Folarin Erogbogbo

EDUCATION AND PROFESSIONAL APPOINTMENTS

Assistant Professor 2013- Present
Biomedical, Chemical and Materials Engineering Department
San Jose State University

Research Assistant Professor, 2010-2013
Ford Fellow 2011-2013
Institute for Lasers, Photonics and Biophotonics
University at Buffalo (SUNY)
Supervisor: Prof. Paras N.Prasad

Postdoctoral Researcher, 2009 – 2010
National Institute of Health (NIH) Diversity Supplement
Institute for Lasers, Photonics and Biophotonics
University at Buffalo (SUNY)
Supervisor: Prof. Paras N.Prasad

PhD, Chemical and Biological Engineering, June 2009
National Science Foundation (NSF) IGERT Fellow
Alliance for Graduate Education Participation (AGEP) Scholar
University at Buffalo (SUNY)
Dissertation Title: Silicon Quantum dots and Biophotonic Applications Thereof
Advisor: Dr. Mark T. Swihart

B.S. Chemical Engineering, September 2004
NSF REU Scholar, Ronald E. McNair Honors Program, Daniel Acker Scholars Program, CSTEP Scholar, SUNY AMP scholarUniversity at Buffalo (SUNY)

PUBLICATIONS

For an up to date list of publications, please see google scholar

1. Usha Subramanya, Charleston Chua, Victor Gin He Leong, Ryan Robinson Gwenlyn Angel Cruz Cabiltes, Prakirti Singh, Bonnie Yip, Anuja Bokare, **Folarin Erogbogbo** and Dahyun Oh Carbon-based artificial SEI layers for aqueous lithium-ion battery anodes RSC Advances 2020, Issue 4,In Press
2. AK Saha, MYS Zhen, **F Erogbogbo**, AK Ramasubramanian Design Considerations and Assays for Hemocompatibility of FDA-Approved Nanoparticles Seminars in thrombosis and hemostasis 2019
3. JR Seibert, O Keles, J Wang, **F Erogbogbo** Data on Thermal Conductivity and Dynamic Mechanical Properties of Graphene Quantum dots in epoxy Data in Brief, 105008 2019
4. P Pokharel, D Xiao, **F Erogbogbo,** O Keles A hierarchical approach for creating electrically conductive network structure in polyurethane nanocomposites using a hybrid of graphene nanoplatelets, carbon black and multi … Composites Part B: Engineering 161, 169-182 2019
5. JR Seibert, Ö Keleş, J Wang**, F Erogbogbo** Infusion of graphene quantum dots to modulate thermal conductivity and dynamic mechanical properties of polymers Polymer 185, 121988 2019
6. Navathej Gobi, Darshan Vijayakumarm, Ozgur Keles, **Folarin Erogbogbo** Infusion of Graphene

Quantum Dots to Create Stronger, Tougher, and Brighter Polymer Composites ACS Omega 2017, 2, 8, 4356-4362; August 8, 2017

