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DEPARTMENTS OF  
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**EDUCATION:**

B.S., Pharmacy, University of Utah, Salt Lake City, Utah, 1989

Ph.D., Pharmaceutics & Pharmaceutical Chemistry, University of Utah, Salt Lake City, Utah, 1996

**CURRENT APPOINTMENTS:**

2007-current Professor, Department of Pharmaceutics and Pharmaceutical Chemistry, The University of Utah  
2007-current Professor, Department of Biomedical Engineering, The University of Utah  
2007-current Member, Biological Chemistry Program, The University of Utah  
2008-current Founding Director, Utah Center for Nanomedicine, The University of Utah  
2008-current Member, Huntsman Cancer Institute, The University of Utah  
2018-current Adjunct Professor, Department of Surgery, Division of Otolaryngology, The University of Utah  
2019-current Member, Molecular Biology Program, The University of Utah  
2020-current George S. and Dolores Doré Eccles Presidential Endowed Chair, Department of Pharmaceutics and Pharmaceutical Chemistry, The University of Utah

**VISITING / HONARARY APPOINTMENTS:**

1997 Visiting Scientist, Protein Polymer Technologies, San Diego, California  
2012 Visiting Professor, Université Paris-Sud, Chatenay-Malabry, France  
2012-2016 Foreign Fellow, Korean Institute of Science and Technology, Seoul, Republic of Korea  
2017 Visiting Scientist, Laboratory of Molecular Imaging and Nanomedicine, National Institute of Biomedical Imaging and Bioengineering, Bethesda, Maryland  
2017-current Visiting Professor, International Research Organization for Advanced Science & Technology, Kumamoto University, Kumamoto, Japan

**PAST APPOINTMENTS:**

1987-1989 Pharmacy Intern, Fred Meyer Pharmacy, Salt Lake City, Utah  
1989-1991 Full Time Staff Pharmacist, Fred Meyer Pharmacy, Salt Lake City, Utah  
1991-1996 Graduate Research Assistant, Department of Pharmaceutics and Pharmaceutical Chemistry, University of Utah, Salt Lake City, Utah  
1991-1996 Part Time Staff Pharmacist, Dan's and Fred Meyer Pharmacies, Salt Lake City, Utah  
1996-1999 Assistant Professor, Department of Pharmaceutics, The University of Mississippi  
1999-2002 Assistant Professor, Department of Pharmaceutical Sciences, The University of Maryland, Baltimore

2002-2007 Associate Professor, Department of Pharmaceutical Sciences, The University of Maryland, Baltimore

2003-2007 Full Member, Program in Oncology, Greenebaum Cancer Center, The University of Maryland, Baltimore

2004-2010 Member, Program in Biomedical Engineering, The University of Maryland College Park

2005-2007 Founding Director, Center for Nanomedicine and Cellular Delivery, The University of Maryland, Baltimore

2007 Member, Biochemistry and Molecular Biology Graduate Program, The University of Maryland, Baltimore

2008-2020 Founding Co-Director, Nano Institute of Utah, The University of Utah, Salt Lake City, Utah

2010-2019 Founding Director, Nanotechnology Graduate Training Program, The University of Utah, Salt Lake City, Utah

#### LICENSURE

Pharmacy Licensure (inactive), States of Utah and California, since 1989

#### RESEARCH INTERESTS

Design and Development of Biomaterials for Delivery of Bioactive Agents  
Toxicology of Engineered Nanoconstructs

#### GOOGLE SCHOLAR

Citations: 14,478

h-index: 65

i10-index: 164

#### ENTREPRENEURIAL ACTIVITIES

2008-present Co-Founder and Chief Scientific Officer; TheraTarget, Inc., A Polymer Therapeutics Company, Salt Lake City, Utah.

#### AWARDS

2021, *nominated* University of Utah Outstanding Educator Award of Health Sciences Graduate Students

2017, University of Utah College of Engineering Top Undergraduate Teacher Award

2015, European Journal of Pharmaceutics and Biopharmaceutics Most Cited Paper Award

2015, Fellow, Controlled Release Society

2015, Kenneth E. Avis Distinguished Visiting Professor

2011, Fellow, American Association of Pharmaceutical Scientists

2008, Fellow, American Institute of Medical and Biological Engineering

2001, American Association of Colleges of Pharmacy (AACCP) New Investigator Award

1996, AAPS Western Regional Graduate Student Award for Outstanding Contributed Paper Presentation, San Francisco, California

1996, The Nagai Foundation Tokyo Graduate Student Award, Controlled Release Society, Kyoto, Japan

1995, CRS-3M Pharmaceuticals Graduate Student Outstanding Research Award in Drug Delivery, Kyoto, Japan

1993-1994, NIH Graduate Trainee in Biotechnology, University of Utah, Department of Bioengineering

#### EDITORIAL RESPONSIBILITIES

2021-current, Member, Editorial Board, Pharmaceutics

2013-current, Member, Editorial Board, Technology

2012-current, Editor-in-Chief, Advanced Drug Delivery Reviews

2011-current, Member, Editorial Board, Theranostics

2009-2011, Member, Editorial Board, Journal of Applied Toxicology  
2008-present, Honorary Editorial Board, Nanomedicine: Nanotechnology, Biology, and Medicine  
2007-2008, Assoc. Editor, Nanomedicine: Nanotechnology, Biology, and Medicine  
2006-2011, Executive Editor, Advanced Drug Delivery Reviews  
2006-2008, Associate Editor, Journal of Drug Targeting  
2006-2012, Member, Editorial Board, Pharmaceutical Research  
2005-present, Member, Editorial Board, Journal of Controlled Release  
2005-2006, Associate Editor, Journal of Bioactive and Compatible Polymers  
2004-2005 & 2007-current, Member, Editorial Board, Journal of Bioactive and Compatible Polymers

#### SCIENTIFIC ADVISORY BOARD

2020-current, Member, Scientific Advisory Board, Ashvattha Therapeutics, LLC  
2015-2020, Member, Cornell Center for Translation of Nanomedicine External Advisory Committee  
2014-2017, Member, Scientific Advisory Board, Controlled Release Society  
2014-2016, Member, Scientific Advisory Board, Catalent Applied Drug Delivery Institute  
2010-2015, Member, Scientific Advisory Board, Wayne State Multidisciplinary Nano Incubator  
2007-2010, Member, Scientific Advisory Board, Appian Labs, Austin, Texas  
2006-2010, Member, Scientific Advisory Board, Center for Drug Delivery Research (CDDR),  
Polytechnic University-SUNY/Downstate, New York  
2005-2015, Member, Scientific Advisory Board, Rexahn, Inc.  
2001-2006, Member, Scientific Advisory Board, Intradigm, Inc.

#### SOCIETY MEMBERSHIP

American Association of Pharmaceutical Scientists  
American Institute of Medical and Biological Engineering  
American Chemical Society  
American Society of Gene Therapy  
Controlled Release Society  
Rho Chi Pharmacy Honor Society

#### Master and Doctoral Thesis Completed Under Chairmanship (28 PhD, 2 Masters)

- Rudraksh Sharan, Master of Science (May 2000), Molecular Modeling of Arginine-Glycine-Aspartic Acid (RGD) Analogs: Relevance to Transepithelial Transport, Pursued an MBA (2002), Current Position: Director of Marketing, Cardiovascular Franchise Marketing, Johnson and Johnson, New Jersey
- Mohamed El-Sayed, PhD (July 2002), Transepithelial and -Endothelial Transport of Poly(amido amine) Dendrimers, Current Position: Sr. Research Advisor & Group Leader, BioTDR Formulation/Delivery, Eli Lilly and Company, Indianapolis, Indiana
- Anjan Nan, PhD (August 2002), *N*-(2-hydroxypropyl)Methacrylamide Copolymers for Targeted Delivery of Antileishmanial Compounds, Current Position: Associate Professor, University of Maryland Eastern Shore, Princess Anne, Maryland
- Ashish Nagarsekar, PhD (September 2002), Genetic Synthesis and Characterization of Stimuli-Sensitive Silk-Elastinlike Protein Polymers, Current Position: Associate Scientist III Analytical Development, Catalent Pharma Solutions, Baltimore, Maryland Area, *Recipient of AAPS Graduate Student Award*
- Zaki Megeed, PhD (September 2003), Genetically Engineered Polymers for Gene Delivery, Current Position: Associate Attorney, Life Sciences Transactions, Covington & Burling, San Francisco, California. *Recipient of National Cancer Center Predoctoral Fellowship and AAPS Graduate Student Award.*
- Mohamed Haider, PhD (November 2005), Amino Acid Based Polymers for Gene Delivery, Current Position: Professor and Chair, Department of Pharmaceutics and Pharmaceutical Technology, School of Pharmacy, University of Sharjah, Dubai, United Arab Emirates

- Amitava Mitra, PhD (August 2006), Targeting Tumor Angiogenesis using Polymeric Conjugates for Nuclear Imaging and Radiotherapy, Current Position: Scientific Director, Clinical Pharmacology and Pharmacometrics, Janssen Research & Development, Spring House, Pennsylvania. *Recipient of CRS Graduate Student Award.*
- Kelly Kitchens, PhD (April 2007), Poly (amido amine) Dendrimers as Oral Drug Carriers, Current Position: Pharmacologist/Biopharmaceutics Reviewer, F.D.A., Silver Spring, Maryland. *Recipient of CRS Graduate Student Award and NIH-NRSA.*
- Ramesh Dandu, PhD (August 2008), Silk-elastinlike Hydrogels for Controlled Adenoviral Gene Delivery, Current Position: Scientist, Par Pharmaceuticals, Inc., Chestnut Ridge, New York
- Bahar Zarabi, PhD (December 2008), *N*-(2-Hydroxypropyl)Methacrylamide (HPMA) Copolymers for Targeted Delivery of Magnetic Resonance Contrast Agents, Current Position: Reviewer Chemist, FDA, Office of Generic Drugs, Rockville, Maryland, *Recipient of DOD Breast Cancer Predoctoral Fellowship*
- Mark Borgman, PhD (June 2009), Polymer-Peptide Conjugates for Targeted Delivery of Geldanamycin to Prostate Tumors, Current Position: Vice President, Laboratory Operations, BIOTAP Medical, Louisville, Kentucky. *Recipient of AFPE Fellowship.*
- Deborah Sweet Goldberg, PhD (October 2010), Poly(amido amine) Dendrimers: Transepithelial Transport Mechanisms and Applications in Oral Drug Delivery, Current Position: Lecturer in the Department of Chemical & Biomolecular Engineering at the University of Maryland, College Park, Maryland. *Recipient of NSF GRF Fellowship.*
- Joshua Gustafson (April, 2012), Silk-Elastinlike Protein Polymers for Adenoviral Cancer Gene Therapy, Current Position: Manager Process and Analytical Development at Seattle Children's, Seattle, Washington
- Tian Yu, PhD (May, 2012), In Vitro and In Vivo Impact of Silica Nanoparticle Design on Biocompatibility, Current Position: Associate Director, Clinical Pharmacology, BeiGene, Ltd.
- Adam Gormley, PhD (October, 2012), Improved Delivery of Polymer Therapeutics Using Plasmonic Photothermal Therapy, Current Position: Assistant Professor, Department of Bioengineering, Rutgers, New Brunswick, New Jersey. *Recipient of DOD Prostate Cancer Predoctoral Fellowship.*
- Giridhar Thiagarajan, PhD (January, 2013), Design and Development of Dendrimers as Oral Drug Delivery Carriers, Current Position: Founder, JND Consulting, Salt Lake City, Utah
- Nate Larson, PhD (January, 2013), Induction and Targeting of the Heat Shock Response in Prostate Cancer, Current Position: Chief Scientific Officer, Deseret Laboratories, St. George, Utah.
- Shraddha Sadekar, PhD (February, 2013), Poly(Amido Amine) Dendrimers: Role of Architectural Features on Biodistribution and Oral Absorption Enhancement, Current Position: Research Scientist, Scientist, Preclinical and Translational PKP, Genentech, California
- Brandon Buckway, PhD (April, 2013), Image Guided Therapeutic Delivery to Solid Tumors with HPMA Copolymers, Current Position: Research Scientist, Huntsman Cancer Institute, University of Utah, Salt Lake City, Utah
- Jordan Frandsen, MS-non thesis (December, 2013), Current Position: Senior Director at Beckton and Dickinson, Salt Lake City, Utah. *Recipient of NIH NRSA.*
- Heather Herd, PhD (May, 2014), Macrophage Silica Nanoparticle Interactions: Cellular Uptake and Fate, Current Position: Assistant Professor, Seattle Children's Hospital, Seattle, Washington. *Recipient of DOD Breast Cancer Predoctoral Fellowship.*
- Robert Price, PhD (January, 2015), Matrix-Metalloproteinase Responsive Silk-Elastinlike Polymers for Cancer Gene Therapy, Current Position: Senior Scientist, Technology Holdings, Salt Lake City, Utah
- Dallin Hubbard, PhD (July, 2015), Transepithelial Transport of PAMAM Dendrimers Across Isolated Intestinal Tissue, Current Position: Residency in Pediatrics, Indiana University, Purdue University, Indianapolis.
- Azadeh Poursaid, PhD (April, 2016), Design and Development of Silk-elastinlike Protein Polymer Liquid Embolics for Treatment of Hepatocellular Carcinoma, Current Position: Resident, Oregon Health Sciences University Obstetrics and Gynecology Department, Portland, Oregon. *Recipient of NIH NRSA Fellowship.*

- Nick Frazier, PhD (June, 2016), Localized Hyperthermia for Enhanced Targeted Delivery of Polymer Therapeutics, Current Position: Medical Writer, Clinical Evaluation Specialist, Merit Medical, Salt Lake City, Utah.
- Mostafa Yazdimamaghani, PhD (July 2018), Impact of Silica Nanoparticle Design on Sedimentation, Cellular Uptake, Cytotoxicity, and Gene Expression, Current Position: Postdoctoral Fellow, University of North Carolina Chapel Hill Cancer Nanotechnology Training Program, Chapel Hill, North Carolina.
- Pouya Hadipour, PhD (December 2018), Polysulfide-Based Biodegradable Silica Nanoparticles: Synthesis, Characterization, and Biological Fate. Current Position: Director R&D, Rebel Medicine, Salt Lake City, Utah.
- Mark M. Jensen, PhD (August 2019), Applications of silk-elastinlike protein polymers in glycosaminoglycan delivery and embolotherapy. Current Position: Research fellow, Harvard Medical School. *Recipient of NSF GRF Fellowship, and NanoDDS Student Award.*
- Kyle Isaacson, PhD (April 2020), Self-Assembly and Thermal Response of Silk-Elastinlike Protein-Based Polymers. Current Position: Formulation Chemist at Phospholutions, Inc., Greater Tampa Bay Area.
- Matthew Talbot, MS (December 2020), Current Position: Chemist III/Team Lead, Abbott, Westbrook, Maine
- Nitish Khurana, PhD (April 2021), Vascular Pathophysiology Characterization in Chronic Rhinosinusitis for Controlled Drug Delivery. Current Position: Postdoctoral Fellow, Department of Pharmaceutics and Pharmaceutical Chemistry, University of Utah

#### Past Postdoctoral Scholars and Research Associates Supervised (21)

- Guihong Peng, PhD, 2000-2001. Current Position: Research Specialist, University of Maryland, School of Medicine Department of Biochemistry and Molecular Biology, Baltimore, Maryland
- Arash Hatefi, PhD, 2003-2006, Current Position: Professor, Rutgers University, Department of Pharmaceutical Sciences, New Jersey. *Recipient of National Cancer Center Postdoctoral Fellowship.*
- Mohamed Haider, PhD, 2005-2006 - Joint with Dr. Leong at Johns Hopkins. Current Position: Professor and Chair, Department of Pharmaceutics and Pharmaceutical Technology, School of Pharmacy, University of Sharjah, Dubai, United Arab Emirates.
- Paul Dowell, PhD, 2007.
- Raji Mathew, PhD, 2007.
- Abhijit Ray, PhD, 2007. Current Position: Partner and Chief Scientific Officer, SVEDA Organics LLC at Sveda Organics Inc., Salt Lake City Metropolitan Area
- Arthur Von Cresce, PhD, 2007-2008. Current Position: Research Scientist, US Army Research Lab, Adelphi, Maryland, USA
- Rohit Kolhatkar, PhD, 2004-2008, Current Position: Reviewer, F.D.A., Silver Spring, Maryland, USA, *Recipient of DOD Breast Cancer Postdoctoral Fellowship.*
- Alexander (Sasha) Malugin, PhD, 2007-2011, Research Associate.
- Khaled Greish, MD, PhD, 2008-2009 (2009-2012 Research Assistant Professor) Current Position: Professor, Department of Molecular Medicine, Al-Jawhara Centre, Kingdom of Bahrain.
- Cassandra Rice, PhD, 2009, Current Position: Research Associate, University of Utah, Department of Pharmacology and Toxicology, UT, USA
- Arnida Anwar, PhD, 2007-2010, Current Position: Postdoctoral Associate, Advanced Imaging Research Center, University of Texas South Western, Sugar Land, Texas.
- Vijayalakshmi Nirmal Kumar, PhD, 2008-2010, Current Position: Principal Investigator, Institute of Transdisciplinary Health Sciences and Technology, Transdisciplinary University, Bangalore, India.
- Se-Hui Jung, PhD, 2012-2014, Current Position: Postdoctoral Fellow, Kangwon National University School of Medicine, Department of Molecular & Cellular Biochemistry, Chuncheon, Korea
- Joshua Gustafson, PhD, 2014, Current Position: Postdoctoral Research Associate, Hematology-Oncology, University of Washington School of Medicine, Seattle, Washington

- Brandon Buckway, PhD, 2014-2015 Current Position: Research Scientist, Huntsman Cancer Institute, University of Utah, Salt Lake City, Utah
- Robert Price, PhD, 2015, Current Position: Senior Scientist, Technology Holdings, Salt Lake City, Utah, USA
- Yeonkyung Lee, PhD, 2014
- Jiban Saikia, PhD, 2014-2017, Current Position: Assistant Professor, Department of Chemistry, Dibrugarh University, Assam, India
- Darwin Cheney, PhD, 2015-2019, Retired.
- Raziye Mohammadpour, PhD, 2016-2021, Current Position: Regulatory Toxicologist, Translate Bio, Boston, MA

Recent Past Undergraduate/Professional Students Supervised (31 since 2009)

- Ryan Robinson (2009-2012), Major: Bioengineering
- Alexander Burckele (2009-2011), Major: Bioengineering
- Siddharth Patel (2009-2011), Major: Bioengineering
- Alexander James Burckle (2009-2011), Major: Bioengineering
- Bethany Crowley (2011), Major: Chemical Engineering
- Jordan D. Leone (2012), Major: Bioengineering
- Jeremy Hammer (2011-2014), Major: Bioengineering
- Afsheen Banisadr (2011-2013), Major: Bioengineering
- Kristopher Bartlett (2012-2014), Major: Bioengineering
- Andrea Davis (2012-2014), Major: Bioengineering
- Meera Raghavan (2013), Major: Bioengineering
- Liang Yan (2014), Major: Pharmacy
- Chad Curtis (2014-2015), Major: Chemical Engineering
- Gabe Zharov (2015), Summer High School Intern, Skyline High School
- Michelle Gonciarz (2015); Summer High School Intern, Juan Diego Catholic High School
- Ida Nourbakhsh (2014-2016), Major: Biology
- Teresa Ta (2014-2016), Major: Bioengineering
- Alexandre Hikiji Watanabe (2016), Major: Pharmacy
- Bryant Green (2016, 2018), Major: Bioengineering
- Jake Weston (2016), Major: Bioengineering
- Jimena Schultz (2016-2017), Major: Bioengineering
- Marcelo Correa (2017), Major: Bioengineering
- Trevor Chase (2017-2018), Major: Bioengineering
- Andrew Stropkai (2017-2018), Major: Bioengineering
- Erin Garzella (2018), Summer High School Intern, Juan Diego Catholic High School
- Monet Luloh (2018), Major: Pharmacy
- James Kirklow (2018-2019), Major: Bioengineering
- Austin Coleman (2018-2019), Major: Bioengineering
- Zachary Barber (2018-2019), Major: Bioengineering
- Jennifer Carothers (2018-2019), Major: Pharmacy
- Jeff Martinez (2018-2019), Major: Chemistry
- Blair Armstrong (2018-2020), Major: Biomedical Engineering
- William Garrett (2020), Major: Biomedical Engineering
- Jaxon George (2020), Major: Biochemistry

Recent Past Visiting Students and Scholars Supervised (30 since 2008)

- Philip Weber, Philipps University of Marburg, Germany, Marburg, Germany (Summer/Fall 2008)
- Sachin Naik, Maharaja Sayajirao University of Baroda, India (Summer/Fall 2008)
- Jennifer Gifford, Trinity College, Hartford, CT (Summer 2008)
- Bart Claeys, Ghent University, Belgium (Summer 2008)
- Stephanie Scharff, Philipps University of Marburg, Marburg, Germany (Winter 08/Spring 2009)
- Michele Gruner, Mainz University, Germany (Fall 09/Winter 2010)
- Katrin Möller, Philipps University of Marburg, Marburg, Germany (Winter 09/Spring 2010)
- Witayapan Nantitanon, Chiang Mai University, Thailand (Fall 09/ Spring 2010)
- Mohamed Haider, PhD, Cairo University, Cairo, Egypt, (Summer 2010)
- Yesim Aktas, Ph.D. Erciyes University, Kayseri, Turkey (Summer 11/Fall 2011)
- Ozgul Gok, Bogazici University, Istanbul, Turkey (Summer 11/Fall 2011)
- Rana Sanyal, PhD, Bogazici University, Istanbul, Turkey (Summer 11/Fall 2011)
- Yongjian Wang, PhD, Nankai University, P. R. China, (March 2011- February 2012)
- Wiebke Gerlach, University of Marburg, Marburg, Germany (Winter 11/Spring 2012)
- Lukas Gotz, University of Marburg, Marburg, Germany (Winter 11/Spring 2012)
- Stefan Kramer, Johannes Gutenberg-Universität Mainz, Mainz, Germany (Fall 12/Spring 2013)
- Bizhan Malaekhe Nouri, PhD, Mashhad Univ of Medical Sciences, Mashad, Iran (Summer/Fall 2013)
- María Elisa Martínez Barbosa, PhD, Departamento de Investigación en Polímeros y Materiales (DIPM) Universidad de Sonora, Hermosillo, Son., Mexico (2013-2014).
- Madison Burton, Weber State, Ogden, Utah (Summer 2014)
- Zimei Wu, PhD, The University of Auckland Faculty of Medical and Health Sciences, New Zealand (Summer 2014)
- Venkata Ravi Kanth Panuganti, College of Pharmacy, Andhra University, Andhra Pradesh, India (2015)
- Elham Khodaverdi, PhD, Mashad Univ of Medical Sciences, Mashad, Iran (2015-2016)
- Raziye Mohammadpour, Tehran University of Medical Sciences, Tehran, Iran (2015-2016)
- Hongliang Du, School of Pharmaceutical Sciences, Shandong University, Jinan (P. R. China) (2015-2016)
- Gantumur Battogtokh, PhD, College of Pharmacy, Gachon University, South Korea (2017)
- Xueming Liu, Nankai University, P. R. China (2016-2017)
- Venkata Yellepeddi, PhD, Roseman College of Pharmacy, Salt Lake City, Utah (2012-2017)
- Amy Wei, PhD, TheraTarget, Inc. Salt Lake City, Utah (2017-2019)
- Laura Unverzagt, Marburg University, Germany (2019)
- Oyvind Hatlevik, PhD, Visiting Scholar, TheraTarget, Salt lake City, Utah (2017-2020)

#### Current Lab Members (12)

*Research Assistant Professor*

Paris Jafari, PhD

*Postdoctoral Fellow*

Nitish Khurana, PhD

*PhD Students*

Biomedical Engineering: Doug Steinhauff, Ethan Griswold

Pharmaceutics: Nithya Subrahmanyam (*Recipient of NIH NRSA*), Bhuvaneshkumar Yathavan, Jason Grunberger, Tanya Chibber

*PharmD Students*

Justin Nielsen, Shirley Luo, Alexa Ellis

*Post baccalaureate Student*

Paul Williams

*Undergraduate Students*

None.

Member of Theses Committees of Graduate Students (year defended)

- Nyamweya, Nasser, PhD (2001-Pharmaceutical Sciences, University of Maryland Baltimore)
- Wang, Tianxin, MS (2001- Pharmaceutical Sciences, University of Maryland Baltimore)
- Dinerman, Adam, PhD (2002- Pharmaceutical Sciences, University of Maryland Baltimore)
- Raje, Sangeeta, PhD (2002- Pharmaceutical Sciences, University of Maryland Baltimore)
- Yuan, Weiwei, MS (2008- Pharmaceutics and Pharmaceutical Chemistry, University of Utah)
- Radu, Larisa, PhD (2010- Bioengineering, University of Utah)
- Wu, Kuangshi PhD (2010- Pharmaceutics and Pharmaceutical Chemistry, University of Utah)
- Bareford, Lisa, PhD (2011- Pharmaceutical Sciences, University of Maryland Baltimore)
- Brumbach, Jon, PhD (2011- Pharmaceutics and Pharmaceutical Chemistry, University of Utah)
- Mahalingam, Alamelu, PhD (2011- Pharmaceutics and Pharmaceutical Chemistry, University of Utah)
- Sanders, William, PhD (2011- Pharmaceutics and Pharmaceutical Chemistry, University of Utah)
- Jones, Clinton, PhD (2012- Pharmaceutics and Pharmaceutical Chemistry, University of Utah)
- Grow, Margaret, PhD (2012- Chemistry and Biochemistry, University of Maryland Baltimore County)
- Ye, Zhen, PhD (2012- Pharmaceutics and Pharmaceutical Chemistry, University of Utah)
- Tasci, Onur, PhD (2012- Bioengineering, University of Utah)
- Hu, Di, MS (2012-2013- Chemistry, University of Utah)
- Tian, Li, PhD (2013- Pharmaceutics and Pharmaceutical Chemistry, University of Utah)
- Anumolu, Rajasekhar, PhD (2013- Chemical Engineering, University of Utah)
- Peng, Zhenghong, PhD (2014- Pharmaceutics and Pharmaceutical Chemistry, University of Utah)
- Raman, Karthik, PhD (2014- Bioengineering, University of Utah)
- Hoang, Bryan, PhD (2014, University of Toronto, Canada, External Committee Member)
- Theisen, Emily, PhD (2014, Pharmaceutics and Pharmaceutical Chemistry, University of Utah)
- Booth, Ross, PhD (2014, Bioengineering, University of Utah)
- Chen, Yizhe, PhD (2015, Pharmaceutics and Pharmaceutical Chemistry, University of Utah)
- Park, Hongsuk, PhD (2015, Bioengineering, University of Utah)
- Peterson, Amberlyn, PhD (2015, Chemistry, University of Utah)
- Albekairi, Norah, PhD (2015, Pharmacology & Toxicology, University of Texas Medical Branch (UTMB) in Galveston, Texas, External Committee Member)
- Crawford, Alexis C., PhD (2015, Chemistry, University of Utah)
- Almomen, Aliyah, PhD (2016, Pharmaceutics and Pharmaceutical Chemistry, University of Utah)
- Jones, David, PhD (2016, Bioinformatics, University of Utah)
- Stirland, Darren, PhD (2016, Bioengineering, University of Utah)
- Lee, Daniel, PhD (2017, Pharmaceutics and Pharmaceutical Chemistry, University of Utah)
- Robinson, Ryan, PhD (2017, Bioengineering, University of Utah)
- Callahan, Jon, PhD (2017, Bioengineering, University of Utah)
- Linakis, Matthew, PhD (2018, Pharmaceutics and Pharmaceutical Chemistry, University of Utah)
- Williams, Ryan, MS (2018, Civil Engineering, University of Utah)
- Pike, Daniel B., PhD (2018, Bioengineering, University of Utah)
- Bennink, Lucas L., PhD (2018, Bioengineering, University of Utah)
- Pasek-Allen, Jacqueline, PhD (Transferred, Chemistry, University of Utah)
- Tripathy, Anurag, MS (2019, Bioengineering, University of Utah)
- Amini, Mohammad Ali, PhD (2019, Pharmaceutical Sciences, University of Toronto)
- Kim, Sun Jin, PhD (2019, Pharmaceutics and Pharmaceutical Chemistry, University of Utah)
- Farhang, Niloofar, PhD (2019, Biomedical Engineering, University of Utah)
- Pruden, Lindsey, PhD (2019, Chemistry, University of Utah)
- Redd, Katherine, PhD (2020, Pharmaceutics and Pharmaceutical Chemistry, University of Utah)
- Arlotta, Keith, PhD (2020, Biomedical Engineering, University of Utah)



- Arellano, Jesús A, PhD (current, Biomedical Engineering, University of Utah)
- Noh, Seungbeom, PhD (Moses) (current, Computer and Electrical Engineering, University of Utah)
- Klimenko, Anton S, PhD (current, Chemistry, University of Utah)
- Northrup, Hanna, PhD (current, Biomedical Engineering, University of Utah)
- Kaur, Kamaljeet, PhD (current, Chemical Engineering, University of Utah)
- Oliver, Jeremie, PhD (current, Biomedical Engineering, University of Utah)
- Detwiler, Rachel, PhD (current, Biomedical Engineering, University of Utah)
- Haslam, Sarah, PhD (current, Biomedical Engineering, University of Utah)
- Jaimes, Paulina, PhD (current, Chemistry)
- Lewis, Christian, PhD (current, Biomedical Engineering)
- Wilson, Matthew, PhD (current, Biomedical Engineering)

#### Service to Professional Societies and Institutions

- Member, Best Paper Award Committee, Journal of Controlled Release (2020-present)
- Member, International Advisory Board, Indian Chapter of Controlled Release Society (2018-present)
- Reviewer, Biology Department, University of Salzburg, Austria (2016)
- Faculty Mentor-Rohan Fernandes, Assistant Professor of Pediatrics, George Washington University School of Medicine and Health Sciences, 2016-2017
- External Examiner, Chinese University of Hong Kong School of Pharmacy, 2015
- Member, Scientific Advisory Board, Controlled Release Society, 2014-2017
- Member, Controlled Release Society Workshop and Satellite Meeting Review Committee, 2014
- Member, Controlled Release Society Outstanding Paper Abstracts Review Committee, 2014-2015
- Chair, Controlled Release Society Nanomedicine Focus Group (2008-2012).
- Member, Abstract Review, Controlled Release Society, 2008-2016
- Nominated for the Controlled Release Society Scientific Advisory Board and Member at Large (2007)
- Chair, Drug Delivery Section, American Academy of Nanomedicine, Washington, DC (2006-2009)
- Member, International Advisory Board, International Symposium on Polymer Therapeutics (2006-current)
- Member, Planning Committee, AAPS Biotechnology Meeting (2004-2006)
- Globalization of Pharmaceuticals Education Network (GPEN), University of Maryland Faculty Liaison (2001-2007)
- Member, Controlled Release Society (CRS) Young Scientist's Award Committee (1999-2005)
- Founder and First Chair, Southern Regional Discussion Group of the American Association of Pharmaceutical Scientists (AAPS-SRDG, 1997-1999)

#### Grant Review

- Chair, NIH, NANO Study Section, July 2018- June 2020.
- Reviewer, NIH, NANO Study Section, September 2014-2020.
- Reviewer, NIH, Atherosclerosis and Inflammation of the Cardiovascular System Study Section, May 2017
- Reviewer, University of Utah Seed Funding, May 2017.
- Reviewer, NIH, U.S.-China Program for Biomedical Collaborative Research, August 2016
- Reviewer, Nanotechnology panel, Breast Cancer Research Program (BCRP), Department of Defense Congressionally Directed Medical Research Programs (CDMRP), July 2016
- Reviewer, Congressionally Directed Medical Research Programs, Spinal Cord Injury Research Program Study Section, December 2015.
- Reviewer, NIH, Special Emphasis Panel on Vascular Biology and Hematology, August 2015.
- Reviewer, Royal Society of New Zealand, Rutherford Discovery Fellowship Application, New Zealand, May 2015.

