

# Fatemeh Ostadhossein

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Google Scholar: [Link](#)

\*US Permanent Resident (Green Card)

## EDUCATION

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### NIH NRSA CARDIOVASCULAR IMAGING POSTDOCTORAL FELLOW

*Stanford University*

*Mentor: Prof. Joseph Wu*

Oct 2019- present



### BECKMAN POSTDOCTORAL FELLOW

*University of Illinois at Urbana Champaign, Beckman Institute*

*Mentors: Prof. Dipanjan Pan, Prof. Rohit Bharagava, Prof. Jefferson Chan*

Mar 2019-Sep 2019



### PHD

*University of Illinois at Urbana Champaign, Department of Bioengineering*

**Dissertation:** A Drug-free Theranostic Approach for Localized and Systemic Diseases *via* Hafnium and Carbon Nanoparticles

*Advisor: Prof. Dipanjan Pan*

*Thesis Committee: Prof. Catherine J. Murphy, Prof. Shuming Nie, Prof. Wawrzyniec Dobrucki*

Aug 2014-Feb 2019



### MASTER OF SCIENCE

*University of Illinois at Urbana Champaign, Department of Bioengineering*

**Thesis:** A Next Generation Theranostic Nano-platform for Sustained Inhibition of Cancer Stem Cells

Aug 2014-Dec 2015



### MASTER OF SCIENCE

*Sharif University of Technology, Department of Materials Sci.& Eng.*

**GPA** – 18.07/20

**Thesis:** Fabrication and Characterization of Novel Electrospun Chitosan Fibers Reinforced with Bacterial Cellulose and Nanodiamonds for Wound Dressing Applications

Sep 2012 - Aug 2014



### BACHELOR OF SCIENCE

*Sharif University of Technology, Department of Materials Sci.& Eng.*

**GPA** – 17.98/20, Summa Cum Laude-1<sup>st</sup> ranked student

Sep 2008 - Sep 2014

## POSITIONS

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- Stanford NIH Cardiovascular Imaging Fellow, Oct 2019- present
- Beckman Institute Postdoctoral Fellow, Apr 2019- Sep 2019

## RESEARCH SUPPORT

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- Oct 2019-Oct 2021, NIH Ruth I. Kirschstein NRSA postdoctoral fellowship, Cardiovascular imaging, \$100 K
- Apr 2019-Apr 2022, Beckman Institute Post-doctoral Fellowship, \$181K
- Apr 2018-Apr 2019 (early termination): American Heart Association Predoctoral Fellowship, \$50K, two-year support
- Jun 2016-Aug 2017: Carle Illinois Collaborative Research Seed Grant Award, \$43K Grant, **Co-Investigator**, Personalized Absorbable Gastrointestinal Stents for Intestinal Fistulae and Perforations

## PEER REVIEWED PUBLICATIONS, N=28, 9 FIRST-AUTHOR

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**Citations: 256, H-index=10**  
2019

28. **F. Ostadhossein**, ..., D. Pan, "Multi 'Color' Delineation of Bone Micro-damages using Ligand Directed Hafnia Nanodots and Photon Counting CT Imaging", **Advanced Functional Materials**, DOI: 10.1002/adfm.201904936. [\[Link\]](#) **IF:15.62**.

*Inside back cover*

*Highlighted in many news resources: Phys.org, Eurek alert, Imaging technology news, sciencedaily, mddionline (medical device and diagnostic industry), dotmed (healthcare business, Physicsnews, etc)*

27. S.K. Misra<sup>+</sup>, Z. Wu<sup>+</sup>, **F. Ostadhossein**, M. Ye, K. Schulten, E. Tajkhorshid, D. Pan, "Synthesis and Biological Activity of Trigger-able Anti-cancer Pro-drug Nanoparticles Guided by Dynamics Molecular Simulation", **ACS Applied Materials and Interfaces**, 2019, 11, pp 18074-18089. [\[Link\]](#) **IF:8.45**

26. P. Fathi, ..., **F. Ostadhossein**, S.k. Misra, M. Esch, J. Chan, D. Pan, "Biodegradable Biliverdin Nanoparticles for Efficient Photoacoustic Imaging", **ACS Nano**, 2019, 13, pp 7690-7704. [\[Link\]](#) **IF:13.90**