7. S Chinnusamy, R Kaur, A Bokare, **F Erogbogbo** Incorporation of graphene quantum dots to enhance photocatalytic properties of anatase TiO2 MRS Communications 8 (1), 137-144
8. L Le, A Bokare**, F Erogbogbo** Hand powered, cost effective, 3D printed nanoparticle synthesizer: effects of polymer end caps, drugs, and solvents on lipid polymer hybrid nanoparticles Materials Research Express 6 (2), 025403
9. L Chan, A Nguyen, A Bokare, **F Erogbogbo** Cost Effective 3D Printed Device for Tuberculosis Nanoformulation Manufacturing MRS Advances 3 (49), 2943-2951
10. Sowbaranigha Chinnusamy Jayanthi, Ravneet Kaur and **Folarin Erogbogbo**. Graphene Quantum Dot - Titania Nanoparticle Composite for Photocatalytic Water Splitting. MRS Advances, available on CJO2016.
11. Eri A. Takami and **Folarin Erogbogbo**. Microfluidic Synthesis of Lipid-Polymer Hybrid Nanoparticles for Targeted Drug Delivery. MRS Advances, available on CJO2016. doi:10.1557/adv.2016.446.
12. Aneshkumar Tilwani, Hildegarde Bell, Jose Alvarez, Belqais Naqshbandi and **Folarin Erogbogbo** (2015). Graphene Quantum dots for Biophotonic Applications. MRS Proceedings, 1786, pp 1-6. doi:10.1557/opl.2015.764.
13. **Folarin Erogbogbo**, Jasmine May, Mark Swihart, Paras N. Prasad, Katie Smart, Seif El Jack, Dariusz Korcyk, Mark Webster, Ralph Stewart, Irene Zeng, Mia Jullig, Katherine Bakeev, Michelle Jamieson, Nikolas Kasabov, Banu Gopalan, Linda Liang, Raphael Hu, Stefan Schliebs, Silas Villas-Boas, Patrick Gladding. Development of Silicon Quantum Dot Theranostics Using Metabolomic and Proteomic Data In Cardiac Ischaemia. Theranostics, *2013*
14. **Folarin Erogbogbo**, Jianwei Liu, Ken-Tye Yong, Ling Ye, Jing Liu, Rui Hu, Hongyan Chen, Yazhuo Hu, Yi Yang, Jinghui Yang, Indrajit Roy, Nicholas A. Karker, Mark T. Swihart, and Paras N. Prasad, Assessing Clinical Prospects of Silicon Quantum Dots: Studies in Mice and Monkeys, *ACS Nano* 2013.
15. **Folarin Erogbogbo**, Tao Lin, Phillip M. Tucciarone, Krystal M. LaJoie, Larry Lai, Gauri D. Patki, Paras N. Prasad, and Mark T. Swihart, On-Demand Hydrogen Generation Using Nanosilicon: Splitting Water without Light, Heat, or Electricity, *Nano Letters,* 13, 2013, 451-56. (Highlighted by Nature, Highlighted by C&E News, Most Highly Read Nanoletters article - 1st Quarter 2013, Community Choice in Nature)
16. **Folarin Erogbogbo**, Xin Liu, Jasmine May, Mark T.Swihart, Paras N. Prasad Plasmonic Gold and Luminescent Silicon Nanoplatforms for Multimode Imaging of Cancer Cells, Integrative Biology, 2012
17. Law WC, Mahajan SD, Kopwitthaya A, Reynolds JL, Liu M, Liu X, Chen G, **Erogbogbo F,** Vathy L, Aalinkeel R, Schwartz SA, Yong KT, Prasad PN. Gene Silencing of Human Neuronal Cells for Drug Addiction Therapy using Anisotropic Nanocrystals. *Theranostics* 2012; 2(7):695-704.
18. **Folarin Erogbogbo**, Ching-Wen Chang, Jasmine L. May, Liwei Liu, Rajiv Kumar, Wing-Cheung Law, Hong Ding, Ken Tye Yong, Indrajit Roy, Mukund Sheshadri, Mark T. Swihart, Paras N. Prasad Bioconjugation of Luminescent Silicon Quantum Dots to Gadolinium Ions for Bioimaging Applications Nanoscale, *2012*
19. **Folarin Erogbogbo,** Ching-wen Chang, Jasmine May, Paras N. Prasad, Mark T. Swihart Energy Transfer from a Dye Donor to Enhance the Luminescence of Silicon Quantum Dots Nanoscale, *2012*
20. Jasmine Louise May, **Folarin Erogbogbo**, Ken-Tye Yong, Hong Ding, Wing-Cheung Law, Mark T. Swihart, Paras N. Prasad Enhancing silicon quantum dot uptake by pancreatic cancer cells via pluronic® encapsulation and antibody targeting. *Journal of Solid Tumors, 2012*
21. Tien, Chen-An , **Erogbogbo, Folarin,** Chang, Ching-Wen , Adjei-Baffour, Priscilla , Law, Wing-

Chueng, and Swihart, Mark. Biodegradable Luminescent Silicon Quantum Dots for Two Photon Imaging Applications . Available from Nature Precedings, 2012