- Reviewer, NIH, Study Section for Centers of Cancer Nanotechnology Excellence, March 31-April 2, 2015.
- Chair, Nanotechnology (NT-2) panel, Breast Cancer Research Program (BCRP), Department of Defense Congressionally Directed Medical Research Programs (CDMRP), March 2015.
- Reviewer, Department of Defense, Breast Cancer Research Program, July 27–August 1, 2014.
- Reviewer, Research Grants Council, Hong Kong, China, July 2014.
- Reviewer, NIH, NCI Omnibus: Drug Development, ZCA1 RTRB-L (M1), March 2014.
- Reviewer, Research Grants Council, Hong Kong, China, March 2014.
- Reviewer, Swiss National Science Foundation, February 2014.
- Reviewer, Nebraska Research Initiative, January 2014.
- Reviewer, Department of Defense, Prostate Cancer Research Program, December 2013.
- Reviewer, Genesis Oncology Trust, October 2013.
- Reviewer, NIH, NANO Study Section, September 2013.
- Reviewer, University of Utah seed grant, August 2013.
- Reviewer, Czech Science Foundation, July 2013.
- Reviewer, NIH/CSR, Special emphasis panel, March 2013.
- Reviewer, Swiss National Science Foundation, March 2013.
- Reviewer, NIH Drug Discovery, March 2013.
- Reviewer, NIH, Bioengineering Research Partnerships Special Emphasis Panel, ZRG1 BST F 51 R, March 2013.
- Reviewer, NIH, Transformative Research Award Expert Review, January 2013.
- Reviewer, Maryland Industrial Partnerships Grant, December 2012.
- Reviewer, American Association for Advancement of Science, Texas Collaborative Research Fund, December 2012.
- Reviewer, Johns Hopkins Brain Science Translational Research Grants, August 2012.
- Reviewer, Science Foundation Ireland, Research Centers Program Panel, May 2012.
- Reviewer, University of Utah Seed Funding, April 2012.
- Reviewer, NIH, Director’s Early Independence Award (DP5), ZRG1 BBBP-E53 Stage 1, April 2012.
- Reviewer, NIH Special Emphasis Panel, ZRG1 BST-F 02 M, March 2012.
- Reviewer, NMRC Research Grant Proposals, Medical Research in Singapore, February 2012.
- Reviewer, American Association for Advancement of Science, Collaborative Research Fund, October-November 2011.
- Reviewer, NIH, National Cancer Institute, Cancer Center Support Grant, Site Visit to University of Michigan Comprehensive Cancer Center, October 2011.
- Reviewer, Czech Science Foundation, August 2011.
- Reviewer, NIH Transformative R01 Expert Mail Review, March 2011.
- Reviewer, American Association for Advancement of Science, grants for King Abdulaziz City for Science and Technology (KACST), February-March 2011.
- Reviewer, NIH ZRG1 IMST-D, Biomaterials, Delivery Systems, and Nanotechnology SBIR/STTR Review Panel, February 21-22, 2011.
- Reviewer, American Association for Advancement of Science, January-February 2011.
- Reviewer, Research Project Grants Special Emphasis Panel (ZRG1 BST-K 02), December 11, 2010.
- Reviewer, Rhode Island Science and Technology Advisory Council (STAC), December 1, 2010.
- Reviewer, Natural Sciences and Engineering Research Council of Canada, E.W.R. Steacie Memorial Fellowship, November 25, 2010.
- Reviewer, NIH Bioengineering, Technology and Surgical Sciences Study (BTSS) Section, October 11-12, 2010.

- Reviewer, Cancer Center Support Grant, P30, Penn State University, Hershey Cancer Institute, September 28-30, 2010.
- Reviewer, University of Utah Seed Funding Program, Winter 2010.
- Reviewer, Science Foundation of Ireland, September 5-8, 2010
- Reviewer, Roadmap Transformative Research Projects Program (R01), May/June 2010.
- Reviewer, National Institute on Deafness and Other Communication Disorders; Clinical Trials Study Section-NIH, February 23, 2010.
- Reviewer, NCI P01 Discovery and Development Special Emphasis Panel Study Section, Washington, DC, June 17-18, 2009
- Reviewer, Transformative R01 Expert Reviews-NIH, 2009
- Reviewer, University of Utah Seed Funding Program, Spring 2009
- Reviewer, Science Foundation of Ireland, April 2009
- Member, NIH College of Center for Scientific Review Reviewers, 2009-current
- Member, NIH Nanotechnology Study Section, October 2008
- Reviewer, NIH COBRE RFA for Scientific Reviewer, 2008
- Reviewer, NIH Cancer Drug Discovery and Therapeutics, SBIR/STTR Study Section, March 2008
- Reviewer, NCI P01 Discovery and Development Special Emphasis Panel Study Section, Washington, DC, 2007, 2008, 2009
- Reviewer, NIH Gene and Drug Delivery Study Section (2004-2007)
- Reviewer and Project Chair, NIH Study Section, Centers of Cancer Nanotechnology Excellence (July 2005)
- Reviewer, NIH Study Section, NHLBI Programs of Excellence in Nanotechnology (December 2004)
- Chair, Review Panel, American Association of Pharmaceutical Scientists New Investigator Grants (August 2004-Member of review panel since 2001)
- Reviewer, NIH Study Section, Biomaterials and Biointerfaces (March 2004)
- Reviewer, NIH Study Section: ZRG1 SSS-2 (50)-Special Emphasis Panel on Drug Delivery (July 2003)
- Reviewer, Department of Defense Breast Cancer Research Program Study Section (2003-2004)
- Reviewer, NIH Study Section (SSS-L SBIR) - Special Emphasis Panel on Drug Discovery and Delivery (November 2003)
- Also grant reviewer for: American Chemical Society Petroleum Research Funds, Texas A&M University, Maryland Industrial Partnerships, Broad Medical Research Program in Inflammatory Bowel Diseases, DOD Breast Cancer Research Program: Concept Awards, The Wellcome Trust (UK), National Science Foundation, European Commission's 7<sup>th</sup> Framework Programme for Research, Science Foundation of Ireland, Indo-US Science and Technology Forum, Natural Sciences and Engineering Research Council of Canada, Vanderbilt University, National Science and Technology Awards Secretariat of Singapore, Cottrell College Science Awards.

#### Organization of Conferences

- Chair, 18<sup>th</sup> International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 22-24, 2022.
- Member, Organizing Committee, International Symposium on Biomedical Materials for Drug/Gene Delivery, Salt Lake City, Utah, Feb. 7-8, 2020.
- Chair, Controlled Release Society Annual Meeting Program Committee, New York, New York, July 21-25, 2018.
- Plenary Session Moderator, Controlled Release Society Annual Meeting, Boston, Massachusetts, July 17, 2017.
- Session Moderator, Physical Oncology: Modulating Tumor Microenvironment for Drug Delivery, Controlled Release Society Annual Meeting, Seattle, USA, July 17-20, 2016.

- Session Chair, Mechanisms and Barriers in Nanomedicine” Workshop, Beaver Run Resort, Breckenridge, Colorado, July 15-16, 2016.
- Session Chair, 18<sup>th</sup> International Pharmaceutical Technology Symposium, Antalya, Turkey, September 18-21, 2016.
- Member, Organizing Committee, NanoUtah, October 2015.
- Session Moderator, Nano-systems for Non-Oncology Drug Delivery, Controlled Release Society Annual Meeting, Edinburgh, Scotland, July 26-29, 2015.
- Session Chair, 17<sup>th</sup> International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, June 14-17, 2015.
- Member, Organizing Committee, NanoDDS’14, Chapel Hill, North Carolina, October 5-8, 2014.
- Session Chair, Workshop on Nanotechnology, Global Pharmaceuticals Education Network, Helsinki, Finland, August 27-30, 2014.
- Member, Organizing Committee, NanoUtah, October 2014.
- Member, Organizing Committee, NanoDDS’13, San Diego, CA, October 25-27, 2013
- Chair, Organizing Committee, NanoUtah 2013, October 18, 2013.
- Session Chair, ASGCT’s 16<sup>th</sup> Annual Meeting, Salt Lake City, Utah, May 15-18, 2013.
- Member, Organizing Committee, NanoDDS’12, Atlantic City, NJ, December 6-7, 2012
- Member, Organizing Committee, NanoUtah 2012, Utah’s Statewide Nanotechnology Conference, University of Utah, Salt Lake City, UT October 11-12, 2012.
- Advisory Board, The International Pharmaceutical Technology Symposium (IPTS), Antalya, Turkey, September 10-12, 2012.
- Program Chair, Bioactive Materials Track, 39<sup>th</sup> Annual Meeting and Exposition of Controlled Release Society, Quebec City, Canada, July 15-18, 2012.
- Member, Advisory Board, Session Chair, 9<sup>th</sup> International Symposium on Polymer Therapeutics (ISPT): From Laboratory to Clinical Practice, Valencia, Spain, May 28-30, 2012.
- Member, Organizing Committee, 9<sup>th</sup> International Conference on Biological Barriers-BioBarriers meets NanoDDS’12, Saarbrücken, Germany, March 6-7, 2012.
- Chair, Organizing Committee, NanoDDS’11, Salt Lake City, Utah, October 15-16, 2011.
- Member, NanoUtah 2011, Utah’s Statewide Nanotechnology Conference, University of Utah, Salt Lake City, UT, October 13-14, 2011.
- Member, Organizing Committee, International Microencapsulation Symposium, Antalya, Turkey, September 12-14, 2011.
- Session Chair, Gordon Research Conference on Cancer Nanotechnology, Colby College, Waterville, ME, July 17-22, 2011.
- Co-Organizer: Session on Nanotechnology in Medicine: American Institute of Chemical Engineers Meeting 2010, Salt Lake City, Utah, November 7-12, 2010
- Member, Organizing Committee, -nanoUtah 2010, Utah’s Statewide Nanotechnology Conference, University of Utah, Salt Lake City, UT October 14-15, 2010
- Member, Organizing Committee, NanoDDS’10, Omaha, Nebraska, October 2-5, 2010
- Session Co-Chair, Round Table on Nanomedicine, 2010 Annual Controlled Release Society, Portland, Oregon, July 11, 2010
- Co-Chair and Co-Organizer, Educational Workshop on “Nanomedicine: from Materials Design to Clinical Applications”, CRS 37<sup>th</sup> Annual Meeting & Exposition, Portland, Oregon, July 10, 2010
- Chair, Symposium on Biomedical Polymers for Drug Delivery, Salt Lake City, Utah, March 26-27, 2010
- Member, Organizing Committee, -nanoUtah 2009, Utah’s Statewide Nanotechnology Conference, University of Utah, Salt Lake City, UT October 15-16 2009
- Member, Organizing Committee, NanoDDS’09, Indianapolis, Indiana, October 5-6, 2009
- Session Co-Chair, Round Table on Nanomedicine, 2009 Annual Controlled Release Society, Copenhagen, Denmark, July 2009

- Session Co-Chair, Frontiers in Nanoparticle and Nanoporous Materials, Division of Colloids & Surface Chemistry, American Chemical Society Spring Meeting, Salt Lake City, Utah, March 2009
- Program Chair, -nanoUtah 2008, Utah's Statewide Nanotechnology Conference, University of Utah, Salt Lake City, UT October 2008
- Member, Organizing Committee of the Fourth Annual Meeting of the American Academy of Nanomedicine, Washington, DC September 2008
- Member, Organizing Committee of the Third Annual Meeting of the American Academy of Nanomedicine, San Diego, CA September 2007
- Director & Member of Planning Committee, 1<sup>st</sup> Nanomedicine Research Day, University of Maryland Baltimore, Baltimore, Maryland, March 23, 2007
- Co-organizer and Co-Chair, Fourth International Symposium on Nanomedicine and Cellular Delivery, University of Nebraska Medical Center, Omaha, Nebraska, October 8-10, 2006
- Organizer and Co-chair, Session on Drug Delivery and Nanomedicine, Second Annual Meeting of the American Academy of Nanomedicine, Washington DC, September 2006
- Host and Main Organizer, Third International Symposium on Nanomedicine and Drug Delivery, Baltimore, Maryland, September 26, 27, 2005
- Chair, Pearls of Wisdom Debates, Annual Controlled Release Society Meetings (2005-2008)
- Organizer and Co-chair, Round Table on The Emerging Research on Nanomedicine, AAPS 2005 Biotechnology Meeting, San Francisco, California, June 2005
- Organizer and Co-chair, Workshop on Genetic Engineering of Polymeric Biomaterials for Controlled Drug Delivery and Biomedical Applications, Controlled Release Society (CRS) 2004 Annual Meeting, Honolulu, Hawaii, June 2004
- Organizer and Co-chair, Workshop on Polymer Designs for Targeted Delivery, Global Pharmaceutics Education Network (GPEN) 2004 Annual Meeting, Kyoto, Japan. May 2004
- Organizer and Co-chair, Symposium on Polymer Therapeutics: Advances and Challenges, 2003 Annual Meeting of the American Association of Pharmaceutical Scientists (AAPS), Salt Lake City, UT, October 29, 2003
- Chair, Session on Biorelated Hydrogel Systems, Fifth International Symposium on Biorelated Polymers, Fall American Chemical Society Meeting, Boston, MA, August 18-22, 2002
- Chair, Session on New Pharmaceutical Polymers, Fourth Intensive Course and Workshop on Cell Culture and Ex-Vivo Models for Drug Absorption and Delivery, Department of Biopharmacy and Pharmaceutical Technology, Saarland University, Saarbrücken, Germany, February 20 – March 1, 2002
- Chair, Session on Novel Drug Carriers, 2000 Biomedical Engineering Society Annual Fall Meeting, Seattle, Washington, October 12-14, 2000

#### Service, University of Utah

- Member, Equity, Diversity and Inclusion Committee, Department of Biomedical Engineering, 2020-present
- Chair, Department of Pharmaceutics and Pharmaceutical Chemistry, 2020-present
- Member, Executive Council, College of Pharmacy, 2020-present
- Member, Research Strategy Committee, College of Pharmacy, 2020-present
- Member, Space Committee, College of Pharmacy, 2020-present
- Chair, Research Strategy Subcommittee, College of Pharmacy Strategic Planning (2019)
- Member, Grant Application Roundtable, College of Pharmacy (2018-current)
- Faculty Judge, Annual University of Utah Postdoc Poster Competition (2018)
- Member, Chair Search Committee, Department of Pharmaceutics and Pharmaceutical Chemistry (2017-2018)
- Member, Scholastic Standards Committee, College of Pharmacy (2017-2020)
- Faculty Mentor-Jessica Kramer, Assistant Professor of Bioengineering (2017-present)

- Participant, Health Sciences Research Forum, Health Sciences (2017-present)
- Member, Graduate Admission Committee, Department of Pharmaceutics & Pharmaceutical Chemistry (2017-current).
- Faculty Mentor-Raphael Franzini, Assistant Professor of Medicinal Chemistry (2016-present)
- Member, Health Sciences Global Health Education Subcommittee (2016-2017)
- Faculty Mentor-Kerry Kelly, Assistant Professor of Chemical Engineering (NIH K25 Award) (2016-present)
- Member, Strategic Planning Working Group, Huntsman Cancer Institute (2016)
- Mentor, PharmD class (2015-current)
- Member, College of Pharmacy Post Tenure Review Committee (2015).
- Co-founder and Co-Director, Nano Institute of Utah (2008-2020)
- Founder and Director, Utah Center for Nanomedicine (2008-current)
- Co-Founder and Director, Utah Nanotechnology Training Program (2010-2019)
- Member, Senior Vice President for Health Sciences Research Advisory Committee (2011-2017).
- Member, University of Utah Entrepreneurial Faculty Advisory Committee (2009-current)
- Member, Graduate Admission Committee, Department of Biomedical Engineering (2013-current)
- Member, Technology Peer Evaluation Panel, Technology Commercialization Office (2013-current)
- Member, Advisory Committee, Biomedical Engineering Retention, Promotion and Tenure Committee (2010-Current)
- Chair, Graduate Admission Committee, Department of Pharmaceutics & Pharmaceutical Chemistry (2008-2016).
- Member, Advisory Committee, College of Pharmacy Retention, Promotion and Tenure (2010-Current)
- Member, Advisory Committee, Department of Pharmaceutics and Pharmaceutical Chemistry Retention, Promotion and Tenure (2010-2019)
- Member, Assessment Committee, College of Pharmacy (2010-2020)
- Member, Graduate Council, University of Utah (2008-current)
- Member, Search Committee for Senior Vice President for Academic Affairs (2012-2013)
- Peer Teaching Observation, College of Pharmacy, 2013
- Member, Task Force 6 for evaluation of standards for accreditation of College of Pharmacy (2012-2013)
- Member, Faculty Search Committee for a Position in Pharmaceutics (2012-2013)
- Member, College of Pharmacy Strategic Planning Committee (2012)
- Member, Teaching and Learning Committee, College of Pharmacy (2009-2010)
- Member, Faculty Search Committee for Chair of Bioengineering (2009-2010)
- Co-Organizer, University of Utah Cancer Nanotechnology Retreat, April 2009
- Member, Faculty Search Committee for a Position in Pharmaceutics (2008)

#### Service to Broader Community and the General Public

##### *University of Utah and Surrounding Community:*

- OSHER Lifelong Learning Institute, Lecturer (2017, 2019, 2021)
- NanoDays, Directed student involvement in organization of hands on experience on nanotechnology at the City Library on Natural History Museum (2009-2014)

##### *University System of Maryland and Surrounding Community:*

- Established and led an interdisciplinary center focused on nanomedicine research, development and outreach spanning the Colleges of Pharmacy, Medicine, Dentistry, Engineering and Life Sciences at UMB and UMCP (2005-2007).
- Member, Nanobiotechnology Working Group, Chesapeake Nanotechnology Initiative (2005)
- Speaker, Greater Baltimore Business Committee Meetings on Nanobiotechnology (2005-2006)

### Recent Teaching

- BIOEN 5900: Biomolecular Engineering, Spring 2019, Lecturer
- PHARM 5120: Foundations of Pharmaceutics, 2017-current, Lecturer
- PHCEU 7975: Pharmaceutics Journal Club, 2018, Course Master
- PHARM 5150: PharmD Recitation, 2017-current, Co-Course Master and Facilitator
- PHCEU 7890: Seminar Series, 2015, 2017, Course Master and Seminar Organizer
- PHCEU 7030: Macromolecular Therapeutics and Drug Delivery, 2014-current, Lecturer
- PCTH 7100/7200: Clinical Pharmacy Seminar, 2014-2017, Facilitator
- BIOEN 3091: Current Research in Bioengineering, 2014-Current, Course Master and Lecturer
- BIOEN 6405/PHCEU 7230: Nanomedicine, 2010-Current, Course Master and Lecturer
- PHCEU 5125/7021: Drug Delivery and Dosage Forms, 2011-2016, Course Master and Lecturer
- CHEM/CH EN 5810: Nanoscience, 2010-Current, Lecturer
- BIOEN 7120/PHCEU 7210: Biocompatibility, Spring 2008-Current, Lecturer
- BIOEN 6302/PHCEU 6302 Biomaterials, Lecturer and Course Master, 2009-2013
- BIOEN 4201: Biomedical Engineering Project I, Fall 2009, Co-Course Master and Moderator.
- BIOEN 3201: Biomolecular Engineering, Lecturer, Spring 2009.

### PATENTS / PATENT APPLICATIONS

- HPMa-docetaxel conjugates and uses therefore, YB Lee, DJ Kim, CH Ahn, A Nan, H Ghandehari, A Ray US Patent 9,434,610.
- Radiolabeled nanohybrids targeting solid tumor neovasculature and method of using same, BR Line, B Line, H Ghandehari, S Baklanov, US Patent App. 11/571,340.
- Recombinant protein polymer vectors for systemic gene delivery, Z Megeed, A Hatefi, H Ghandehari, US Patent App. 11/357,499.
- HPMa-polyamine conjugates and uses therefore, H Ghandehari, M Woodle, P Scaria, A Nan, US Patent App. 10/502,985.
- Microparticles for microarterial imaging and radiotherapy, B Line, D Van Echo, A Kennedy, H Ghandehari, A Nan, US Patent App. 10/762,507.
- Radiation enhanced macromolecular delivery of therapeutic agents for chemotherapy technology, A Ray, H Ghandehari, US Patent App. 13/378,731.
- Radiation enhanced macromolecular delivery of therapeutic agents for chemotherapy, US Patent App. 15/049,198.
- Radiation enhanced macromolecular delivery of therapeutic agents for chemotherapy, WO2010148163A1, PCT/US2010/038932.
- Nanoparticles produced from recombinant polymers and methods of making and using the same. H Ghandehari, L Pease, R Anumolu. International Publication Number: WO 2011/140024. Nationalized PCT/US2011/034907.
- Nanoparticles produced from recombinant polymers and methods of making and using the same, US Patent App. 13/695,827
- Methods for delivering an Anti-cancer agent to a tumor, US Patent App. 15/634,281
- Methods for delivering an Anti-cancer agent to a tumor, US Patent App. 14/996,419
- Methods for delivering an Anti-cancer agent to a tumor, US Patent App. 14/461,888
- Gold particles and methods of making and using the same in cancer treatment, H Ghandehari, A Gormley, N Larson, A Ray, PCT/US2011/043808, WO2012009406 A2.
- Gold particles and methods of making and using the same in cancer treatment, US Patent App 13/809,595
- Silk-elastin like protein polymers for embolization and chemoembolization to treat cancer, J Cappello, H Ghandehari, A Poursaid, US Patent No. 9,932,389.
- Silk-elastin like protein polymers for embolization and chemoembolization to treat cancer, US Patent App. 14/150,652

- Compositions and methods for using silk-elastinlike protein based polymers, PCT/US2020/049458
- Matrix metalloproteinase cleavable protein polymers for cancer gene therapy, H Ghandehari, J Cappello, J Frandsen, J Gustafson, K Greish, RA Price, US Patent App. 14/403,979.
- Matrix metalloproteinase cleavable protein polymers for cancer gene therapy, PCT/US2013/043487, WO2013181471A3
- Matrix metalloproteinase cleavable protein polymers for cancer gene therapy, EP2013796535, Patent number EP2861732
- Biodegradable silica nanoparticles, H Ghandehari, K Isaacson, M Jensen, P Hadipour, Patent Pending, Patent Application Serial Number: 62/472,410.
- In situ gelling compositions for the treatment or prevention of inflammation and tissue damage. H Ghandehari, J Cappello, M Jensen, S Oottamasathien, W Jia. Patent Pending, Patent Application Serial Number: PCT/US2017/51538.
- In situ gelling compositions for the treatment or prevention of inflammation and tissue damage, US Patent App. 16/333,434
- Methods for producing chemoembolic agents for the delivery of anti-cancer agents, US Patent App. 16/950,387
- Methods for producing chemoembolic agents for the delivery of anti-cancer agents, US Patent No. 1,0849,914
- Biodegradable hollow nanoparticles and methods and apparatus for manufacturing the same. H Ghandehari, P Hadipour. Patent Pending, Patent Application Serial Number: 62/620,350.
- Biodegradable hollow nanoparticles and methods and apparatus for manufacturing the same, PCT/US2019/021054, WO2019173542A1
- Biodegradable hollow nanoparticles and methods and apparatus for manufacturing the same, US Patent App. 16/294,872
- Macromolecular and nonparticulate agrochemicals to reduce vapor drift, PCT/US2020/027835, WO2020210750A1
- Macromolecular and nonparticulate agrochemicals to reduce vapor drift, US Patent App. 17/044,657
- Other invention disclosures pending review.

#### CURRENT FUNDING

R01 CA227225 Ghandehari/ OOTTAMASATHIEN (MPI) 11/01/19 – 10/31/24 NIH-NCI  
 Localized Delivery of Glycosaminoglycan Ethers for the Treatment of Radiation Induced Proctitis  
 Total Costs: \$1,989,162

10060605 University of Utah Seed Grant Alt (PI) 03/01/2021 – 02/28/2022  
 Targeted Delivery of Anti-inflammatory Agents for Treatment of Chronic Rhinosinusitis  
 Role: Co-Investigator  
 Total Costs: \$50,000

1F31CA213901-01A1 NIH NRSA Subrahmanyam (PI) 07/01/18 – 06/30/21  
 Water Soluble Polymers to Target Tumor-Assc. Extracellular Matrix for Delivery of MMP Inhibitors  
 Total Costs: \$135,860  
 Role: Mentor

Huntsman Cancer Institute Neurologic Cancers Center MPI: Ghandehari/Jensen 03/01/20-02/28/22  
 Matrix-Mediated Gene Delivery for the Treatment of Glioblastoma  
 Total Costs: \$20,000

US-Saudi International Collaboration: PI: Aliyah Almomen (King Saudi University)  
 Safety and Toxicity Assessment of Titanium Dioxide (TiO<sub>2</sub>) Based Nanoparticles



Role: US collaborator.  
Pending Award Letter.

PREVIOUS FUNDING (since 2007) {continuously funded since 1997, NIH funded since 1999}

Melanoma Center Torres/Jafari/Ghandehari(MPI) 10/1/2020-09/30/2021 Huntsman Cancer Institute  
Development and preclinical assessment of local transdermal delivery systems for chemoprevention of  
nevus formation and melanoma initiation.  
Total Costs: \$35,000

Veterans Affairs Lesniewski (PI) 07/01/19-06/30/21  
Veterans Affairs: Role of ARF6 in Atherosclerotic Burden and Severity  
Role: Co-Investigator

Translational and Clinical Studies Pilot Program Ghandehari/Alt (MPI) 03/01/20-02/28/21  
Injectable Antibacterial Implants for the Treatment of Chronic Rhinosinusitis  
Total Costs: \$29,459

NSF CBET 2018413 Major Instrumentation Grant Whittaker-Brooks/Ghandehari/Hoepfner (MPI)  
08/01/20-07/31/21  
MRI: Acquisition of a laboratory beamline small (wide)-angle X-ray scattering tool for in-situ  
characterization of (bio)materials  
Total Amount for Entire Award Period \$524,804

1U4U Kelly/Alt/Ghandehari (MPI) 03/01/2020 – 08/31/2021 University of Utah  
Understanding the Role of Combustion Particle Pollution and Upper Airway Disease In Utah  
Total Costs: \$30,000

College of Engineering Seed Grant Ghandehari (PI) 03/01/2020 – 02/31/2021 University of Utah  
Bioinks for 3D printing of Vascular Grafts  
Total Costs: \$28,125

BioGenus, LLC PI: Ghandehari 12/01/19-11/30/20  
Characterization and in vitro / in vivo safety evaluation of BioGenus Nanoparticle  
Total Costs: \$66,039

ALSAM Peterson (PI) 01/01/2019 – 12/31/2020 The ALSAM Foundation a Utah Trust  
Project: Reducing Adverse Effects of Chemotherapy  
Project Total Costs: \$150,000  
Role: Project Leader

R42 CA168123 Ghandehari-Cheney (MPI) 09/01/16-08/31/20 (No Cost Extension) NIH-NCI  
In-Situ Gelling Protein Polymer Intravascular Embolic Agent for Hepatic Carcinoma  
Total costs: \$1,401,869

1R41 NS100184 Ghandehari-Cheney (MPI) 07/01/17-06/30/20 (No cost extension) NIH-NINDS  
Recombinant Silk Elastin-like Protein Polymers for the Embolization of Cerebral Aneurysms  
Total costs: \$373,832

9R01 ES024681 Ghandehari (PI) 09/01/14-05/30/20 (No cost extension) NIH-NIEHS  
Biological Fate and Biocompatibility of Dendritic and Silica-Based Nanoconstructs  
Total costs: \$1,676,250 Competitive renewal of R01 DE019050

University of Utah Huntsman Cancer Institute Alt/Cannon/Ghandehari (MPI) 05/01/19-06/01/20  
HCI Upper Aerodigestive Tract Disease Oriented Research Team: The Feasibility of Fluorescent Image-Guided Transoral Robotic Surgery for HPV+ Oropharynx Cancer.  
Total Costs: \$25,000

Huntsman Cancer Institute Head and Neck Disease Oriented Team Pilot Funding  
MPI: Cannon/Alt/Ghandehari 05/01/19-04/31/20  
The Feasibility of Fluorescent Image-Guided Transoral Robotic Surgery for HPV+ Oropharynx Cancer  
Total Costs: \$25,000

Skaggs Scholar Program Grant Kompella-Ghandehari (MPI) 07/01/17-06/30/19 Skaggs Foundation  
Ocular Toxicology of Engineered Nanomaterials  
Total costs: \$150,000

Society for Interventional Radiologists Foundation Mark Jensen (PI) 07/01/17-06/30/19  
Role: Mentor  
Total costs: \$40,000

Funding Incentive Seed Grant Franzini (PI) (No cost extension) 01/01/18-12/30/19  
University of Utah Office of the Vice President of Research  
Stimulating an Anticancer Immune Response with Hapten-Displaying Polymers  
Role: Collaborator.  
Total Costs: \$35,000

GUMDOT Pilot Award Ghandehari (PI) 06/01/17-05/31/19  
(No Cost Extension)  
Huntsman Cancer Institute Genitourinary Malignancies Disease Oriented Research Team  
Synergistic Combination Thermo-Immunotherapy for Treatment of Prostate Cancer  
Total costs: \$10,000

UADT Pilot Award Alt, Ghandehari, Pulsipher (MPI) 06/01/17-05/31/19  
(No Cost Extension)  
Huntsman Cancer Institute Upper AeroDigestive Tract Cancers Disease Oriented Research Team  
Dual-modal embolic and fluorescent image-guided surgery using near-infrared dye-incorporated silk-elastinlike protein polymers for enhanced juvenile nasopharyngeal angiofibroma identification and resection.  
Total costs: \$25,000

Dicamba Ghandehari (PI) 02/15/18 - 02/14/19  
Aqua Yield: Development of a Non-Volatile Dicamba Formulation for Agricultural Use  
The goal of this research is the development of a nonvolatile formulation of dicamba through the use of polymerization and conjugation.  
Total Costs: \$17,498

Aqua Yield Ghandehari (PI) 07/1/17-12/30/18  
Nanoparticles for Delivery of Agricultural products  
Total Costs: \$151,000.