25. P. Fathi, G. Capron, I. Tripathi, S. Misra, **F. Ostadhossein**, L. Selmic, B. Rowitz, D. Pan, "Computed Tomography-Guided Additive Manufacturing of Personalized Absorbable Gastrointestinal Stents for Intestinal Fistulae and Perforations", **Biomaterials**, 2019. [\[Link\]](#) **IF:10.27**

## 2018

24. **F. Ostadhossein**, S.K. Misra,..., D. Pan, "Dual Purpose Hafnium Oxide Nanoparticles Offer Imaging Streptococcus mutans Dental Biofilm and Fight it In vivo via a Drug Free Approach", **Biomaterials**, 2018, 181, pp 252-267. [\[Link\]](#) **IF:10.27**  
*Highlighted in many news resources: Phys.org, Science Daily, Nanowerk, Eurek alert, illinois.edu front page, News India Times, nplus1 (in Russian), etc.*

23. **F. Ostadhossein**, L. Benig, S.K. Misra, D. Pan, "A Targeted Carbon Dot Based Probe for the *In Vivo* Fluorescence Imaging of Bone", **ACS Applied Materials and Interface**, 2018, 10, pp 19408-19415. [\[Link\]](#) **IF:8.45**

22. **F. Ostadhossein**<sup>+</sup>, G.R. Vulugundam<sup>+</sup>, S.K. Misra<sup>+</sup>, I. Srivastava, D. Pan, "Chirality Inversion on the Carbon Dot Surface via Covalent Surface Conjugation of Cyclic alpha-Amino Acid Capping Agents", **Bioconjugate Chemistry**, 2018, 29, pp 3913-3922. [\[Link\]](#) **IF:4.35**

21. I. Tripathi<sup>+</sup>, S. K. Misra<sup>+</sup>, **F. Ostadhossein**, I. Srivastava, D. Pan, " Synthesis of Chiral Carbo-Nano-Tweezers for Enantiospecific Recognition and DNA Duplex Winding in Cancer Cells", **ACS Applied Materials and Interfaces**, 2018, 10, pp 37886-37897. [\[Link\]](#) **IF:8.45**

20. I. Tripathi, L. K. Dodgen <sup>+</sup>, **F. Ostadhossein**<sup>+</sup>, ..., D. Pan, " Biodegradable Nano Carbon based Smart Filters for Efficient Remediation of Pharmaceutical Contaminants", **Journal of Materials Chemistry A**, 2018, 6, pp 22851-22957. [\[Link\]](#) **IF:10.73**

*Highlighted in Daily Illini: The independent student newspaper at the University of Illinois since 1871*

19. D. Sar<sup>+</sup>, I. Srivastava<sup>+</sup>, S.K. Misra, **F. Ostadhossein**, P. Fathi, D. Pan, " Copper-Catalyzed C-N Cross-Dehydrogenative Coupling for Synthesis of Pyrene-Pyrazole Pharmacophores and Structure Activity Studies for Tubulin Polymerization", **ACS Omega**, 2018, 3, 6, pp 6378-6387.[\[Link\]](#) **IF:2.84**

18. D. Sar <sup>+</sup>, B. Kim <sup>+</sup>, **F. Ostadhossein**, S.K. Misra, D. Pan, "Revisiting Polyarenes and Related Molecules: An Update of Synthetic Approaches and Structure-activity-mechanistic Correlation for Carcinogenesis", **The Chemical Record**, 2018, 18, pp 619- 658. [\[Link\]](#) **IF:4.89**

17. M. Ye<sup>+</sup>, S. K. Misra<sup>+</sup>, A.k. De<sup>+</sup>, **F. Ostadhossein**, ..., D. Pan, "Design, Synthesis and Anti-sarcoma Properties of Bis(indolyl)methane Based Nano-Orphan Nuclear Receptor Regulator", **Journal of Medicinal Chemistry**, 2018, 61, pp , 10739–10752. [\[Link\]](#). **IF:6.05**

*Highlighted in several news resources: illinois.edu homepage, Eurek alert, Medicalxpress, News-medical, technology networks, etc.*

## 2017

16. **F. Ostadhossein**, ..., D. Pan, "Nanosalina: A Tale of Saline-Loving Algae from the Lake's Agony to Cancer Therapy", **ACS Applied Materials and Interfaces**, 2017, 9, 13, pp 11528-11536. [\[Link\]](#) **IF:8.45**.