22. **Folarin Erogbogbo**, Tian Hang Liu, Ramadurai Nithin, Phillip Tuccarione, Larry Lai, Mark Swihart, Paras N. Prasad Creating Ligand Free Silicon germanium Alloy Nanocrystals Inks in press A*CS Nano, 2011*

23. **Folarin Erogbogbo**, Ken-Tye Yong, Indrajit Roy, Rui Hu, Wing-Cheung Law, Weiwei Zhao, Hong Ding, Paras N. Prasad, and Mark T. Swihart In Vivo Targeted Cancer Imaging, Sentinel Lymph Node Mapping and Multi-Channel Imaging with Biocompatible Silicon Nanocrystals. *ACS Nano, 2011*

24. **Folarin Erogbogbo,** Chen-An Tien, Ken-Tye Yong, Indrajit Roy. Mark T. Swihart, Paras N. Prasad Bioconjugation of Luminescent Silicon Quantum Dots for Selective Uptake by Cancer Cells Bioconjugate Chemistry, 2011

25. Hong Ding, Ken-Tye Yong, Wing-Chueng Law, Indrajit Roy, Rui Hu, Fang Wu, Weiwei Zhao, Kun Huang, **Folarin Erogbogbo**, Earl J Bergey and Paras N Prasad Non-invasive tumor detection in small animals using novel functional Pluronic nanomicelles conjugated with anti-mesothelin antibody Nanoscale, 2011

26. Liwei Liu, Wing-Cheung Law, Ken-Tye Yong, Indrajit Roy, Hong Ding, **Folarin Erogbogbo**, Xihe Zhang and Paras N Prasad Multimodal imaging probes based on Gd-DOTA conjugated quantum dot nanomicelles Analyst, 2011

27. Folarin Erogbogbo, Ken-Tye Yong, Indrajit Roy, Rui Hu, Wing-Cheung Law, Hong Ding, Paras N. Prasad, and Mark T. Swihart Biocompatibile Multimodal Magnetofluorescent Probes: Luminescent Silicon Nanoparticles Couples With Superparamagnetic Iron(III) Oxide ***ACS Nano*****,** 2010**, *4* (9), pp 5131–5138**

28. Liwei Liu, Hong Ding, Ken-Tye Yong, Indrajit Roy, Wing-Cheung Law, Atcha Kopwitthaya, Rajiv Kumar, **Folarin Erogbogbo**, Xihe Zhang and Paras N. Prasad Application of Gold Nanorods for Plasmonic and Magnetic Imaging of Cancer Cells Plasmonics, 2010

29. **Folarin Erogbogbo** and Mark T Swihart, "Imaging Pancreatic Cancer with Folic Acid Terminated Luminescent Silicon Nanocrystals" AIP Conf.Proc.1275,35,2010

30. Folarin Erogbogbo. Silicon Quantum dots and Biophotonic Applications Thereof. Electronic Theses and Dissertations. Published 2009.

31. Anoop Gupta, Folarin Erogbogbo, Mark T. Swihart, Harmut Wiggers Photoluminescence behavior of silicon nanocrystals: role of surface chemistry and size mat. res. soc. symp. proc., 1145-mm10-04 (2009)

32. **Folarin Erogbogbo,** Ken-Tye Yong, Indrajit Roy, GaiXia Xu, Paras N. Prasad, and Mark T. Swihart, Biocompatible, Luminescent Silicon Quantum Dots for Imaging Cancer Cells ACS Nano*, 2, 5, 873 - 878, 2008*

33. Guang S. He, Qingdong Zheng, Ken-Tye Yong, **Folarin Erogbogbo**, Mark T. Swihart, and Paras N. Prasad Two- and three-photon absorption and frequency upconverted emission properties of silicon quantum dots in chloroform and in water Nano Letters 2008; 8(9); 2688-2692

34. **Folarin Erogbogbo,** Mark T.Swihart*,* Photoluminescent Silicon Nanocrystals with Mixed Surface Functionalization for Biophotonics *Proceedings of the Material Research Society Annual Conference, Fall 2006*