University of Utah Funding Incentive Seed Grant Gale (PI) 07/01/17-06/30/18  
Integrated Nanotoxicology on a Chip

Role: Collaborator  
Total Costs: \$17,500

WDOT-Pilot Funds Ghandehari-Janat-Amsbury (MPI) 03/2016 to 02/2018 (no cost extension)  
Huntsman Cancer Institute Women's Disease Oriented Research Team  
Localized Delivery of Immune Checkpoint Inhibitors for the Treatment of Ovarian Cancer.  
Total costs: \$30,000

U of U HCI Experimental Therapeutics Program Ghandehari - B. Welm (MPI) 07/01/16-06/30/17  
Award Number 170701  
Multidisciplinary project to develop and evaluate novel Zn ionophore polymers for cancer therapy.  
Total costs: \$35,000

Funding Incentive Seed Grant Bowles (PI) 07/01/16-12/30/17 (No cost extension)  
University of Utah Office of the Vice President of Research  
Genetically Engineered Injectable Cell/Biomaterial System for Controlled Extracellular Matrix  
Deposition in the Degenerative Intervertebral Disc.  
Role: Collaborator.  
Total Costs: \$18,000.

Award Number 160306 Ghandehari-Ottamasathien (MPI) 01/01/16-12/31/16  
University of Utah Huntsman Cancer Institute Experimental Therapeutics Program  
Localized delivery of glycosaminoglycan ethers for prevention of radiation induced bladder cystitis and  
rectal proctitis.  
Total Costs: \$20,000

TVC U-5505 Ghandehari (PI) 01/2016-12/2016  
The Engine Funding Program, University of Utah Technology Commercialization Office Intravascular In-  
Situ Gelling Protein Polymer Embolic Agent  
Total Costs: \$50,000

Funding Incentive Seed Grant Ghandehari (PI) 01/2016-12/2016  
University of Utah Office of the Vice President of Research  
Characterization of the 3 D Network Structure of Silk-Elastinlike Hydrogels  
Total Costs: \$35,000

Award Number 150302 Ghandehari (PI) 02/01/15-01/31/16  
University of Utah Huntsman Cancer Institute Experimental Therapeutics Program  
Enhanced Delivery of Polymer Therapeutics by Ultrasound Mediated Hyperthermia  
Total Costs: \$20,000

2R01CA107621 Ghandehari (PI) 07/01/10-12/31/15  
NIH-NCI: Engineering Polymers for Gene Therapy of Head and Neck Cancer  
Total Costs: \$1,479,220 *competitive renewal*

1R41CA168123 Cheney/Ghandehari (MPI) 9/21/12-8/31/13  
NIH-NCI: In-situ Gelling Protein Polymer Intravascular Embolic Agent for Hepatic Carcinoma  
Total Costs: \$100,000

R01 EB007470 Ghandehari (PI) 8/22/07-4/30/12  
NIH-NIBIB: Dendritic Biomaterials for Oral Delivery of Chemotherapeutics

Total Costs: \$1,327,500

R01 DE019050 Ghandehari (PI) 09/27/07-08/31/12  
NIDCR: Biological Fate and Biocompatibility of Dendritic and Silica-Based Nanoconstructs  
Total Costs: \$1,384,561

IDT Project – Internal Hoffman (PI) 1/1/12 – 12/31/12  
Huntsman Cancer Institute: Image Guided Targeted Drug Delivery for Treatment of Pancreatic Cancer  
Total Costs: \$20,000

R13CA157167-01 Kabanov (PI) 08/09/11 – 07/31/12  
NCI: NanoDDS'10/11 Conference Grant - Subcontract with U of Nebraska Medical Center  
Role: Co-I  
Subcontract Costs: \$8,000

R01 EB007171 Ghandehari (PI) 09/01/06-05/31/11  
NIH-NIBIB: Polymers for Targeted Delivery of Angiogenic Inhibitors  
Total Costs: \$1,215,312

NSF-NIRT-0608906 Ghandehari (PI) 11/15/07-08/31/11  
National Science Foundation: Stimuli-Responsive Hybrid Nanoparticles for Controlled Chemical  
Delivery  
Total Costs: \$1,000,000

R41 CA144818 Cheney, Ghandehari (MPI) 07/01/10-12/31/10  
NIH-NCI: Targeted Polymeric Combination Delivery or Treatment for Ovarian Cancer  
Total Costs: \$100,000

R01CA107621-01 Ghandehari (PI) 05/01/05-04/31/10  
NIH-NCI: Engineering Polymers for Gene Therapy of Head and Neck Cancer  
Total Costs: \$1,143,823

Interdisciplinary Seed Grant Ghandehari (PI) 12/1/09 - 12/31/10  
Internal U of U: An Electrospun Recombinant Polymer Mesh for Subchondral Drilling Augmentation  
Total Costs: \$12,000

IDT Project – Internal Sharma (PI) 1/1/10 – 12/31/10  
Huntsman Cancer Institute: Targeting  $\beta$ -catenin by Systemic Delivery Targeted Nanoparticles Containing  
 $\beta$ -catenin siRNAs in a Familial Adenomatous Polyposis Animal Model  
Total Costs: \$40,000

MBM Catalyst Ghandehari (PI) 1/1/09 - 12/31/09  
Internal U of U: Biomaterials for Targeted Ovarian Cancer Therapy  
Total Costs: \$75,000

Dendritic Nanotechnologies Ghandehari (PI) 09/01/08 – 08/31/09  
Total Costs: \$31,400

R21 CA116584-01 Ghandehari (PI) 04/01/06 - 03/31/08  
NIH/NCI: Recombinant Polymers for Systemic Cancer Gene Therapy  
Total Costs: \$408,375

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- 72) A. Mitra, A. Nan, J. Mulholland, E. McNeill, H. Ghandehari, and B. Line, Synthesis and Characterization of a Novel <sup>99m</sup>Tc- Labeled N-(2-Hydroxypropyl) Methacrylamide Copolymer for Gamma Scintigraphy, Annual Meeting of the American Association of Pharmaceutical Scientists (AAPS), Salt Lake City, UT, October 26-30, 2003.

- 73) M. Haider and H. Ghandehari, Size Dependent Release of Plasmid DNA from Silk-Elastinlike Hydrogels, Annual Meeting of the American Association of Pharmaceutical Scientists (AAPS), Salt Lake City, UT, October 26-30, 2003.
- 74) Z. Megeed, J. Cappello, H. Ghandehari, Matrix-Mediated Controlled Delivery of Adenovirus and Plasmid DNA from Silk-Elastinlike Hydrogels, Annual Meeting of the American Association of Pharmaceutical Scientists (AAPS), Salt Lake City, UT, October 26-30, 2003.
- 75) H. Ghandehari, Z. Megeed, M. Haider, and J. Cappello, Controlled Delivery of Bioactive Agents from Silk-Elastinlike Polymers, Third International Silk Conference, Montreal, Quebec, Canada, June 16 - 19, 2003.
- 76) H. Ghandehari, Z. Megeed, M. Haider, D. Li, B. W. O'Malley Jr., and J. Cappello, Recombinant Polymers for Gene Delivery, Symposium on Recent Advances in Gene and Drug Delivery at the 2003 Regional Meeting of the American Chemical Society, Pittsburgh, PA, October 20, 2003.
- 77) A. Mitra, A. Nan, H. Ghandehari, E. McNeill, J. Mulholland, and B. R. Line, Targeted Delivery of Radionuclides to Solid Tumors by N-(2-Hydroxypropyl) Methacrylamide (HPMA) Copolymers Containing RGD4C in the Side Chains, Sixth International Symposium on Polymer Therapeutics: From Laboratory to Clinical Practice, Welsh School of Pharmacy, Cardiff University, Cardiff, United Kingdom, January 7-9, 2004.
- 78) H. Ghandehari, Z. Megeed, M. Haider, R. Dandu, D. Li, B. W. O'Malley Jr., and J. Cappello. Localized Delivery of Plasmid DNA and Adenoviral Vectors for Cancer Gene Therapy by Recombinant Silk-Elastinlike Polymers, Sixth International Symposium on Polymer Therapeutics: From Laboratory to Clinical Practice, Welsh School of Pharmacy, Cardiff University, Cardiff, United Kingdom, January 7-9, 2004.
- 79) C. Hebert, A. Nan, H. Ghandehari, H. Siavash, N. Nikitakis, and J. J. Sauk, Specific and Passive Targeting of HPMA Copolymer-Doxorubicin, 6th International Conference on Head and Neck Cancer, Washington, DC, August 7-11, 2004.
- 80) A. Mitra, A. Nan, H. Ghandehari, E. McNeill, J. Mulholland, and B. R. Line, Charge and Molecular Weight Modify Biodistribution of Novel <sup>99m</sup>Tc- labeled N-(2-Hydroxypropyl)Methacrylamide Copolymers, 51st Annual Meeting of Society of Nuclear Medicine, Philadelphia, PA, June 19-23, 2004.
- 81) A. Mitra, J. Mulholland, A. Nan, H. Ghandehari, E. McNeill, and B. R. Line, N-(2-Hydroxypropyl) Methacrylamide (HPMA) Copolymers Containing an  $\alpha\beta 3$  Angiogenesis Directed Ligand (RGD4C) Show Specific Tumor Targeting. 51st Annual Meeting of Society of Nuclear Medicine, Philadelphia, PA, June 19-23, 2004.
- 82) A. Mitra, J. Mulholland, A. Nan, H. Ghandehari, E. McNeill, and B. R. Line, Biodistribution of Angiogenesis Targeting <sup>99m</sup>Tc and <sup>188</sup>Re N-(2-Hydroxypropyl) Methacrylamide (HPMA)-RGD4C Conjugates in SCID Mice Bearing Human Prostate Carcinoma. 51st Annual Meeting of Society of Nuclear Medicine, Philadelphia, PA, June 19-23, 2004.
- 83) M. El-Sayed, M. Ginski, C. Rhodes, K. Kitchens, and H. Ghandehari, Poly (amidoamine) (PAMAM) Dendrimers as Oral Drug Carriers: Influence of Molecular Architecture on Transepithelial Transport and Cytotoxicity, 31st International Symposium on Controlled Release of Bioactive Materials, Honolulu, Hawaii, June 13-16, 2004.
- 84) A. Nan, H. Ghandehari, C. Hebert, H. Siavash, N. Nikitakis and J. J. Sauk, Water-Soluble Polymers for Targeted Delivery to Human Squamous Carcinoma of Head and Neck, 31st International Symposium on Controlled Release of Bioactive Materials, Honolulu, Hawaii, June 13-16, 2004.
- 85) M. Haider, J. Cappello, and H. Ghandehari, Gene Delivery from Recombinant Silk-Elastinlike Hydrogels: In Vitro Release and Biosynthesis, 31st International Symposium on Controlled Release of Bioactive Materials, Honolulu, Hawaii, June 13-16, 2004.
- 86) Z. Megeed, J. Cappello, D. Li, B. O'Malley, H. Ghandehari, Genetically Engineered Biomaterials for Viral & Nonviral Cancer Gene Therapy, 31st International Symposium on Controlled Release of Bioactive Materials, Honolulu, Hawaii, June 13-16, 2004.
- 87) A. Mitra, J. Mulholland, A. Nan, H. Ghandehari, E. McNeill, and B.R. Line, Targeted Delivery to Angiogenic Vessels by Water- Soluble Polymers Containing RGD4C in the Side Chains: Synthesis,

- Characterization, and in Vivo Imaging, 31st International Symposium on Controlled Release of Bioactive Materials, Honolulu, Hawaii, June 13-16, 2004.
- 88) R. Dandu, D. Li, B. W. O'Malley Jr., J. Cappello, and H. Ghandehari, Matrix-Mediated Adenoviral Gene Delivery with Recombinant Silk-Elastinlike Hydrogels, 31st International Symposium on Controlled Release of Bioactive Materials, Honolulu, Hawaii, June 13-16, 2004.
  - 89) A. Nan, H. Ghandehari, C. Herbert, H. Siavash, N. Niktakis and J. J. Sauk, Water-Soluble Polymer-Drug Conjugates for Targeted Delivery to Human Squamous Carcinoma of Head and Neck. 2004 Global Pharmaceutics Education Network Meeting, Kyoto, Japan, November 26-28, 2004.
  - 90) A. Mitra, J. Mulholland, A. Nan, E. McNeill, H. Ghandehari, and B. Line, Polymeric Nanohybrids for Targeting Tumor Angiogenesis, Symposium on Biorelated Polymers, Fall American Chemical Society Meeting, Philadelphia, PA, August 22-26, 2004.
  - 91) H. Ghandehari, Z. Megeed, M. Haider, R. Dandu, D. Li, B. W. O'Malley Jr., and J. Cappello, Matrix-Mediated Gene Delivery from Recombinant Polymers, AAPS Conference on Pharmaceutics and Drug Delivery, Philadelphia, PA, June 7-9, 2004.
  - 92) A. Mitra, J. Mulholland, A. Nan, E. McNeill, H. Ghandehari, and B. R. Line, Polymeric Conjugates for Targeted Delivery to Tumor Angiogenesis, Annual Meeting of the American Association of Pharmaceutical Scientists (AAPS), Baltimore, MD, November 7-11, 2004.
  - 93) M. Haider, J. Cappello, and H. Ghandehari, Biosynthesis of Recombinant Silk-Elastinlike Polymers for Controlled Gene Delivery, Annual Meeting of the American Association of Pharmaceutical Scientists (AAPS), Baltimore, MD, November 7-11, 2004.
  - 94) A. Nan, D. Van Echo, B. R. Line, A. Kennedy, J. Franco, H. Ghandehari, Instant Microspheres for Microarterial Imaging and Radiotherapy, Annual Meeting of the American Association of Pharmaceutical Scientists (AAPS), Baltimore, MD, November 7-11, 2004.
  - 95) K. M. Kitchens, N. D. Eddington, P. W. Swaan, H. Ghandehari, Influence of Surface Charge on the Transport of Poly (Amidoamine) Dendrimers across the Intestinal Epithelial Barrier, Annual Meeting of the American Association of Pharmaceutical Scientists (AAPS), Baltimore, MD, November 7-11, 2004.
  - 96) H. Ghandehari, M. Haider, R. Dandu, and A. Hatefi, Protein-Based Polymers for Cancer Gene Therapy, Annual Meeting of the American Association of Pharmaceutical Scientists (AAPS), Baltimore, MD, November 7-11, 2004.
  - 97) A. Hatefi and H. Ghandehari, Targetable and Endolytic Recombinant Copolymer for Systemic Gene Delivery: Biosynthesis, 12th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 21-24, 2005.
  - 98) A. Nan, A. Mitra, J. Mulholland, E. McNeill, H. Ghandehari, B.R. Line, Targeting Tumor Angiogenesis using Polymer-RGD Conjugates and RGD Peptides: A Comparative Biodistribution Study, 12th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 21-24, 2005.
  - 99) H. Ghandehari, M. Haider, J. Cappello, R. Dandu, and A. Hatefi, Recombinant Polymers for Cancer Gene Therapy, 12th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 21-24, 2005.
  - 100) M. Haider, J. Cappello, and H. Ghandehari, Engineering Polymers for Breast Cancer Gene Therapy, 4th Era of Hope Meeting, Philadelphia, PA, June 8-11, 2005.
  - 101) K. Kitchens, and H. Ghandehari, Poly (Amidoamine) (PAMAM) Dendrimers as Oral Drug Carriers: Influence of Size and Surface Charge on Transepithelial Transport, Fourth International Dendrimer Symposium, Central Michigan University, Mount Pleasant, Michigan, May 18-21, 2005.
  - 102) H. Ghandehari, K. Kitchens, and R. Kolhatkar, Poly (Amidoamine) Dendrimers as Probes for Transport and Diffusion in Drug Delivery, Fourth International Dendrimer Symposium, Central Michigan University, Mount Pleasant, Michigan, May 18-21, 2005.
  - 103) A. Mitra, B. R. Line, A. Nan, E. McNeill, J. C. Papadimitriou, and H. Ghandehari, Cancer Radiotherapy by Targeted Delivery of Yttrium-90 to Tumor Neovasculature, 32nd International Symposium on Controlled Release of Bioactive Materials, Miami, Florida, June 18-22, 2005.



- 104) A. Hatefi, and H. Ghandehari, Design and Biosynthesis of a Genetically Engineered Non-Viral Vector for Breast Cancer Gene Therapy, 32nd International Symposium on Controlled Release of Bioactive Materials, Miami, Florida, June 18-22, 2005.
- 105) K. M. Kitchens, P. W. Swaan, and H. Ghandehari, Transport of Poly (Amidoamine) (PAMAM) Dendrimers Across Caco-2 Cell Monolayers: Influence of Size, Charge and Fluorescent Labeling, 32nd International Symposium on Controlled Release of Bioactive Materials, Miami, Florida, June 18-22, 2005.
- 106) V. Moolchandani, M. Haider, and H. Ghandehari, In Vitro Release of Plasmid DNA from Structurally Related Silk-Elastinlike Hydrogels, 32nd International Symposium on Controlled Release of Bioactive Materials, Miami, Florida, June 18-22, 2005.
- 107) M. Haider, J. Cappello, J. Powell, and H. Ghandehari, Molecular Engineering of Silk-Elastinlike Hydrogels: Influence of Polymer Composition on Rheological Properties and Swelling Behavior, 32nd International Symposium on Controlled Release of Bioactive Materials, Miami, Florida, June 18-22, 2005.
- 108) B. R. Line, A. Mitra, A. Nan, J. Papadimitriou, and H. Ghandehari, Polymer-Peptide Conjugates for Angiogenesis Targeted Y-90 Radiotherapy of Prostate Cancer, The Society of Nuclear Medicine 52nd Annual Meeting, San Diego, California, June 5-9, 2005.
- 109) B. R. Line, A. Mitra, A. Nan, and H. Ghandehari, Comparison of Peptide vs Multivalent Peptide-Polymer Conjugates for Tumor Angiogenesis Targeting, The Society of Nuclear Medicine 52nd Annual Meeting, San Diego, California, June 5-9, 2005.
- 110) B. R. Line, A. Mitra, A. Nan, S. Baklanov, N. Marchenkov, and H. Ghandehari, Polonium-210 Angiogenesis Targeted Alpha-Radiotherapy of Prostate Cancer, The Society of Nuclear Medicine 52nd Annual Meeting, San Diego, California, June 5-9, 2005.
- 111) B. Zarabi, J. Zhuo, J. Weaver, G. Rosen, R. Gullapalli, and H. Ghandehari, Synthesis and Characterization of a Novel Macromolecular Magnetic Resonance Imaging Contrast Agent, 4th Era of Hope Meeting, Philadelphia, PA, June 8-11, 2005.
- 112) A. Mitra, A. Nan, J. C. Papadimitriou, H. Ghandehari, and B. R. Line, Polymer-Peptide Conjugates for Tumor Radiotherapy, Third International Nanomedicine and Drug Delivery Symposium, Baltimore, MD, September 26-27, 2005.
- 113) K. M. Kitchens, P. W. Swaan, and H. Ghandehari, Poly (Amidoamine) Dendrimer Permeability and Cellular Localization in Caco-2 Cell Monolayers, Third International Nanomedicine and Drug Delivery Symposium, Baltimore, MD, September 26-27, 2005.
- 114) A. Hatefi, H. Ghandehari, Nanosize Recombinant Polymer/DNA Complexes for Targeted Gene Delivery, Third International Nanomedicine and Drug Delivery Symposium, Baltimore, MD, September 26-27, 2005.
- 115) M. Haider, H. Ghandehari and K.W. Leong, Genetically Engineered Silk-Elastinlike Hydrogels for the Culture of Human Mesenchymal Stem Cells, Third International Nanomedicine and Drug Delivery Symposium, Baltimore, MD, September 26-27, 2005.
- 116) B. R. Line, A. Mitra, A. Nan and H. Ghandehari, Peptide-Polymer Nanohybrids for Angiogenesis Targeted Cancer Radiotherapy, Third International Nanomedicine and Drug Delivery Symposium, Baltimore, MD, September 26-27, 2005.
- 117) S. Chandran, A. Nan, H. Ghandehari, S. Denmeade, An HPMA-Prodrug Conjugate as a Novel Strategy for the Treatment of Prostate Cancer, AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics: Discovery, Biology, and Clinical Applications, Philadelphia, PA, November 14-18, 2005.
- 118) A. Mitra, T. Coleman, M. Borgman, A. Nan, H. Ghandehari, B. R. Line, Comparison of Polymeric Conjugates of Mono- and Bi-cyclic RGD Peptide for Targeting Tumor Angiogenesis, AAPS National Biotechnology Conference, Boston, MA, June 18-21, 2006.
- 119) A. Hatefi and H. Ghandehari, Recombinant Polymers for Local and Systemic Cancer Gene Therapy, 33rd International Symposium on Controlled Release of Bioactive Materials, Vienna, Austria, July 23-26, 2006.
- 120) K. M. Kitchens, R. B. Kolhatkar, and H. Ghandehari, Size, Charge and Surface Modification Influence Poly (Amidoamine) Transepithelial Transport, 33rd International Symposium on Controlled Release of Bioactive Materials, Vienna, Austria, July 23-26, 2006.

- 121) A. Mitra, T. Coleman, M. Borgman, A. Nan, H. Ghandehari, B. R. Line. Comparison of Polymeric Conjugates of Mono- and Bi-cyclic RGD Peptides for Targeting Tumor Angiogenesis, 33rd International Symposium on Controlled Release of Bioactive Materials, Vienna, Austria, July 23-26, 2006.
- 122) M. Haider, H. Ghandehari and K.W. Leong, In Vitro Chondrogenesis of Mesenchymal Stem Cells in Recombinant Silk-Elastinlike Hydrogels, 33rd International Symposium on Controlled Release of Bioactive Materials, Vienna, Austria, July 23-26, 2006.
- 123) R. B. Kolhatkar, K. M. Kitchens, and H. Ghandehari, Influence of Surface Acetylation of Poly (Amidoamine) (PAMAM) Dendrimers on Transport across Caco-2 Cell Monolayers, 33rd International Symposium on Controlled Release of Bioactive Materials, Vienna, Austria, July 23-26, 2006.
- 124) A. Nan, X. Bai, S. J. Son, S. B. Lee, and H. Ghandehari, Cytotoxicity and Cellular Uptake of Magnetic Nanotubes, 33rd International Symposium on Controlled Release of Bioactive Materials, Vienna, Austria, July 23-26, 2006.
- 125) A. Hatefi and H. Ghandehari, Recombinant (KHG)6-FGF2 Biopolymer for Targeted Gene Transfer, 9th Annual Meeting of the American Society of Gene Therapy, Baltimore, MA, May 31 to June 4, 2006.
- 126) A. Hatefi and H. Ghandehari, Silk-Elastinlike Polymers for Matrix-Mediated Adenoviral Gene Delivery, 9th Annual Meeting of the American Society of Gene Therapy, Baltimore, MA, May 31 to June 4, 2006.
- 127) B. Zarabi, J. Zhuo, A. Nan, R. Gullapalli, and H. Ghandehari, Synthesis and Characterization of Targetable HPMA Copolymer-Gd Conjugates, AAPS National Biotechnology Conference, Boston, MA, June 18-21, 2006.
- 128) A. Hatefi and H. Ghandehari, Application of Genetically Engineered Biopolymers in Gene Therapy, International Symposium on Biorelated Polymers, 232nd American Chemical Society Meeting, San Francisco, CA, September 10-14, 2006.
- 129) A. Nan, X. Bai, S. J. Son, S. B. Lee, and H. Ghandehari, Magnetic Silica Nanotubes for Drug Delivery: Synthesis, Characterization and in Vitro Evaluation, International Symposium on Biorelated Polymers, 232nd American Chemical Society Meeting, San Francisco, CA, September 10-14, 2006.
- 130) K. M. Kitchens, R. B. Kolhatkar, P. Swaan, H. Ghandehari, Evaluation of the Permeability and Transport Mechanisms of Poly (Amidoamine) Dendrimers Across Caco-2 Cell Monolayers, Global Pharmaceutics Education Network Meeting, Lawrence, Kansas, October 25-27, 2006.
- 131) A. Nan, X. Bai, S. J. Son, S. B. Lee, and H. Ghandehari, In Vitro Biological Evaluations of Magnetic Silica Nanotubes as Novel Drug Delivery Systems, Global Pharmaceutics Education Network Meeting, Lawrence, Kansas, October 25-27, 2006.
- 132) A. Mitra, T. Coleman, M. Borgman, H. Ghandehari and B.R. Line, Comparison of Polymeric Conjugates of Mono- and Bi-cyclic RGD Peptide for Targeting Solid Tumor, Society of Nuclear Medicine National Meeting, San Diego, CA, June 3-6, 2006.
- 133) R. B. Kolhatkar, and H. Ghandehari, Use of PAMAM Dendrimers for Oral Delivery of Anticancer Drug SN-38, Forth International Nanomedicine and Drug Delivery Symposium, Omaha, Nebraska, October 8-10, 2006.
- 134) A. Nan, X. Bai, S. J. Son, S. B. Lee, and H. Ghandehari, Silica Nanotubes for Drug Delivery and Imaging: In Vitro Evaluation of Cytotoxicity and Cellular Uptake, Forth International Nanomedicine and Drug Delivery Symposium, Omaha, Nebraska, October 8-10, 2006.
- 135) H. Ghandehari, A. Hatefi, T. Tanaka, R. Dandu, L. Diao, Recombinant Polymers for Gene Delivery to Solid Tumors, 13th International Pharmaceutical Technology Symposium, Antalya, Turkey, September 10-13, 2006.
- 136) H. Ghandehari, Targeted Delivery: Does Higher Definition at Nanoscale Matter? The Second Annual Meeting of American Academy of Nanomedicine, Washington, DC, September 9-10, 2006.
- 137) H. Ghandehari, Can Advances in Nanotechnology Improve Targeted Delivery of Bioactive Agents? Indo-US Symposium on Nanotechnology in Advanced Drug Delivery, Chandigarh, India, October 4-6, 2006.
- 138) H. Ghandehari, Engineering Polymers for Targeted Delivery to Solid Tumors, The 8th New Jersey Symposium on Biomaterials Science, New Brunswick, NJ, November 8-10, 2006.

