


## Fatemeh Ostadhossein

Postdoctoral Research Fellow, Cardiovascular Institute

 Curriculum Vitae available Online

### Bio

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#### HONORS AND AWARDS

- Annual Biomedical Research Conference for Minority Students (ABRCMS) Judge Travel Award, Managed by American Society of Microbiology (2019)
- BMES Career Development Award, Biomedical engineering society (2019)
- Beckman Institute Post-doctoral Fellowship, Beckman Institute-UIUC (2019)
- NIH Ruth L.kirschstein NRSA postdoctoral fellowship, Cardiovascular imaging., NIH-Stanford university (2019)
- Next Prof Nexus Workshop Travel Award, University of California, Berkeley, the University of Michigan, the Georgia Institute of Technology (2019)
- Selected speaker for Midwest Speaker Exchange, Purdue University (2019)
- Soft Matter Future Faculty Workshop Travel Award, NSF-Princeton (2019)
- American Heart Association Predoctoral Fellowship, American Heart Association (AHA) (2018)
- American Institute for Medical and Biological Engineering (AIMBE) Public Policy Travel Award, AAA-AIMBE (2018)
- Mavis Future Faculty Fellowship Award, UIUC (2017)
- NIH Clinical Center's Clinical and Translational Research Course., NIH (2017)
- Nadine Barrie Smith Memorial Fellowship Award for Women in Bioimaging., UIUC-Beckman Institute (2017)
- Best poster presentation award, 2nd place, American vacuum society (2016)
- Best poster presentation award, 2nd place, 6th Annual Postdoctoral Symposium at Beckman Institute (2016)
- Best presentation award, 1st place, MRL Biological Fall Conference (2016)
- Women's Health Fellowship Award (Gridley McKim-Smith Women's Health Fellowship Award), Foundation for Women's Wellness (FWW) (2016)
- Firdawsi Science Fellowship Award, UIUC (2015)

#### PROFESSIONAL EDUCATION

- Postdoctoral Fellow, Beckman Institute, University of Illinois Urbana Champaign (2019)
- PhD, University of Illinois Urbana Champaign , Bioengineering (2019)
- MS, University of Illinois Urbana Champaign , Bioengineering (2015)
- MSc, Sharif University of Technology , Materials Science and Engineering (2014)
- BSc, Sharif University of Technology , Materials Science and Engineering (2012)

