

Polymers, Hydrogels, Drug Delivery Technologies



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LAB MEMBERS



David Mastropietro
2010-2015



Srinath Muppalaneni
2011-2016



Yogesh Joshi
2012-Present



Rand Ahmad
2015-Present



Arghavan Kariman
2013-2016



Theodore Elisme
2013-2014



Alborz Omidian
Summer 2015



Jessica Santana de Sa
Summer 2015



Sampa Mondal
2015-2017



Satya Vempati
2016-2017



Christina Crum
2016-2017



Riann Forbes
2016-Present



Breana Caturano
2017-Present

Dr. Omidian received his BSc (Tehran Polytechnic, Tehran, Iran, 1987), MSc (Tehran Polytechnic, Tehran, Iran, 1990), and PhD (Brunel University, UK, London, 1997) in Chemical Engineering (majored in Polymer Science and Engineering). From 1987 to 2000, he served as research scientist, Assistant Professor and Department Chair at Iran Polymer Institute. In 2001, he pursued postdoctoral fellowship in Prof. Kinam Park's lab at Purdue University. From 2002 to 2007, Dr. Omidian worked at Kos Pharmaceuticals and Abbott Laboratories as a senior research scientist, research manager and principal scientist. He is currently a Professor in the Department of Pharmaceutical Sciences, and an Associate Editor of the Journal of Bioactive and Compatible Polymers. He has 3 issued US patents, over 30 US and world patent applications, 26 invention disclosures, 79 publications, 138 presentations, 25 book chapters and books, 6 graduates, and 2 current PhD students.

RECENT GRADUATES

David received his BS in Pharmacy from Massachusetts College of Pharmacy (USA, 1999), and spent one year studying Industrial Pharmacy and Pharmaceutics at Purdue University. He has been practicing pharmaceutical care in both the ambulatory and hospital settings for over 14 years. In 2014, David obtained his PhD in Pharmaceutics from Nova Southeastern University, and is currently an Assistant Professor in the NSU's College of Pharmacy. Dr. Mastropietro participated in 6 US and world patent applications, 5 invention disclosures, 19 publications, 51 presentations, and 2 book chapters.

Srinath received his BSc in Pharmacy from Andhra University (India, 2008), and MSc in Pharmaceutical Science from Campbell University (USA, 2010). He has worked as a formulation research associate at Campbell University Pharmacy Institute for three years. In 2016, Srinath obtained his PhD in Pharmaceutics from Nova Southeastern University, and is currently a Senior Research Scientist at Sancilio & Co. Srinath participated in 2 US and world patent applications, 8 invention disclosures, 5 publications, 33 presentations, and 2 book chapters.

CURRENT PHD STUDENTS

Yogesh earned a BPharm (2005) and MPharm (2008) in Pharmaceutics from Dr. BAM University (India). He held a research associate position at pharmaceutical industries in India for two years working in different stages of drug development. Yogesh is a 5th year PhD student in Pharmaceutics, with research on developing and improving abuse-resistant pharmaceutical dosage forms. Yogesh has so far participated in 1 US and world patent application, 4 invention disclosures, 2 publications, 20 presentations, and 1 Grant.

Rand obtained her BSc in Pharmacy (2002) and MSc in Pharmacology (2006) from Jordan University of Science and Technology. She has worked in the Research & Development and Regulatory Affairs Departments for eight years at different pharmaceutical companies in Jordan. Rand is a 2nd year PhD student in Pharmaceutics, with research focused on developing and testing abuse-resistant pharmaceutical dosage forms. Rand has so far participated in 2 invention disclosures, 6 poster presentations, and 1 Grant.

PHARMD RESEARCH ASSISTANTS

Arghavan received her BSc in Biological Science and a minor in Mathematics from the University of Central Florida (USA, 2010). Arghavan joined our research lab in 2013 as a research assistant, and obtained her PharmD degree in 2016. She has participated in 1 publication and 12 poster presentations.

Theodore received his BSc (1991, Florida Atlantic University), and MSc (1995, Florida International University) degrees in Chemistry, and has published several articles and presentations in the area of Organic Geochemistry. He spent a total of 16 years teaching in several schools of Miami-Dade and Broward counties. After a successful career as a public school teacher, Theodore decided to pursue his dream as a pharmacist. He is currently matriculating at Nova Southeastern University in the College of Pharmacy with an anticipated graduation in May 2018.