15. S. K. Misra, **F. Ostadhossein**<sup>+</sup>, E. Daza<sup>+</sup>,..., D. Pan, "Hyperspectral Imaging Offers Visual and Quantitative Evidence of Drug Release from Zwitterionic-Phospholipid-NanoCarbon when Concurrently Tracked in Three-dimensional Intracellular Space", **Advanced Functional Materials**, 2016, 26, 44, pp 8031-8041.[\[Link\]](#) **IF:15.62**

*Highlighted in many news resources: Phys.org, Science Daily, Nanowerk, Eurek alert, etc.*

14. S.K. Misra<sup>+</sup>, I. Srivastava<sup>+</sup>, ..., **F. Ostadhossein**, D. Pan, "Macromolecularly "Caged" Carbon Nanoparticles for Intracellular Trafficking via Switchable Photoluminescence", **Journal of American Chemical Society**, 2017, 139, 5, pp 1746-1749.

[\[Link\]](#) **IF:14.69**

*Highlighted in many news resources: Science Daily, Nanowerk, Eurek alert, etc.*

13. I. Srivastava, S. Misra, **F. Ostadhossein**, ..., D. Pan, "Personalized Medicine Through Nanotechnology: Mechanistic Understanding of Nanoparticle Uptake in Stage-dependent Cancer Cells", **Nano Research**, 2017, 10, 10, pp 3269-3284.

[\[Link\]](#) **IF:8.51**

*Front cover*

12. S.K. Misra, A. S. Schwartz-Duval<sup>+</sup>, **F. Ostadhossein**<sup>+</sup>, ..., D. Pan, "alpha-Amino Acid Rich Photophytotoxic Nanoparticles of Algal Origin Reveals Serendipitous Anti-migratory Property Against Cancer", **ACS Applied Materials and Interfaces**, 2017, 9, 25, pp 21147-21154. [\[Link\]](#) **IF:8.45**

11. S. Misra, **F. Ostadhossein**, ..., D. Pan, "3D-Printed Multidrug-Eluting Stent from Graphene-Nanoplatelet-Doped Biodegradable Polymer Composite", **Advanced Healthcare Materials**, 2017, 6, 11, pp 1700008- 170020. [\[Link\]](#) **IF:6.27**

10. M. Khan, S. Misra, A. Schwartz-duval, E. Daza, **F. Ostadhossein**, ..., D. Pan, "Real-Time and In Situ Monitoring of Post-surgical and Post-traumatic Eye Injury using a Biosensor from Multi-layered Graphene-Diblock-Copolymer", **ACS Applied Materials and Interfaces**, 2017, 9, 10, pp 8609-8622. [\[Link\]](#) **IF:8.45**

## 2016

9. **F. Ostadhossein**<sup>+</sup>, S. K. Misra<sup>+</sup>, ..., D. Pan, "Nanoscale Host-guest Chemistry for Sustained Inhibition of Stem like Cancer Cells", **Small**, 2016, 12, 42, pp 5845-5861. [\[Link\]](#) **IF:10.85**

*Inside front cover*

8. **F. Ostadhossein**, D. Pan, "Functional Carbon Nanodots for Multiscale Imaging and Therapy", **WIREs Nanomedicine Nanobiotechnology**, 2016, 9. [\[Link\]](#) **IF:6.14**

*Invited review paper*

7. S. K. Misra, M. Ye, **F. Ostadhossein**, D. Pan, "Pro-haloacetate Nanoparticles for Efficient Cancer Therapy via Pyruvate Dehydrogenase Kinase Modulation", **Scientific Reports**, 2016, 6, pp. 28196. [\[Link\]](#) **IF:4.01**

*Highlighted in nanowerk.com, news-medical.net*

6. G.R.Vulugundam<sup>+</sup>, S. K. Misra<sup>+</sup>, **F. Ostadhossein**, ..., D. Pan, "(-)/(+)-Sparteine Induced Chirally-active Carbon Nanoparticles for Enantioselective Separation of Racemic Mixtures", **Chemical Communications**, 2016, 52, 47, pp. 7513-7516.