- 139) H. Ghandehari, A. Mitra, T. Coleman, M. Borgman, A. Nan, B. Line, Targeted Delivery of Radionuclides to Tumor Angiogenesis, 7th International Symposium on Polymer Therapeutics, Berlin, Germany, February 19-21, 2007.
- 140) H. Ghandehari. Recombinant Polymers as Gene Delivery Constructs, 10th US-Japan Cellular & Gene Therapy Conference on Nanobiotechnology, National Cancer Institute, Bethesda, Maryland, March 1st 2007.
- 141) H. Ghandehari, Can Higher Definition at the Nanoscale Result in Better Drug Delivery Systems in the 21st century? Pharmaceutical Sciences World Conference (PSWC), Amsterdam, The Netherlands, April 22-25, 2007.
- 142) B. Zarabi, A. Nan, J. Zhuo, R. Gullapalli, and H. Ghandehari, in vitro Evaluation of a Polymeric Contrast Agent for Monitoring Cancer Targeted Drug Delivery, 34th CRS Annual Meeting, Long Beach, CA, July 7-11, 2007.
- 143) K.M. Kitchens, A.B. Foraker, R. B. Kolhatkar, P. W. Swaan, and H. Ghandehari, Endocytosis and Interaction of Poly (Amidoamine) Dendrimers with Caco-2 Cells, 34th CRS Annual Meeting, Long Beach, CA, July 7-11, 2007.
- 144) M.P. Borgman, R. B. Kolhatkar, and H. Ghandehari, Bioadhesion of N-2(-Hydroxypropyl) Methacrylamide (HPMA) Copolymer-RGDfK Conjugates: Influence of Peptide Content, 34th CRS Annual Meeting, Long Beach, CA, July 7-11, 2007.
- 145) A. Nan, X. Bai, S.J. Son, S.B. Lee, and H. Ghandehari, Intracellular Uptake of Silica-Iron Oxide Nanotubes, 34th CRS Annual Meeting, Long Beach, CA, July 7-11, 2007.
- 146) A. Nan, J. Lee, H. Ghandehari, Targetable Polymer-Antiangiogenic Drug Conjugates for Systemic Cancer Therapy, 34th CRS Annual Meeting, Long Beach, CA, July 7-11, 2007.
- 147) R. Dandu, K. Araki, D. Li, B.W. O'Malley Jr., J. Cappello and H. Ghandehari, Silk-Elastinlike Hydrogels for Controlled Adenoviral Gene Delivery, 34th CRS Annual Meeting, Long Beach, CA, July 7-11, 2007.
- 148) R.B. Kolhatkar and H. Ghandehari, PAMAM Dendrimers: Surface Modification and Potential in Oral Delivery of SN-38, 34th CRS Annual Meeting, Long Beach, CA, July 7-11, 2007.
- 149) K. Araki, H. Ghandehari, B. O'Malley, and D. Li, SELP Hydrogel-Mediated Adenoviral HSV-Thymidine Kinase Gene Therapy for Head and Neck Cancer, American Laryngological, Rhinological and Otological Society Meeting, Spring 2007.
- 150) V. Tiriveedhi, S. Shams, K.M. Kitchens, H. Ghandehari, and P. Butko, Fluorescence Resonance Energy Transfer Studies on the Interaction between PAMAM Dendrimer and the Lipid Membrane, Mississippi Academy of Science, 18th Annual Conference, Jackson, Mississippi, February 21-23, 2007.
- 151) V. Tiriveedhi, K.M. Kitchens, H. Ghandehari, and P. Butko, Interactions of PAMAM Dendrimers with Model Lipid Membranes, Mississippi Academy of Science, 18th Annual Conference, Jackson, Mississippi, February 21-23, 2007.
- 152) H. Ghandehari, K. Kitchens, R. Kolhatkar, and P. Swaan, Poly (Amido Amine) Dendrimers as Oral Drug Carriers: Transport and Toxicity Considerations, IUPAC and ACS Conference on Macromolecules for a Sustainable, Safe, and Healthy World, Brooklyn, NY, June 10-14, 2007.
- 153) L.D. Coles, B.R. Line, A. Mitra, T. Coleman, H. Ghandehari, and N.D. Eddington, PBPK Model for HPMA Copolymer-RGD Conjugates in Tumor-Bearing Mice with Radio-Therapy Applications, AAPS Annual Meeting and Exposition, San Diego, CA, November 11-15, 2007.
- 154) K.M. Kitchens, R.B. Kolhatkar, P.W. Swaan, and H. Ghandehari, Endocytosis Contributes to Internalization, Intracellular Trafficking, and Transport of Poly (Amidoamine) Dendrimers, AAPS Annual Meeting and Exposition, San Diego, CA, November 11-15, 2007. Recipient of Graduate Student Award.
- 155) H. Ghandehari, Engineering Novel Nanoconstructs for Targeted Delivery of Bioactive Agents, AAPS Annual Meeting and Exposition, San Diego, CA, November 11-15, 2007.
- 156) M.P. Borgman, R.B. Kolhatkar, and H. Ghandehari, Bioadhesion and Binding Affinity of N-2(-Hydroxypropyl) Methacrylamide (HPMA) Copolymer-RGDfK Conjugates: Influence of Peptide Content and Molecular Weight, 3rd Annual Mountain West Biomedical Engineering Conference, Salt Lake City, Utah, September 14-15, 2007.

- 157) A. Nan, X. Bai, S.J. Son, S.B. Lee, and H. Ghandehari, Evaluation of Toxicity and Cellular Uptake of Silica Nanotubes: A Novel Multifunctional Drug Delivery System, 3rd Annual Mountain West Biomedical Engineering Conference, Salt Lake City, Utah, September 14-15, 2007.
- 158) R. Dandu, D. Hwang, K. Araki, D. Li, J. Cappello, and H. Ghandehari, Genetically Engineered Silk-Elastinlike Polymers (SELPs) for Controlled Adenoviral Gene Delivery, 3rd Annual Mountain West Biomedical Engineering Conference, Salt Lake City, Utah, September 14-15, 2007.
- 159) R.B. Kolhatkar, D. Sweet, and H. Ghandehari, PAMAM Dendrimers: Surface Modification and Potential in Oral Delivery of SN-38, 3rd Annual Mountain West Biomedical Engineering Conference, Salt Lake City, Utah, September 14-15, 2007.
- 160) H. Ghandehari, R. Kolhatkar, A. Nan, S.B. Lee, and D. Sweet, Transcellular Transport and Toxicity of Dendritic and Silica-Based Nanoconstructs, The 5th International Nanomedicine and Drug Delivery Symposium (NanoDDS'07), Boston, MA, November 1-2, 2007.
- 161) M. Borgman, T. Coleman, R. Kolhatkar, S. Geysler-Stoops, B.R. Line, and H. Ghandehari, N-(2-Hydroxypropyl) Methacrylamide (HPMA) Copolymer-RGDfK Conjugates: Influence of Polymer Charge and Size on Binding and Biodistribution, The 5th International Nanomedicine and Drug Delivery Symposium (NanoDDS'07), Boston, MA, November 1-2, 2007.
- 162) L.M. Bareford, A. Ray, A. Nan, H. Ghandehari, and P.W. Swaan, Riboflavin Enhances Cellular Accumulation of N-(2-Hydroxypropyl)Methacrylamide in Breast Cancer Cells, Annual FASEB Meeting, Washington, DC, April 27-May 2, 2007.
- 163) L.M. Bareford, A.B. Foraker, A. Ray, H. Ghandehari, and P.W. Swaan, Riboflavin Directed N-(2-Hydroxypropyl)Methacrylamide (HPMA) Uptake in Human Breast Cancer Cells Occurs Via a Receptor Mediated Endocytic Mechanism, Annual AAPS Meeting and Exposition, San Diego, CA, November 11-15, 2007.
- 164) H. Ghandehari, P. DeShong, D. English, and M.R. Zachariah, Stimuli-Responsive Hybrid Nanoparticles for Controlled Chemical Delivery, NSF Nanoscale Science and Engineering Grantee Conference, Arlington, Virginia, December 3-6, 2007.
- 165) H. Ghandehari, M. Borgman, R.B. Kolhatkar, J.H. Lee, A. Nan, Polymer-Peptide Conjugates for Targeted Delivery to Sites of Angiogenesis, 10th European Symposium on Controlled Drug Delivery, Noordwijk aan Zee, The Netherlands, April 2-4, 2008.
- 166) X. Bei, S.J. Son, W. Liu, E.K. Jordan, J.A. Frank, S. Zhang, T. Venkatesan, A. Nan, H. Ghandehari, and S.B. Lee, Synthesis of Magnetic Nanotubes as Magnetic Resonance Imaging Contrast Agents and in Vitro Cytotoxicity and Cell Labeling, 236th ACS Annual Meeting and Exposition, Philadelphia, PA, August 18-20, 2008.
- 167) R. Kolhatkar, M. Borgman, A. Burger, E. Sausville, A. Coop, and H. Ghandehari, Targeted Delivery of 2-Methoxyestradiol for the Treatment of Breast Cancer, 5th Era of Hope Meeting, Baltimore, Maryland, June 25-28, 2008.
- 168) B. Zarabi, A. Nan, J. Zhuo, R. Gullapalli, and H. Ghandehari, In Vitro Evaluation of a Polymeric Contrast Agent for Monitoring Breast Cancer Targeted Drug Delivery, 5th Era of Hope Meeting, Baltimore, Maryland, June 25-28, 2008.
- 169) L.M. Bareford, A. Ray, A. Nan, H. Ghandehari, and P.W. Swaan, Riboflavin-Targeted Polymer Conjugates for Delivery of Mitomycin C, 35th Annual Meeting and Exposition of the Controlled Release Society, New York, NY, July 12-16, 2008.
- 170) M. Borgman, A. Ray, R. Kolhatkar, A. Burger, and H. Ghandehari, HPMA Copolymer-Aminohexylgeldanamycin-RGDfK Conjugates for Prostate Cancer Therapy, 35th Annual Meeting and Exposition of the Controlled Release Society, New York, NY, July 12-16, 2008.
- 171) D.M. Sweet, R. Kolhatkar, and H. Ghandehari, PEGylation of Anionic PAMAM Dendrimers: Implications for Oral Delivery, 35th Annual Meeting and Exposition of the Controlled Release Society, New York, NY, July 12-16, 2008.
- 172) T. Yu, P. Phatak, X. Bai, S.B. Lee, A. Burger, H. Ghandehari, and A. Nan, In Vitro Cytotoxicity of Silica Nanotubes, 35th Annual meeting and Exposition of the Controlled Release Society, New York, NY, July 12-16, 2008.

- 173) A.W. Cresce, R. Dandu, J. Cappello, and H. Ghandehari, Characterization and Real-Time Imaging of Gene Expression in Adenovirus-Embedded Silk-Elastinlike Polymer (SELP) Hydrogels, 35th Annual Meeting and Exposition of the Controlled Release Society, New York, NY, July 12-16, 2008.
- 174) H. Ghandehari, M. Borgman, A. Ray, A. Burger, E.A. Sausville, R. Pasqualini, and A. Malugin, Active Targeting of Geldanamycin to Prostate Tumors, 7th International Symposium on Polymer Therapeutics, Valencia, Spain, May 26-28, 2008.
- 175) H. Ghandehari, Towards Engineering Materials with Higher Definition for Delivery of Bioactive Agents, ACS northwest & Rocky Mountain Regional Meeting, Park City, Utah, June 15-18, 2008.
- 176) M. Borgman, A. Ray, R. Kolhatkar, A.M. Burger, and H. Ghandehari, Targeted HPMA Copolymer-Geldanamycin Conjugates for Prostate Cancer Therapy, AAPS Annual Meeting and Exposition, Atlanta, GA, November 17-19, 2008.
- 177) B. Zarabi, M. Borgman, and H. Ghandehari, HPMA Copolymer-RGDfK-Gadolinium Conjugates for Magnetic Resonance Imaging of Solid Tumors, AAPS Annual Meeting and Exposition, Atlanta, GA, November 17-19, 2008.
- 178) J. Gustafson, K. Greish, J.C. Gifford, and H. Ghandehari, Silk-Elastinlike Polymers for Spatial and Temporal Control of Solid Tumor Gene Therapy, 4th Annual Mountain West Biomedical Engineering Conference, Park City, Utah, September 5-6, 2008.
- 179) T. Yu, A. Malugin, X. Bai, S.B. Lee, A. Nan, and H. Ghandehari, In Vitro Cytotoxicity and Cellular Uptake of Silica Nanotubes, 4th Annual Mountain West Biomedical Engineering Conference, Park City, Utah, September 5-6, 2008.
- 180) A. Anwar, A. Gormley, A. Malugin, H. Ghandehari, Toxicity and Cellular Uptake of Gold Nanoparticles in Human Prostate and Colon Carcinoma Cells, 4th Annual Mountain West Biomedical Engineering Conference, Park City, Utah, September 5-6, 2008.
- 181) A. Anwar, A. Gormley, A. Malugin, H. Ghandehari, Toxicity and Cellular Uptake of Gold Nanoparticles in Human Prostate and Colon Carcinoma Cells, NanoUtah, 4th Annual Utah Statewide Nanotechnology Conference, Salt Lake City, Utah, October 16-17, 2008.
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- 184) H. Ghandehari, A. Malugin, A. Anwar, T. Yu, A. Gormley, A. Nan, S.B. Lee, D. Sweet, Size and Geometry-Dependent Toxicity and Cellular Uptake of Gold and Silica Nanoparticles, 237th ACS National Meeting, Salt Lake City, Utah, March 22-26, 2009.
- 185) A. Gustafson, K. Greish, J.C. Gifford, and H. Ghandehari, Silk-Elastinlike Polymers for Spatial and Temporal Control of Solid Tumor Gene Therapy, NanoUtah, 4th Annual Utah Statewide Nanotechnology Conference, Salt Lake City, Utah, October 16-17, 2008.
- 186) H. Ghandehari, K. Greish, J. Gustafson, and J. Frandsen, Recombinant Polymers for Gene Therapy of Head and Neck Cancer: From Molecular Definition to Controlled Gene Expression, 14th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 15-18, 2009.
- 187) A. Malugin, P.H. Weber, H. Herd, and H. Ghandehari, Differential Toxicity of Anionic Silica Nanoparticles Toward Phagocytic and Nonphagocytic Cells, 14th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 15-18, 2009.
- 188) A. Anwar, A. Malugin, and H. Ghandehari, Geometry-Dependent Cellular Uptake of Pegylated Gold Nanoparticles, 14th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 15-18, 2009.
- 189) D. Sweet, R. Kolhatkar, P. Swaan, and H. Ghandehari, Mechanisms of Transport of Pegylated Anionic PAMAM Dendrimers Across Caco-2 Cell Monolayers, 14th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 15-18, 2009.

- 190) J. Gustafson, K. Greish, and H. Ghandehari, Biodegradation and in Vivo Transfection of Structurally Related Silk-Elastinlike Hydrogels for Head and Neck Tumor Therapy, 14th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 15-18, 2009.
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- 192) H. Ghandehari, A. Malugin, A. Anwar, H. Herd, Nanoconstructs for Controlled Delivery: Towards a Higher Degree of Definition, 36th CRS Annual Meeting, Copenhagen, Denmark, July 18-22, 2009.
- 193) H. Herd, D. Cheney, M. Porter, and H. Ghandehari, Interdisciplinary Research and Education: A Universities Quest to Unite for the Future of Nanotechnology, Symposium on Undergraduate Nano-Education: "Addressing the Challenges of Nanoscale Science & Engineering Education", Albany, New York, August 5-8, 2009.
- 194) K. Greish, J. Frandsen, S. Scharff, J. Gustafson, and H. Ghandehari, Silk-Elastinlike Protein Polymers Improve the Efficacy of Gene Therapy of Head and Neck Tumors, Mountain West Biomedical Engineering, 5<sup>th</sup> Annual Conference Meeting, Park City, Utah, September 11-12, 2009.
- 195) A. Gormley, J. Hui, A. Malugin, A. Ray, and H. Ghandehari, Synthesis, Characterization and Biological Evaluation of PEGylated Gold Nanorods, Mountain West Biomedical Engineering, 5<sup>th</sup> Annual Conference Meeting, Park City, Utah, September 11-12, 2009.
- 196) G. Thiagarajan, A. Ray, A. Malugin, and H. Ghandehari, PAMAM-Camptothecin Conjugate: Synthesis, Characterization and in Vitro Activity, NanoDDS'09, Indianapolis, IN, October 5-6, 2009.
- 197) G. Thiagarajan, A. Malugin, A. Ray, and H. Ghandehari, PAMAM-Camptothecin Conjugates: Synthesis, Characterization and in Vitro Evaluation, Annual Meeting of Biomedical Engineering Society, Pittsburgh, PA, October 7-10, 2009.
- 198) V. Nirmalkumar, A. Ray, A. Malugin, and H. Ghandehari, PAMAM Dendrimer-SN38 Conjugates: Synthesis, Characterization and in Vitro Evaluation, NanoUtah, 5<sup>th</sup> Annual Utah Statewide Nanotechnology Conference, Salt Lake City, Utah, October 15-16, 2009.
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- 202) S. Naik, A. Malugin, A. Ray, and H. Ghandehari, Synthesis and Biological Evaluation of HPMACopolymer-Docetaxel-RGDfK Conjugates, NanoUtah, 5<sup>th</sup> Annual Utah Statewide Nanotechnology Conference, Salt Lake City, Utah, October 15-16, 2009.
- 203) H. Herd, D. Cheney, M. Porter, and H. Ghandehari, Interdisciplinary Research and Education: A Universities Quest to Unite for the Future of Nanotechnology, Symposium on Undergraduate Nano-Education: Addressing the Challenges of Nanoscale Science & Engineering Education, M/D/2009.?
- 204) H. Ghandehari, A. Malugin, H. Herd, A. Gormley, Arnida, T. Yu, S.B. Lee, and A. Nan, Biological Fate and Biocompatibility of Dendritic and Inorganic Nanoconstructs, Interagency Nano Grantees Meeting, Las Vegas, Nevada, November 9-10, 2009.
- 205) A. Gormley, J. Hui, A. Malugin, A. Ray, M. Janat-Amsbury, and H. Ghandehari, Synthesis, Characterization and Biological Evaluation of PEGylated Gold Nanorods, NanoUtah, 5<sup>th</sup> Annual Utah Statewide Nanotechnology Conference, Salt Lake City, Utah, October 15-16, 2009.
- 206) R. Kolhatkar, A. Coop, E. Sausville, A. Burger, and H. Ghandehari, Negative Charge on HPMACopolymers Containing 2-Methoxyestradiol Influences Toxicity Selectively in Angiogenic Cell Line (HUVEC) Over Breast Cancer Cell Line (MDA-MB-231), American Association of Pharmaceutical Sciences Annual Meeting, Los Angeles, CA, November 8-12, 2009.

- 207) V. Nirmalkumar, A. Ray, A. Malugin, and H. Ghandehari, PAMAM G3.5-SN38 Conjugates: Effect of Spacer on Drug Loading, Stability and Activity in Human Colorectal Cancer Cells, 239th American Chemical Society National Meeting, San Francisco, CA, March 21-25, 2010.
- 208) H. Ghandehari, Engineering Nanoconstructs for Drug Delivery: Importance of Definition at the Nanoscale, 8th International Conference and Workshop on Biological Barriers, Saarbrücken, Germany, March 21-April 1, 2010.
- 209) J. Gustafson, K. Greish, J. Frandsen, S. Scharff, R. Price, and H. Ghandehari, Recombinant Silk-Elastinlike Polymers Localize Expression, Increase Efficacy, and Improve Safety of Virus-Mediated Gene Directed Enzyme-Prodrug Therapy, 8th International Conference and Workshop on Biological Barriers, Saarbrücken, Germany, March 21-April 1, 2010.
- 210) H. Ghandehari, K. Greish, J. Gustafson, J. Frandsen, R. Price, Silk-Elastinlike Hydrogels for Cancer Gene Therapy, Symposium on Biomedical Polymers for Drug Delivery, Salt Lake City, UT, March 26-27, 2010.
- 211) K. Greish, H. Herd, G. Thiagarajan, R. Price, T. Yu, H. Bauer, A. Anwar, H. Ghandehari, In Vivo Toxicity of Silica and Dendritic Nanoconstructs, Symposium on Biomedical Polymers for Drug Delivery, Salt Lake City, UT, March 26-27, 2010.
- 212) A. Malugin, S. Naik, A. Ray, H. Ghandehari, Comparison of Biological Activity of RGDfK-Targeted and Nontargeted HPMA Copolymer-Docetaxel Conjugates in Vitro, Symposium on Biomedical Polymers for Drug Delivery, Salt Lake City, UT, March 26-27, 2010.
- 213) A. Malugin and H. Ghandehari, Cellular Uptake and Cytotoxicity of Inorganic Nanoparticles, The International Conference: Development of Scientific and Business Collaboration of Russian Scientific and Educational Centers with Scientists-Compatriots Working Abroad, Tomsk, Russia, April 1-3, 2010.
- 214) H. Ghandehari, Polymer-Peptide Conjugates for Targeted Delivery to Tumor Angiogenesis, 4th Workshop on Inhibitors of Angiogenesis Design, Synthesis and Biological Exploitation, Istanbul, Turkey, April 28-May 1, 2010.
- 215) D. Sweet Goldberg, P.W. Swaan, and H. Ghandehari, Mechanisms of PAMAM Dendrimer Transepithelial Transport and Tight Junction Modulation, 26th Southern Biomedical Engineering Conference, University of Maryland, College Park, MD, April 30-May 2, 2010.
- 216) H. Ghandehari, Biomaterials for Solid Tumor Therapy: Role of Definition at the Nanoscale, 4th International Symposium for Intelligent Drug Delivery Systems, Seoul, Korea, May 6-7, 2010.
- 217) H. Ghandehari, PAMAM-Drug Conjugates for Oral Delivery? Transepithelial Transport, Bioavailability and Toxicity Considerations, 8th International Symposium on Polymer Therapeutics, Valencia, Spain, May 24-26, 2010.
- 218) S. Sadekar, A. Ray, M. Janat-Amsbury, C.M. Peterson, and H. Ghandehari, Comparative Biodistribution of PAMAM Dendrimers and HPMA Copolymers in Ovarian Tumor-Bearing Mice, 37th Annual Meeting and Exposition of the Controlled Release Society, Portland, Oregon, July 10-14, 2010.
- 219) Arnida, A. Ray, M. Janat-Amsbury, C.M. Peterson, and H. Ghandehari, Particle Geometry Influences Biodistribution of Gold Nanoparticles in Tumor Bearing Mice, 37th Annual Meeting and Exposition of the Controlled Release Society, Portland, Oregon, July 10-14, 2010.
- 220) D. Sweet Goldberg, P.W. Swaan, and H. Ghandehari, Mechanisms of PAMAM Dendrimer Transepithelial Transport and Tight Junction Modulation, 37th Annual Meeting and Exposition of the Controlled Release Society, Portland, Oregon, July 10-14, 2010.
- 221) A. Gormley, R. Robinson, J. Hui, A. Malugin, A. Ray, and H. Ghandehari, Cellular Uptake and Biodistribution of Surface Functionalized Gold Nanorods for Photothermal Therapy, 37th Annual Meeting and Exposition of the Controlled Release Society, Portland, Oregon, July 10-14, 2010.
- 222) H. Herd, A. Malugin, and H. Ghandehari, Cellular Uptake and Toxicity of Geometrically Defined Silica Nanoparticles, 37th Annual Meeting and Exposition of the Controlled Release Society, Portland, Oregon, July 10-14, 2010.
- 223) N. Larson, A. Ray, A. Malugin, and H. Ghandehari, HPMA Copolymer-Aminohexylgeldanamycin Conjugates for Targeting GRP78 Receptors, 37th Annual Meeting and Exposition of the Controlled Release Society, Portland, Oregon, July 10-14, 2010.

- 224) A. Malugin, H. Ghandehari, Surface Properties Determine Intracellular Localization and Toxicity of Anionic Silica Nanoparticles, 37th Annual Meeting and Exposition of the Controlled Release Society, Portland, Oregon, July 10-14, 2010.
- 225) N. Vijayalakshmi, A. Ray, A. Malugin, and H. Ghandehari, Synthesis and in Vitro Evaluation of Anionic PAMAM-SN38 Conjugates, 37th Annual Meeting and Exposition of the Controlled Release Society, Portland, Oregon, July 10-14, 2010.
- 226) R. Price, K. Greish, J. Frandsen, J. Gustafson, and H. Ghandehari, Comparison of Recombinant Silk-Elastinlike Hydrogels for Viral Gene Delivery with Poloxamers, 37th Annual Meeting and Exposition of the Controlled Release Society, Portland, Oregon, July 10-14, 2010.
- 227) A. Ray, K. Greish, D.B. Pike, N.K. Larson, M. Gruner, H. Ghandehari, HPMa Copolymer-Docetaxel-RGDfK Conjugates for Prostate Cancer Therapy, 37th Annual Meeting and Exposition of the Controlled Release Society, Portland, Oregon, July 10-14, 2010.
- 228) K. Greish, H. Herd, G. Thiagarajan, R. Price, H. Bauer, T. Yu, A. Anwar, H. Ghandehari, In Vivo Evaluation of Nanomaterial Biosafety: Evidence of Disseminated Intravascular Coagulopathy (DIC) in Response to Cationic Dendrimer Administration, 37th Annual Meeting and Exposition of the Controlled Release Society, Portland, Oregon, July 10-14, 2010.
- 229) J. Gustafson, R. Price, K. Greish, and H. Ghandehari, Safety of Matrix-Mediated Adenoviral Gene Delivery with Silk-Elastinlike Hydrogels, 37th Annual Meeting and Exposition of the Controlled Release Society, Portland, Oregon, July 10-14, 2010.
- 230) H. Ghandehari, Biomaterials for Solid Tumor Therapy, 12th Iranian Pharmaceutical Sciences Congress (IPSC2010), Zanjan, Iran, August 2, 2010.
- 231) H. Ghandehari, A. Ray, S. Sadekar, Arnida, C.M. Peterson, and M. Janat-Amsbury, Influence of Nanoconstruct Architecture on Biodistribution in Ovarian Tumor-Bearing Mice. American Chemical Society National Meeting & Exposition, Boston, MA, August 22-26, 2010.
- 232) J. Gustafson, R. Price, K. Greish, and H. Ghandehari, Safety of Matrix-Mediated Adenoviral Gene Delivery with Silk-Elastinlike Hydrogels, 6th Annual Mountain West Biomedical Engineering Conference, Park City, Utah, September 10-11, 2010.
- 233) A. Gormley, R. Robinson, J. Hui, A. Malugin, A. Ray, K. Ray, K. Greish, and H. Ghandehari, Cellular Uptake and Biodistribution of Surface Functionalized Gold Nanorods for Photothermal Therapy, 6th Annual Mountain West Biomedical Engineering Conference, Park City, Utah, September 10-11, 2010.
- 234) H. Herd, A. Malugin, and H. Ghandehari, Cellular Uptake and Toxicity of Geometrically Defined Silica Nanoparticles, 6th Annual Mountain West Biomedical Engineering Conference, Park City, Utah, September 10-11, 2010.
- 235) K. Greish, G. Thiagarajan, H. Herd, R. Price, H. Bauer, T. Yu, A. Anwar, and H. Ghandehari, In Vivo Nanotoxicity of Dendritic and Silica Constructs, 6th Annual Mountain West Biomedical Engineering Conference, Park City, Utah, September 10-11, 2010.
- 236) R. Price, J. Gustafson, K. Greish, J. Frandsen, and H. Ghandehari, Comparison of Recombinant Silk-Elastinlike Hydrogels for Viral Gene Delivery with Poloxamers, 6th Annual Mountain West Biomedical Engineering Conference, Park City, Utah, September 10-11, 2010.
- 237) A. Ray, N.K. Larson, D. B. Pike, H. Bauer, M. Gruner, A. Malugin, K. Greish, and H. Ghandehari, HPMa Copolymer-Docetaxel-RGDfK Conjugates for Prostate Cancer Therapy, 6th Annual Mountain West Biomedical Engineering Conference, Park City, Utah, September 10-11, 2010.
- 238) H. Ghandehari, Delivery Approaches for Targeted Therapy of Solid Tumors, 15th International Pharmaceutical Technology Symposium, Antalya, Turkey, September 13-15, 2010.
- 239) Arnida, M.M. Janat-Amsbury, A. Ray, C.M. Peterson, and H. Ghandehari, Geometry and Surface Characteristics of Gold Nanoparticles Influence their Biodistribution and Uptake by Macrophages, 8th International Nanomedicine and Drug Delivery Symposium, Omaha, Nebraska, October 3-5, 2010.
- 240) A. Gormley, A. Malugin, A. Ray, K. Greish, R. Robinson, J. Hui, and H. Ghandehari, Cellular Uptake and Biodistribution of Targeted and Non-Targeted Gold Nanorods for Photothermal Therapy, 8th International Nanomedicine and Drug Delivery Symposium, Omaha, Nebraska, October 3-5, 2010.



- 241) H. Herd, A. Malugin, and H. Ghandehari, Silica Nanoconstruct Cellular Toleration Threshold in Vitro, 8th International Nanomedicine and Drug Delivery Symposium, Omaha, Nebraska, October 3-5, 2010.
- 242) H. Ghandehari, Architectural Influence of Nanocarriers on Tumor Distribution and Toxicity, 8th International Nanomedicine and Drug Delivery Symposium, Omaha, Nebraska, October 3-5, 2010.
- 243) S. Sadekar, A. Ray, M. Janat-Amsbury, C.M. Peterson, and H. Ghandehari, Influence of Polymer Architecture on Biodistribution of PAMAM Dendrimers and HPMA Copolymers in Ovarian Tumor-Bearing Mice, 8th International Nanomedicine and Drug Delivery Symposium, Omaha, Nebraska, October 3-5, 2010.
- 244) G. Thiagarajan, K. Greish, R. Price, H. Bauer, A. Burckle, D. Hubbard, S. Sadekar, H. Herd, T. Yu, A. Anwar, A. Ray, and H. Ghandehari, Charge-Based In-Vivo Targeting and Toxicity of Dendritic Constructs, 8th International Nanomedicine and Drug Delivery Symposium, Omaha, Nebraska, October 3-5, 2010.
- 245) K. Greish, A. Ray, H. Bauer, N. Larson, A. Malugin, D. Pike, and H. Ghandehari, Anticancer and Antiangiogenic Activity of HPMA Copolymer-Aminohexylgeldanamycin-RGDfK Conjugates for Prostate Cancer Therapy, 8th International Nanomedicine and Drug Delivery Symposium, Omaha, Nebraska, October 3-5, 2010.
- 246) D. Goldberg, V. Nirmalkumar, P. Swaan, and H. Ghandehari, G3.5 PAMAM Dendrimer-SN38 Conjugates Enhance Transepithelial Transport of the Drug while Minimizing Gastrointestinal Toxicity and Release, 8th International Nanomedicine and Drug Delivery Symposium, Omaha, Nebraska, October 3-5, 2010.
- 247) A. Malugin and H. Ghandehari, Mechanism of Cell Death Induced by Amorphous Silica Nanoparticles, 6th Annual Utah Statewide Nanotechnology Conference, Salt Lake City, Utah, October 14-15, 2010.
- 248) Arnida, M.M. Janat-Amsbury, A. Ray, C.M. Peterson, and H. Ghandehari, Geometry and Surface Characteristics of Gold Nanoparticles Influence Their Biodistribution and Uptake by Macrophages, 6th Annual Utah Statewide Nanotechnology Conference, Salt Lake City, Utah, October 14-15, 2010.
- 249) A. Gormley, A. Malugin, A. Ray, K. Greish, R. Robinson J. Hui, and H. Ghandehari, Cellular Uptake and Biodistribution of Targeted and Non-Targeted Gold Nanorods for Photothermal Therapy, 6th Annual Utah Statewide Nanotechnology Conference, Salt Lake City, Utah, October 14-15, 2010.
- 250) S. Sadekar, A. Ray, M.M. Janat-Amsbury, C.M. Peterson, and H. Ghandehari, Influence of Polymer Architecture on Biodistribution of PAMAM Dendrimers and HPMA Copolymers in Ovarian Tumor-Bearing Mice, 6th Annual Utah Statewide Nanotechnology Conference, Salt Lake City, Utah, October 14-15, 2010.
- 251) O. Linares-Perdomo, H. Ghandehari, and J. Facelli, Comparison of the Pharmacokinetic Parameters of Poly-Lysine (PLL) Dendrimer Partly and Fully PEGylated in Plasma, Using Compartmental Analysis and Mixed Effect Nonlinear Modeling (NONMEM), 6th Annual Utah Statewide Nanotechnology Conference, Salt Lake City, Utah, October 14-15, 2010.
- 252) G. Thiagarajan, K. Greish, R. Price, H. Bauer, A. Burckle, D. Hubbard, S. Sadekar, H. Herd, T. Yu, A. Anwar, and H. Ghandehari, Charge-Based In-Vivo Targeting and Toxicity of Dendritic Constructs, 6th Annual Utah Statewide Nanotechnology Conference, Salt Lake City, Utah, October 14-15, 2010.
- 253) K. Greish, A. Ray, H. Bauer, N. Larson, A. Malugin, D. Pike, and H. Ghandehari, Anticancer and Antiangiogenic Activity of HPMA Copolymer-Aminohexylgeldanamycin-RGDfK Conjugates for Prostate Cancer Therapy, 6th Annual Utah Statewide Nanotechnology Conference, Salt Lake City, Utah, October 14-15, 2010.
- 254) R. Anumolu, J. Gustafson, H. Ghandehari, and L.F. Pease III, Fabrication of Highly Uniform Nanoparticles from Recombinant Silk-Elastinlike Protein Polymers for Gene Delivery Applications, American Institute of Chemical Engineers National Meeting, Salt Lake City, UT, November 7-12, 2010.
- 255) H. Ghandehari, Drug Delivery for Cancer Therapy: Emerging Importance of Definition at the Nanoscale, American Institute of Chemical Engineers National Meeting, Salt Palace Convention Center, Salt Lake City, UT, November 7-12, 2010.
- 256) H. Saffari, A. Malugin, H. Ghandehari, L.F. Pease III, Electrostatic Delivery of Size Separated Nanoparticles to Live Cell Culture, American Institute of Chemical Engineers National Meeting, Salt Palace Convention Center, Salt Lake City, UT, November 7-12, 2010.