Sampa graduated from the University of Toronto in 2010 with BSc degree in Human Biology and Animal Physiology. She continued her education at the University of Central Florida where she earned a BSc degree in Molecular and Microbiology in 2014. In addition to her studies, Sampa worked as a Laboratory Technician at the Citrus Research and Education Center. Additionally, she assisted college students with their science courses at Valencia College where she was employed as a Learning Assistant. Sampa joined our research lab in 2015 as research assistant, and is currently pursuing a Doctor of Pharmacy degree with an anticipated graduation in 2018. Sampa has so far participated in 8 poster presentations.

Satya earned his Bachelor of pharmacy (2004) from A.U College of pharmacy, Vizag, A.P, India, Master of Pharmaceutics (2007) from K.V.S.R. Siddhartha College of pharmaceutical sciences, Vijayawada, India, and Master of Industrial Pharmacy (2011) from Long Island University, Brooklyn, New York. Satya gained 4 years of experience in pharmaceutical Formulation & analytical research quality control laboratory, by working in generic companies Ricon Pharma, Denville, NJ and Novel labs, Somerset, NJ. Satya joined our lab in 2015, and currently pursuing a Doctor of Pharmacy degree with an anticipated graduation in 2018. Satya has so far participated in 2 poster presentations.

Christina graduated from Florida International University in 2009 with a B.S. in Biological Sciences with Honors and a minor in Chemistry. She had completed her thesis as an Undergraduate Student Investigator in the Department of Human and Molecular Genetics. Christina had also worked as an undergraduate Academic Team Tutor and was a member of Phi Beta Kappa Honor Society. From 2009 to 2015, she worked for CVS as a Certified Pharmacy Technician, Inventory Specialist, and later Intern. At NSU, she is a member of Rho Chi Honor Society and currently holds a Treasurer position for the American Society of Consultant Pharmacists. Christina joined our research lab in 2016 as a research assistant, and is currently pursuing a Doctor of Pharmacy degree with an anticipated graduation in 2018. She has so far participated in 3 poster presentations.

Breana received her Bachelor of the Arts in Chemistry at the University of Tampa in 2016. In addition to her studies at the University of Tampa, Breana worked as a Certified Pharmacy Technician at CVS pharmacy for two years. Breana matriculated into a Master in Pharmaceutical Affairs program in 2016 at Nova Southeastern College of Pharmacy. She then bridged and is currently matriculating at Nova Southeastern College of Pharmacy pursuing a Doctor of Pharmacy degree with an anticipated graduation in 2021.

UNDERGRADUATE INTERNS

Alborz is a senior undergraduate student at the University of Chicago studying Biological Sciences and English Literature. His ambition is to pursue a career in medicine by attending medical school after his anticipated graduation in May 2017. Alborz worked in the University of Miami, the Miller School of Medicine as an intern (summer 2014), and worked in our lab as research assistant intern over the summer of 2015. He also worked as research assistant in Gounari Lab at University of Chicago, and currently working as SCA6 Registry Coordinator in the University of Chicago Medicine. Alborz has participated in 3 publications, and 4 poster presentations.

Jessica was a participant in the new Brazil Scientific Mobility program. Through this program, she has been in the US for over one and a half years gaining experience in scientific research. She is currently a senior undergraduate student at Federal University of Pernambuco pursuing a Pharmacy degree with an anticipated graduation in 2017. Jessica worked in our lab as research assistant intern over the summer of 2015, and participated in 2 poster presentations.

Riann is a junior undergraduate dual admission student at Nova Southeastern University studying biology. She has been accepted into NSU's pharmacy program where she plans to pursue her doctoral degree. Since 2015, she has been active in the pre-pharmacy society and participated in research since high school. She is currently working in our research lab as research assistant intern.

