoupled Multi-Stimulus Bioreactor for Studying Complex Chemo-Mechanical Microenvironments In Vitro*. 2019 Biomedical Engineering Society Annual Meeting, Philadelphia, PA. October 16-19, 2019.
8. **James, B. D.**, Montoya, N., Ruddick, W., Allen, J. B. *A Decoupled Multi-Stimulus Bioreactor for Studying Complex Chemo-Mechanical Microenvironments In Vitro*. University of Florida Soft Matter Symposium, Gainesville, FL. October 8-10, 2019.
9. Ursino, H., **James, B. D.**, Allen, J. B. *Mineralization of DNA aptamer-collagen complexes for mineralized tissue*. University of Florida Soft Matter Symposium, Gainesville, FL. October 8-10, 2019.
10. **James, B.D.**, Murbach, J. Freeman, S. T. *Osseous biomaterials: When your bone needs help healing*. The Society For Biomaterials 2019 Annual Meeting and Exposition, Seattle, WA. Apr. 3-6, 2019.
11. **James, B. D.**, Montoya, N., Ruddick, W., Allen, J. B. [A Decoupled Multi-Stimulus Bioreactor for Studying Complex Chemo-Mechanical Microenvironments In Vitro](#). The Society For Biomaterials 2019 Annual Meeting and Exposition, Seattle, WA. Apr. 3-6, 2019.
12. **James, B. D.**, Montoya, N., Ruddick, W., Allen, J. B. *A Decoupled Multi-Stimulus Bioreactor for Studying Complex Chemo-Mechanical Microenvironments In Vitro*. University of Florida 8th Annual Biomaterials Day Symposium, Gainesville, FL. Mar. 18, 2019.
13. **James, B. D.**, Allen, J. B. *Spatial command of PDMS optical and mechanical properties by controlled diffusion-reaction processes*. 2018 Biomedical Engineering Society Annual Meeting, Atlanta, GA, October 17-20, 2018.
14. Lichlyter, D., **James, B. D.**, Webb, A. [Carbon monoxide releasing Poly\(diols-nicotinamide-citrate\) polymer to reduce oxidative stress](#). 2018 Biomedical Engineering Society Annual Meeting, Atlanta, GA, October 17-20, 2018.
15. **James, B. D.**, Chen, M., Savguira, Y., MacInnis, J., Thorpe, S. J. [Power-to-Gas Design Project: Amphibious Yacht and Fueling Station](#). U.S. Department of Energy Hydrogen and Fuel Cells Program 2018 Annual Merit Review and Peer Evaluation Meeting, Washington, D.C., June 13-15, 2018.
16. **James, B.D.**, Minh-Tam Nguyen, Alex Lausch, Kenny Kimmins, Benjamin D. Hatton, Eli D. Sone. *Attachment Strength of Zebra and Quagga Mussels*. University of Florida Soft Matter Symposium, Gainesville, FL, October 17-19, 2017.
17. **James, B.D.**, Reddy, C.M., Aeppli, C., Carmichael, C.A., Nelson, R.K. *Variability in the hydrocarbon composition of oil films on rocks along the Gulf coast post the Deepwater Horizon disaster*. Gulf of Mexico Oil Spill & Ecosystem Science Conference, Mobile, AL, January 27, 2014.
18. **James, B.D.**, Reddy, C.M., Aeppli, C., Carmichael, C.A., Nelson, R.K. *Variability in the hydrocarbon composition of oil films on rocks along the Gulf coast post the Deepwater Horizon disaster*. Deep-C Consortium "All-Hands" Meeting, Tallahassee, FL, September 10, 2013.

19. **James, B.D.**, Carmichael, C. A., Aeppli, C., Nelson, R.K., Murphy, E., Radovic, J., Reddy, C.M. *Variability in oiled sand-patties collected: How different are samples collected within meters on a beach?* Gulf of Mexico Oil Spill & Ecosystem Science Conference, New Orleans, LA, January 22, 2013.
20. **James, B.D.**, Carmichael, C. A., Aeppli, C., Nelson, R.K., Murphy, E., Radovic, J., Reddy, C.M. *Variability in oiled sand-patties collected: How different are samples collected within meters on a beach?* Deep-C Consortium "All-Hands" Meeting, Tallahassee, FL, August 22, 2012.