#### STANFORD ADVISORS

- Joseph Wu, Postdoctoral Faculty Sponsor

## Publications

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### PUBLICATIONS

- **Computed tomography-guided additive manufacturing of Personalized Absorbable Gastrointestinal Stents for intestinal fistulae and perforations** *BIOMATERIALS*  
Fathi, P., Capron, G., Tripathi, I., Misra, S., Ostadhossein, F., Selmic, L., Rowitz, B., Pan, D.  
2020; 228: 119542
- **Multi-"Color" Delineation of Bone Microdamages Using Ligand-Directed Sub-5 nm Hafnia Nanodots and Photon Counting CT Imaging** *ADVANCED FUNCTIONAL MATERIALS*  
Ostadhossein, F., Tripathi, I., Benig, L., LoBato, D., Moghiseh, M., Lowe, C., Raja, A., Butler, A., Panta, R., Anjomrouz, M., Chernoglazov, A., Pan, D.  
2019
- **Biodegradable Biliverdin Nanoparticles for Efficient Photoacoustic Imaging** *ACS NANO*  
Fathi, P., Knox, H. J., Sar, D., Tripathi, I., Ostadhossein, F., Misra, S. K., Esch, M. B., Chan, J., Pan, D.  
2019; 13 (7): 7690–7704
- **Pro-Nifuroxazide Self-Assembly Leads to Triggerable Nanomedicine for Anti-cancer Therapy** *ACS APPLIED MATERIALS & INTERFACES*  
Misra, S. K., Wu, Z., Ostadhossein, F., Ye, M., Boateng, K., Schulten, K., Tajkhorshid, E., Pan, D.  
2019; 11 (20): 18074–89
- **Design, Synthesis, and Characterization of Globular Orphan Nuclear Receptor Regulator with Biological Activity in Soft Tissue Sarcoma** *JOURNAL OF MEDICINAL CHEMISTRY*  
Ye, M., Misra, S. K., De, A. K., Ostadhossein, F., Singh, K., Rund, L., Schook, L., Pan, D.  
2018; 61 (23): 10739–52
- **Biodegradable nano carbon- based smart filters for efficient remediation of pharmaceutical contaminants** *JOURNAL OF MATERIALS CHEMISTRY A*  
Tripathi, I., Dodgen, L. K., Ostadhossein, F., Misra, S. K., Daza, E., Sharma, B. K., Zheng, W., Pan, D.  
2018; 6 (45): 22951–57
- **Synthesis of Chiral Carbo-Nanotweezers for Enantiospecific Recognition and DNA Duplex Winding in Cancer Cells** *ACS APPLIED MATERIALS & INTERFACES*  
Tripathi, I., Misra, S. K., Ostadhossein, F., Srivastava, I., Pan, D.  
2018; 10 (44): 37886–97
- **Chirality Inversion on the Carbon Dot Surface via Covalent Surface Conjugation of Cyclic alpha-Amino Acid Capping Agents** *BIOCONJUGATE CHEMISTRY*  
Ostadhossein, F., Vulugundam, G., Misra, S. K., Srivastava, I., Pan, D.  
2018; 29 (11): 3913–22
- **Dual purpose hafnium oxide nanoparticles offer imaging Streptococcus mutans dental biofilm and fight it In vivo via a drug free approach** *BIOMATERIALS*  
Ostadhossein, F., Misra, S. K., Tripathi, I., Kravchuk, V., Vulugundam, G., LoBato, D., Selmic, L. E., Pan, D.  
2018; 181: 252–67
- **Fluorescence Detection of Bone Microcracks Using Monophosphonated Carbon Dots** *ACS APPLIED MATERIALS & INTERFACES*  
Ostadhossein, F., Benig, L., Tripathi, I., Misra, S. K., Pan, D.  
2018; 10 (23): 19408–15
- **Copper-Catalyzed Syntheses of Pyrene-Pyrazole Pharmacophores and Structure Activity Studies for Tubulin Polymerization** *ACS OMEGA*  
Sar, D., Srivastava, I., Misra, S. K., Ostadhossein, F., Fathi, P., Pan, D.  
2018; 3 (6): 6378–87
- **Revisiting Polyarenes and Related Molecules: An Update of Synthetic Approaches and Structure-Activity-Mechanistic Correlation for Carcinogenesis** *CHEMICAL RECORD*  
Sar, D., Kim, B., Ostadhossein, F., Misra, S. K., Pan, D.  
2018; 18 (6): 619–58
- **Surface chemistry of carbon nanoparticles functionally select their uptake in various stages of cancer cells** *NANO RESEARCH*