CURRENT RESEARCH

- Prescription Drug Abuse
 - Abuse-Deterrent Formulations
 - Deterrent to abuse by insufflation
 - Deterrent to abuse by injection
 - Deterrent to abuse by multiple oral administrations
 - Deterrent to oral abuse assisted with alcohol
 - Abuse-Deterrent Technologies
 - Abuse-Deterrence Evaluation
- Controlled Drug Delivery
 - Gastric Retention Oral Delivery
- Pharmaceutical and Biomedical Polymers
 - Hydrogels
 - Alkogels

RECENT INVENTIONS

1. [Compositions for Deterring Abuse of Pharmaceutical Products and Alcohol:](#)
Inventors: H Omidian, S Muppalaneni, Y Joshi, D Mastropietro; PCT/US16/58097 (Filed Oct 21, 2016); WO/2017/070462 (Filed Apr 27, 2017); U.S. Patent Application 62/244637 (Filed Oct 21, 2015)
2. [Deterring Abuse of Pharmaceutical Products and Alcohol:](#)
Inventors: H Omidian, D Mastropietro, S Muppalaneni; PCT/2014/US54863 (Filed: 09-09-2014); WO2015035423 (Filed: 03-12-2015); US Patent Application 14/917,368; Filed: 03-08-2016
3. [Abuse-Deterrent Pharmaceutical Compositions:](#)
Inventors: H Omidian, D Mastropietro; U.S. Provisional Patent Application 61/875,173 (Filed: 9/9/13)
4. [Abuse Deterrents in Pharmaceutical Compositions:](#)
Inventors: H Omidian, D Mastropietro; U.S. Provisional Patent Application 61/918,870 (Filed: 12/20/13)
5. [A Therapeutic Composition for Alcohol Cessation and Abuse:](#)
Inventors: H Omidian, D Mastropietro; U.S. Provisional Patent Application 61/918,879 (Filed: 12/20/13)
6. [Powerful Deterrent Agents for Abusable Medications:](#)
Inventors: H Omidian, D Mastropietro; U.S. Provisional Patent Application 61/918,890 (Filed: 12/20/13)
7. [An Aversive Super-Deterrent Agent for Abusable Medications:](#)
Inventors: D Mastropietro, H Omidian
U.S. Provisional Patent Application 61/919,443 (Filed: 12/20/13)
8. [Abuse-Adaptive Deterrent Compositions for Abusable Medications:](#)
Inventors: H Omidian, S Muppalaneni, D Mastropietro
9. [Multifunction Deterrents for Abusable Medications:](#)
Inventors: H Omidian, S Muppalaneni
10. [A Crush-Resistant Vehicle for Abuse-Deterrent Compositions:](#)
Inventors: H Omidian, S Muppalaneni, D Mastropietro
11. [A Deterrent Cage for Immediate and Sustained Release Abuse-Deterrent Medications:](#)
Inventors: H Omidian, S Muppalaneni
12. [Crush-Resistant Abuse-Deterrent Formulations:](#)
Inventors: H Omidian, S Muppalaneni
13. [Abuse Deterrent Formulations Having Enhanced Crush Resistance:](#)
Inventors: H Omidian, S Muppalaneni, D Mastropietro
14. [High Performing Abuse-Deterrent Formulations:](#)
Inventors: H Omidian, Y Joshi, D Mastropietro
15. [Drug Abuse Deterrence Under Hot Aqueous Extraction:](#)
Inventors: H Omidian, Y Joshi
16. [Extraction Resistant Abuse-Deterrent Formulations:](#)
Inventors: H Omidian, Y Joshi

17. [Drug Abuse Deterrence Using Bacterial Gums:](#)
Inventors: H Omidian, Y Joshi
18. [Deterring Drug Abuse Using Crosslinked Starch:](#)
Inventors: H Omidian, R Ahmad