[\[Link\]](#) **IF:6.16**

5. S. K. Misra, T. Ray, **F. Ostadhossein**, ..., D. Pan, "Carotenoid Nanovectors for Delivery of Bio-therapeutics by Molecularly Targeting Transcription Factor in Cancer", **Bioconjugate Chemistry**, 2016, 27, 3, pp. 594-603. [\[Link\]](#) **IF:4.35**

4. N. Mahmoudi, **F. Ostadhossein**, A. Simchi, "Physicochemical and Antibacterial Properties of Chitosan-Polyvinylpyrrolidone Films Containing Self-organized Graphene Oxide Nanolayers", **Journal of Applied Polymer Science**, 2016, 133, 11, pp. 43194. [\[Link\]](#) **IF:2.18**

*Highlighted in ChemistryViews.org*

## 2015 and earlier

3. **F. Ostadhossein**, ..., A. Simchi, "Development of Chitosan/Bacterial Cellulose Composite Films Containing Nanodiamonds as a Potential Flexible Platform for Wound Dressing", **Materials**, 2015, 8, 9, pp. 6401-6418. [\[Link\]](#) **IF:2.97**

2. T. Gheiratmand, H. R. M. Hosseini, P. Davami, **F. Ostadhossein**, M. Song, and M. Gjoka, "On the Effect of Cooling Rate during Melt spinning of FINEMET Ribbons", **Nanoscale**, 2013, 5, 7520-7527. [\[Link\]](#) **IF:6.97**

## BOOK CHAPTER

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1. **F. Ostadhossein**, E. A. Daza, D. Frankowski, D. Goatz, M. Imgruet, J. Kus, R. Lake, M. Modak, N. Olsen, A. Schwartz-Duval, A. Zimmer, N. Kolmodin, D. Pan, Nano-Enabled Delivery of Intracellular Therapeutics. In: Pan D, ed. Personalized Medicine with a Nanochemistry Twist: Nanomedicine. Cham: Springer International Publishing; 2016, 105-119.

## PATENTS AND DISCLOSURES

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- **F. Ostadhossein**, S. K. Misra, D. Pan, "Carbon Nanoparticles for Drug Delivery and Methods of Making the Same.", US Provisional Patent Application, serial number 62/371,455.
- **F. Ostadhossein**, S. K. Misra, D. Pan, "Antibacterial and Diagnostic Feasibility of Inherently Therapeutic Nano-Hafnium for Periodontal Disease.", UIUC disclosure.

## UNDER PREPARATION/ IN REVISION PUBLICATIONS

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9. **F. Ostadhossein**, ..., D. Pan, "An antibiotic Free Approach for Topical Eradication of Dental Biofilm without Disturbing Microbiota Balance In vivo", *Submitted to Advanced Materials*.
8. **F. Ostadhossein**, ..., D. Pan, "Oligodot Nanoparticles: a new class of fluorescent nanoparticles for in vitro and NIR in vivo imaging", *Submitted to Nanoscale horizon*.
7. **F. Ostadhossein**, I. Tripathi, D. Pan, "Ultra Small Hafnium Oxide Nanoparticles Carried by Probiotic Vectors for GI CT Imaging", *Submitted to Nanoletters*.
6. **F. Ostadhossein**, ..., D. Pan, "Engineering the amine position in carbon dot precursor for fine tuning of the fluorescent properties on the single particle and ensemble level", *Internal review manuscript available upon request*.
5. S. K. Misra, M. Ye, A. Sharma, E. Daza, A. S. Schwartz-Duval, **F. Ostadhossein**, K. Dighe, D. Pan, "Photo-Thermal Remediation of Hazardous Genetic Material on Carbon-Allotrope Surface", *Internal review manuscript available upon request*.
4. **F. Ostadhossein**, E. Altun, D. Pan, "High Yield Synthesis of Chiral Metal Dichalcogenides Based on HfS<sub>2</sub> for Guiding MSC differentiation", *Under preparation*.
3. K. Dighe<sup>+</sup>, **F. Ostadhossein**<sup>+</sup>, D. Pan, "Design of a sensitive biosensor for the detection of traumatic brain injury", *Under preparation*.
2. D. Sar<sup>+</sup>, **F. Ostadhossein**<sup>+</sup>, D. Pan, "Second Window Imaging Deep Tissue Imaging with the NanoPrecipitated NIR II Nanoparticles", *Under preparation*.
1. D. Sar<sup>+</sup>, **F. Ostadhossein**<sup>+</sup>, D. Pan, "Efficient Nanoparticle Mediated Delivery of CRISPR/ Cas9", *Under preparation*.

