

A. APPOINTMENTS**University at Buffalo, State University of New York**

Empire Innovation Associate Professor of Biomedical Engineering	2020-present
Associate Professor of Biomedical Engineering	2017-present
Assistant Professor of Biomedical Engineering	2012-2017
Adjunct Faculty, Chemical and Biological Engineering	2012-present

Roswell Park Cancer Institute, Buffalo, NY

Adjunct Faculty, Department of Pharmacology & Therapeutics (Honorary, non-working)	2018-present
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B. EDUCATION

PhD University of Toronto, Ontario, Canada Biomedical Engineering. Supervisor: Gang Zheng. Thesis: New Porphyrin Architectures for Biomedical Applications	2007-2012
MSc McMaster University, Ontario, Canada. Biochemistry. Supervisor: David Andrews. Thesis: Characterization of Bax Pore Formation Using Fluorescence Techniques	2004-2007
BASc University of Waterloo, Ontario, Canada, Systems Design Engineering	1998-2004

C. AWARDS

2020	ETH Lecture in Pharmaceutical Sciences Prize
2019	International Photodynamic Association: Basic PDT Research Excellence Award
2018	University at Buffalo School of Engineering Senior Researcher of the Year Award
2018	Society of Porphyrins and Phthalocyanines Young Investigator Award
2018	Journal of Material Chemistry B Emerging Investigator Award
2018	Nano Research Young Innovator in Nanobiotechnology Award (45 under 45)
2016	University at Buffalo Exceptional Scholar: Young Investigator Award
2016	NSF CAREER Award
2015	University at Buffalo School of Engineering Early Career Researcher of the Year Award
2015	Biomedical Engineering Society Rita Schaffer Young Investigator Award
2013	NIH Early Independence Award
2011	Best Presentation Award, Toronto Biomedical Engineering Research Day
2011	Best Paper Award, University of Toronto Biomedical Engineering Department
2011	Dr. Choong-Chin Liew Best Paper First Prize
2010	Scace Graduate Fellowship in Prostate Cancer Research
2009	European Society for Photobiology Congress Fellowship
2009	World Molecular Imaging Conference Travel Award
2009	Ontario Graduate Scholarship
2008	Imaging Network Ontario, 1 mm Challenge Program First Prize Award

D. INVITED CONFERENCE TALKS

**Plenary

*Keynote

3 rd Annual SUNY Lyme and Tick Borne Diseases Meeting	Online	1/2021
Peptalk Conference: Hindsight 20/20	Online	1/2021
PDT 2020	Nancy, France	11/2020
IUMS 2020	Daejeon, Korea	11/2020

ChinaNano 2019	Beijing, China	8/2019
International Photodynamic Association 2019 World Congress	Boston, MA	7/2019
*10 th International Nanomedicine Conference	Sydney, Australia	6/2019
Advances in Optics for Biotechnology, Medicine and Surgery XVI	Mt. Tremblant, Quebec	6/2019
4 th International Symposium on Molecular Imaging and Nanomedicine	Suzhou, China	11/2018
256 th ACS National Meeting (Colloids: Nanomedicines Symposium)	Boston, MA	8/2018
NanoKorea 2018	Seoul, Korea	7/2018
2018 American Society for Photobiology Conference	Tampa Bay	5/2018
**International Conference on Biomedical Application of Nanomaterials 2018	Hong Kong	1/2018
*2 nd International Biophotonics Conference	Singapore	11/2017
Beijing Polymeric Biomaterials Symposium	Soochow, China	10/2017
254 ACS National Meeting (Colloids: Multimodal Imaging Symposium)	Washington, DC	8/2017
254 ACS National Meeting (Colloids: Nanotheranostics Symposium)	Washington, DC	8/2017
IEEE EMBC 2017 Special Workshop	Jeju, Korea	7/2017
Immunopharmacology-Vaccipharma 2017	Varadero, Cuba	6/2017
IV International Symposium on Synthetic Peptides	Cayo Santa Maria, Cuba	6/2017
International Photodynamic Association 2017	Coimbra, Portugal	6/2017
HIV Vaccine Trials Network Meeting	Washington, DC	5/2017
American Institute of Ultrasound in Medicine Annual Convention 2017	Orlando, FL	3/2017
OSA Frontiers in Optics 2016	Rochester, NY	10/2016
ICPP9 2016	Nanjing China	7/2016
CIMTEC 2016	Perugia, Italy	6/2016
*NanoEngineering for Medicine and Biology Conference	Houston, TX	2016
American Society for Photobiology Biennial Meeting	Tampa, FL	2016
**International Conference on Biomedical Application of Nanomaterials	Hong Kong	12/2015
**Biomedical Engineering Society Annual Meeting	Tampa, FL	2015
SNMMI 2015 Annual Meeting	Baltimore, MD	6/2015
First International Nanomedicine Symposium and Workshop	Albany, NY	8/2015
International Workshop on Bioengineering Innovations	Pohang, Korea	2015
American Society for Photobiology Biennial Meeting	San Diego, CA	2014
American Society for Laser Medicine and Surgery Annual Conference	Phoenix, AZ	2014
Nanomedicine 2014 (British Society for Nanomedicine)	Edinburgh, UK	2014
American Society for Photobiology Biennial Meeting	Montreal, Canada	6/2012
Electrochemical Society Annual Meeting	Seattle, WA	5/2012