RECENT SELECTED PUBLICATIONS

1. SM Jabali, K Kabiri, HR Motasadizadeh, DJ Mastropietro, H Omidian: [Surface Crosslinking of Superabsorbent Hydrogels with Improved Swollen Gel Strength Using Diols](#), *Submitted*, 2017
2. N Moniri, K Kabiri, MJ Zohuriaan-Mehr, H Omidian: [Fine-Tuning of SAP Properties via Epoxy-Silane Surface Modification](#), *Polymers for Advanced Technologies*, Accepted, 2017
3. S Shahi, MJ Zohuriaan-Mehr, H Omidian: [Antibacterial Superabsorbing Hydrogels with High Saline-Swelling Properties without Gel Blockage-Towards Ideal Superabsorbents for Hygiene Applications](#), *Journal of Bioactive and Compatible Polymers*, 32(2), 128-145, 2017
4. D Mastropietro, S Muppalaneni, H Omidian: [Deterred Drug Abuse Using Superabsorbent Polymers](#), *Expert Opinion on Drug Delivery*, 13(11), 1523-1531, 2016
5. S Muppalaneni, D Mastropietro, H Omidian: [Crush Resistance and Insufflation Potential of Poly\(ethylene oxide\)-Based Abuse-Deterrent Formulations](#), *Expert Opinion on Drug Delivery*, 13(10), 1375-1382, 2016
6. UD Kandalam, H Omidian, MA Mirza, and AMI Cabel: [Comparative Assessment of Growth Supporting Potential of Different Alginic Acid Salts](#), *International Journal of Polymeric Materials*, 67(1), 47-53, 2016
7. S Shaneh, F Shokrollahi, P Shokrollahi, H Yeganeh, E Seyedjafari, AA Lajimi, H Omidian: [Improved Immobilization of Gelatin on a Modified Polyurethane Urea](#), *Journal of Bioactive and Compatible Polymers*, 30(1), 57-73, 2015
8. Y Joshi, D Mastropietro, S Muppalaneni, H Omidian: [A New Approach to Determining the Performance of Superdisintegrants](#), *Journal of Bioactive and Compatible Polymers*, 30(1), 3-16, 2015
9. D Mastropietro, H Omidian: [Abuse-Deterrent Formulations \(ADFs\)-Part 2: Commercial Products and Proprietary Technologies](#), *Expert Opinion on Pharmacotherapy*, 15(18), 305-323, 2014
10. D Mastropietro, H Omidian: [Abuse-Deterrent Formulations \(ADFs\)- Part 1: Development of a Formulation-Based Classification System](#), *Expert Opinion on Drug Metabolism and Toxicology*, 11(2), 193-204, 2014
11. H Omidian, D Mastropietro, U Kandalam: [Swelling, Strength, and Biocompatibility of Superporous Hydrogel Hybrids](#), *Journal of Bioactive and Compatible Polymers*, 29(1), 66-80, 2014
12. P Park, J Caballero, H Omidian: [Use of Serotonin Norepinephrine Reuptake Inhibitors in the Treatment of Attention Deficit Hyperactivity Disorder in Pediatrics](#), *Annals of Pharmacotherapy*, 48(1), 86-92, 2014
13. P Shokrollahi, M Mehmanchi, M Atai, H Omidian, F Shokrollahi: [Effect of Interface on Mechanical Properties and Biodegradation of PCL HAp Supramolecular Nano-Composites](#), *Journal of Materials Science: Materials in Medicine*, 25, 23-35, 2014

RECENT BOOK CHAPTERS

1. D Mastropietro, K Park, H Omidian: [Polymers in Oral Drug Delivery](#) in [COMPREHENSIVE BIOMATERIALS, Volume I1, Metallic, ceramic, and polymeric biomaterials](#), *Chapter 12*, P Ducheyne (Ed); Elsevier (publisher), 2017
2. D Mastropietro, S Muppalaneni, Y Kwon, K Park, H Omidian: [Polymers in Drug Delivery](#) in [DRUG DELIVERY](#), *Chapter 7*, AK Mitra, D Kwart, AD Vadlapudi (Eds.), Jones & Bartlett Learning, Aug 2014
3. S Muppalaneni, D Mastropietro, H Omidian: [Mucoadhesive Drug Delivery Systems](#) in [ENGINEERING POLYMER SYSTEMS FOR IMPROVED DRUG DELIVERY](#), *Chapter 10*, RA Bader and D Putnam (Eds.), Wiley, Nov 2013