PUBLISHED MEDIA (NOT PEER REVIEWED):

1. de Vos, A., **James, B. D.**, Mazzotta, M. G., Michel, A. P. M., Reddy, C. M., Walsh, A. N., Ward, C. P., Hahn, M. E., Youngs, S., Aluwihare, L. (2021). [M/V X-Press Pearl nurdle spill: Beached nurdles span a continuum of physical and chemical properties](#). (Featured Research), *Woods Hole Oceanographic Institution*, posted online June 23.
2. **James, B.D.**, Guerin, P., Allen, J. B. (2020). [Biomaterials researchers should include sex-based differences](#), (Blog Post), *Advanced Science News*, posted online November 16.
3. **James, B. D.** (2019). Osseous biomaterials: When your bone needs help healing, (Article), [Biomaterials Forum](#), 41(3), pp. 13-15.
4. **James, B. D.** (2016). [What is MSE?](#), (Webpage), *MSE Club*, mse.skule.ca/guide.
5. **James, B. D.** (2013). [The cutting edge of oil research](#), (Blog Post), *Voices from the Field: Science & Discovery in the Northeastern Gulf of Mexico*, posted online on June 24.
6. **James, B. D.** (2013). [Getting back to the Gulf](#), (Blog Post), *Voices from the Field: Science & Discovery in the Northeastern Gulf of Mexico*, posted online in June 13.
7. **James, B. D.** (2011). [Research Road Trip: A three-day, 500-mile quest for tarballs](#), (Audio Slideshow), *Oceanus*, posted online on September 14.

LEADERSHIP AND OUTREACH ACTIVITIES

Leadership

Secretary/Treasurer, Society For Biomaterials National Student Chapter	May 2021 – May 2022
Secretary/Treasurer - Elect, Society For Biomaterials National Student Chapter	Oct. 2020 – May 2021
President, UF Student Chapter of the Society For Biomaterials , Gainesville, FL	Apr. 2019 – May 2021
Interim Chair, UF MSE Student Council, Gainesville, FL,	Nov. 2018 – May 2019
Bylaws Chair, UF MSE Student Council, Gainesville, FL	Apr. 2018 – May 2019
Outreach Director, UF Chapter of the Society for Biomaterials, Gainesville, FL	Apr. 2018 – Apr. 2019
4 th Year Class Representative, University of Toronto Engineering Society, Toronto, ON	Sept. 2016 – Apr. 2017
Chair, MSE Discipline Club, Toronto, ON	Sept. 2016 – Apr. 2017
Vice-chair, MSE Discipline Club, Toronto, ON	Sept. 2014 – Apr. 2015
Communications Director, MSE Discipline Club, Toronto, ON	Sept. 2013 – Apr. 2014

Outreach

Middle School Science Advisor, Ms. Dawna Garvin's Class, Pleasanton, TX	Mar. 2022 – Present
Co-advisor, Falmouth High School Science Fair, "Dispersant efficacy on vegetable oils and fossil-fuel lubricants". Falmouth, MA	Feb. 2022 – Mar. 2022
Judge, 34 th Annual Falmouth Academy Science and Engineering Fair, Falmouth Academy, Falmouth, MA	Feb. 2022
Presenter, Science Untapped , MIT Office of Graduate Education, Falmouth, MA	Oct. 2021
Co-Organizer, Career Opportunities in Biomaterials for HBCU Students , Society For Biomaterials, Virtual	Oct. 2021

Co-Organizer/Speaker, Biomaterials Day Virtual Workshop, Society For Biomaterials, Virtual	Sept. 2021
Co-Organizer, University of Florida 10th Annual Biomaterials Day Symposium , Gainesville, FL. *Virtual due to COVID-19*	Mar. 2021
Co-Organizer, " Hearing from Engineers – UF SFB Speaks with Industry " Webinar Speaker Series	July 2020 – Aug. 2020
Co-Organizer, University of Florida 9th Annual Biomaterials Day Symposium , Gainesville, FL. *Canceled due to COVID-19*	Mar. 2020
Co-Organizer, University of Florida 8th Annual Biomaterials Day Symposium , Gainesville, FL.	Mar. 2019
Guest Instructor, <i>Biomaterials Outreach at PK Yonge Developmental Research School</i> , Gainesville, FL.	Mar. 2019
Judge, <i>Florida Regional Junior Science, Engineering and Humanities Symposium</i> , Gainesville, FL	Jan. 2019
Co-Organizer, ACS Science Café , Gainesville, FL	July 2018 – Nov. 2018