35. **Folarin Erogbogbo ,** Mark T Swihart , Eli Ruckenstein Organically capped silicon nanoparticles with blue photoluminescence prepared by hydrosilylation followed by oxidation. Langmuir. 2006 Apr 25; 22 (9):4363-70

Selected Conferences and Symposia Organized

i) New Platforms for Biomedical Applications: Industry Collaborations, December 2019, Role: Founder and Organizer
ii) New Platforms for Biomedical Applications: Nanotechnology, December 2019, Role: Founder and Organizer
iii) New Platforms for Biomedical Applications: Biomedical Devices, December 2019, Role: Founder and Organizer
iv) IEEE SFBA Nanotechnology Council: Molecular Foundry, May 2019, Role: *Symposium Chair*
v) IEEE SFBA Nanotechnology Council: Nanotechnology for Energy, Healthcare and the Environment, November 2016, Role: *Symposium Chair*
vi) IEEE SFBA Nanotechnology Council: Nanotechnology in Biosystems, Medicine and Health November 2016, Role: *Symposium Chair*
vii) Bay Area Biomedical Device Conference 2014-2019, Role: *Session Organizer*

Selected Presentations (after SJSU appointment)

Numerous presentations have been given and the sample of presentations from one year are below.

i) 2015 Invited Talks

(1) 2015 Annual CSU Biotechnology Symposium

(a) January 8th, 2015

(i) Making Nanoparticles Suitable for Clinical Translation

(2) ICNP The 8th International Conference on Nanophotonics

(a) Date: May 27, 2015

(i) Scalable Manufacturing of Hybrid Nanovesicles and Earth Abundant Based Inorganic Nanoparticles for Biomedical Applications

(3) 2015 Diaspora Day Panel

(a) August 25, 2015

(i) How Medical Professionals in the Diaspora want to contribute to Nigeria

(4) 2015 Perkin Elmer and IEEE INTour

(a) September 10, 2015

(i) Assessing Clinical Prospects of Silicon Quantum Dots

(5) BERI, San Jose State University

(a) September 18, 2015

(i) Bird Charcoal Graphene Quantum Dots for Biophotonic Applications.

(6) Biology and Mathematics in the Bay Area (BAMBA)

(a) October 17, 2015

(i) Assessing Clinical Prospects of Silicon Quantum Dots

ii) Participation with Students (Presentations from my Research Group)

(1) 27th Annual CSU Biotechnology Symposium

(a) January 8 - 10, 2015

(i) Microfluidic synthesis of bioconjugated lipid polymer hybrid nanoparticles for targeted drug delivery

1. Ashley Takami

(ii) Synthesis of Bioconjugated Lipid Polymer Hybrid Nanoparticles for Targeted Drug Delivery

1. Lan Le

(2) Biomedical Engineering Society Annual Meeting,

(a) October 7-10, 2015 Tampa, FL

(i) Comparison of Prostate Cancer and non-Prostate Cancer Exosomes using Raman Spectroscopy

1. Katherine Moore and Diana Valenzuala

(ii) Microfluidic synthesis of bioconjugated lipid polymer hybrid nanoparticles for targeted drug delivery

1. Ashley Takami

(3) American Vacuum Society 62nd International Symposium and Exhibition, October

(a) October 18-23, 2015, San Jose California

(i) Graphene quantum dot- titania nano hybrid photocatalyst for bio-inspired artificial photosynthetic water splitting application.

1. Ravneet Kuar and Sowba Shukla

(ii) Nanopatterning for controlled cell growth

1. Jerusalem Darkera

(iii)Microfluidic synthesis of bioconjugated lipid polymer hybrid nanoparticles for targeted drug delivery

1. Ashley Takami

(4) IEEE 2015

(a) May 19, 2015

(i) Cost-effective 3D Printed Device for Tuberculosis Nanoformulation Manufacturing

1. Lorene Chan and Ai Nguyen

(ii) Scalable nanomanufacturing platform for biomedical applications.