E. SEMINARS

UB Cancer Research Consortium	Buffalo, NY	12/2020
2020 NCI Alliance Nanotechnology in Cancer Investigator Meeting	Rockville, MD	11/2020
University at Buffalo Oral Biology Seminar	Buffalo, NY	10/2020
Tufts BME Seminar	Online	9/2020
Korean National Institute of Health Seminar	Osong Korea	8/2019
University of Rochester, Biomedical Engineering Seminar Series	Rochester, NY	4/2019
Roswell Park Cancer Institute Cancer Genetics Seminar Series	Buffalo, NY	2/2019
Nanjing Chemistry and Chemical Engineering Seminar	Nanjing, China	11/2018
Niagara University Chemistry Seminar	Niagara Falls, NY	10/2018
Korea Institute of Science and Technology Lecture	Seoul, Korea	7/2018
McGill University Biomedical Engineering Seminar	Montreal, Canada	6/2018
University of British Columbia Pharmaceutical Sciences Seminar	Vancouver, Canada	2/2018
Wellman Center for Photomedicine Lecture Series	Boston, MA	10/2017
Western New York STEM Form (for High School teachers)	Buffalo, NY	9/2017
Trudeau Institute TRN Seminar Series	Saranac Lake, NY	5/2017
UW Molecular Engineering Seminar Series	Seattle, WA	4/2017
Cantebury Woods Retirement Community	Buffalo, NY	4/2017
University of Rochester Microbiology & Immunology Seminar Series	Rochester, NY	2/2017
Charles University Pharmacy School Seminar	Hradek Kralove, Czech Republic	11/2016
Niagara University Chemistry Seminar	Niagara Falls, NY	10/2016
Shandong Normal University, Chemistry Department	Jinan, China	7/2016
SooChow University Funsom Institute	Soochow, China	7/2016
POSTECH Creative IT Engineering Seminar	Pohang, Korea	2015
Rensselaer Polytechnic, Biomedical Engineering Lecture Series	Rensselaer, NY	2015

Wright State University, Biomedical Engineering Seminar	Dayton, OH	2015
Photonics.com Online Webinar Series	Photonics.com	6/2015
City College of New York, Biomedical Engineering Seminar	New York, NY	5/2015
Medical Physics Seminar, University of Wisconsin – Madison	Madison, WI	2014
Radiation Oncology Invited Speaker Seminar, University Pennsylvania	Philadelphia, PA	2014
Roswell Park GU Seminar Series	Buffalo, NY	2014
UB Summer Lecture Series	Buffalo, NY	2014
Frontier Science and Technology Research Foundation Seminar	Buffalo, NY	2013
Roswell Park Molecular and Developmental Genetics Seminar	Buffalo, NY	2013
Department of Chemistry Seminar, University at Albany	Albany, NY	2012
UB Chemistry Seminar Series	Buffalo, NY	2012
Integrated Nanostructures Winter Workshop	Buffalo, NY	2012
NIH Nanomedicine-Nanotech Interest Group Seminar	Bethesda, MD	2011
NIH Photoacoustic Symposium	Bethesda, MD	2011

F. PUBLICATION METRICS

As of January 2021:

- Google Scholar h-index: 42. Total citations: 8994
- Web of Science h-index: 38. Total citations: 7109