- 257) D. Goldberg, V. Nirmalkumar, P. Swaan, H. Ghandehari, G3.5 PAMAM Dendrimer-SN38 Conjugates Enhance Transepithelial Transport of the Drug while Minimizing Gastrointestinal Toxicity, Globalization of Pharmaceutics Education Network (GPEN): Eighth Meeting, University of North Carolina Eshelman School of Pharmacy, Chapel Hill, North Carolina, November 10-12, 2010.
- 258) B. Avaritt, D. Goldberg, H. Ghandehari, and P. Swaan, PAMAM Dendrimers as Potent Tight Junctional Modulators, Globalization of Pharmaceutics Education Network (GPEN): Eighth Meeting, University of North Carolina Eshelman School of Pharmacy, Chapel Hill, North Carolina, November 10-12, 2010.
- 259) R. Anumolu, J.A. Gustafson, J.J. Magda, H. Ghandehari, and L.F. Pease III, Fabrication of Highly Uniform Nanoparticles from Recombinant Silk-Elastinlike Protein Polymers for Therapeutic Agent Delivery, 15th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 13-16, 2011.
- 260) H. Saffari, A. Malugin, H. Ghandehari, and L.F. Pease III, Electrostatic Delivery of Size Separated Nanoparticles to Live Cell Culture, 15th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 13-16, 2011.
- 261) K. Greish, K. Muller, J. Jay, and H. Ghandehari, Anticancer Effect of Styrene Maleic Acid Micelles Against Pancreatic Cancer, 15th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 13-16, 2011.
- 262) J.A. Gustafson, R. Price, K. Greish, and H. Ghandehari, Matrix-Mediated Viral Gene Delivery: Comparison of Silk-Elastinlike Protein Polymers with Poloxamers, 15th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 13-16, 2011.
- 263) A. Malugin, H. Herd, and H. Ghandehari, Caspase-3 Independent Cell Death Induced by Amorphous Silica Nanoparticles, 15th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 13-16, 2011.
- 264) A. Ray, N.K. Larson, D.B. Pike, M. Gruner, S. Naik, A. Malugin, K. Greish, and H. Ghandehari, Targeted HPMA Copolymer-Docetaxel-RGDfK Conjugates for Prostate Cancer Therapy, 15th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 13-16, 2011.
- 265) P.J. Moos, G. Thiagarajan, H. Herd, A. Malugin, and H. Ghandehari, Toxicity and Genomic Profiling of Engineered Nanomaterials with Distinct Geometry and Surface Functionalization in Human Aortic Endothelial Cells, 15th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 13-16, 2011.
- 266) T. Yu, A. Malugin, and H. Ghandehari, Impact of Silica Nanoparticle Design on Cellular Toxicity and Hemolytic Activity, 15th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 13-16, 2011.
- 267) A. Gormley, N. Larson, A. Ray, K. Greish, and H. Ghandehari, Gold Nanorod Plasmonic Photothermal Therapy Enhances Macromolecular Delivery to Solid Tumors, 15th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 13-16, 2011.
- 268) A. Burekle and H. Ghandehari, Biodistribution of Poly(amido amine) Dendrimers as a Function of Size and Surface Charge, Utah Conference for Undergraduate Research (UCUR), Weber State University, Ogden, Utah, February 18, 2011.
- 269) A. Gormley, A. Malugin, A. Ray, K. Greish, R. Robinson, J. Hui, and H. Ghandehari, Cellular Uptake and Biodistribution of Targeted and Non-Targeted Gold Nanorods for Photothermal Therapy of Prostate Tumors, Innovative Minds in Prostate Cancer Today (IMPACT) Conference, Hilton Orlando, Florida, March 9-12, 2011.
- 270) H. Ghandehari, K. Greish, J.A. Gustafson, J. Frandsen, and R. Price, Silk-Elastinlike Polymers for Matrix-Mediated Adenoviral Gene Delivery, American Chemical Society Spring Meeting, Anaheim, California, March 27-31, 2011.
- 271) H. Ghandehari, A. Malugin, H. Herd, A. Gormley, T. Yu, Influence of Size, Surface Properties, and Geometry of Silica and Gold Nanoparticles on Cellular Uptake and Toxicity, American Chemical Society Spring Meeting, Anaheim, California, March 27-31, 2011.

- 272) A. Burckle and H. Ghandehari, Biodistribution of Poly(amido amine) Dendrimers as a Function of Size and Surface Charge, University of Utah Undergraduate Research Symposium, Salt Lake City, Utah, April 6, 2011.
- 273) H. Ghandehari, HPMA Copolymer-Cyclic RGD Conjugates for Imaging and Targeted Drug Delivery to Sites of Tumor Angiogenesis, Polymer Society of Korea Meeting, Daejeon, Korea, April 7-8, 2011.
- 274) H. Ghandehari, Advanced Drug Delivery Approaches for Targeted Tumor Therapy, 2011 International Advanced Drug Delivery Symposium, National Tsing Hua University, Taiwan, April 27-28, 2011.
- 275) H. Ghandehari, Recombinant Polymers for Gene Delivery, 3rd European Science Foundation (ESF), Nanomedicine 2011, Lutherstadt Wittenberg, Germany, June 19-24, 2011.
- 276) H. Herd, N. Daum, H. Ghandehari, and C.M. Lehr, Ascertaining Biological Mechanisms in Macrophages and Epithelial-Response to Silica Nanoparticle Physiochemical Characteristics to Aid in the Engineering of Novel Nano Diagnostics and Therapeutics, 3rd European Science Foundation Summer School in Nanomedicine, Lutherstadt Wittenberg, Germany, June 20th, 2011.
- 277) H. Ghandehari, PAMAM Dendrimers for Oral Drug Delivery: Transepithelial Transport and in Vivo Tolerability, 7th International Dendrimer Symposium, NIST Campus, Gaithersburg, MD, June 27, 2011.
- 278) G. Thiagarajan, K. Greish, S. Sadekar, A. Ray, and H. Ghandehari, In Vivo Oral Delivery of PAMAM Dendrimers, International Dendrimer Symposium, NIST Campus, Gaithersburg, MD, June 27, 2011.
- 279) A.J. Gormley, N. Larson, A. Ray, R. Robinson, H. Ghandehari, Gold Nanorod Plasmonic Photothermal Therapy Assisted Polymeric Drug Delivery, The 7th Annual Utah Biomedical Engineering Conference, Salt Lake City, Utah, September 10, 2011.
- 280) G. Thiagarajan, K. Greish, S. Sadekar, D. Hubbard, and H. Ghandehari, In Vivo Oral Delivery of PAMAM Dendrimers, The 7th Annual Utah Biomedical Engineering Conference, Salt Lake City, Utah, September 10, 2011.
- 281) H. Herd, N. Daum, H. Ghandehari, and C.M. Lehr, Cellular Nanoparticle Surface Orientation Facilitates Modes of Uptake, The 7th Annual Utah Biomedical Engineering Conference, Salt Lake City, Utah, September 10, 2011.
- 282) H. Ghandehari, Matrix-Mediated Gene Delivery from Silk-Elastinlike Recombinant Polymers: Hydrogels and Nanoparticles, 18th International Symposium on Microencapsulation, Antalya, Turkey, September 12th, 2011.
- 283) H. Ghandehari, T. Yu, H. Herd, A. Gormley, N. Larson, R. Robinson, A. Ray, and K. Greish, Geometrically Defined Nanoconstructs: Implications in Biological Fate and Drug Delivery, 2nd International School on Nanomedicine, Nano2011, Moscow, Russia, September 19, 2011.
- 284) H. Herd, N. Daum, C.M. Lehr, and H. Ghandehari, Cellular Nanoparticle Surface Orientation Facilitates Modes of Uptake, NanoUtah, Salt Lake City, Utah, October 13-14, 2011.
- 285) N. Larson, A. Gormley, and H. Ghandehari, Hyperthermic Induction and Targeting of Cell Surface GRP78 in Prostate Cancer, NanoUtah, Salt Lake City, Utah, October 13-14, 2011.
- 286) G. Thiagarajan, S. Sadekar, D. Hubbard, and H. Ghandehari, Dendrimers as Oral Drug Delivery Platforms, NanoUtah, Salt Lake City, Utah, October 13-14, 2011.
- 287) A.J. Gormley, N. Larson, A. Ray, R. Robinson, and H. Ghandehari, Enhanced Delivery of Macromolecular Therapeutics by Gold Nanorod Photothermal Therapy, NanoUtah, Salt Lake City, Utah, October 13-14, 2011.
- 288) T. Yu, K. Greish, A. Ray, L.D. McGill, and H. Ghandehari, Porosity and Surface Functionality Influence Acute Toxicity of Silica Nanoparticles in Vivo, NanoUtah, Salt Lake City, Utah, October 13-14, 2011.
- 289) O. Linares, S. Sadekar, A. Ray, G.J. Noh, M. Janat-Amsbury, C.M. Peterson, J. Facelli, and H. Ghandehari, Comparative Blood Pharmacokinetics of PAMAM-OH Dendrimers and HPMA Copolymers in Ovarian-Tumor-Bearing Mice, NanoUtah, Salt Lake City, Utah, October 13-14, 2011.
- 290) A.J. Gormley, N. Larson, A. Ray, R. Robinson, H. Ghandehari, Enhanced Delivery of Macromolecular Therapeutics by Gold Nanorod Plasmonic Photothermal Therapy, NanoDDS'11, Salt Lake City, Utah, October 15-16, 2011.
- 291) G. Thiagarajan, K. Greish, S. Sadekar, D. Hubbard, and H. Ghandehari, Dendrimers as Oral Drug Delivery Platforms, NanoDDS'11, Salt Lake City, Utah, October 15-16, 2011.

- 292) N. Larson, A.J. Gormley, and H. Ghandehari, Hyperthermic Induction and Targeting of Cell Surface GRP78 in Prostate Cancer, NanoDDS'11, Salt Lake City, Utah, October 15-16, 2011.
- 293) T. Yu, K. Greish, L.D. McGill, A. Ray, and H. Ghandehari, Porosity and Surface Functionality Influence Acute Toxicity of Silica Nanoparticles in Vivo, NanoDDS'11, Salt Lake City, Utah, October 15-16, 2011.
- 294) O. Linares, S. Sadekar, A. Ray, G.J. Noh, M. Janat-Amsbury, C.M. Peterson, J. Facelli, and H. Ghandehari, Comparative Blood Pharmacokinetics of PAMAM-OH Dendrimers and HPMA Copolymers in Ovarian-Tumor-Bearing Mice, NanoDDS'11, Salt Lake City, Utah, October 15-16, 2011.
- 295) H. Herd, N. Daum, C.M. Lehr, and H. Ghandehari, Cellular Nanoparticle Surface Orientation Facilitates Modes of Uptake, NanoDDS'11, Salt Lake City, Utah, October 15-16, 2011.
- 296) B. Avaritt, D. Goldberg, H. Ghandehari, and P. Swaan, PAMAM Dendrimers as Potent Tight Junction Modulators, American Association of Pharmaceutical Scientists, Washington, DC, October 23-27, 2011.
- 297) H. Ghandehari, Gold Nanorod-Induced Hyperthermia Enhances the Delivery of Multifunctional HPMA Copolymers to Prostate Tumors, 3rd Annual Conference of the American Society for Nanomedicine, Rockville, Maryland, November 9th, 2011.
- 298) H. Ghandehari, A. Gormley, N. Larson, and A. Ray, Gold Nanorod Mediated Enhanced Delivery of Polymer Therapeutics, 9th International Conference and Workshop on Biological Barriers, joint with NanoDDS'12, February 29-March 9, 2012.
- 299) H. Ghandehari, Multifunctional Nanoconstructs for Enhanced Drug Delivery to Solid Tumors, 4th Intl. Conf. on Nanostructures, Kish Island, Iran, March 12-14, 2012 (withdrawn)
- 300) H. Ghandehari, A. Gormley, N. Larson, and A. Ray, Controlling the Delivery of Heat Shock Targeted HPMA Copolymers with Gold Nanorod Photothermal Therapy, 243rd ACS National Meeting, San Diego, CA, March 25-29, 2012.
- 301) H. Ghandehari, T. Yu, H. Herd, A. Gormley, and N. Larson, Cellular Uptake, Biodistribution, and Toxicity of Geometrically Defined Silica and Gold Nanoparticles, Foundations of NanoScience Conference, Snowbird, Utah, April 16-19, 2012.
- 302) S. Sadekar, O. Linares, G.J. Noh, D. Hubbard, A. Ray, M. Janat-Amsbury, C.M. Peterson, J. Facelli, and H. Ghandehari, Comparative Pharmacokinetics of PAMAM-OH Dendrimers and HPMA Copolymers in Ovarian-Tumor-Bearing Mice, American Association of Pharmaceutical Scientists National Biotechnology Conference, San Diego, CA, May 21-23, 2012.
- 303) G. Thiagarajan, A. Ray, L. Gotz, D. Hubbard, S. Sadekar, R. Price, and H. Ghandehari, Anticancer Activity of PAMAM-SN38 Conjugate and in Vivo Translocation of G3.5 Dendrimer Across Mice Intestinal Epithelia, American Association of Pharmaceutical Scientists National Biotechnology Conference, San Diego, CA, May 21-23, 2012.
- 304) N. Larson, A. Gormley, S. Sadekar, R. Robinson, A. Ray, and H. Ghandehari, Gold Nanorod Induced Hyperthermia for Enhanced Delivery of HPMA Copolymer-Peptide Conjugates to Prostate Tumors, American Association of Pharmaceutical Scientists National Biotechnology Conference, San Diego, CA, May 21-23, 2012.
- 305) T. Yu, D. Hubbard, A. Ray, and H. Ghandehari, Comparative Biodistribution and Pharmacokinetics of Silica Nanoparticles with Systematically Varied Geometries, Porosities and Surface Charges in Mice, American Association of Pharmaceutical Scientists National Biotechnology Conference, San Diego, CA, May 21-23, 2012.
- 306) J.A. Gustafson, J. Frandsen, R. Price, J. Cappello, and H. Ghandehari, Matrix Metalloproteinase Responsive Genetically Engineered Silk-Elastinlike Protein Polymers, American Association of Pharmaceutical Scientists National Biotechnology Conference, San Diego, CA, May 21-23, 2012.
- 307) A.J. Gormley, N. Larson, S. Sadekar, R. Robinson, A. Ray, and H. Ghandehari, Laser Guided Delivery of Polymer Therapeutics to Prostate Tumors, 9th International Symposium on Polymer Therapeutics: From Laboratory to Clinical Practice, Valencia, Spain, May 28-30, 2012.
- 308) H. Ghandehari, A. Gormley, N. Larson, R. Robinson, A. Banisadr, and R. Ray, Gold Nanorod Mediated Hyperthermia Enhances the Delivery of HPMA Copolymer-Peptide Conjugates to Prostate Tumors, Polymers in Medicine 2012, Prague, Czech Republic, July 1-5, 2012.

- 309) H. Ghandehari, T. Yu, H. Herd, A. Gormley, and A. Ray, Toxicity, Cellular Uptake, and Biodistribution of Inorganic Nanomaterials: Does Shape Matter?, 39<sup>th</sup> Annual Meeting and Exposition of Controlled Release Society, Quebec City, Canada, July 15-18, 2012.
- 310) Y. Wang, B. Buckway, A. Ray, and H. Ghandehari, Synthesis and in Vitro Properties of Image-Guided and Actively Tumor-Targeted Drug Carriers, 39<sup>th</sup> Annual Meeting and Exposition of Controlled Release Society, Quebec City, Canada, July 15-18, 2012.
- 311) N. Larson, A. Gormley, S. Sadekar, R. Robinson, A. Ray, and H. Ghandehari, Induction and Targeting of the Heat Shock Response in Prostate Cancer, 39<sup>th</sup> Annual Meeting and Exposition of Controlled Release Society, Quebec City, Canada, July 15-18, 2012.
- 312) S. Sadekar, A. Ray, G. Thiagarajan, D. Hubbard, and H. Ghandehari, Oral Absorption of PAMAM-SN38 Conjugate in Mice, 39<sup>th</sup> Annual Meeting and Exposition of Controlled Release Society, Quebec City, Canada, July 15-18, 2012.
- 313) B. Buckway, A. Ray, Y. Wang, and H. Ghandehari, Targeted HPMA Copolymers for Image Guided Drug Delivery in Pancreatic Cancer, 39<sup>th</sup> Annual Meeting and Exposition of Controlled Release Society, Quebec City, Canada, July 15-18, 2012.
- 314) G. Thiagarajan, A. Ray, L. Gotz, D. Hubbard, S. Sadekar, R. Price, and H. Ghandehari, Oral Disposition of G3.5 PAMAM Dendrimer Across Mice Intestinal Epithelia and Anticancer Activity of its Drug Conjugate, 39<sup>th</sup> Annual Meeting and Exposition of Controlled Release Society, Quebec City, Canada, July 15-18, 2012.
- 315) H. Herd, N. Daum, C.M. Lehr, and H. Ghandehari, Silica Nanoparticle Surface Orientation Dictates the Mechanism of Uptake, 39<sup>th</sup> Annual Meeting and Exposition of Controlled Release Society, Quebec City, Canada, July 15-18, 2012.
- 316) T. Yu, D. Hubbard, A. Ray, and H. Ghandehari, In Vivo Biodistribution and Pharmacokinetics of Silica Nanoparticles as a Function of Geometry, Porosity and Surface Charge, 39<sup>th</sup> Annual Meeting and Exposition of Controlled Release Society, Quebec City, Canada, July 15-18, 2012.
- 317) J. Gustafson, R. Price, J. Frandsen, J. Cappello, and H. Ghandehari, Matrix Metalloproteinase Responsive Genetically Engineered Silk-Elastinlike Protein Polymers, 39<sup>th</sup> Annual Meeting and Exposition of Controlled Release Society, Quebec City, Canada, July 15-18, 2012.
- 318) H. Ghandehari, Advanced Drug Delivery for the 21<sup>st</sup> Century: Opportunities and Challenges, 34<sup>th</sup> International IEEE (Institute of Electrical and Electronics Engineers) Engineering in Medicine and Biology Society Meeting, San Diego, California, August 28, 2012.
- 319) H. Herd, N. Daum, A.T. Jones, H. Huwer, H. Ghandehari, and C.M. Lehr, Nanoparticle Geometry and Surface Orientation Influences Mode of Cellular Uptake, The 8<sup>th</sup> Annual Utah Biomedical Engineering Conference, Salt Lake City, Utah, September 8<sup>th</sup>, 2012.
- 320) G. Thiagarajan and H. Ghandehari, Evidence of Oral Translocation of Dendritic Polymers in Mice, The 8<sup>th</sup> Annual Utah Biomedical Engineering Conference, Salt Lake City, Utah, September 8<sup>th</sup>, 2012.
- 321) A.J. Gormley, N. Larson, A. Banisadr, A. Ray, and H. Ghandehari, Intratumoral Distribution of Polymer Therapeutics after Enhanced Delivery by Plasmonic Photothermal Therapy, The 8<sup>th</sup> Annual Utah Biomedical Engineering Conference, Salt Lake City, Utah, September 8<sup>th</sup>, 2012.
- 322) H. Ghandehari, Gold Nanorod-Mediated Hyperthermia: A Tool to Enhance Targeted Delivery of Macromolecular Therapeutics, 16<sup>th</sup> International Pharmaceutical Technology Symposium (IPTS), Antalya, Turkey, September 10-12, 2012.
- 323) N. Larson, A. Gormley, and H. Ghandehari, Tumor Hyperthermia to Increase the Delivery of Macromolecular Chemotherapeutics, NanoUtah, Salt Lake City, UT, October 11-12, 2012.
- 324) G. Thiagarajan, S. Sadekar, K. Greish, A. Ray, and H. Ghandehari, Evidence of Oral Translocation of Dendritic Polymers in Mice, NanoUtah, Salt Lake City, UT, October 11-12, 2012.
- 325) S. Sadekar, G. Thiagarajan, D. Hubbard, A. Ray, and H. Ghandehari, PAMAM Dendrimers as Intestinal Penetration Enhancers for Oral Delivery of Camptothecin, NanoUtah, Salt Lake City, UT, October 11-12, 2012.
- 326) B. Buckway, A. Ray, Y. Wang, and H. Ghandehari, Targeted HPMA Copolymers for Image Guided Drug Delivery (IGDD) in Pancreatic Cancer, NanoUtah, Salt Lake City, UT, October 11-12, 2012.

- 327) H. Ghandehari, Toxicology of Mesoporous Silica Nanoparticles, American Association of Pharmaceutical Scientists Annual Meeting & Exposition, Chicago, IL, October 14-18, 2012.
- 328) A. Gormley, N. Larson, A. Banisadr, R. Ray, and H. Ghandehari, Intratumoral Distribution of Polymer Therapeutics After Enhanced Delivery by Plasmonic Photothermal Therapy, Biomedical Engineering Society Annual Meeting, Atlanta, Georgia, October 23-27, 2012.
- 329) G. Thiagarajan, A. Ray, S. Sadekar, K. Greish, and H. Ghandehari, Evidence of Oral Translocation of Dendritic Polymers in Mice, Biomedical Engineering Society Annual Meeting, Atlanta, Georgia, October 23-27, 2012.
- 330) A. Gormley, N. Larson, R. Robinson, N. Frazier, A. Banisadr, A. Ray, and H. Ghandehari, Light and Heat Guided Drug Delivery, COST Action TD1004 Annual Meeting, Institute of Pharmaceutical Science, King's College, London, UK. October 28-30, 2012.
- 331) N. Larson, A. Gormley, and H. Ghandehari, Hyperthermia to Increase the Toxicity of Macromolecular Chemotherapeutics, Globalization of Pharmaceutics Education Network Meeting (GPEN), Melbourne, Australia, November 28-December 1, 2012.
- 332) H. Ghandehari, A. Gormley, N. Larson, R. Robinson, A. Ray, N. Frazier, A. Banisadr, Gold Nanorod Mediated Photothermal Therapy for Enhanced Delivery of Polymer Therapeutics to Solid Tumors, NanoDDS'12, Atlantic City, NJ, December 6-7, 2012 (abstract published, but did not present since conference was postponed from Oct 28-30 to December due to Sandy Storm in East Coast)
- 333) H. Ghandehari, Plasmonic Photothermal Therapy and Recombinant Polymers for Controlled Delivery to Solid Tumors, The Hong Kong University of Science and Technology International Conference on Biomedical Engineering, Hong Kong, January 10-12, 2013.
- 334) B. Buckway, N. Frazier, A. Ray, and H. Ghandehari, Yttrium-90 HEMA Copolymers for Combination Hyperthermia and Radiotherapy Treatment, 16th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 3-6, 2013.
- 335) S. Sadekar, G. Thiagarajan, K. Bartlett, D. Hubbard, A. Ray, L. D. McGill, and H. Ghandehari, Poly(amido amine) Dendrimers as Absorption Enhancers for Oral Delivery of Camptothecin, 16th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 3-6, 2013.
- 336) N. Larson, N. Frazier, A. Gormley, and H. Ghandehari, In Vivo Efficacy of Combination Tumor Hyperthermia and Heat Shock Protein Targeted HEMA Copolymer-Docetaxel Conjugates, 16th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 3-6, 2013.
- 337) H. Ghandehari, Polymeric Systems for Controlled Delivery to Solid Tumors, 4th Kuwait International Pharmacy Conference, Kuwait City, Kuwait, February 4-6, 2013.
- 338) H. Ghandehari, and D. Cheney, Translating Drug Discovery to the Market, 4th Kuwait International Pharmacy Conference, Kuwait City, Kuwait, February 4-6, 2013.
- 339) H. Ghandehari, Polymer-Peptide Conjugates for Targeted Delivery to Solid Tumors: Opportunities and Challenges, 15th Annual Formulation and Delivery of Bioactives Conference, Auckland, New Zealand, February 12-14, 2013.
- 340) N. Larson, A. Gormley, R. Robinson, H. Ghandehari, Gold Nanorod-Mediated Plasmonic Photothermal Therapy for Enhanced Delivery of Polymer Therapeutics to Solid Tumors, Materials Research Society (MRS) Spring Meeting and Exhibit, San Francisco, CA, April 3, 2013.
- 341) D. Hubbard, H. Ghandehari, D. Brayden, Transepithelial Transport of PAMAM Dendrimers Across Isolated Intestinal Tissue, 9th Annual Utah Biomedical Engineering Conference, September 7, 2013.
- 342) A. Poursaid, R. Price, A. Davis, E. Olson, H. Ghandehari, J. Cappello, Silk-elastinlike Polymers for Transarterial Chemoembolization, 9th Annual Utah Biomedical Engineering Conference, September 7, 2013.
- 343) R. Robinson, H. Ghandehari, A Comparative Study of Gold Nanorods and Nanocages for Targeted Drug Delivery, 9th Annual Utah Biomedical Engineering Conference, September 7, 2013.
- 344) A. Poursaid, R. Price, A. Davis, E. Olson, H. Ghandehari, and J. Cappello, Silk-elastinlike Polymers for Transarterial Chemoembolization, NanoUtah, Salt Lake City, UT, October 18, 2013.

- 345) D. Hubbard, H. Ghandehari, D. Brayden, Transepithelial Transport of PAMAM Dendrimers Across Isolated Intestinal Tissue, NanoUtah, Salt Lake City, UT, October 18, 2013.
- 346) R. Robinson, H. Ghandehari, A Comparative Study of Gold Nanorods and Nanocages for Targeted Delivery, NanoUtah, Salt Lake City, UT, October 18, 2013.
- 347) B. Buckway, N. Frazier, A.J. Gormley, A. Ray, H. Ghandehari, Gold Nanorod Mediated Hyperthermia in Combination with Radiotherapy via 90Y-Yttrium HPMA Copolymers, NanoUtah, Salt Lake City, UT, October 18, 2013.
- 348) R. Price, A. Poursaid, J. Gustafson, J. Frandsen, J. Cappello, H. Ghandehari, Effect of Shear on Physicochemical Properties of Silk-Elastinlike Hydrogels, NanoUtah, Salt Lake City, UT, October 18, 2013.
- 349) D. Hubbard, H. Ghandehari, D. Brayden, Transepithelial Transport of PAMAM Dendrimers Across Isolated Intestinal Tissue, NanoDDS'13, San Diego, CA, October 25-27, 2013.
- 350) A. Poursaid, R. Price, A. Davis, E. Olson, H. Ghandehari, and J. Cappello, Silk-elastinlike Polymers for Transarterial Chemoembolization, NanoDDS'13 San Diego, CA, October 25-27, 2013.
- 351) B. Buckway, N. Frazier, A.J. Gormley, A. Ray, H. Ghandehari, Gold Nanorod Mediated Hyperthermia for Enhanced Delivery of 90Y-HPMA Copolymers to Prostate Tumors, NanoDDS'13, San Diego, CA, October 25-27, 2013.
- 352) H. Herd, R. Robinson, W. Gerlach, and H. Ghandehari, Phagocytic Nanoparticle Response is Phenotypically Dependent, NanoDDS'13, San Diego, CA, October 25-27, 2013.
- 353) R. Price, A. Poursaid, J. Gustafson, J. Frandsen, J. Cappello, and H. Ghandehari, Effect of Shear on Physicochemical Properties of Silk-Elastinlike Hydrogels, NanoDDS'13, San Diego, CA, October 25-27, 2013.
- 354) R. Robinson, H. Ghandehari, A Comparative Study of Gold Nanorods and Nanocages for Targeted Delivery, NanoDDS'13, San Diego, CA, October 25-27, 2013.
- 355) N. Frazier, R. Robinson, and H. Ghandehari, Effects of Plasmonic Photothermal Therapy Heating Temperature and Duration on Copolymer Accumulation and Retention in Tumor Tissue, BioBarriers, Saarland, Germany, February 16-21, 2014.
- 356) H. Ghandehari, R. Price, A. Poursaid, and J. Cappello, Silk-Elastinlike Copolymers: Structure-Function Relationship in Controlled Delivery, 13th European Symposium on Controlled Drug Delivery, Egmond aan Zee, The Netherlands, April 16-18, 2014.
- 357) N. Frazier, R. Robinson, B. Buckway, A. Ray, C. Vauthier, H. Ghandehari, Plasmonic Photothermal Therapy for Enhanced Delivery of HPMA Copolymers: Effects of Heating Temperature and Duration and Potential for Complement Activation, 10th International Symposium on Polymer Therapeutics: From Laboratory to Clinical Practice, Valencia, Spain, April 19-21, 2014.
- 358) H. Ghandehari, B. Buckway, N. Frazier, Plasmonic Photothermal Therapy for Enhanced Delivery of Polymer Therapeutics, 10th International Symposium on Polymer Therapeutics: From Laboratory to Clinical Practice, Valencia, Spain, April 19-21, 2014.
- 359) A. Poursaid, R. Price, E. Olson, I. Nourbakhsh, E. Huo, H. Ghandehari, J. Cappello, Development and Evaluation of Silk-Elastinlike Protein Polymers as Injectable Chemoembolic Systems for the Treatment Hepatocellular Carcinoma, American Society for Clinical Investigation(ASCI)/Association of American Physicians(AAP) Joint Meeting, Chicago, Illinois, April 25-27, 2014.
- 360) S.-H. Jung, J.-W. Choi, C.-O. Yun, J. Y. Yhee, R. Price, S. H. Kim, I. C. Kwon, H. Ghandehari, Recombinant Polymers for Localized Nucleic Acid Delivery, Third Global RNAi Carrier Initiative Symposium, Recent Advances in Gene Delivery Platforms for siRNA Therapeutics, May 27, 2014.
- 361) H. Herd, and H. Ghandehari, Tumor Associated Macrophage Phenotypic Response to Silica Nanoparticle Characteristics, Gordon Research Conference on Mammary Gland Biology, Lucca, Italy, June 6-13, 2014.
- 362) H. Ghandehari, Gold Nanorod Mediated Hyperthermia for Enhanced Delivery of Polymer Therapeutics Ghandehari, Chinese Pharmaceutics Conference, Changsha, China, September 21, 2014.
- 363) D. Hubbard, H. Ghandehari, D. Brayden, Transepithelial Transport of PAMAM Dendrimers Across Isolated Intestinal Tissue, NanoUtah, Salt Lake City, UT, October 13-15, 2014.