1. Alexis and Steven Gunn

(iii)Microfluidic synthesis of Bioconjuaged lipid polymer hybrid nanoparticles for targeted drug delivery

1. Ashley Takami

(iv) Graphene Quantum Dots for Biophotonic Applications

1. Anesh Tilwani

(v) Comparison of Prostate Cancer and non-Prostate Cancer Exosomes using Raman Spectroscopy

1. Katherine Moore and Diana Valenzuala

(b) November 17, 2015

(i) Raman spectroscopic analysis of exosomes

1. Katherine Moore

(ii) Study of Electrical and Mechanical Properties of Graphene Quantum dots and their Significance to Biomedical Engineering

1. Navathey Gobi and Darshan VijayKumar

(iii)3D Printed Device for Fabrication of Drug Loaded Nanoparticles

1. Alan Chen and Ronald Valeria

(iv) Microfluidic synthesis of bioconjugated lipid polymer hybrid nanoparticles for targeted drug delivery

1. Ashley Takami

(v) Graphene quantum dot- titania nano hybrid photocatalyst for bio-inspired artificial photosynthetic water splitting application.

1. Ravneet Kuar and Sowba Shukla

(5) Northern California Chapter of the American Vacuum Society Joint User Group Technical Symposium

(a) February 19, 2015

(i) Microfluidic synthesis of bioconjugated lipid polymer hybrid nanoparticles for targeted drug delivery

1. Ashley Takami

(ii) Graphene Quantum Dots for Biophotonic Applications

1. Anesh Tilwani, Hildegarde Bell, Jose Alvarez

(b) February, 24, 2016

(i) Graphene quantum dot- titania nano hybrid photocatalyst for bio-inspired artificial photosynthetic water splitting application.

1. Ravneet Kuar and Sowba Shukla

(ii) Study of Electrical and Mechanical Properties of Graphene Quantum dots and their Significance to Biomedical Engineering

1. Navathey Gobi and Darshan VijayKumar

(6) American Chemical Society

(a) Graphene Quantum Dots enhanced microfluidics based paper analytical device (μPADs) for glucose detection"

(i) Navathej Gobi and Darshan Vijayakumar

SELECTED PRESENTATIONS (PRE-SJSU)

1. **Folarin Erogbogbo** Multifunctional Nanoparticles for Theranostics of Infectious Diseases 1st Pan-African Summer School in Nanomedicine, 4-10 Nov 2012, Pretoria, South Africa

2. **Folarin Erogbogbo** Rational Design of nanoplatform for Biomedical Applications Meet the Faculty Candidate Poster Session, Atlanta, GA, October 2012.

3. **Folarin Erogbogbo** "Gas Phase synthesis of Gadolinium Nanoparticles for Magnetic Resonance Imaging Contrast Agents" American Institute of Chemical Engineers Annual Conference. Minneapolis, MN, October, 2011

4. **Folarin Erogbogbo** " Multimodal Bioimaging Agents Based on Silicon Quantum Dots" American Institute of Chemical Engineers Annual Conference. Minneapolis, MN, October, 2011

5. **Folarin Erogbogbo** " Developing Multimodal Bioimaging Agents Based on Silicon Quantum Dots" Ford Fellowship Conference. Santa Ana, CA, October, 2011

6. **Folarin Erogbogbo** " Multimodal Bioimaging Agents Based on Silicon Quantum Dots". Hamilton, ON,

August, 2011

7. **Folarin Erogbogbo** " Multimodal Cancer Therapeutics and Imaging Agents Based on Silicon Quantum Dots". Waterville, ME, July, 2011

8. **Folarin Erogbogbo** "Conducting Research" Collegiate Science and Technology Entry Program and SUNY Louis

Stokes alliance for Minority Participation. University at Buffalo, New York, May 2009

9. **Folarin Erogbogbo** "Luminescent, Biocompatible Silicon Quantum dots for Cancer Cell Applications : Sentinel Lymphnode Mapping and Tumor Targeting" *Invited Talk* Chemical and Biological Engineering Departmental Seminar, University at Buffalo. New York, February 2009.