G. SELECTED PEER-REVIEWED JOURNAL PUBLICATIONS

* denotes direct supervisee

1. A Malaria Vaccine Adjuvant Based on Spontaneous Nanoliposome-Antigen Particleization, *Huang W, Deng B, *Lin C, *Carter KA, *Geng J, Razi A, *He X, *Chitgupi U, *Federizon J, *Sun B, Long CA, Ortega J, Dutta S, King CR, Miura K, Lee SM, Lovell JF, **Nature Nanotechnology**, 2018
2. Multicolor Liposome Mixtures for Selective and Selectable Cargo Release, *Chitgupi, *Shao, *Carter, *Huang & Lovell **Nano Letters**, 18-1331, 2018, in press
3. Intrabilayer ⁶⁴Cu Labeling of Photoactivatable, Doxorubicin-Loaded Stealth Liposomes, *Luo D, Goel S, Jiu H, *Carter KA, Jiang D, *Geng J, Kuttyreff, Engle JW, *Huang W, *Shao S, Fang C, Cai W, Lovell JF, **ACS Nano**, in press
4. Surfactant-Stripped Frozen Pheophytin Micelles for Multimodal Gut Imaging, *Zhang Y, Wang D, Goel S, *Sun B, *Chitgupi U, *Geng J, Sun H, Barnhart TE, Cai W, Xia J & Lovell JF, **Advanced Materials**, 2016
5. Therapeutic Surfactant-stripped Frozen Micelles, *Zhang Y, *Song W, *Geng J, *Chitgupi U, Unsal H, Federizon J, Rzyayev J, Sukumaran DK, Alexandridis P & Lovell JF, **Nature Communications**, 7-11649, 2016
6. Functionalization of Cobalt Porphyrin–phospholipid Bilayers with His-tagged Ligands and Antigens, *Shao S, *Geng J, Yi HA, Gogia S, Neelamegham S, Jacobs A & Lovell JF, **Nature Chemistry**, 7-438, 2015
7. Non-invasive Multimodal Functional Imaging of the Intestine with Frozen Micellar Naphthalocyanines, *Zhang, Jeon M, Rich LJ, Hong H, *Geng J, Zhang Y, Shi S, Barnhart TE, Alexandridis P, Huizinga JD, Seshadri M, Cai W, Kim C & Lovell JF, **Nature Nanotechnology**, 9-631, 2014
8. Porphyrin–Phospholipid Liposomes Permeabilized by Near-Infrared Light, *Carter KA, *Shao S, Hoopes MI, *Luo D, Grigoryants VM, *Song W, *Huang H, Zhang G, Pandey RK, *Geng J, Pfeifer BA, Scholes CP, Ortega J, Karttunen M & Lovell JF, **Nature Communications**, 5-3546, 2014
9. Porphysome Nanovesicles Generated by Porphyrin Bilayers for use as Multimodal Biophotonic Contrast Agents, Lovell JF, Jin CS, Huynh E, Jin H, Kim C, Rubinstein JL, Chan WCW, Cao W, Wang LV & Zheng, **Nature Materials**, 20-324, 2011
10. Membrane Binding by tBid Initiates an Ordered Series of Events Culminating in Membrane Permeabilization by Bax, Lovell JF, Billen LP, Bindner S, Shamas-Dim A, Fradin C, Leber B & Andrews DW, **Cell**, 135-1074, 2008

H. SELECTED MENTORING

PhD students graduated:

1. Yumiao Zhang* 1/1/2012- 6/1/2016.
Thesis: "Low Temperature Block Copolymer Processing for Biomedical Applications"
Winner, University at Buffalo Best Thesis Award, 2019
2. Haoyuan Huang 9/1/2014 – 6/1/2017.
Thesis: "Development of Polymeric Porphyrin Imaging Contrast Agents"
3. Shuai Shao 1/1/2012 – 6/1/2018.
Thesis: "Design of Metalloporphyrin Liposome for Biomedical Applications"
4. Dandan Luo 1/1/2013 – 6/1/2018.
Thesis: "Porphyrin-Phospholipid Liposomes for Chemophototherapy of Solid Tumors"
5. Dyego Miranda 9/1/2014-6/1/2018.
Thesis "Development of Liposomes for the Imaging of Entrapped Dyes"
6. Upendra Chitgupi 9/1/2013 – ongoing
Thesis: "Porphyrin Based Materials for Active Targeting and Phototherapy"
7. Kevin Carter 9/1/2013 – 6/1/2019.
Thesis: "Development and Applications of Porphyrin-Phospholipid Liposomes"
8. Jasmin Fe Federizon* 9/1/2016 - 6/1/2019
Thesis "Functionalized Liposomes as Vaccines against Vector-borne Diseases"
9. Wei-Chiao Huang * 9/1/2016 - 6/1/2020
Thesis "Developing a Novel Liposomal Adjuvant for Malaria Transmission-Blocking Vaccines"