- 364) N. Frazier, R. Robinson, B. Buckway, A. Ray, C. Vauthier, H. Ghandehari, Enhanced, Targeted Polymer Therapeutics: Heat Optimization and Potential Complement Activation, NanoUtah, Salt Lake City, UT, October 13-15, 2014.
- 365) A. Poursaid, R. Price, A. Davis, E. Olson, I. Nourbakhsh, E. Huo, J. Cappello, H. Ghandehari, Development of Silk-Elastinlike Protein Polymers as Liquid-To-Solid Embolic Agents, NanoUtah, Salt Lake City, UT, October 13-15, 2014.
- 366) D. Hubbard, H. Ghandehari, D. Brayden, Transepithelial Transport of PAMAM Dendrimers Across Isolated Intestinal Tissue, Biomedical Engineering Society (BMES) Annual Meeting, San Antonio, Texas, October 22-25, 2014.
- 367) A. Poursaid, R. Price, A. Tiede, E. Olson, E. Huo, H. Ghandehari, J. Cappello, Development of Silk-Elastinlike Protein Polymers as Liquid-To-Solid Embolic Agents, Biomedical Engineering Society (BMES) Annual Meeting, San Antonio, Texas, October 22-25, 2014.
- 368) N. Frazier, R. Robinson, B. Buckway, A. Ray, C. Vauthier, H. Ghandehari, Enhanced, Targeted Polymer Therapeutics: Heat Optimization and Potential Complement Activation, Biomedical Engineering Society (BMES) Annual Meeting, San Antonio, Texas, October 22-25, 2014.
- 369) H. Herd, K. Bartlett, J. Gustafson, and H. Ghandehari, Macrophage Phenotypic Response to Silica Nanoparticles, Biomedical Engineering Society (BMES) Annual Meeting, San Antonio, Texas, October 22-25, 2014.
- 370) N. Frazier, R. Robinson, B. Buckway, A. Ray, H. Ghandehari, Enhanced, Targeted Polymer Therapeutics: Heat Optimization and Potential Complement Activation, 10th Utah Biomedical Engineering Conference, Salt Lake City, Utah, January 30, 2015.
- 371) A. Poursaid, R. Price, A. Tiede, E. Olson, E. Huo, L. McGill, J. Cappello, H. Ghandehari, Development of Silk-Elastinlike Protein Polymers as Liquid-To-Solid Embolic Agents for Transarterial Chemoembolization, 10th Utah Biomedical Engineering Conference, Salt Lake City, Utah, January 30, 2015.
- 372) D. Hubbard, M. End, J. Conarton, T. Bond, C. Scaife, H. Ghandehari, Transepithelial Transport of PAMAM Dendrimers across Isolated Human Intestinal Tissue, 10th Utah Biomedical Engineering Conference, Salt Lake City, Utah, January 30, 2015.
- 373) D.E. Jones, A.M. Lund, H. Ghandehari, J.C. Facelli, Molecular Dynamic Simulations in Drug Delivery Research: Calcium Chelation of G3.5 PAMAM Dendrimers, 17th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, June 14-17, 2015.
- 374) D. Hubbard, T. Bond, H. Ghandehari, Maximum Tolerated Concentration of PAMAM Dendrimers on Isolated Rat Colonic and Jejunal Mucosae, 17th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, June 14-17, 2015.
- 375) A. Poursaid, R. Price, E. Olson, I. Nourbakhsh, E. Huo, L. McGill, J. Cappello, H. Ghandehari, Development and Evaluation of Silk-Elastinlike Protein Polymers as Liquid-to-Solid Embolics, 17th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, June 14-17, 2015.
- 376) R. Price, A. Poursaid, J. Cappello, H. Ghandehari, In Vivo Evaluation of Matrix Metalloproteinase Responsive Silk-Elastinlike Protein Polymers for Cancer Gene Therapy, 17th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, June 14-17, 2015.
- 377) N. Frazier, A. Payne, J. De Bever, H. Ghandehari, High Intensity Focused Ultrasound Hyperthermia for Noninvasive Delivery of Heat to Enhance Macromolecular Delivery, NanoUtah, Salt Lake City, UT, October 13, 2015.
- 378) A. Poursaid, M. M. Jensen, M. Weisenberger, I. Nourbakhsh, T. Ta, J. Cappello, H. Ghandehari, In Vivo Validation of Silk-Elastinlike Protein Polymer Liquid Embolic, NanoUtah, Salt Lake City, UT, October 13, 2015.
- 379) H. Ghandehari, Matrix Mediated Adenoviral Delivery with Recombinant Polymers, International Drug Delivery Systems -GiRC joint Symposium, Korea Institute of Technology, Seoul, Korea, May 26-27, 2016.



- 380) M.M. Jensen, K. Isaacson, B. Green, A. WATANABE, J. Cappello, H. Ghandehari, Impact of Motif Arrangement and Proportion on the Formation of Silk-Elastinlike Protein Polymer Nanogels, Mechanisms and Barriers in Nanomedicine, Breckenridge, Colorado, July 15-16, 2016.
- 381) M. Yazdimamaghani, J. Saikia, H. Ghandehari, Impact of Silica Nanoparticles Size and Porosity on Protein Adsorption Profile and Uptake Mechanism, Mechanisms and Barriers in Nanomedicine, Breckenridge, Colorado, July 15-16, 2016.
- 382) S.P. Hadipour Moghaddam, M. Yazdimamaghani, and H. Ghandehari, Biodegradable Silica Nanoparticles: Synthesis, Characterization, and in Vitro Degradation, Mechanisms and Barriers in Nanomedicine, Breckenridge, Colorado, July 15-16, 2016.
- 383) N. Frazier, A. Payne, J. De Bever, C. Dillon, A. Panda, N. Subrahmanyam, H. Ghandehari, High Intensity Focused Ultrasound Hyperthermia for Enhanced Macromolecular Delivery, 43<sup>rd</sup> International Symposium on Controlled Release of Bioactive Materials, Seattle, Washington, July 17–20, 2016.
- 384) M. M. Jensen, K.J. Isaacson, W. Jai, J. Cappello, S. Oottamasathien, H. Ghandehari, Localized Delivery of Semisynthetic Glycosaminoglycan Ethers via an Injectable Silk-Elastinlike Protein Polymer Matrix for Prevention of Radiation Induced Proctitis, 14<sup>th</sup> Annual Nanomedicine and Drug Delivery Symposium, Johns Hopkins University, Baltimore, Maryland, September 16-18, 2016.
- 385) M. Yazdimamaghani, J. Saikia, S.P. Hadipour Moghaddam, H. Ghandehari, Macrophage Responses to Silica Nanoparticles: Role of Size and Porosity, 14<sup>th</sup> Annual Nanomedicine and Drug Delivery Symposium, Johns Hopkins University, Baltimore, Maryland, September 16-18, 2016.
- 386) K. J. Isaacson, M.M. Jensen, A.H. Watanabe, B. Green, T. Ta, J. Cappello, H. Ghandehari, Motif Arrangement and Responsive Sequence Insertion Effects on Silk-Elastinlike Protein (SELP) Nanogel Formation and Function, 14<sup>th</sup> Annual Nanomedicine and Drug Delivery Symposium, Johns Hopkins University, Baltimore, Maryland, September 16-18, 2016.
- 387) N. Subrahmanyam, B. Buckway, N. Frazier, L. Bennink, B.H. San, S.M. Yu, and H. Ghandehari, Water Soluble Polymers for Extracellular Matrix (ECM)-Targeting, 14<sup>th</sup> Annual Nanomedicine and Drug Delivery Symposium, Johns Hopkins University, Baltimore, Maryland, September 16-18, 2016.
- 388) S.P. Hadipour Moghaddam, M. Yazdimamaghani, H. Ghandehari, In Vitro Characterization of Biodegradable Silica Nanoparticles, 14<sup>th</sup> Annual Nanomedicine and Drug Delivery Symposium, Johns Hopkins University, Baltimore, Maryland, September 16-18, 2016.
- 389) H. Ghandehari, Matrix-Mediated Delivery of Bioactive Agents with Silk-Elastinlike Block Copolymers, 14<sup>th</sup> Annual Nanomedicine and Drug Delivery Symposium, Johns Hopkins University, Baltimore, Maryland, September 16-18, 2016.
- 390) H. Ghandehari, Silk-Elastinlike Copolymers as Liquid Embolics and Gene Delivery Systems, 18<sup>th</sup> International Pharmaceutical Technology Symposium, Antalya, Turkey, September 18-21, 2016.
- 391) H. Ghandehari, Recombinant Silk-Elastinlike Block Copolymers for Controlled Drug and Gene Delivery, 4<sup>th</sup> Symposium on Innovative Polymers for Controlled Delivery (SIPCD): Suzhou, China, September 23–26, 2016.
- 392) S.P. Hadipour Moghaddam, M. Yazdimamaghani, H. Ghandehari, In Vitro Characterization of Biodegradable Silica Nanoparticles, USTAR Confluence, University of Utah, Salt Lake City, Utah, October 4-5, 2016.
- 393) M. Yazdimamaghani, J. Saikia, S.P. Hadipour Moghaddam, H. Ghandehari, Macrophage Responses to Silica Nanoparticles: Role of Size and Porosity, USTAR Confluence, University of Utah, Salt Lake City, Utah, October 4-5, 2016.
- 394) T. Ta, M.M. Jensen, A. Poursaid, J. Cappello, H. Ghandehari, Creation of a Next Generation Recombinant Protein-based Transarterial Chemoembolic, USTAR Confluence, University of Utah, Salt Lake City, Utah, October 4-5, 2016.
- 395) K.J. Isaacson, M.M. Jensen, A.H. Watanabe, B. Green, T. Ta, J. Cappello, H. Ghandehari, Recombinant Tumor Responsive Nanogels, USTAR Confluence, University of Utah, Salt Lake City, Utah, October 4-5, 2016.

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- 397) M.M. Jensen, K.J. Isaacson, W. Jai, J. Cappello, S. Oottamasathien, H. Ghandehari, Development of a Prophylactic Semisynthetic Glycosaminoglycan Ether Treatment for Radiation-Induced Proctitis, USTAR Confluence, University of Utah, Salt Lake City, Utah, October 4-5, 2016.
- 398) M. Weisenberger, M. Jensen, H. Ghandehari, T. L. Deans, MMP-Triggered Activation of Mammalian Genetic Circuits in Recombinant Protein Hydrogels, Biomedical Engineering Society Annual Meeting, Minneapolis, Minnesota, October 5–8, 2016.
- 399) T. Ta, M.M. Jensen, A. Poursaid, J. Cappello, H. Ghandehari, Creation of a Multi-Drug Loadable Liquid Embolic for Transarterial Chemoembolization, Utah Bioengineering Conference, Salt Lake City, Utah, December 16, 2016.
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- 402) P. Hadipour, M. Yazdimamaghani, H. Ghandehari, Degradation Kinetics of Polysulfide-based Biodegradable Silica Nanoparticles, Utah Bioengineering Conference, Salt Lake City, Utah, December 16, 2016.
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- 406) M. Yazdimamaghani, J. Saikia, S.P. Hadipour Moghaddam, P.J. Moos, H. Ghandehari, Global Gene Expression Analysis of Macrophages in Response to Changing Size and Porosity of Silica Nanoparticles SM6: Materials in Immunology—From Fundamental Material Design to Translational Applications, Materials Research Society Spring Meeting, Phoenix, Arizona, April 17-21, 2017.
- 407) H. Ghandehari, Recombinant Polymers for Drug and Gene Delivery, TechConnect World Innovation Conference and Exposition, Washington DC, May 14-17, 2017.
- 408) H. Ghandehari, J. Saikia, M. Yazdimamaghani, P. Hadipour, R. Mohammadpour, Nanotoxicology of Silica and Dendritic Constructs, International Drug Delivery Systems - GiRC Joint Symposium, Korea Institute of Technology, Seoul, South Korea, May 25-26, 2017.
- 409) P. Hadipour, J. Saikia, M. Yazdimamaghani, H. Ghandehari, Degradation Kinetics of Redox Responsive Biodegradable Silica Nanoparticles, Controlled Release Society Annual Meeting, Boston, Massachusetts, July 16-19, 2017.
- 410) H. Ghandehari, J. Cappello, M. Jensen, K. Isaacson, D. Steinhaff, Silk-elastinlike Polymers for Controlled Delivery and as Liquid Embolics, American Chemical Society Fall Meeting, Division of Polymeric Materials Science and Engineering, Recombinant Type Materials Symposium, Washington DC, August 19-24, 2017.
- 411) M. M. Jensen, W. Jia, A. J. Schults, K. J. Isaacson, D. Steinhaff, B. Green, M. Correa, J. Cappello, H. Ghandehari, S. Oottamasathien, Comparison of Thermoresponsive Polymers for Enhancing Intravesical

- Bladder Delivery of Semi-Synthetic Glycosaminoglycan Ethers, 15<sup>th</sup> International Nanomedicine and Drug Delivery Symposium, University of Michigan, Ann Arbor, Michigan, September 22-24, 2017.
- 412) M. Yazdimamaghani, Z. B. Barber, S. P. Hadipour Moghaddam, H. Ghandehari, Influence of Dynamic Flow and Particle Density on Sedimentation, Cell uptake and Cytotoxicity of Silica Nanoparticles, 15<sup>th</sup> International Nanomedicine and Drug Delivery Symposium, University of Michigan, Ann Arbor, Michigan, September 22-24, 2017.
- 413) S. P. Hadipour Moghaddam, M. Yazdimamaghani, H. Ghandehari, Biodegradable Hollow Mesoporous Silica Nanoparticles for Intracellular Delivery of Doxorubicin to MCF-7 Breast Cancer Cells, 15<sup>th</sup> International Nanomedicine and Drug Delivery Symposium, University of Michigan, Ann Arbor, Michigan, September 22-24, 2017.
- 414) D. B. Steinhaufl, S. Taurin, M. M. Jensen, M. Reyes, K. Isaacson, J. Cappello, M. Janát-Amsbury, H. Ghandehari, Intraperitoneal Delivery of Immune Checkpoint Inhibitors by Silk-elastinlike Protein-Based Polymers for Treatment of Advanced Ovarian Cancer, 15<sup>th</sup> International Nanomedicine and Drug Delivery Symposium, University of Michigan, Ann Arbor, Michigan, September 22-24, 2017.
- 415) K. J. Isaacson, M. M. Jensen, A. H. Watanabe, B. E. Green, M. A. Correa, K. Furukawa, J. Cappello, H. Ghandehari, Thermally-Contractible Nanogel Drug Delivery System for Enhanced Extravasation, 15<sup>th</sup> International Nanomedicine and Drug Delivery Symposium, University of Michigan, Ann Arbor, Michigan, September 22-24, 2017.
- 416) N. Subrahmanyam, L. Bennink, N. Frazier, B. Buckway, M. Yu, H. Ghandehari, Design and Synthesis of a Tumor Extracellular Matrix-Targeted Copolymer, 15<sup>th</sup> International Nanomedicine and Drug Delivery Symposium, University of Michigan, Ann Arbor, Michigan, September 22-24, 2017.
- 417) R. Mohammadpour, M. Yazdimamaghani, C. A. Reilly, H. Ghandehari, Role of Transient Receptor Potential Channels in Silica Nanoparticles and PAMAM Dendrimer Toxicity, 15<sup>th</sup> International Nanomedicine and Drug Delivery Symposium, University of Michigan, Ann Arbor, Michigan, September 22-24, 2017.
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- 421) M. Yazdimamaghani, Z. B. Barber, S. P. Hadipour Moghaddam, H. Ghandehari, Influence of Dynamic Flow and Particle Density on Sedimentation, Cell uptake and Cytotoxicity of Silica Nanoparticles, The Annual Utah Bioengineering Conference, Salt Lake City, Utah, December 8, 2017.
- 422) K. J. Isaacson, M. M. Jensen, A. H. Watanabe, B. E. Green, M. A. Correa, K. Furukawa, J. Cappello, H. Ghandehari, Thermally-Contractible Nanogel Drug Delivery System for Enhanced Extravasation, The Annual Utah Bioengineering Conference, Salt Lake City, Utah, December 8, 2017.
- 423) D. B. Steinhaufl, S. Taurin, M. M. Jensen, M. Reyes, K. Isaacson, J. Cappello, M. Janát Amsbury, H. Ghandehari, Intraperitoneal Delivery of Immune Checkpoint Inhibitors by SELPs for Treatment of Ovarian Cancer, The Annual Utah Bioengineering Conference, Salt Lake City, Utah, December 8, 2017.
- 424) N. Subrahmanyam, L. Bennink, N. Frazier, B. Buckway, B. H. San, M. Yu, H. Ghandehari, Design and Synthesis of a Tumor Extracellular Matrix-Targeted Copolymer, The Annual Utah Bioengineering Conference, Salt Lake City, Utah, December 8, 2017.
- 425) S. P. Hadipour Moghaddam, M. Yazdimamaghani, H. Ghandehari, Biodegradable Hollow Mesoporous Silica Nanoparticles for Intracellular Delivery of Doxorubicin to MCF-7 Breast Cancer Cells, The Annual Utah Bioengineering Conference, Salt Lake City, Utah, December 8, 2017.
- 426) M. M. Jensen, W. Jia, A. J. Schults, K. J. Isaacson, D. Steinhaufl, B. Green, M. Correa, J. A. Alt, J. Cappello, H. Ghandehari, S. Oottamasathien, In Situ Gelling Polymers for Enhanced Intravesical Bladder Delivery

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- 427) M. M. Jensen, K. J. Isaacson, D. Steinhaff, B. Green, M. Correa, J. Cappello, E. Huo, H. Ghandehari, Preliminary Development of a Silk-elastin-like Protein Polymer Based Embolic for Cerebral Aneurysms, Society for Interventional Radiology Annual Meeting, Los Angeles, California, March 17-21, 2018.
- 428) M. M. Jensen, W. Jia, A. Schults, K. Isaacson, D. Steinhaff, B. Green, M. Correa, J. Alt, J. Cappello, H. Ghandehari, S. Oottamasathien, Silk-Elastinlike Polymers Enhance the Anti-inflammatory and Analgesic Properties of Semisynthetic Glycosaminoglycans, Annual Meeting of the American Urological Association, San Francisco, CA, May 18-21, 2018.
- 429) V. K. Yellepeddi, R. Mohammadpour, C. Sayre, S. P. Khambampati, M. K. Mishra, R. Kannan, H. Ghandehari, Oral Permeability and Pharmacokinetics of a Pediatric Formulation for the Treatment of Cerebral Palsy, 45<sup>th</sup> Annual Meeting of the Controlled Release Society, New York, New York, July 22-24, 2018.
- 430) K. J. Isaacson, M. M. Jensen, D. B. Steinhaff, J. E. Kirklow, K. Furukawa, J. Cappello, H. Ghandehari, Size-Shrinking Nanogels with Tumor-Responsive Degradation, 45<sup>th</sup> Annual Meeting of the Controlled Release Society, New York, New York, July 22-24, 2018.
- 431) M. M. Jensen, K. J. Isaacson, D. B. Steinhaff, B. E. Green, Z. B. Barber, J. Cappello, J. A. Alt, H. Ghandehari, Dual Functional Embolic Materials: Combining Hemostasis with Fluorescence Guidance, 45<sup>th</sup> Annual Meeting of the Controlled Release Society, New York, New York, July 22-24, 2018.
- 432) P. Hadipour, H. Ghandehari, Dissolution and Degradation Kinetics of Silica Nanoparticles as a Function of Size, Porosity, Density, and Composition, 45<sup>th</sup> Annual Meeting of the Controlled Release Society, New York, New York, July 22-24, 2018.
- 433) R. Mohammadpour, M. Yazdimamaghani, D. Cheney, J. Jedrzkiewicz, H. Ghandehari, Sub-Chronic Toxicity of Silica Nanoparticles in Female and Male Balb/c Mice, 45<sup>th</sup> Annual Meeting of the Controlled Release Society, New York, New York, July 22-24, 2018.
- 434) H. Ghandehari, P. Moos, M. Yazdimamaghani, R. Mohammadpour, P. Hadipour, Toxicology of Engineered Silica Nanoparticles: Influence of Physicochemical Properties, 12<sup>th</sup> International Conference and Workshop on Biological Barriers, Saarbruecken, Germany, August 27-29, 2018.
- 435) M. Yazdimamaghani, P. J. Moos, and H. Ghandehari, Time- and Dose-Dependent Gene Expression and Signaling Pathways of Macrophages as a Function of Porosity of Silica Nanoparticles, 16<sup>th</sup> International Nanomedicine and Drug Delivery Symposium, Portland, Oregon, September 21-23, 2018.
- 436) R. Mohammadpour, M. Yazdimamaghani, D. Cheney, J. Jedrzkiewicz, H. Ghandehari, Silica Nanoparticle Chronic Tissue Toxicity and Biodistribution as a Function of Size and Porosity, 16<sup>th</sup> International Nanomedicine and Drug Delivery Symposium, Portland, Oregon, September 21-23, 2018.
- 437) H. Ghandehari, P. Moos, M. Yazdimamaghani, R. Mohammadpour, P. Hadipour, Z. Barber, Safety Considerations for Silica Nanoparticles and Poly(amido amine) Dendrimers, 16<sup>th</sup> International Nanomedicine and Drug Delivery Symposium, Portland, Oregon, September 21-23, 2018.
- 438) P. Hadipour, H. Ghandehari, Synthesis, Characterization, and in Vitro and in Vivo Evaluation of Biodegradable Silica Nanoparticles, 12<sup>th</sup> Global Pharmaceuticals Education Network Conference, Singapore, September 26-29, 2018.
- 439) Z. B. Barber, M. M. Jensen, D. Steinhaff, K. Isaacson, J. Capello, H. Ghandehari, J. A. Alt, Development and Characterization of a Thermally Responsive Fluorescent Embolic for the Treatment of Juvenile Nasopharyngeal Angiofibroma, Biomedical Engineering Society Annual Meeting, Atlanta, Georgia, October 17-20, 2018.
- 440) H. Ghandehari, P. Moos, M. Yazdimamaghani, R. Mohammadpour, P. Hadipour: Safety Considerations for Engineered Nanomaterials: Case Studies for Poly(amido amine) Dendrimers and Silica Nanoparticles, 5<sup>th</sup> Annual Personalized Nanomedicine Symposium, Miami, Florida, November 1-2, 2018.
- 441) H. Ghandehari, Approaches for Delivery of Bioactive Agents to Solid Tumors: Design and Safety Considerations, 2018 International Conference of Korean Society of Pharmaceutical Sciences and Technology, November 22, 2018, Busan, Republic of Korea

- 442) K. J. Isaacson, M. M. Jensen, D. B. Steinhauff, J. Cappello, H. Ghandehari, Silk-Elastinlike Protein Nanogels for Controlled Drug Delivery, The Annual Utah Bioengineering Conference, Salt Lake City, Utah, December 7, 2018.
- 443) M. M. Jensen, K. J. Isaacson, D. Steinhauff, Z. Barber, E. Huo, P. Taussky, J. Cappello, H. Ghandehari, Silk-Elastinlike Protein Polymer Based Embolic for the Treatment of Cerebral Aneurysms, The Annual Utah Bioengineering Conference, Salt Lake City, Utah, December 7, 2018.
- 444) N. Subrahmanyam, L. Bennink, K. Isaacson, S. M. Yu, H. Ghandehari, Collagen-Targeted Delivery to Tumor-Associated Extracellular Matrix Using HPMA Copolymers, The Annual Utah Bioengineering Conference, Salt Lake City, Utah, December 7, 2018.
- 445) S. P. Hadipour Moghaddam, R. Mohammadpour, H. Ghandehari, In Vitro and In Vivo Evaluation of Dissolution, Degradation, and Toxicity of Silica Nanoparticles as a function of Size, Porosity, Density, and Composition, The Annual Utah Bioengineering Conference, Salt Lake City, Utah, December 7, 2018.
- 446) R. Mohammadpour, M. Yazdimamaghani, D. Cheney, J. Jedrzkiewicz, H. Ghandehari, Chronic Tissue Toxicity of Silica Nanoparticles are Related to their Size and Porosity, The Annual Utah Bioengineering Conference, Salt Lake City, Utah, December 7, 2018.
- 447) Z. B. Barber, M. M. Jensen, D. Steinhauff, K. Isaacson, J. Capello, J. A. Alt, H. Ghandehari, A Novel Method to Reduce Bleeding and Fluorescently Labeled Juvenile Nasopharyngeal Angiofibroma Tumors During Surgery, The Annual Utah Bioengineering Conference, Salt Lake City, Utah, December 7, 2018.
- 448) M. M. Jensen, K. J. Isaacson, D. Steinhauff, Z. Barber, L. Eisenmenger, E. Huo, P. Taussky, J. Cappello, H. Ghandehari, Radiopaque Silk-Elastinlike Protein Polymer-Based Embolic, Society for Interventional Radiology Annual Meeting, Austin, Texas, March 23-28, 2019.
- 449) H. Ghandehari, Approaches for Delivery of Bioactive Agents to Solid Tumors: Carrier Design and Safety Considerations, Global Bio Conference, Seoul, Republic of Korea, June 28, 2019.
- 450) D. Steinhauff, J. Carothers, L. Unverzagt, H. Ghandehari, Creation and Characterization of Biorecognizable Elastinlike Polypeptides, The Utah Biomedical Engineering Conference, Salt Lake City, Utah, September 13<sup>th</sup>, 2019.
- 451) K. J. Isaacson, B. R. Van Devener, M. M. Jensen, D. B. Steinhauff, J. Cappello, H. Ghandehari, Real-Time Visualization of Lower Critical Solution Temperature Behavior Using Liquid-Cell Transmission Electron Microscopy, The Utah Biomedical Engineering Conference, Salt Lake City, Utah, September 13<sup>th</sup>, 2019.
- 452) M. M. Jensen, Ø. Hatlevik, K. J. Isaacson, D. Steinhauff, Z. B. Barber, E. Huo, Ph. Taussky, J. Cappello, D. Cheney, H. Ghandehari, A Bioinspired Silk-Elastinlike Protein Polymer for Cerebral Aneurysm Embolization, The Utah Biomedical Engineering Conference, Salt Lake City, Utah, September 13<sup>th</sup>, 2019.
- 453) N. Subrahmanyam, L. Bennink, J. Sumsion, J. Alt, S. M. Yu, H. Ghandehari, Water-Soluble Copolymers Targeted to Remodeling Collagen in the Extracellular Matrix, The Utah Biomedical Engineering Conference, Salt Lake City, Utah, September 13<sup>th</sup>, 2019.
- 454) R. Mohammadpour, M. Yazdimamaghani, D. Cheney, J. Jedrzkiewicz, H. Ghandehari, Long Term Safety Evaluation of Stöber and Mesoporous Silica Nanoparticles as a Function of Size and Porosity, The Utah Biomedical Engineering Conference, Salt Lake City, Utah, September 13<sup>th</sup>, 2019.
- 455) N. Khurana, J. Martinez, C. B. Beyer, J. Jedrzkiewicz, A. Pulsipher, Ch. E. Pollard, H. Ghandehari, J. A. Alt, Sinonasal Vasculature Profile Characterization in Subtypes of Chronic Rhinosinusitis, The Utah Biomedical Engineering Conference, Salt Lake City, Utah, September 13<sup>th</sup>, 2019.
- 456) M. Martin Jensen, Ø. Hatlevik, K. J. Isaacson, D. Steinhauff, Z. B. Barber, E. Huo, Ph. Taussky, J. Cappello, D. Cheney, H. Ghandehari, A Bioinspired Silk-Elastinlike Protein Polymer for Cerebral Aneurysm Embolization. 17<sup>th</sup> International Nanomedicine and Drug Delivery Symposium (NanoDDS'19), Boston, September 22-24, 2019.
- 457) D. Steinhauff, L. Unverzagt, M. Jensen, H. Ghandehari, Development and Characterization of Biorecognizable Elastinlike Polypeptide Fusion Proteins. Biomedical Engineering Society Annual Meeting. Philadelphia, PA. October 16-20, 2019.
- 458) N. Subrahmanyam, L. Bennink, B. Buckway, N. Frazier, S. Michael Yu, H. Ghandehari, Water-Soluble Copolymers Targeted to Remodeling Collagen in the Extracellular Matrix, International Symposium on Biomedical Materials for Drug/Gene Delivery, Salt Lake City, Utah, February 7-8, 2020.