- Srivastava, I., Misra, S. K., Ostadhossein, F., Daza, E., Singh, J., Pan, D.  
2017; 10 (10): 3269–84
- **alpha-Amino Acid Rich Photophytotoxic Nanoparticles of Algal Origin Serendipitously Reveal Antimigratory Property against Cancer** *ACS APPLIED MATERIALS & INTERFACES*  
Misra, S. K., Schwartz-Duval, A. S., Ostadhossein, F., Daza, E. A., Saldivar, Z. M., Sharma, B. K., Pan, D.  
2017; 9 (25): 21147–54
  - **3D-Printed Multidrug-Eluting Stent from Graphene-Nanoplatelet-Doped Biodegradable Polymer Composite** *ADVANCED HEALTHCARE MATERIALS*  
Misra, S. K., Ostadhossein, F., Babu, R., Kus, J., Tankasala, D., Sutrisno, A., Walsh, K. A., Bromfield, C. R., Pan, D.  
2017; 6 (11)
  - **Functional carbon nanodots for multiscale imaging and therapy** *WILEY INTERDISCIPLINARY REVIEWS-NANOMEDICINE AND NANOBIO TECHNOLOGY*  
Ostadhossein, F., Pan, D.  
2017; 9 (3)
  - **Nanosalina: A Tale of Saline-Loving Algae from the Lake's Agony to Cancer Therapy** *ACS APPLIED MATERIALS & INTERFACES*  
Ostadhossein, F., Misra, S. K., Schwartz-Duval, A. S., Sharma, B. K., Pan, D.  
2017; 9 (13): 11528–36
  - **Real-Time Monitoring of Post-Surgical and Post-Traumatic Eye Injuries Using Multilayered Electrical Biosensor Chip** *ACS APPLIED MATERIALS & INTERFACES*  
Khan, M. S., Misra, S. K., Schwartz-Duval, A. S., Daza, E., Ostadhossein, F., Bowman, M., Jain, A., Taylor, G., McDonagh, D., Labriola, L. T., Pan, D.  
2017; 9 (10): 8609–22
  - **Macromolecularly "Caged" Carbon Nanoparticles for Intracellular Trafficking via Switchable Photoluminescence** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Misra, S. K., Srivastava, I., Tripathi, I., Daza, E., Ostadhossein, F., Pan, D.  
2017; 139 (5): 1746–49
  - **Hyperspectral Imaging Offers Visual and Quantitative Evidence of Drug Release from Zwitterionic-Phospholipid-Nanocarbon When Concurrently Tracked in 3D Intracellular Space** *ADVANCED FUNCTIONAL MATERIALS*  
Misra, S. K., Ostadhossein, F., Daza, E., Johnson, E. V., Pan, D.  
2016; 26 (44): 8031–41
  - **Defined Host-Guest Chemistry on Nanocarbon for Sustained Inhibition of Cancer** *SMALL*  
Ostadhossein, F., Misra, S. K., Mukherjee, P., Ostadhossein, A., Daza, E., Tiwari, S., Mittal, S., Gryka, M. C., Bhargava, R., Pan, D.  
2016; 12 (42): 5845–61
  - **Pro-haloacetate Nanoparticles for Efficient Cancer Therapy via Pyruvate Dehydrogenase Kinase Modulation** *SCIENTIFIC REPORTS*  
Misra, S. K., Ye, M., Ostadhossein, F., Pan, D.  
2016; 6: 28196
  - **Physicochemical and antibacterial properties of chitosan-polyvinylpyrrolidone films containing self-organized graphene oxide nanolayers** *JOURNAL OF APPLIED POLYMER SCIENCE*  
Mahmoudi, N., Ostadhossein, F., Simchi, A.  
2016; 133 (11)
  - **Carotenoid Nanovector for Efficient Therapeutic Gene Knockdown of Transcription Factor FOXC1 in Liver Cancer** *BIOCONJUGATE CHEMISTRY*  
Misra, S. K., Ray, T., Ostadhossein, F., Kim, B., Ray, P. S., Pan, D.  
2016; 27 (3): 594–603
  - **(-)/(+)-Sparteine induced chirally-active carbon nanoparticles for enantioselective separation of racemic mixtures** *CHEMICAL COMMUNICATIONS*  
Vulugundam, G., Misra, S. K., Ostadhossein, F., Schwartz-Duval, A. S., Daza, E. A., Pan, D.  
2016; 52 (47): 7513–16
  - **Personalized Medicine with a Nanochemistry Twist: Nanomedicine** *PERSONALIZED MEDICINE WITH A NANO CHEMISTRY TWIST: NANOMEDICINE*  
Pan, D.  
2016; 20: 1–133

- **Development of Chitosan/Bacterial Cellulose Composite Films Containing Nanodiamonds as a Potential Flexible Platform for Wound Dressing** *MATERIALS*

Ostadhossein, F., Mahmoudi, N., Morales-Cid, G., Tamjid, E., Javier Navas-Martos, F., Soriano-Cuadrado, B., Lopez Paniza, J., Simchi, A.  
2015; 8 (9): 6401–18

- **On the effect of cooling rate during melt spinning of FINEMET ribbons** *NANOSCALE*

Gheiratmand, T., Hosseini, H., Davami, P., Ostadhossein, F., Song, M., Gjoka, M.  
2013; 5 (16): 7520–27