TEACHING

Invited Speaker, EMA 3000L, University of Florida, Gainesville, FL Virtual.	Jan. 2022
<ul style="list-style-type: none"> Instructed on plastics and design for environment 	
Invited Speaker, IDH3931, FUNdamentals of Research Integrity, Gainesville, FL	Oct. 2020
<ul style="list-style-type: none"> Spoke to students on Mentor/Mentee dynamics 	
Guest Instructor, EMA4061: Biomaterials: Structure and Properties, Gainesville, FL	Oct. 2019
<ul style="list-style-type: none"> Senior level undergraduate course Covered topics related to blood-material and host-material interactions 	
Guest Instructor, EMA3010: Intro to Materials Science and Engineering, Gainesville, FL	June 2019 – Aug. 2019
<ul style="list-style-type: none"> Introductory undergraduate course Covered topics related to mechanical properties and phase transformations 	
Instructor, IDH2931: Honors Seminar, Gainesville, FL	June 2019 – July 2019
<ul style="list-style-type: none"> Designed an 8-week seminar on biomaterials for the UF Summer Science Training Program Instructed to a class of high school students 	
Teaching Assistant, EMA3011: Fundamental Principles of Materials, Gainesville, FL	Jan. 2019 – May 2019
<ul style="list-style-type: none"> Sophomore level undergraduate course Covered topics related to quantum phenomena and organic chemistry 	
Teaching Assistant, EMA4061L: Biomaterials Laboratory, Gainesville, FL	Aug. 2018 – Dec. 2018
<ul style="list-style-type: none"> Senior level undergraduate laboratory course Guided students in biomaterials synthesis and characterization Taught mammalian cell culture, aseptic technique, and immunofluorescence microscopy 	

MENTORING

Graduate Students

- | | |
|--|-----------------------|
| 1. Brandon Wilson , University of Florida, BME | Jan. 2021 – May 2021 |
| 2. Kari Ross , University of Florida, BME | Aug. 2020 – Nov. 2020 |
| 3. Heather Ursino , University of Florida, BME | Aug. 2019 – May 2021 |

Undergraduate Students

- | | |
|--|------------------------|
| 1. Gantt Meredith , University of Florida, BME | Oct. 2019 – May 2020 |
| 2. Zion Iverson , University of Florida, Biology | Sept. 2019 – Dec. 2019 |

3. Alana Jones , University of Florida, MSE	Sept. 2019 – Dec. 2019
4. Francesca DeVito , University of Florida, BME	Sept. 2019 – Dec. 2019
5. Noah Baughman , University of Florida, MSE	Feb. 2019 – July 2019
6. Sophia Saenz , University of Florida, BME	Jan. 2019 – May 2021
7. Paxton Guerin , University of Florida, BME	Jan. 2019 – May 2021
8. Nicolas Montoya , University of Florida, ECE	Sept. 2018 – May 2020
9. Kadeem Samuel , University of Florida, ECE	Sept. 2018 – Nov. 2018
10. Gabriela Alvarez , University of California, Riverside, REU student	June 2018 – Aug. 2018
11. Jeffrey Butler , Morehouse College, REU student	June 2018 – Aug. 2018
12. Chris Cotter , University of Florida, MSE	Sept. 2017 – Apr. 2018
13. Scott Parker , University of Florida, MSE	Sept. 2017 – Apr. 2018
14. Minh-Tam Nguyen , University of Toronto, MSE	Apr. 2017 – July 2017
15. Thomas Rugh , California State Polytechnic University-Pamona, MechE	May 2014 – Sept. 2014
16. Brian Forst , Harvard University, Government	May 2013 – Aug. 2013
17. Mike McNulty , Boston College, Chemistry	May 2013 – Aug. 2013
18. Ben Freiberg , Skidmore College, Environmental Science	May 2013 – Aug. 2013

HIGH SCHOOL STUDENTS

1. Anastacia van Gent , University of Florida, UF Student Science Training Program	June 2019 – July 2019
---	-----------------------

PROFESSIONAL RESPONSIBILITIES & SERVICE

Committees

WHOI Committee for Diversity, Equity, and Inclusion	2021 – Present
---	----------------

Reviewed for

[Journal of Nanobiotechnology](#)
[Bioengineering & Translational Medicine](#)
[University of Florida Journal of Undergraduate Research](#)

Early Career Editorial Advisory Board

ACS Biomaterials Science & Engineering	2022 – 2025
--	-------------

Associate Editor

University of Florida Journal of Undergraduate Research	2019 – 2021
---	-------------

Volunteering

TERMIS-AM Annual Conference & Exhibition, Orlando, FL	Dec. 2019
Biomedical Engineering Society 2019 Annual Meeting, Philadelphia, PA	Oct. 2019
Biomedical Engineering Society 2018 Annual Meeting, Atlanta, GA	Oct. 2018
Society For Biomaterials 2018 Annual Meeting & Exhibition, Atlanta GA	Apr. 2018

PROFESSIONAL DEVELOPMENT AND TRAINING

Workshops

NextProf Nexus	Sept. 2020
New England Future Faculty Workshop	July 2020

Courses

ACS Author Lab , American Chemical Society	2021
ACS Reviewer Lab , American Chemical Society	2020
Bench to Bedside: Integrating Sex and Gender to Improve Human Health Course , NIH & FDA	2020

PROFESSIONAL AFFILIATIONS (current memberships)

American Association for the Advancement of Science (2019)	American Chemical Society (2018)
Biomedical Engineering Society (2018)	Society for Biomaterials (2017)
The American Ceramic Society (2014)	ASM International (2014)