## AWARDS AND HONORS, TOTAL RAISED: \$690K

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### FELLOWSHIPS & SCHOLARSHIPS, .....

- Jul 2019: **NIH** Ruth I. kirschstein NRSA postdoctoral fellowship, Cardiovascular imaging, \$102K, Two-year support
- Aug 2019: Annual Biomedical Research Conference for Minority Students (ABRCMS) **Judge Travel Award**, \$1250
- Jul 2019: **NextProf Nexus Workshop Travel Award**, Sponsored by the University of California, Berkeley, the University of Michigan, The Georgia Institute of Technology, Atlanta, GA
- Jan 2019: **Beckman Institute Post-doctoral Fellowship**, \$181K, Three- year support
- Jun 2019: **NSF Soft Matter Future Faculty Workshop Travel Award**, Princeton University, NJ
- Jul 2019: **BMES Career Development Award**, BMES 2019, PHL
- Sep 2018: **American Institute for Medical and Biological Engineering (AIMBE)** Public Policy Travel Award, \$1400
- Apr 2018: **American Heart Association** Predoctoral Fellowship, \$54K, two- year support
- Apr 2017: Mavis **Future Faculty** Fellowship Award, \$2K
- Apr 2017: Nadine Barrie Smith Memorial Fellowship Award for **Women in Bioimaging**, \$4K
- Nov 2016: **Foundation for Women's Wellness (FWW)** Women's Health Fellowship Award (Gridley McKim-Smith Women's Health Fellowship Award), \$5K

Nov 2015: Firdawsi **Science Fellowship** Award

Sep 2013: MSc Research Grant, **Iran Nanotechnology Initiative Council**

Dec 2011: Direct Admission to Master's Program, Sharif University of Technology

Sep 2008: **Full Scholarship Award**, Undergraduate Program, Sharif University of Technology, Department of Materials Sci. & Eng.

#### RESEARCH PRESENTATIONS.....

Jan 2019: Selected speaker for **Midwest Speaker Exchange**, Purdue University (Invited)

Nov 2018: **NanoArtography Competition**: Runner-up

Apr 2018: **Chemistry in Pictures**: Totally tubular, Featured on C&En ACS journal

Apr 2018: MRS Spring Meeting **Science as Art Finalist**

Feb 2018: **Chemistry in Pictures**: 2-D aquarium, Featured on C&En ACS journal

Nov 2016: **Best presentation**. 1<sup>st</sup> place, *MRL Biological Fall Conference*, UIUC

Sep 2016: **Best poster presentation**. 2<sup>nd</sup> place, *American Vacuum Society Prairie Chapter*, Chicago

May 2016: **Honorable mention award**, poster presentation, *CNST Nanotechnology Workshop 2016*, UIUC

Feb 2016: **Best poster presentation**. 2<sup>nd</sup> place, 6<sup>th</sup> Annual Postdoctoral Symposium at Beckman Institute, UIUC

#### ACADEMICS.....

Aug 2018: Selected for **ISUR mentorship** (Illinois Scholars Undergraduate Research) Program

July 2017: Selected participant for **NIH Clinical Center's Clinical and Translational Research Course**, NIH, Bethesda, MD

Aug 2016: Selected for **Illinois Female Engineers in Academia Training** (iFEAT) program

Aug 2016: Selected as **graduate mentor in URAP UI** (Undergraduate Research Apprenticeship Program), co-sponsored by the Illinois Office of Undergraduate Research and the Educational Equity Programs Office in the Graduate College

Jun 2013: Outstanding Undergraduate Alumnus, **Chancellor's list**, Awarded by the Chancellor of Sharif University of Technology, Graduation Ceremony