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- 461) N. Khurana, A. Pulsipher, J. Martinez, C. B. Beyer, J. Jedrzkiewicz, C. E. Pollard, H. Ghandehari, J. A. Alt, Meta-analysis of Genetic Studies and Vascular Pathophysiological Characterization in Chronic Rhinosinusitis for Systemic Drug Delivery, International Symposium on Biomedical Materials for Drug/Gene Delivery, Salt Lake City, Utah, February 7-8, 2020.
- 462) K. J. Isaacson, B. R. Van Devener, M. M. Jensen, D. B. Steinhauff, J. Cappello, H. Ghandehari, Liquid-Cell Transmission Electron Microscopy of Thermoresponsive Silk-Elastinlike Protein Nanoassemblies, International Symposium on Biomedical Materials for Drug/Gene Delivery, Salt Lake City, Utah, February 7-8, 2020.
- 463) Ø. Hatlevik, M. M. Jensen, K.J. Isaacson, D. Steinhauff, Z. B. Barber, E. Huo, Ph. Taussky, J. Cappello, D. Cheney, H. Ghandehari. Silk-Elastinlike Protein Polymers for Minimally Invasive Treatment of Cerebral Aneurysm. International Symposium on Biomedical Materials for Drug/Gene Delivery, Salt Lake City, Utah, February 7-8, 2020.
- 464) H. Ghandehari, A Journey from Azobond-Containing Hydrogels to Liquid Embolics: A Tribute to Jindřich Kopeček, International Symposium on Biomedical Materials for Drug/Gene Delivery, Salt Lake City, Utah, February 7-8, 2020.
- 465) N. Khurana, B. Yathavan, A. Pulsipher, C. Pollard, H. Ghandehari, J. Alt, Controlled Drug Delivery in Chronic Rhinosinusitis, 2020 Controlled Release Society (CRS) Annual Meeting and Exposition, June 27 – July 1, 2020 (Held Virtual).
- 466) D. Steinhauff, M. W. Talbot, M.M. Jensen, K. Isaacson, W. Jia, J. Cappello, S. Oottamasathien, H. Ghandehari, Thermoresponsive Polymers for Delivery of Semi-Synthetic Glycosaminoglycans to Treat Radiation-Induced Proctitis, 2020 Controlled Release Society (CRS) Annual Meeting and Exposition, June 27 – July 1, 2020 (Held Virtual),
- 467) M.M. Jensen, Ø. Hatlevik, D.B. Steinhauff, K.J. Isaacson, E. Huo, J. Jedrzkiewicz, J. Cappello, D. Cheney, H. Ghandehari, Translational Development of a Silk-Elastinlike Protein Polymer Embolic for Transcatheter Arterial Chemoembolization, 2020 Controlled Release Society (CRS) Annual Meeting and Exposition, June 27 – July 1, 2020 (Held Virtual).
- 468) R. Mohammadpour, D.L. Cheney, J.W. Grunberger, M. Yazdimamaghani, J. Jedrzkiewicz, K.J. Isaacson, M.A. Dobrovolskaia, H. Ghandehari, One-year In vivo Chronic Toxicity Evaluation of Intravenously Administrated Silica Nanoparticles and their Ex vivo Human Blood Compatibility, 2020 Controlled Release Society (CRS) Annual Meeting and Exposition, June 27 – July 1, 2020 (Held Virtual).
- 469) N. Khurana, A. Pulsipher, J. Jedrzkiewicz, C.E. Pollard, H. Ghandehari, J.A. Alt, Vascular Pathophysiology Characterization in Chronic Rhinosinusitis, American Rhinology Society Meeting 2020, September 11-12 (Held Virtual).
- 470) K. Kaur, R. Mohammadpour, H. Ghandehari, C. Reilly, R. Paine III, K.E. Kelly, Effect of Combustion Particle Morphology on the Cellular Response in Human Airway Epithelial Cells and Macrophage-Like Cells, American Institute of Chemical Engineers 2020. November 15 – 20 (Held Virtual).
- 471) B. Armstrong, D. Steinhauff, H. Ghandehari, Development and Characterization of Thermoresponsive Proteins Subunits, The Utah Biomedical Engineering Conference, Salt Lake City, Utah, February 5, 2021 (Held Virtual).
- 472) N. Khurana, B. Yathavan, J. Jedrzkiewicz, A. Pulsipher, J. Alt, H. Ghandehari, Controlled Systemic Delivery of Liposomes Demonstrates Prolonged Sinonasal Tissue Accumulation and Retention in a Murine Model of Chronic Rhinosinusitis, The Utah Biomedical Engineering Conference, Salt Lake City, Utah, February 5, 2021 (Held Virtual).

- 473) D. Steinhauff, M. Jensen, W. Jia, J. Jedrzkiewicz, J. Cappello, S. Oottamasathien, H. Ghandehari, Radioprotection Provided by Combination of Silk-Elastinlike Protein Polymers and Semisynthetic Glycosaminoglycans in Mice, The Utah Biomedical Engineering Conference, Salt Lake City, Utah, February 5, 2021 (Held Virtual).
- 474) R. Mohammadpour, D. L. Cheney, M. Yazdimamaghani, J. Jedrzkiewicz, M. A. Dobrovolskaia, H. Ghandehari, Long Term Toxicity Evaluation of Silica Nanoparticles for Drug Delivery Applications, The 8<sup>th</sup> International E-Congress on Nanoscience and Nanotechnology, February 17-18, Mashhad, Iran (Held Virtual)
- 475) K. Kaur, R. Mohammadpour, H. Ghandehari, C. Reilly, R. Paine, and K. E. Kelly, Comparison of Brake Wear Dust and Reference Diesel Particulate Matter Pro-Inflammatory Responses in Human THP-1 Macrophage-Like Cells, 5<sup>th</sup> Annual Conference on Air Quality: Science for Solution, March 24-25, 2021 (Virtual)
- 476) B. Armstrong, D. Steinhauff, H. Ghandehari, Characterization of Elastin-like Polypeptide Fusion Proteins for the Development of Drug-Free Macromolecular Therapeutics, National Conference on Undergraduate Research, April 12-14, 2021 (Held Virtual)
- 477) N. Khurana, B. Yathavana, J. Jedrzkiewicz, A. Pulsipher, J. A. Alt, H. Ghandehari, Development of a Liposomal Drug Delivery Platform for Improved Treatment of Chronic Rhinosinusitis, Controlled Release Society (CRS) Annual Meeting and Exposition, July 25 – July 29, 2021 (Held Virtual).
- 478) D. Steinhauff, B. Armstrong, H. Ghandehari, Generation of Thermoresponsive Protein Subunits and Complexation to Target CD20 Receptors for Therapeutic Purposes, Controlled Release Society (CRS) Annual Meeting and Exposition, July 25 – July 29, 2021 (Held Virtual).
- 479) N. Khurana, B. Yathavan, J. Jedrzkiewicz, A. S. Gill, A. Pulsipher, J. A. Alt, H. Ghandehari, Vascular Permeability in Chronic Rhinosinusitis Enhances Accumulation and Retention of Liposomal Drug Carriers after Systemic Administration, American Rhinology Society Conference, Dalla, Texas, April 28-29, 2022.

#### INVITED LECTURES:

- 1) Northeast Louisiana University, School of Pharmacy, Monroe, Louisiana, February 1997.
- 2) University of Tennessee, Department of Biomedical Engineering, Memphis, Tennessee, November 1998.
- 3) University of Tennessee, Department of Pharmaceutical Sciences, Memphis, Tennessee, November 1998.
- 4) Shearwater Polymers, Inc., Department of Drug Delivery, Huntsville, Alabama, December 1998.
- 5) Saarland University, Department of Biopharmaceutics and Pharmaceutical Technology, Saarbrücken, Germany, July 2000.
- 6) First International Conference for Pharmaceutical Industry, Cairo, Egypt, September 2000.
- 7) Cairo University, School of Pharmacy, Cairo, Egypt, September 2000.
- 8) University of Chicago at Illinois, College of Pharmacy, Chicago, Illinois, February 2001.
- 9) Purdue University, School of Pharmacy, West Lafayette, Indiana, March 2001.
- 10) Johns Hopkins University, Department of Chemical Engineering, Baltimore, Maryland, April 2001.
- 11) Fifth International Symposium on Polymer Therapeutics: From Laboratory to Clinical Practice, Welsh School of Pharmacy, Cardiff University, UK, January 3-5, 2002.
- 12) Fourth Intensive Course and Workshop on Cell Culture and Ex-Vivo Models for Drug Absorption and Delivery”, Department of Biopharmacy and Pharmaceutical Technology, Saarland University, Saarbrücken, Germany, February 20 - March 1, 2002.
- 13) Utrecht University, Utrecht Institute for Pharmaceutical Sciences, Utrecht, Netherlands, February 28, 2002.
- 14) Gene Delivery Workshop: Design Principles for the Next Generation of Non-viral Vectors New Jersey Center for Biomaterials Somerset, NJ, May 14-15, 2002.
- 15) Fifth International Symposium on Biorelated Polymers at the Fall American Chemical Society Meeting, Boston, MA, August 18-22, 2002.

- 16) Sixth New Jersey Symposium on Biomaterials Science on "The Next Generation of Biomaterials", New Jersey Center for Biomaterials, Somerset, NJ, October 17-18, 2002.
- 17) Institute for International Research 2<sup>nd</sup> Annual Conference on Protein and Peptide Formulation Strategies for Drug Development and Delivery, Boston, MA, March 31-April 2, 2003.
- 18) University of Wisconsin, School of Pharmacy, Madison, Wisconsin, May 9, 2003.
- 19) Third International Conference on Silk, Montreal, Canada, June 16-19, 2003.
- 20) Symposium on Polymeric Drug Delivery: Science & Application at the Fall American Chemical Society Meeting, New York, NY, September 7-11, 2003.
- 21) Symposium on Recent Advances in Gene and Drug Delivery at the 2003 Regional Meeting of the American Chemical Society, Pittsburgh, PA, October 20, 2003.
- 22) Symposium on Polymer Therapeutics: Advances and Challenges at the 2003 Annual Meeting of the American Association of Pharmaceutical Scientists, Salt Lake City, UT, October 29, 2003.
- 23) Howard University School of Pharmacy, Washington DC, November 14, 2003.
- 24) Rutgers, The State University of NJ, Department of Pharmaceutics, Piscataway, NJ, April 30, 2004.
- 25) Global Pharmaceutics Education Network Meeting, Kyoto, Japan, May 28, 2004.
- 26) American Association of Pharmaceutical Scientists Meeting on Pharmaceutics and Drug Delivery, Philadelphia, PA, June 8, 2004.
- 27) International Symposium on Controlled Release of Bioactive Materials, Honolulu, Hawaii, June 12, 2004.
- 28) Symposium on Nanomedicine and Drug Delivery, Polytechnic University, Brooklyn, NY, August 19, 2004.
- 29) Symposium on Biorelated Polymers, Fall American Chemical Society Meeting, Philadelphia, PA, August 25, 2004.
- 30) Annual Meeting of the American Association of Pharmaceutical Scientists, Baltimore, MD, November 10, 2004.
- 31) University of Maryland Baltimore County, Training Program at the Interface of Chemistry and Biology, Department of Chemistry, Baltimore, MD, December 15, 2004.
- 32) International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 21-24, 2005.
- 33) University of Kentucky, Department of Pharmaceutical Sciences, Lexington, Kentucky, March 11, 2005.
- 34) First Iran International Hi-Tech Fair – Tabriz, Iran, April 26-29, 2005.
- 35) Fourth International Dendrimer Symposium, Central Michigan University, Mount Pleasant, Michigan, May 18-21, 2005.
- 36) Medtronic, Inc. Minneapolis, Minnesota, May 27, 2005.
- 37) International Symposium on Controlled Release of Bioactive Materials, Miami, FL, June 18, 2005.
- 38) Rexhan, Inc. Rockville, MD, September 9, 2005
- 39) Wayne State University, Department of Pharmaceutical Sciences, Detroit, MI, December 7, 2005.
- 40) Louisiana State University, Department of Comparative Biomedical Sciences, School of Veterinary Medicine, Baton Rouge, LA, March 29, 2006, Title: Engineering Polymers for Targeted Cancer Therapy.
- 41) South Dakota State University, Department of Pharmaceutical Sciences, Brookings, SD, April 5, 2006. Title: Engineering Polymers for Targeted Cancer Therapy.
- 42) College of Notre Dame of Maryland, Baltimore, MD, April 18, 2006. Title: Drug Delivery at the Interface of Chemistry, Biology, and Engineering.
- 43) University of Pennsylvania Medical Center, Institute for Environmental Medicine, Philadelphia, Pennsylvania, April 28, 2006. Title: Polymers for Targeted Cancer Therapy.
- 44) University of Maryland College Park, Department of Chemical Engineering, May 2, 2006. Title: Engineering Polymers for Cancer Therapy.
- 45) University of Nebraska Medical Center, Department of Pharmaceutical Sciences, May 10, 2006. Title: Polymers for Targeted Delivery to Solid Tumors.



- 46) Second Annual Meeting of the American Academy of Nanomedicine, Washington DC, September 9-10, 2006. Title: Targeted Delivery: Does Higher Definition at Nanoscale Matter?
- 47) International Pharmaceutical Technology Symposium, Antalya, Turkey, September 10-13, 2006. Title: Recombinant Polymers for Targeted Gene Delivery (Nanoscale Polymer/DNA Complexes).
- 48) Chiang Mai University School of Pharmacy, Chiang Mai, Thailand, September 18-19, 2006. Two Lectures; University of Maryland Center for Nanomedicine: A Bench to Bedside Approach & Engineering Polymers for Targeted Drug and Gene Delivery.
- 49) Khon Kaen University School of Pharmacy, Khon Kaen, Thailand, September 21-22, 2006. Lecture on "Nanotechnology"- Title: TBA.
- 50) Mahidol University School of Pharmacy, Bangkok, Thailand, September 25-26, 2006. Title: TBA
- 51) Indo-US Symposium on Nanotechnology in Advanced Drug Delivery, Chandigarh, India, October 4-6, 2006. Title: Can Advances in Nanotechnology Improve Targeted Delivery of Bioactive Agents?
- 52) University of Alberta School of Pharmacy, Edmonton, Canada, October 20, 2006, *Key Note Speaker* on "Frontiers in Pharmaceutical Sciences" Lecture, Pharmacy Research Day.
- 53) The 8th New Jersey Symposium on Biomaterials Science, New Brunswick, NJ, November 8-10, 2006. Lecture in Drug, Gene and Protein Delivery Session, Title: Engineering Polymers for Targeted Delivery to Solid Tumors.
- 54) University of North Carolina at Chapel Hill, School of Pharmacy, Chapel Hill, NC, November 20, 2006. Title: Nanoconstructs for Targeted Drug Delivery: Precious Gems and Some New Thoughts.
- 55) The Greater Baltimore Committee Symposium on Nanomedicine, Columbia, MD, November 30, 2006. Title: Nanotherapeutics: From Bench to Bedside.
- 56) Symposium on Drug Delivery and Translational Research, Polytechnic University, Brooklyn, NY, December 4-5, 2006. Title: Engineering Polymers for Targeted Delivery to Solid Tumors.
- 57) University of Maryland Greenebaum Cancer Center, Experimental Therapeutics Program, Baltimore, MD, January 16, 2007, Title: Polymers for Delivery of Bioactive Agents to Solid Tumors.
- 58) University of Illinois at Chicago, School of Pharmacy, Chicago, Illinois, January 18, 2007. Title: Polymers for Targeted Drug Delivery: Precious Gems and Some New Thoughts.
- 59) St. Johns University College of Pharmacy and Allied Health Professions, Jamaica Plains, NY, January 31, 2007, Title: Engineering Nanoscale Constructs for Targeted Drug Delivery.
- 60) University of Maryland Baltimore County, Baltimore, MD, February 5, 2007, Title: Engineering Carriers for Targeted Delivery to Solid Tumors.
- 61) International Symposium on Polymer Therapeutics, Berlin, Germany, February 19-21, 2007. Title: Targeted Delivery of Radionuclides to Tumor Angiogenesis.
- 62) 10<sup>th</sup> US-Japan Cellular & Gene Therapy Conference on Nanobiotechnology, National Cancer Institute, Bethesda, Maryland, March 1<sup>st</sup> 2007, Title: Recombinant Polymers as Gene Delivery Constructs
- 63) 2<sup>nd</sup> Annual Nanomedicine Conference: Commercializing Drug Delivery, Diagnosis and Medical Devices, March 26, 2007, Washington D.C, Title: Improving Delivery to Solid Tumors.
- 64) University of Utah, Department of Pharmaceutics & Pharmaceutical Chemistry, Salt Lake City, UT, March 27, 2007, Title: Targeted Delivery: Does Higher Definition at Nanoscale Matter?
- 65) University of Southern California, Department of Pharmaceutical Sciences, Los Angeles, CA, March 30, 2007, Title: Engineering Nanoscale Constructs for Targeted Drug Delivery.
- 66) University of Wyoming, Department of Chemical Engineering, Laramie, Wyoming, April 2, 2007, Title: Engineering Nanoscale Constructs for Targeted Drug Delivery.
- 67) United States Patent and Trade Mark Office, Alexandria, VA, April 4, 2007, Title: Nanoconstructs for Targeted Drug Delivery; Old Gems and New Thoughts.
- 68) University of Maryland School of Medicine, Department of Diagnostic Radiology, Baltimore, MD, April 11, 2007, Title: Engineering Nanoconstructs for Targeted Delivery.
- 69) Pharmaceutical Sciences World Conference, Amsterdam, Netherlands, April 22-25, 2007. Special Session on Nanotechnology, Title: Can Higher Definition at the Nanoscale Result in Better Drug Delivery Systems in the 21st Century?

- 70) Duke University, Department of Biomedical Engineering, Durham, Duke, May 9, 2007, Title: Targeted Delivery: Does Higher Definition at Nanoscale Matter?
- 71) IUPAC Conference on Macromolecules for a Sustainable, Safe & Healthy World (MSSHW 2007), June 12, 2007 Polytechnic University, New York, NY. Title: Poly (amido amine) Dendrimers as Oral Drug Carriers: Transport and Toxicity Considerations.
- 72) University of Maryland Greenebaum Cancer Center Experimental Therapeutics Annual Retreat, Baltimore, MD, June 22, 2007, Title: Delivery of Bioactive Agents to Solid Tumors.
- 73) Nanotechnology Characterization Lab, National Cancer Institute – Fredrick, MD, August 10, 2007, Title: Nanoconstructs for Targeted Drug Delivery; Old Gems and New Thoughts.
- 74) 5th International Nanomedicine and Drug Delivery Symposium, Northeastern University, Boston, MA, November 2-3, 2007, Title: Dendritic Biomaterials for Oral Drug Delivery.
- 75) Utah’s Statewide Nanotechnology Conference, NanoUtah, Salt Lake City, Utah, October 26, 2007 Title: Nanoconstructs for Targeted Drug Delivery; Old Gems and New Thoughts.
- 76) Annual Meeting of the American Association of Pharmaceutical Scientists; Symposium on Pharmaceutical Nanoparticulate Drug Delivery Systems, San Diego, CA, November 13, 2007, Title: Engineering Novel Nanoconstructs for Targeted Delivery of Bioactive Agents.
- 77) The University of Kansas, Departments of Chemical and Petroleum Engineering and Pharmaceutical Chemistry, Lawrence, KS, February 19, 2008, Title: Targeted Delivery: Does Higher Definition at Nanoscale Matter?
- 78) Utah State University, Logan, Utah, March 17, 2008, Title: Targeted Delivery: Does Higher Definition at Nanoscale Matter?
- 79) 10<sup>th</sup> European Symposium on Controlled Drug Delivery, Noordwijk aan Zee, The Netherlands, April 2-4, 2008, Title: Polymer-Peptide Conjugates for Targeted Delivery to Sites of Angiogenesis.
- 80) American Chemical Society Northwest & Rocky Mountain Regional Meeting, Park City, Utah, June 17, 2008, Title: Materials with Higher Definition for Delivery of Bioactive Agents.
- 81) 35<sup>th</sup> Annual Meeting and Exposition of the Controlled Release Society, New York, NY, July 14, 2008, Title: Non-Viral Gene Delivery.
- 82) The Department of Pharmacology & Toxicology, Salt Lake City, Utah, August 25, 2008, Title: Targeted Delivery: Towards Higher Definition at the Nanoscale.
- 83) Students of Biomedical Engineering Society, University of Utah, Salt Lake City, Utah, September 16, 2008, Title: Nanomedicine & Drug Delivery.
- 84) Huntsman Cancer Institute, Breast Interdisciplinary Group, University of Utah, Salt Lake City, Utah, September 18, 2008, Title: Targeted Delivery: Towards Higher Definition at the Nanoscale.
- 85) The Department of Obstetrics and Gynecology Grand Rounds, University of Utah, Salt Lake City, Utah, November 5, 2008, Title: Engineering Nanoconstructs for Targeted Delivery.
- 86) The Leonardo, Salt Lake City Library, Salt Lake City, Utah, November 18, 2008, Title: Nanomedicine & Drug Delivery: Opportunities and Challenges.
- 87) The Department of Biochemistry, University of Utah School of Medicine, November 19, 2008, Title: Engineering Nanoconstructs for Targeted Delivery.
- 88) The Department of Biochemistry, The State University of New York Health Science, Brooklyn, NY, February 2, 2009, Title: Materials for Targeted Tumor Therapy: Does Increased Definition at the Nano Scale Matter?
- 89) The Department of Radiology, University of Utah, Salt Lake City, Utah, February 12, 2009, Title: Engineering Nanoconstructs for Targeted Delivery.
- 90) 14<sup>th</sup> International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 15-18, 2009, Title: Recombinant Polymers for Gene Therapy of Head and Neck Cancer: From Molecular Definition to Controlled Gene Expression.
- 91) 237<sup>th</sup> American Chemical Society National Meeting & Exposition, Symposium on Frontiers in Nanoparticle and Nanoporous Materials, Salt Lake City, Utah, March 24, 2009, Title: Size and Geometry-Dependent Toxicity and Cellular Uptake of Gold, Silica and Dendritic Nanoparticles.

- 92) Department of Pharmaceutical Sciences, University of Colorado Denver, March 26, 2009, Title: Materials for Targeted Tumor Therapy: Does Increased Definition at the Nano Scale Matter?
- 93) Department of Chemistry and Biochemistry, University of Maryland Baltimore County, Baltimore, Maryland, April 7, 2009, Title: Engineering Materials for Targeted Tumor Therapy-Role of Definition at the Nanoscale.
- 94) Utah-Inha DDS & Advanced Therapeutics Research Center, Seoul, Korea, June 22, 2009, Title: Targeted Tumor Therapy-Role of Definition at the Nanoscale.
- 95) 36<sup>th</sup> Annual Controlled Release Society Meeting, Copenhagen, Denmark, July 22, 2009, Title: Nanoconstructs for Controlled Delivery: Towards a Higher Degree of Definition.
- 96) U.S. Environmental Protection Agency Interagency Nanotechnology Implications Grantees Workshop-EPA, NSF, NIEHS, NIOSH and DOE, Las Vegas, Nevada, November 9-10, 2009, Title: Biological Fate and Biocompatibility of Dendritic and Inorganic Nanoconstructs.
- 97) Department of Pharmaceutical Sciences, North Dakota State University, November 16, 2009, Title: Engineering Nanoconstructs for Targeted Drug and Gene Delivery.
- 98) The School of Science, Math and Engineering, Salt Lake Community College, November 18, 2009, Title: Engineering Nanoconstructs for Targeted Drug Delivery.
- 99) Biomedical Nanoscience Initiative Retreat, University of Southern California, November 20, 2009, Title: Engineering Nanoconstructs for Targeted Drug and Gene Delivery.
- 100) Huntsman Cancer Institute/UCSF Pancreas Cancer Research Retreat, Park City, UT, February 25, 2010, Title: Nanoconstructs for Controlled Drug Delivery in Cancer Treatment.
- 101) 8<sup>th</sup> International Conference and Workshop on Biological Barriers-In Vitro Tools, Nanotoxicology, and Nanomedicine, Saarland University, Saarbrücken, Germany, March 24<sup>th</sup>, 2010, Title: Engineering Nanoconstructs for Drug Delivery: Importance of Definition at the Nanoscale.
- 102) Symposium on Biomedical Polymers for Drug Delivery, University of Utah, Salt Lake City, UT, March 26, 2010, Title: Silk-Elastinlike Hydrogels for Cancer Gene Therapy.
- 103) MESA/STEP Networking, Salt Lake Community College, Salt Lake City, UT, April 7, 2010, Title: Nanomedicine & Drug Delivery: Opportunities and Challenges.
- 104) Symposium on the Clinical Applications of Quantum Dot and Nanoparticle Technology, University of Illinois at Chicago, Chicago, IL, April 13, 2010, Title: Engineering Nanoconstructs for Drug and Gene Delivery to Solid Tumors.
- 105) Texas A&M Health Sciences Center, College of Pharmacy, Department of Pharmaceutical Sciences, Kingsville, Texas, April 15, 2010, Title: Drug and Gene Delivery Approaches for Solid Tumor Therapy.
- 106) 4<sup>th</sup> Workshop on Inhibitors of Angiogenesis Design, Synthesis and Biological Exploitation, Istanbul, Turkey, April 30, 2010, Title: Polymer-Peptide Conjugates for Targeted Delivery to Tumor Angiogenesis.
- 107) 4<sup>th</sup> International Symposium for Intelligent Drug Delivery Systems, Korean Institute of Science and Technology (KIST), Seoul, Korea, May 7, 2010, Title: Biomaterials for Solid Tumor Therapy: Role of Definition at the Nanoscale.
- 108) 8<sup>th</sup> International Symposium on Polymer Therapeutics: From Laboratory to Clinical Practice, Valencia, Spain, May 24-26, 2010. Title: Dendritic Biomaterials for Oral Delivery of Chemotherapeutics?
- 109) 6<sup>th</sup> Symposium of the LTS Academy "Unmet Needs in Personalized Medicines", LTS (Lohmann Therapie-Systeme AG), West Orange, NJ, May 28, 2010, Title: Advanced Drug Delivery for the 21<sup>st</sup> Century: Need for Materials with a Higher Degree of Definition.
- 110) Materials for Advanced Drug Delivery Systems Workshop, Industrial Partnership for Research in Interfacial and Materials Engineering, University of Minnesota, Minneapolis, Minnesota, June 2, 2010, Title: Targeted Cancer Therapy: Need for Materials with a Higher Degree of Definition.
- 111) Workshop on "Nanomedicine: from Materials Design to Clinical Applications", 37<sup>th</sup> Annual Meeting and Exposition of the Controlled Release Society, Portland, Oregon, July 10-14, 2010, Title: Architectural Influence of Nanoconstructs on Toxicity, Cellular Uptake and Biological Fate.
- 112) 12<sup>th</sup> Iranian Pharmaceutical Sciences Congress (IPSC2010), Zanjan, Iran, August 2, 2010, Title: Biomaterials for Solid Tumor Therapy. Plenary Lecture

- 113) American Chemical Society Fall Meeting, Symposium on Multifunctional Nanoparticles for Drug Delivery and Imaging, Boston, Massachusetts, August 23, 2010, Title: Influence of Nanoconstruct Architecture on Biodistribution in Ovarian Tumor-Bearing Mice.
- 114) 15th International Pharmaceutical Technology Symposium, Antalya, Turkey, September 13, 2010, Title: Delivery Approaches for Targeted Therapy of Solid Tumors.
- 115) Bogazici University, Department of Chemistry, Istanbul, Turkey, September 16, 2010, Title: Engineering Nanoconstructs for Targeted Delivery to Solid Tumors.
- 116) 8<sup>th</sup> International Nanomedicine and Drug Delivery Symposium from Laboratory to Clinical Reality, Omaha, Nebraska, October 3, 2010, Title: Architectural Influence of Nanocarriers on Tumor Distribution and Toxicity.
- 117) American Head and Neck Society 2010 Research Workshop on the Biology, Prevention and Treatment of Head and Neck Cancer, Arlington, Virginia, October 29, 2010, Title: Engineering Polymers for Head and Neck Cancer Gene Therapy. [cancelled due to flight delay]
- 118) American Institute of Chemical Engineers National Meeting, Salt Lake City, Utah, November 9, 2010, Title: Drug Delivery for Cancer Therapy: Emerging Importance of Definition at the Nanoscale. Plenary Lecture
- 119) Michigan Technical University, Department of Chemical Engineering, Houghton, Michigan, February 28, 2011, Title: Drug and Gene Delivery for Cancer Therapy: Role of Definition at the Nanoscale. [cancelled due to flight delay]
- 120) Wayne State University, Detroit, Michigan, March 1, 2011, Title: Drug and Gene Delivery for Cancer Therapy: Role of Definition at the Nanoscale.
- 121) Clinical Research and Methods (CRAM), University of Utah, March 16, 2011, Title: Nanotechnology: Opportunities for Better Therapy and Diagnosis.
- 122) 241<sup>st</sup> American Chemical Society National Meeting & Exposition, Anaheim, California, March 27, 2011, Title: Influence of Size, Surface Properties, and Geometry of Silica and Gold Nanoparticles on Cellular Uptake and Toxicity. [*Cancelled due to illness*]
- 123) 241<sup>st</sup> American Chemical Society National Meeting & Exposition, Anaheim, California, March 27, 2011, Title: Silk-Elastinlike Polymers for Matrix-Mediated Adenoviral Gene Delivery. [cancelled due to illness]
- 124) Polymer Society of Korea Annual Meeting, Daejeon, Korea, April 7, 2011, Title: HEMA Copolymer-Cyclic RGD Conjugates for Imaging and Targeted Drug Delivery to Sites of Tumor Angiogenesis.
- 125) Korean Institute of Science and Technology, Seoul, Korea, April 8, 2011, Title: Macromolecular Therapeutics for Imaging and Targeted Delivery to Sites of Tumor Angiogenesis.
- 126) 2011 International Advanced Drug Delivery Symposium, National Tsing Hua University, Taiwan, April 27-28, 2011, Title: Advanced Drug Delivery Approaches for Targeted Tumor Therapy.
- 127) 3<sup>rd</sup> European Science Foundation (ESF), Nanomedicine 2011, Lutherstadt Wittenberg, Germany, June 19-24, 2011, Title: Recombinant Polymers for Gene Delivery.
- 128) 7<sup>th</sup> International Dendrimer Symposium, NIST Campus, Gaithersburg, MD, June 27, 2011, Title: PAMAM Dendrimers for Oral Drug Delivery: Transepithelial Transport and In Vivo Tolerability.
- 129) Gordon Research Conference (GRC) on Cancer Nanotechnology, Waterville, ME, July 17-22, 2011, Title: Polymer-Peptide Conjugates for Targeted Delivery to Solid Tumors.
- 130) 38<sup>th</sup> Annual Meeting & Exposition of the Controlled Release Society, Washington, DC, August 1, 2011, Title: Nanotoxicology: Relevance to Controlled Release.
- 131) Pan-American Advanced Studies Institute (PASI 2011), San Jose, Costa Rica, August 8<sup>th</sup>, 2011, Title: Functional Nanomaterials for Drug and Gene Delivery.
- 132) Pan-American Advanced Studies Institute (PASI 2011), San Jose, Costa Rica, August 12<sup>th</sup>, 2011, Title: Toxicity and Biological Fate of Nanoconstructs.
- 133) 18<sup>th</sup> International Symposium on Microencapsulation, Antalya, Turkey, September 12-14, 2011, Title: Matrix-Mediated Gene Delivery from Silk-Elastinlike Recombinant Polymers: Hydrogels and Nanoparticles.