10. **Folarin Erogbogbo**, Mark T. Swihart. "Nanotechnology for Cancer Diagnosis and Therapy" Alliance for Graduate Education and the Professoriate Colloquium, University at Buffalo, New York, January 2009

11. **Folarin Erogbogbo**, Ken-Tye Yong, Hong Ding, Paras N. Prasad, Mark Swihart "Cytotoxicity of Luminescent Silicon Quantum Dots Engineered for Biological Applications" American Institute of Chemical Engineers Annual Conference. Philadelphia, PA, November 2008.

12. **Folarin Erogbogbo**, Ken-Tye Yong, Paras N. Prasad, Mark T. Swihart. "Luminescent, Biocompatible Silicon Quantum dots for Cancer Cell Imaging" American Institute of Chemical Engineers Annual Conference. San Francisco, CA, November 2007.

13. **Folarin Erogbogbo**, Mark T. Swihart. "Biocompatible Silicon Quantum dots for Pancreatic Cancer Cell Imaging" Alliance for Graduate Education and the Professoriate Colloquium, Buffalo, New York, October 2007.

14. **Folarin Erogbogbo**, Mark T. Swihart. "Biocompatible Silicon Quantum dots" National Science Foundation Integrative Graduate Education and Research Traineeship Conference. Arlington,VA, May 2007. *(Poster)*

15. **Folarin Erogbogbo**, Mark T. Swihart. "Photoluminescent Silicon Nanocrystals with Mixed Surface Functionalization for Biophotonics" Material Research Society Conference, Boston, MA, November 2006.

TEACHING EXPERIENCE

List of Classes Taught

Semester	Course #	Title
Fall 2019	BME 256	Biomedical Applications of Nanoplatforms

	BME 198A	Senior Project
	BME 274	Regulatory, Clinical and Manufacturing Aspects of Medical Devices
	BME 291	MS Thesis/Project Preparation Seminar
Spring 2019		
	BME 115	Foundations of Biomedical Engineering
	BME 178	Biomedical Product Realization
	BME 198B	Senior Project II
Spring 2018	BME 178	Biomedical Product Realization
	BME 198B	Senior Project II
	BME 256	Nanoplatforms for Biomedical Applications
	MatE186	Polymers
Fall 2017	BIOL 177 01	Physiology for Engineers
	BME 198A	Senior Project I
Spring 2017	BME 178	Biomedical Product Realization
	BME 198B	Senior Project II
Fall 2016	BIOL 177 01	Physiology for Engineers
Fall 2016	BME 177 L	Physiology for Engineers Lab
Fall 2016	BME 198A	Senior Project I
Fall 2016	BME 256	Nanoplatforms for Biomedical Applications
Spring 2016	MatE186	Polymers
Spring 2016	BME 177	Physiology for Engineers
Spring 2016	BME 173	Clinical Trials in Bioengineering
Spring 2016	CHE/MatE/BME 298/299	Masters Project
Fall 2015	BME 177	Physiology for Engineers
Fall 2015	CHE 190	Introduction to Transport Phenomena
Fall 2015	CHE 109	Heat Transfer in Electronics
Fall 2015	BME 115L	Foundations of Biomedical Engineering Lab
Spring 2015	BME 256	Nanoplatforms for Biomedical Applications
Spring 2015	BME 173	Clinical Trials in Bioengineering
Fall 2014	BME 177	Physiology for Engineers
Fall 2014	CE/ME 109	Heat Transfer in Electronics
Spring 2014	BME 115	Introduction to Biomedical Engineering
Spring 2014	BME 173	Clinical Trials in Bioengineering
Fall 2013	BME 177	Physiology for Engineers
Fall 2013	CHE/ME 109	Heat Transfer in Electronics

Research Methods Instructor, Summer, 2009-2013

-Designed and developed curriculum for science, technology, engineering and mathematics undergraduate students at the University at Buffalo, State University of New York

Co-instructor of Exploring Nanomaterials, Fall 2007
-Responsible for exposing students to research technology like Scanning Electron Microscopes (SEM) and Small Angle X-ray Scattering (SAXS) equipment, explaining principles and demonstrating practical applications.