Sep 2012: Outstanding Undergraduate Student, **Dean's Honor List**, Awarded by the Dean of the Department of Materials Sci. & Eng., Sharif University of Technology, 2012

Aug 2012: Graduated with Honors, **Cumulative 1<sup>st</sup> Ranked Student** in Department of Materials Sci. & Eng. at Sharif University of Technology, B.Sc., 2012

Dec 2011: **CETS** (Center of **E**xceptional **T**alents) Award, Sharif University of Technology

Aug 2008: Standing Among **Top 0.2%** Out of More than 400,000 Participants in Iranian Nationwide University Entrance Exam, Mathematics and Physics

Aug 2008: Ranked **159<sup>th</sup>** Among More than 100,000 Participants in Iranian Nationwide University Entrance Exam, Foreign Languages

## SELECT POPULAR MEDIA

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Researchers use color x-ray scanner, 'GPS particles' to pinpoint microfractures [\[Link\]](#)

Find, Fight, Follow: Using nanoparticles to solve biomedical challenges [\[Link\]](#)

2019 Beckman postdoctoral fellows announced [\[Link\]](#)

New drug seeks receptors in sarcoma cells, attacks tumors in animal trials [\[Link\]](#)

A Nano Solution To Identify Harmful S. Mutans Biofilm [\[Link\]](#)

Novel nanoparticle-based approach detects and treats oral plaque without drugs [\[Link\]](#)

Tap water filter aims to remove potentially harmful pharmaceuticals [\[Link\]](#)

Ostadossein to receive prestigious AHA fellowship [\[Link\]](#)

Chemistry in Pictures: 2-D aquarium [\[Link\]](#)

Chemistry in Pictures: Totally tubular [\[Link\]](#)

Luminescence switchable carbon nanodots follow intracellular trafficking and drug delivery [\[Link\]](#)

Ostadhossein Earns Gridley McKim Smith Womens Health Fellowship Award [\[Link\]](#)

Nanotechnology-based approach to repair the cancer cell suicide mechanism [\[Link\]](#)

Drug delivery quantified through nanoparticles inside a cell [\[Link\]](#)

## TEACHING AND MENTORSHIP

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### GRADUATE LEVEL.....

Fall 2018- present: Mentor, Miss Esra Altun (MS) (Now a PhD student at UIUC)

Spring 2019: *Featured Speaker*, BIOE 570, Seminar Series, Carbon Dots: Fluorescent Nanobeacons for Multiscale Imaging and Therapy.

Spring 2019: *Guest Speaker*, BIOE 498/598, maging Therapeutic Probes, Topic on MRI.

Fall 2018: *Guest lecturer*, Capstone Project BIOE 575, Discussion on Spectral CT and 3D Slicer software.

Fall 2018: *Invited speaker*, BIOE 502, panel discussion on fellowship application

Spring 2018: *Guest lecturer*, Capstone Project BIOE 575

Fall 2017: *Teaching Assistant*, Capstone Project BIOE 575

May 2016- July 2016: Guided a team of three graduate researchers in Master of Engineering in Bioinstrumentation program on capstone project, UIUC-Carle Foundation Hospital

### UNDERGRADUATE LEVEL.....

Fall 2018- Spring 2019: Mentorship through ISUR (Illinois Scholars Undergraduate Research)

Fall 2015- Present: Nine undergraduate research assistants, Mr. Michael Nelappana, Miss Valeriya Kravchuk (now at University of Kentucky Med School) , Miss Lily Benig (via ISUR, now at Epic), Miss Shannon D'Souza (now at AbbVie), Mr. Justin Silberman, Mr. Zach Saldivar (now at Veeva Systems), Miss Hiba Shahid, Mr. Shrey Maheshwari (via URAP, now at Deloitte), Miss Adriana Salazar.

## SELECT PEER REVIEWED CONFERENCE PRESENTATIONS, *N<sub>ORAL</sub>*=14

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**Purdue University**; West Lafayette, IN, *Oral Presentation*, Feb 2019, *Invited*.

**BMES Annual Meeting 2019**, Philadelphia, PA, *1 Oral Presentation and 1 Poster Presentation*, Oct 2019.

**Engineering Biology for Medicine Conference by Nature Biomedical Engineering, and Nature Medicine**; Duke University, NC, *Poster Presentation* (poster only), May 2019.