- 134) 2<sup>nd</sup> International School, Nano2011, Moscow, Russia, September 19, 2011, Title: Geometrically Defined Nanoconstructs: Implications in Biological Fate and Drug Delivery.
- 135) 3<sup>rd</sup> Annual Conference of the American Society for Nanomedicine, Rockville, Maryland, November 9<sup>th</sup>, 2011, Title: Gold Nanorod-Induced Hyperthermia Enhances the Delivery of Multifunctional HPMA Copolymers to Prostate Tumors.
- 136) Harrington Symposium, University of Texas, Austin, Texas, November 10, 2011, Title: Inorganic Nanoconstructs with Well-Defined Surface Properties and Geometry: Implications in Toxicity and Targeted Drug Delivery.
- 137) 2011 International Symposium on Theragnosis Inaugural Symposium of Biomedical Research Institute (KIST), Seoul, Korea, November 24<sup>th</sup>, 2011, Title: Water Soluble Polymers for Drug and Radionuclide Delivery.
- 138) Institute of Bioengineering and Nanotechnology, Singapore, January 17, 2012, Title: Advanced Drug Delivery for Targeted Tumor Therapy: Role of Definition at the Nanoscale.
- 139) Nanyang Technological University, School of Chemical & Biomedical Engineering, Singapore, January 18, 2012, Title: Advanced Drug Delivery for Targeted Tumor Therapy: Role of Definition at the Nanoscale.
- 140) The Hong Kong University of Science & Technology, Division of Biomedical Engineering and Department of Chemical & Biomolecular Engineering, Hong Kong, January 19, 2012, Title: Advanced Drug Delivery for Targeted Tumor Therapy: Role of Definition at the Nanoscale.
- 141) Seoul National University, College of Pharmacy, Seoul Korea, February 22, 2012, Title: Advanced Drug Delivery for Targeted Tumor Therapy: Role of Definition at the Nanoscale.
- 142) 9<sup>th</sup> International Conference and Workshop on Biological Barriers, Saarbrucken, Germany, March 6, 2012, Title: Gold Nanorod Mediated Enhanced Delivery of Polymer Therapeutics.
- 143) American Chemical Society 243<sup>rd</sup> National Meeting, 11<sup>th</sup> International Symposium on Biorelated Polymers, San Diego, CA, March 26, 2012, Title: Controlling the Delivery of Heat Shock Targeted HPMA Copolymers with Gold Nanorod Photothermal Therapy.
- 144) University of Missouri Kansas City, College of Pharmacy, Department of Pharmaceutical Sciences, Kansas City, Missouri, April 3, 2012, Advanced Drug Delivery for Targeted Tumor Therapy: Role of Definition at the Nanoscale.
- 145) Foundations of NanoScience Conference, Snowbird, Utah, April 18, 2012, Title: Gold Nanorod Mediated Enhanced Delivery of Polymer Therapeutics.
- 146) Hanyang University, Department of Bioengineering, College of Engineering, Seoul, Korea, April 26, 2012, Title: Engineering Polymers for Targeted Delivery to Solid Tumors.
- 147) Université de Paris Sud, Institut Galien, Paris-Sud, Paris, France, June 27, 2012, Title: Approaches for Enhancing the Delivery of Bioactive Agents to Solid Tumors.
- 148) 76<sup>th</sup> Prague Meetings on Macromolecules, Polymers in Medicine, July 2, Prague, Czech Republic, Title: Gold Nanorod Mediated Hyperthermia Enhances the Delivery of HPMA Copolymer-Peptide Conjugates to Prostate Tumors.
- 149) Korean Institute of Science and Technology, Global RNAi Initiative Workshop Center for Theragnostics, Jeju, South Korea, July 4, 2012, Title: New Approaches for Enhanced Delivery to Solid Tumors.
- 150) The 39<sup>th</sup> Annual Meeting & Exposition of the Controlled Release Society, Workshop on “Critical Appraisal of EPR Effect and Intratumoral Distribution of Nanomedicine”, Quebec City, Canada, July 14, 2012, Title: Gold Nanorod Mediated Hyperthermia: An Approach to Enhance Passive and Active Delivery of Polymer Therapeutics.
- 151) The 39<sup>th</sup> Annual Meeting & Exposition of the Controlled Release Society, Quebec City, Canada, July 17, 2012, Title: Toxicity, Cellular Uptake, and Biodistribution of Inorganic Nanomaterials: Does Shape Matter?
- 152) Gordon Research Conference on “Drug Carriers in Biology and Medicine”, August 15, 2012, Waterville Valley, NH, Title: Gold Nanorod Mediated Hyperthermia: An Approach to Enhance Delivery of Polymer Therapeutics.

- 153) 34<sup>th</sup> International IEEE Engineering in Medicine and Biology Society Meeting (EMBC), August 28, 2012, San Diego, CA, Title: Advanced Drug Delivery for the 21<sup>st</sup> Century: Opportunities and Challenges.
- 154) 16<sup>th</sup> International Pharmaceutical Technology Symposium (IPTS), September 11, 2012, Antalya, Turkey, Title: Gold Nanorod-Mediated Hyperthermia: A Tool to Enhance the Delivery of Macromolecular Therapeutics.
- 155) 2012 Annual Meeting of the American Association of Pharmaceutical Scientists, Mini Symposium on Use of Mesoporous Nanoparticles and Targeted Drug Delivery, October 15, 2012, Chicago, Illinois, Title: Toxicology of Mesoporous Silica Nanoparticles.
- 156) 10<sup>th</sup> International Nanomedicine and Drug Delivery Symposium (NanoDDS'12), October 28-30, 2012, Atlantic City, New Jersey, (Postponed to December due to Sandy Storm in East Coast)
- 157) University of Nebraska Medical Center, Center for Drug Delivery and Nanomedicine, Omaha, Nebraska, November 15, 2012, Title: Approaches for Enhancing the Delivery of Bioactives to Solid Tumors: Does Definition at the Nanoscale Matter?
- 158) The Hong Kong University of Science and Technology, International Conference on Biomedical Engineering, Hong Kong, January 11, 2013, Title: Plasmonic Photothermal Therapy and Recombinant Polymers for Controlled Delivery to Solid Tumors.
- 159) 4<sup>th</sup> Kuwait International Pharmacy Conference, Kuwait City, Kuwait, February 5, 2013, Title: Polymeric Systems for Controlled Delivery to Solid Tumors.
- 160) 4<sup>th</sup> Kuwait International Pharmacy Conference, Kuwait City, Kuwait, February 6, 2013, Title: Translating Drug Discovery to the Market.
- 161) New Zealand Chapter of Controlled Release Society, Auckland University School of Pharmacy, Auckland, New Zealand, February 12, 2013, Title: Advanced Drug Delivery for Targeted Tumor Therapy: Role of Definition at the Nanoscale.
- 162) New Zealand Controlled Release Society Formulation and Delivery of Bioactives Conference, University of Otago, New Zealand, February 14, 2013, Title: Polymer-Peptide Conjugates for Targeted Delivery to Solid Tumors: Opportunities and Challenges.
- 163) The University of Iowa College of Pharmacy, Division of Pharmaceutics and Translational Therapeutics, Iowa City, Iowa, March 14, 2013, Title: Advanced Drug Delivery for Targeted Tumor Therapy.
- 164) Department of Drug Discovery and Biomedical Sciences, University of South Carolina, Columbia, South Carolina, March 26, 2013, Title: Advanced Drug Delivery for Targeted Tumor Therapy.
- 165) Materials Research Society (MRS) Spring Meeting and Exhibit, Symposium on New Tools for Cancer Using Nanomaterials, Nanostructures and Nanodevices, San Francisco, CA, April 3, 2013, Title: Gold Nanorod-Mediated Plasmonic Photothermal Therapy for Enhanced Delivery of Polymer Therapeutics to Solid Tumors.
- 166) 16<sup>th</sup> Annual Meeting of the American Society of Gene and Cell Therapy (ASGCT), Salt Lake City, Utah, May 15, 2013, Title: Recombinant Polymers for Gene Delivery.
- 167) 16<sup>th</sup> Annual Meeting of the American Society of Gene and Cell Therapy (ASGCT), Salt Lake City, Utah, May 16, 2013, Title: Silk-Elastinlike Polymers for Matrix-Mediated Gene Delivery.
- 168) University of Utah, PAC 12 EHS Directors Meeting, Salt Lake City, Utah, June 19, 2013, Title: Inorganic Nanoparticles: Delivery and Toxicity Considerations.
- 169) ChinaNANO: 5<sup>th</sup> International Conference on Nanoscience & Technology, Beijing, China, September 6, 2013, Title: Plasmonic Photothermal Induced Hyperthermia for Enhanced Delivery of Polymer Therapeutics.
- 170) Rutgers University, Department of Biomedical Engineering, Piscataway, New Jersey, October 14, 2013, Title: Engineering Materials for Enhanced Delivery of Bioactive Agents to Solid Tumors.
- 171) Nankai University, Key Laboratory of Bioactive Materials, College of Life Sciences and Institute for Molecular Biology, Tianjin, China, November 22, 2013, Title: Engineering Materials for Controlled Drug Delivery to Solid Tumors.

- 172) University of California, San Diego, Skaggs School of Pharmacy and Pharmaceutical Sciences, Guest Lecture in “Dosage Forms - Delivery Systems: SPPS 225”, February 18, 2014, Title: Controlled Drug Delivery: Relevance to Pharmacy Practice.
- 173) University of California, San Diego, Skaggs School of Pharmacy and Pharmaceutical Sciences, Center of Excellence in Nanomedicine and Engineering, February 18, 2014, Title: Enhancing Delivery to Solid Tumors: Importance of Definition at the Nanoscale.
- 174) University of Toronto, Leslie Dan Faculty of Pharmacy, Toronto, Ontario, Canada, February 25, 2014, Title: Enhancing Delivery to Solid Tumors: Importance of Definition at the Nanoscale.
- 175) University of Padova, Department of Pharmaceutical and Pharmacological Sciences, Padova, Italy, March 10, 2014, Title: University of Utah Nanotechnology Institute.
- 176) University of Padova, Department of Pharmaceutical and Pharmacological Sciences, Padova, Italy, March 11, 2014, Title: Water-Soluble Polymers for Targeted Delivery to Solid Tumors.
- 177) University of Padova, Department of Pharmaceutical and Pharmacological Sciences, Padova, Italy, March 12, 2014, Title: Recombinant Polymers for Gene and Drug Delivery.
- 178) University of Padova, Department of Pharmaceutical and Pharmacological Sciences, Padova, Italy, March 13, 2014, Title: Nanotoxicology: Influence of Shape, Size, Charge, Composition and Surface Properties.
- 179) University of Padova, Department of Pharmaceutical and Pharmacological Sciences, Padova, Italy, March 14, 2014, Title: Transepithelial Transport of Poly(amidoamine) Dendrimers: Potential in Oral Drug Delivery?
- 180) 13<sup>th</sup> European Symposium on Controlled Drug Delivery, Egmond Aan Zee - The Netherlands, April 16, 2014, Title: Silk-Elastinlike Copolymers: Structure-Function Relationship in Controlled Delivery.
- 181) 10<sup>th</sup> International Symposium on Polymer Therapeutics: From Laboratory to Clinical Practice, Valencia, Spain, April 19-21, 2014. Title: Plasmonic Photothermal Therapy for Enhanced Delivery of Polymer Therapeutics.
- 182) Third Global RNAi Carrier Initiative Symposium, Korean Institute of Science and Technology, Seoul, Korea, May 27, 2014, Title: Recombinant Polymers for Localized Nucleic Acid Delivery.
- 183) Medical Research Center (MRC) for Cell Fate Control, College of Pharmacy, Sookmyung Women's University, Seoul, Korea, May 30, 2014, Title: Approaches for Delivery of Bioactive Agents to Solid Tumors.
- 184) Brigham Young University – Idaho, Rexburg, Idaho, June 26, 2014, Title: Approaches for Targeted Delivery to Solid Tumors.
- 185) 10<sup>th</sup> Meeting of Global Pharmaceutics Education Network, Workshop on Nanotechnology, Helsinki, Finland, August 30, 2014, Title: Nanotoxicology.
- 186) Chinese Pharmaceutics Conference (Annual Meeting of Pharmaceutics Committee of CPA & Annual Meeting of China Chapter, CRS & The 6<sup>th</sup> Asian Pharmaceutical Technologies Arden Conference), Changsha, China, September 21, 2014, Title: Gold Nanorod Mediated Hyperthermia for Enhanced Delivery of Polymer Therapeutics.
- 187) West China School of Pharmacy, Sichuan University, Chengdu, China, September 21, 2014, Title: Approaches for Enhancing Delivery to Solid Tumors.
- 188) Kangwon National University School of Medicine, Institute of Medical Sciences, Department of Molecular & Cellular Biochemistry, Chuncheon, Korea, October 17, 2014, Title: Engineering Polymers for Localized Delivery to Solid Tumors.
- 189) Brigham Young University – Provo, Utah, December 9, 2014, Title: Advanced Drug Delivery for Targeted Tumor Therapy.
- 190) University of California Irvine, Department of Pharmaceutical Sciences, Irvine, CA, January 15, 2015, Title: Advanced Drug Delivery for Targeted Tumor Therapy.
- 191) University of Tennessee, Memphis, 2015 Kenneth E. *Avis Distinguished Visiting Professor*, Department of Pharmaceutical Sciences, Memphis, Tennessee, February 9, 2015, Title: Advanced Drug Delivery for Targeted Tumor Therapy.

- 192) University of Pittsburgh, Department of Pharmaceutical Sciences, Pittsburgh, Pennsylvania, February 16, 2015, Title: Advanced Drug Delivery for Targeted Tumor Therapy.
- 193) School of Pharmacy and Nanotechnology Research Center, Mashhad University of Medical Sciences, Mashhad, Iran, March 7, 2015. Title: Nanotoxicology: Basic Concepts and Some Recent Findings.
- 194) Mashhad University of Medical Sciences, Mashhad, Iran, March 7, 2015, Title: Drug and Gene Delivery Approaches for Solid Tumor Therapy.
- 195) Asian Nano Forum Congress, Kish Island, Iran, March 8, 2015, Title: Approaches to Enhance Localized Delivery to Solid Tumors.
- 196) XI Coloquio Bienal en Ciencia de Materiales Departamento de Investigación en Polímeros y Materiales (DIPM) Universidad de Sonora, Hermosillo, Sonora, March 13, 2015, Title: Approaches to Enhance Localized Delivery to Solid Tumors.
- 197) XI Coloquio Bienal en Ciencia de Materiales Departamento de Investigación en Polímeros y Materiales (DIPM) Universidad de Sonora, Hermosillo, Sonora, March 13, 2015, Title: Biocompatibility on the Nanoscale.
- 198) Center for Targeted Therapeutics & Translational Nanomedicine, University of Pennsylvania School of Medicine, Philadelphia, PA, April 10, 2015, Title: Recombinant Polymers for Localized Gene and Drug Delivery.
- 199) School of Pharmacy, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong, China, May 13, 2015, Title: Advanced Drug Delivery for Targeted Tumor Therapy.
- 200) Global RNAi Carrier Initiative Workshop, Korean Institute of Science and Technology, Seoul, Korea, May 27, 2015, Title: Recombinant Polymers for Matrix Mediated RNAi Delivery.
- 201) 47th Pharmaceutics Graduate Student Research Meeting, University of Kentucky, College of Pharmacy, June 12, 2015, Lexington, Kentucky, Title: Advanced Drug Delivery for Targeted Tumor Therapy.
- 202) Purdue University, Department of Industrial and Physical Pharmacy, West Lafayette, Indiana, August 31, 2015, Title: Controlled Delivery with Polymeric and Inorganic Systems: Progress and Prospects.
- 203) 10th Congress of Pharmaceutical Sciences, Ribeirão Preto, São Paulo Brazil, September 06-09, 2015, Title: Nanotoxicology; Basic Concepts and Recent Findings.
- 204) Evonik Meets Science North America 2015, September 15, 2015, Jersey City, NJ, Title: Polymeric Materials for Localized Drug and Gene Delivery.
- 205) Samyang Biopharmaceuticals, Daejeon, South Korea, October 14<sup>th</sup>, 2015, Title: Polymeric Materials for Localized Drug and Gene Delivery.
- 206) 21<sup>st</sup> Annual Meeting of the Korean Society for Biomedical Laboratory Sciences, November 5, 2015, Yonsei University at Wonju, Wonju, South Korea, Title: Recombinant Polymers for Gene and Drug Delivery.
- 207) Division of Molecular Pharmaceutics, Eshelman School of Pharmacy, University of North Carolina at Chapel Hill, Chapel Hill, NC, January 14<sup>th</sup>, 2016. Title: Approaches for Localized Delivery to Solid Tumors: Opportunities and Challenges.
- 208) Institute of Pulsed Power Science, Kumamoto University, International Symposium on Interdisciplinary Pulsed Power, Kumamoto, Japan, March 10<sup>th</sup>, 2016. Title: Plasmonic Photothermal Therapy for Enhancing Delivery of Bioactive Agents.
- 209) Department of Chemistry & Biochemistry, University of Oklahoma, *Distinguished Karcher-Barton Speaker* at the University of Oklahoma, Norman, OK, April 8, 2016. Title: Drug Delivery Approaches for Solid Tumor Therapy.
- 210) Department of Pharmaceutical Sciences, Wayne State University, Detroit, Michigan, April 12, 2016. Title: Approaches for Localized Delivery to Solid Tumors.
- 211) Department of Pharmaceutical Sciences, University of Michigan, Ann Arbor, Michigan, April 13, 2016. Title: Approaches for Localized Delivery to Solid Tumors: Opportunities and Challenges.
- 212) Department of Pharmaceutical Sciences, State University of New York Buffalo, Buffalo, New York, April 28, 2016. Title: Approaches for Localized Delivery to Solid Tumors: Opportunities and Challenges.



- 213) Third Annual Symposium on Personalized Nano-Medicine, Miami, Florida, May 19-20, 2016. Title: Nanotechnology and Therapeutics for Targeted Delivery to Solid Tumors.
- 214) International Drug Delivery Systems-GiRC Joint Symposium, Korea Institute of Science and Technology, Seoul, Korea, May 27, 2016. Title: Matrix Mediated Adenoviral Delivery with Recombinant Polymers.
- 215) Department of Pharmaceutics, Tongji School of Pharmacy, National Engineering Research Center for Nanomedicine, Huazhong University of Science and Technology, Wuhan, China, May 30<sup>th</sup>, 2016. Title: Approaches for Localized Delivery to Solid Tumors: Opportunities and Challenges.
- 216) National Institute of Biomedical Imaging and Bioengineering, National Institutes of Health, Bethesda, Maryland, June 29<sup>th</sup>, 2016. Title: Approaches for Localized Delivery to Solid Tumors: Opportunities and Challenges.
- 217) Center for Strategic Scientific Initiatives, National Cancer Institute, National Institutes of Health, Bethesda, Maryland, July 11<sup>th</sup>, 2016. Title: Approaches for Localized Delivery to Solid Tumors: Opportunities and Challenges.
- 218) Mechanisms and Barriers in Nanomedicine Workshop, Breckenridge, Colorado, July 16<sup>th</sup>, 2016. Title: Hyperthermia Approaches for Enhanced Delivery of Polymer Therapeutics.
- 219) Stephenson Cancer Center, The University of Oklahoma, Oklahoma City, Oklahoma, July 29<sup>th</sup>, 2016. Approaches for Localized Delivery to Solid Tumors: Opportunities and Challenges.
- 220) 14<sup>th</sup> International Nanomedicine & Drug Delivery Symposium (NanoDDS'16), Johns Hopkins University, Baltimore, MD, September 16-18, 2016. Title: Matrix-Mediated Delivery of Bioactive Agents with Silk-Elastinlike Block Copolymers.
- 221) 18<sup>th</sup> International Pharmaceutical Technology Symposium, Antalya, Turkey, September 19-21, 2016. Title: Silk-Elastinlike Copolymers as Liquid Embolics and Gene Delivery Systems.
- 222) 4<sup>th</sup> Symposium on Innovative Polymers for Controlled Delivery, Suzhou, China, September 23-26, 2016. *Keynote Talk*, Title: Recombinant Silk-Elastinlike Block Copolymers for Controlled Drug and Gene Delivery.
- 223) 4<sup>th</sup> Congress on Innovation in Site-Specific Drug Delivery, Antibes-Juan-les-Pins, France, 25-28 September, 2016. *Plenary Lecture*, Title: Approaches for Spatiotemporal Delivery to Solid Tumors.
- 224) The 2<sup>nd</sup> International Conference on Nanomedicine, China, Wuhan, China, October 21, 2016. *Plenary Lecture*, Approaches for Spatiotemporal Delivery to Solid Tumors [*Not able to participate due to visa issues*]
- 225) Department of Chemical and Biological Engineering, Zhejiang University, Hangzhou, China, October 21, 2016. Title: Approaches for Spatiotemporal Delivery to Solid Tumors.
- 226) Department of Chemistry, University of Colorado, Denver, Denver, Colorado, December 2, 2016. Title: Approaches for Spatiotemporal Delivery to Solid Tumors.
- 227) Symposium in Honor of Jindrich Kopecek, Snowbird, Utah, February 17, 2017. Title: Hydrogels and Water-Soluble Polymers-A Tribute to Jindrich Kopecek.
- 228) School for Engineering of Matter, Transport and Energy, Arizona State University, Tempe, Arizona, February 27, 2017. Title: Approaches for Localized Drug Delivery to Solid Tumors.
- 229) Biomedical Engineering Seminar @ Texas A&M University, April 26, 2017. Title: Localized Drug Delivery Approaches for Solid Tumor Therapy.
- 230) University of Wisconsin School of Pharmacy, Madison, Wisconsin, April 28, 2017. Title: Localized Drug Delivery Approaches for Solid Tumor Therapy
- 231) TechConnect World Innovation, Materials for Drug and Gene Delivery Symposium, Washington D.C., May 17, 2017. Title: Recombinant Polymers for Drug and Gene Delivery [*Also Tech connect Panel Participant on The Future of Drug & Gene Delivery*]
- 232) International Drug Delivery Systems - GiRC Joint Symposium, Korea Institute of Technology, Seoul, South Korea, May 25-26, 2017. Title: Nanotoxicology of Dendritic and Silica Constructs.

- 233) IPRIME workshop on Synthetic and Hybrid Biopolymers as Biomaterials, University of Minnesota Minneapolis, Minnesota, May 31, 2017. Title: Silk-Elastinlike Protein-Based Biomaterials for Controlled Delivery of Bioactive Agents.
- 234) National ACS Meeting-Washington D.C., Aug 20-24, 2017. Title: Silk-Elastinlike Polymers for Controlled Delivery and as Liquid Embolics.
- 235) University of Kentucky, Lexington, Kentucky, September 28, 2017. Title: Localized Drug Delivery Approaches for Solid Tumor Therapy [*Ashland Inc. Distinguished Lecturer*].
- 236) Cedars-Sinai Department of Neurosurgery, Nanomedicine Research Center, Los Angeles, California, December 14, 2017. Title: Localized Drug Delivery Approaches for Solid Tumor Therapy.
- 237) 16<sup>th</sup> International Symposium on Advances in Technology and Business Potential of New Drug Delivery Systems, Controlled Release Society, Indian Chapter, Mumbai, India, February 24, 2018, Title: Biomaterials for Localized Delivery to Solid Tumors: Design and Toxicity Considerations.
- 238) Pharmaceutical Sciences Division, Graduate School of Pharmaceutical Sciences, Duquesne University, Pittsburgh, Pennsylvania, April 12, 2018, Title: Approaches for Enhanced Delivery to Solid Tumors.
- 239) Department of Biomedical Engineering, Case Western Reserve University, Cleveland, Ohio, May 3, 2018, Title: Biomaterials for Localized Delivery to Solid Tumors: Design and Toxicity Considerations.
- 240) Interfacial and Bioanalytical Chemistry Seminar Series, Department of Chemistry, University of Utah, Salt Lake City, Utah, August 3, 2018, Title: Nanoscale Systems for Drug Delivery: How Can a Drug Delivery Scientist Learn from Interfacial and Bioanalytical Chemistry?
- 241) NanoEHS-Nanomedicine: Synergisms and Similarities, National Nanotechnology Initiative's Public Webinar Series, August 20, 2018, Title: Nanotoxicology of Silica and Dendritic Constructs: A Case Study.
- 242) 12<sup>th</sup> International Conference and Workshop on Biological Barriers, Saarbruecken, Germany, August 27, 2018. Title: Toxicology of Engineered Silica Nanoparticles: Influence of Physicochemical Properties.
- 243) 16<sup>th</sup> International Nanomedicine and Drug Delivery Symposium, Portland, Oregon, September 23, 2018. Title: Safety Considerations for Silica Nanoparticles and Poly(amido amine) Dendrimers.
- 244) Department of Biomedical and Pharmaceutical Sciences, College of Pharmacy, Idaho State University, October 26, 2018. Title: Biomaterials for Solid Tumor Therapy: Design and Safety Considerations, *Annual Chu Lectureship*.
- 245) 5<sup>th</sup> Annual Personalized Nanomedicine Symposium, Miami, Florida, November 2, 2018. Title: Safety Considerations for Engineered Nanomaterials: Case Studies for Poly(amido amine) Dendrimers and Silica Nanoparticles.
- 246) College of Pharmacy, Seoul National University, Seoul, Republic of Korea, November 21, 2018. Title: Approaches for Delivery of Bioactive Agents to Solid Tumors: Design and Safety Considerations.
- 247) Department of Chemical Engineering, Korea Advanced Institute for Science and Technology, Daejeon, Republic of Korea, November 21, 2018, Title: Approaches for Delivery of Bioactive Agents to Solid Tumors: Design and Safety Considerations.
- 248) 48<sup>th</sup> Annual Meeting of the Korean Society of Pharmaceutical Sciences and Technology, Busan, Republic of Korea, November 22, 2018, Title: Approaches for Delivery of Bioactive Agents to Solid Tumors: Design and Safety Considerations. *Plenary Lecture*.
- 249) The International Research Organization for Advanced Science and Technology (IROAST), Kumamoto University, Kumamoto, Japan, March 14, 2019, Title: Safety Assessment of Inorganic and Dendritic Nanoparticles.
- 250) Department of Pharmaceutics & Chemical and Life Science Engineering, Virginia Commonwealth University, Richmond, Virginia, April 26, 2019, Title: Approaches for Localized Delivery to Solid Tumors: Carrier Design and Safety Considerations.
- 251) University of California Davis Comprehensive Cancer Center, Sacramento, California, May 23, 2019, Title: Approaches for Delivery of Bioactive Agents to Solid Tumors.

- 252) Leslie Dan Faculty of Pharmacy, University of Toronto, Toronto, Canada, May 10, 2019, Title: Approaches for Delivery of Bioactive Agents to Solid Tumors.
- 253) Global Bio Conference, Advanced Drug Delivery Systems Forum, Seoul, Republic of Korea, June 28, 2019, Title: Approaches for Delivery of Bioactive Agents to Solid Tumors: Carrier Design and Safety Considerations.
- 254) Fifth Conference of Transdermal Drug Delivery in World Federation of Chinese Medicine Societies, Nanjing, Peoples Republic of China, August 17, 2019, Title: Safety Assessment of Inorganic and Dendritic Nanoparticles.
- 255) Center for Targeted Therapeutics and Translational Nanomedicine (CT3N), University of Pennsylvania, Philadelphia, Pennsylvania, December 11, 2019, Title: Biomaterials for Localized Delivery: Design and Safety Considerations.
- 256) The International Research Organization for Advanced Science and Technology (IROAST), Kumamoto University, Kumamoto, Japan, December 18, 2019, Title: Biomaterials for Localized Delivery: Design and Safety Considerations.
- 257) International Symposium on Biomedical Materials for Drug/Gene Delivery, University of Utah, Salt Lake City, Utah, February 7-8, 2020, Title: A Journey from Azobond-Containing Hydrogels to Liquid Embolics: A Tribute to Jindřich Kopeček.
- 258) Rocky Mountain Discussion Group American Association of Pharmaceutical Scientists 8<sup>th</sup> Annual Meeting-Virtual, November 13, 2020, Title: Approaches for Spatiotemporal Delivery.
- 259) Biological Barriers Over The Years “CML turns 60“, Saarbrücken, Germany (Hybrid- gave talk virtually), October 8<sup>th</sup>, 2021, Title: Across Biological Barriers, Half the Battle in Drug Delivery: A Tribute to Claus-Michael Lehr.