Instructor for pre-calculus, Summer 2005-2010
-Responsible for development and implementation of summer curriculum for 'Buffalo Engineering Awareness for Minorities' (BEAM) students learning in a college-paced environment.

EDUCATIONAL ACTIVITIES EXPERIENCE

Workshop: Get the most out of your Research
This workshop prepares students for multiple facets of the research experience. I have presented it six times; three times at the 2010, 2011, and 2012 statewide Collegiate Science and Technology Entry Program Conferences and three times for students at the University at Buffalo.

Workshop: Creating Award Winning Posters
This workshop prepares students to create competitive poster presentations. I have presented it at the University at Buffalo for the Ronald E. McNair Scholars Program, the Collegiate Science and Technology Entry Program and the SUNY LS Amp program.

Multidisciplinary Mentoring
I have mentored 40 undergraduate students. One of those students became a Goldwater scholar based on our research projects and another undergraduate has been nominated as a Goldwater Scholar. I also advised and designed experimental protocols for five graduate student theses and trained five other international researchers. These scholars were from different disciplines including Chemical and Biological Engineering, Pharmaceutical Sciences, Chemistry, and Biomedical Engineering and Sciences. Students I have mentored have gone on to pursue professional degrees.

Keynote Lectures
I have given inspiring keynote lectures to diverse audiences at the National Ronald E. McNair Conference, a college-wide Collegiate Science and Technology Entry Program End of Year Celebration, McNair/Student Support Services Graduation Ceremony, and National Organization for the Professional Advancement of Black Chemists and Chemical Engineers.

Buffalo Engineering Awareness for Minorities (BEAM) Program
I hosted local area high school students in the Chemical and Biological Engineering department as part of the BEAM program. As part of the program, they were required to finish science related tasks, such as operating fuel cell powered small cars and calculating the efficiency.

Collegiate Science and Technology Program 25th Anniversary Luncheon Host
I hosted this event which involved fund raising and increasing public awareness of diversity efforts for a diverse population of current students and alumni at the University at Buffalo.

Poster Competitions
I established a poster competition for students of diverse backgrounds and majors as part of the College Science and Technology and Entry Program (CSTEP). A part of this process involved coordinating with faculty members to enhance the quality of student research presentations. I have also participated as a poster competition judge for diverse students at the Annual Biomedical Research Conference for Minority Students and the statewide CSTEP Poster competitions.

AFFILIATION AND SERVICE

Reviewer for :
ACS Applied Materials and Interfaces
Langmuir
ChemComm
Journal of nanoscience and nanotechnology
Chemistry – A European Journal

Professional organizations:
Member of the American Institute of Chemical Engineering (AIChE)
Material Research Society (MRS),
American Chemical Society (ACS)
National Society of Black Engineers (NSBE) (Executive board member)
Alliance for Graduate Education and the Professoriate
Graduate Student Association (Executive board member)

Community and University Service :
Active participant in programs that specialize in hosting minority or economically disadvantaged high school and college students including :

- The Buffalo Engineering Awareness for Minorities (BEAM) program (hosted engineering competitions that taught high school students about fuel cells.)
- Collegiate Science and Technology Entry Program (served on over 10 different professional panels)
- Student Support Services (gave commencement Speech)
- National Society of Black Engineers (acted as an advisor, and gave lectures)
- Ronald E. McNair Scholars Program (gave invited lectures, and served on multiple panels)
- AGEP (served on 2 panels and gave 3 public lectures)
- African Students Association (gave keynote speech)
- Participated in NYS Senator Gillibrands initiative to boost passion for the sciences by speaking about Engineering majors at Waterfront Academy Middle School.
- Participated in “Brush up Buffalo’s” effort to empower low-income homeowners and revitalize Buffalo neighborhoods by painting houses.
- Tutored students in organic chemistry, and chemical engineering based subject.