**Materials Research Society (MRS) Spring Meeting**; Phoenix, AZ, *5 Oral Presentations*, April 2019. *Materials Research Society*; Phoenix, AZ, *Oral Presentation*, April 2019. Highlighted talk by MRS newsletter [\[DETAILS\]](#)

**Materials Research Society (MRS) Spring Meeting**; Phoenix, AZ, *1 Oral Presentation and 2 Poster Presentations*, April 2018.

**AIChE Midwest Regional Conference**; Illinois Institute of Technology, Chicago, IL, *2 Oral Presentations*, March 2018.

**Bioengineering Graduate Student Seminar**; UIUC; *Oral Presentation*, Nov 2017 (by selection only).

**Society of Biomaterials Regional Conference**; University of Michigan Ann Arbor; *Oral Presentation*, Oct 2017.

**Graduate Students Seminar**; Beckman Institute , UIUC; *Oral Presentation*, Oct 2016.

**Materials Research Society Fall Meeting**; Boston, MA, *1 Oral and 2 Poster Presentations*, Nov-Dec 2016.

**American Vacuum Society Prairie Chapter**; Chicago, IL, *Poster Presentation*, Nov-Dec 2016.

**BMES regional meeting**; UIUC, IL; *Poster Presentation*, Nov 2016.

**BMES Annual Meeting**; Tampa, Florida, *Oral Presentation*, October 2015.

**CNST Nanotechnology Workshop**; UIUC, IL, *Poster Presentation*, May 2016

**Society of Post-doctoral Scholar Symposium**; UIUC, *Poster Presentation*; March 2016.

**BIOE Day**, UIUC, *Poster Presentation*, March 2016.

**CNST Nanotechnology Workshop 2015**; UIUC, IL, *Poster Presentation*, 2015.

## REVIEWING ACTIVITIES (SINCE 2016)

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Main reviewer for: Scientific Reports, Theranostics, ChemComm, Advanced Healthcare Materials, Carbohydrate Polymers, IEEE Sensor, Diamond and Related Materials

## PROFESSIONAL MEMBERSHIPS

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Jan 2019-Present: American Society of Microbiology (ASM), Student Member  
Oct 2018-Present: American Association for the Advancement of Science (AAAS)  
May 2017-Present: American Heart Association (AHA)  
Jan 2016-Present: Materials Research Society (MRS), Student Member  
Feb 2016-Present: Phi Kappa Phi Honor Society Member  
Sep 2015-Present: Biomedical Engineering Society, Student Member

## PROFESSIONAL SERVICES

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**Organizer** Human Diseases at the Crossing of Science, Engineering and Medicine Workshop; Illinois- Mayo Clinic Alliance, Apr 2019

**Poster and oral session judge** Undergraduate Research Symposium, UIUC, Apr 2019

**Session chair** AIChE midwest regional conference, Chicago, Mar 2018

**Poster and oral session judge** Undergraduate Research Symposium, UIUC, Apr 2017

## ACADEMIC REFERENCES

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- Dr. Dipanjan Pan, Professor, Ph.D., Professor of Radiology and Chemical, Biochemical Environmental Engineering (CBEE) Director, Imaging Probe Development Characterization Resources, Radiology Director, Nano-fabrication Characterization Core, CBOTH Associate Director and Liaison for UMB-UMBC Engineering and Medicine Initiative University of Maryland Baltimore County University of Maryland Baltimore School of Medicine (Previously at UIUC)  
Email: dipanjan@som.umaryland.edu
- Dr. Shuming Nie, Professor, Ph.D., Grainger Distinguished Chair in Bioengineering, Bioengineering Department, Beckman Institute, University of Illinois at Urbana Champaign  
Email: nies@illinois.edu
- Dr. Catherine Murphy, Ph.D., Larry Faulkner Endowed Chair in Chemistry, University of Illinois at Urbana Champaign  
Email: murphycj@illinois.edu
- Dr. R. Bhargava, Professor, Ph.D., Founder Professor of Engineering, Director of the Cancer Center, Bioengineering Department, Beckman Institute, University of Illinois at Urbana Champaign  
Email: rxb@illinois.edu