HONORS AND AWARDS

2019
American Association for Cancer Research Member

2018
Nanomedicine in the 21st Century-Guest speaker

2016
IEEEnanoCON-2016: Inspiring the Next Generation-Guest Speaker

2015
Presidents' Commission Scholars mentor.

2013 (ongoing)
IEEE SFBA Nanotechnology Council member.

2012
Research Mentor of the Year (University at Buffalo)
Ford Foundation Postdoctoral Fellowship (2011-2012)
2011
Carl Storm Underrepresented Minority Fellowship
Collegiate Science and Technology Program Key Note Speech
Ronald E. McNair Scholars Program/ Student Support Services – Key Note Speech
African Students Association – Key Note Speech
2010
Annual Biomedical Research Conference for Minority Students (ABRCMS) Judges Travel Award
Research Mentor Award from the Collegiate Science and Technology Program (CSTEP)"
Ronald E. McNair Scholars Program – Honorary Award for Keynote speech on "Research Awareness"
NIGMS Workshop for Postdocs Transitioning to Independent Positions
2009
1st Place National Cancer Institute Alliance for Cancer in Nanotechnology Poster Competition Award
Ronald E. McNair Scholars Program – Honorary Award for Presentation titled "Why earn a Ph.D."
CSTEP Outstanding Service and Commitment Award for tutoring, mentoring, research and teaching
1st Place Award in the School of Engineering and Applied Sciences Poster Competition at The University at Buffalo (SUNY)
2008
National Science Foundation Integrative Graduate Education and Traineeship Fellowship for Biophotonics(2004-2008)
1st Place, Outstanding Poster Presentation Award, Chemical and Biological Engineering Department, University at Buffalo, State University of New York
Essential Piece of the Puzzle Research Mentor Award, Cora P. Maloney College
Chosen for State University of New York's Future Faculty Workshop Program
2007
Travel Awards for the Southern Regional Board of Education's Institute for Teaching and Mentoring Conference
Collegiate Science and Technology Entry Program (CSTEP) GEM awards for **Outstanding Alumni**
Judge for Research Poster Presentation for the 14th and 15th Annual CSTEP Statewide Research Competition

CURRENT GRANTS AND FOUNDATIONAL FUNDING

Grant Applied	Date
Tumor Treating Fields combined with Chemotherapy for Triple-Negative Breast Cancer	2019
Improving the Physiological Relevance of Nanoparticle Therapy for Triple Negative Breast Cancer via Robotics, Microfluidics and Animal Models	2019

FOREIGN STUDY AND COLLABORATION

China:
I assisted with non-human primate studies of nanoparticles at the Chinese Military Hospital during my visit to Beijing. I also gave an invited lecture at Capital Normal University in Beijing. **Collaboration Status: Ongoing**

Nigeria:
I visited Nigeria to build relations with the National University Commission to establish Nigerian American Nanotechnology Organization (NANO). The NANO is a program being developed to train Nigerian Scholars in America. I was part of the team that hosted them in Buffalo, and I presented talks that resulted in favorable discussions regarding collaboration. **Collaboration Status: Pending**

South Africa:
Developed MoU's for joint scientific projects, helped coordinate a researchers training program in our lab, and engaged South African leaders from CSIR, DST and Salene Technologies. **Collaboration Status: Ongoing**

Zimbabwe: Engaged Professors from University of Zimbabwe (UZ) and provided input for establishment of nanotechnology program at UZ. **Collaboration Status: On going**

New Zealand:
I collaborate as a PI with a New Zealand Based Company called Theranostic Labs. The CEO, Dr. Patrick Gladding has sponsored some of my research and we have submitted 5 joint grants. **Collaboration Status: Ongoing**

Languages : Yoruba, English

INTEREST AND ACTIVITIES

Enjoy reading (autobiographies), music: have played hand drums for 15 years created digital music for 10 years. Strong family ties. I planned the first reunion for descendants of my great grandfather in his city of origin – Ikorodu, Nigeria.