RECENT CONFERENCE PRESENTATIONS

1. R Ahmad: [Deterring Drug Abuse Using Functional Pharmaceutical Excipients](#), *Graduate Seminar* (Advisor: H Omidian), 2017
2. S Vempati, Y Joshi, H Omidian: [Texture Analyzer to Evaluate Disintegration Performance of Pharmaceutical Superdisintegrants Under Simulated Gastric Conditions](#), South Florida Section of *American Chemical Society* (SoFL-ACS), Nova Southeastern University, Fort Lauderdale, FL, 2017
3. S Vempati, Y Joshi, H Omidian: [Measuring the Effect of Alcohol on Swelling and Disintegration Behavior of Various Superdisintegrants](#), South Florida Section of *American Chemical Society* (SoFL-ACS), Nova Southeastern University, Fort Lauderdale, FL, 2017
4. S Mondal, Y Joshi, H Omidian: [Drug-Polymer Complexation, An Effective Technique to Deter Drug Abuse by Injection](#), South Florida Section of *American Chemical Society* (SoFL-ACS), Nova Southeastern University, Fort Lauderdale, FL, 2017
5. Y Joshi, S Muppalaneni, S Vempati, H Omidian: [Drug Release and Crush Resistance Properties of Plasticized Abuse Deterrent Compositions](#), South Florida Section of *American Chemical Society* (SoFL-ACS), Nova Southeastern University, Fort Lauderdale, FL, 2017
6. Y Joshi, S Muppalaneni, S Mondal, H Omidian: [Thermal Manipulation of Plasticized Abuse Deterrent Compositions](#), South Florida Section of *American Chemical Society* (SoFL-ACS), Nova Southeastern University, Fort Lauderdale, FL, 2017
7. Y Joshi, S Muppalaneni, H Omidian: [Effect of Milling Method and Milling Time on Crush Resistance Performance of Plasticized Abuse Deterrent Tablets](#), South Florida Section of *American Chemical Society* (SoFL-ACS), Nova Southeastern University, Fort Lauderdale, FL, 2017
8. C Crum, R Ahmad, H Omidian: [Dextromethorphan-Sodium Starch Glycolate Complex with Abuse-Deterrent Properties](#), South Florida Section of *American Chemical Society* (SoFL-ACS), Nova Southeastern University, Fort Lauderdale, FL, 2017
9. R Ahmad, C Crum, H Omidian: [Drug Release Evaluation of a Carboxymethyl Starch-Based Abuse Deterrent Formulation](#), South Florida Section of *American Chemical Society* (SoFL-ACS), Nova Southeastern University, Fort Lauderdale, FL, 2017
10. R Ahmad, D Mastropietro, H Omidian: [Sequestered Bentonite to Deter Drug Abuse and Maintain Therapeutic Use](#), South Florida Section of *American Chemical Society* (SoFL-ACS), Nova Southeastern University, Fort Lauderdale, FL, 2017

11. R Ahmad, S Muppalaneni, C Crum, H Omidian: [Effect of Thermal Treatment on the Binding Efficiency of Carboxymethyl Starch, a Potential Deterrent Agent for Intravenous Abuse](#), South Florida Section of *American Chemical Society (SoFL-ACS)*, Nova Southeastern University, Fort Lauderdale, FL, 2017
12. Y Joshi, S Muppalaneni, S Mondal, D Mastropietro, H Omidian: [Drug Abuse Deterrence by Preventing Extraction](#), *American Association of Pharmaceutical Scientists (AAPS)*, Denver, CO, 2016
13. Y Joshi, S Muppalaneni, A Kariman, D Mastropietro, H Omidian: [Drug-Deterrent Agent Complexation to Deter Drug Abuse by Injection](#), *American Association of Pharmaceutical Scientists (AAPS)*, Denver, CO, 2016
14. S Muppalaneni, S Mondal, Y Joshi, H Omidian: [Effect of Syringe and Needle Size on Injectability of Drug Extract Solutions](#), *American Association of Pharmaceutical Scientists (AAPS)*, Denver, CO, 2016
15. S Muppalaneni, D Mastropietro, H Omidian: [Experimental Design to Optimize and Maximize Deterrence Capacity of Deterrent Blends](#), *American Association of Pharmaceutical Scientists (AAPS)*, Denver, CO, 2016
16. R Ahmad, S Muppalaneni, H Omidian: [Sodium Starch Glycolate as a Potential Deterrent Agent for Opioid Abuse](#), *American Association of Pharmaceutical Scientists (AAPS)*, Denver, CO, 2016
17. R Ahmad, S Muppalaneni, H Omidian: [Carboxymethyl Starch as Potential Deterrent Agent for Intravenous Abuse](#), Chemical Sciences Symposium, South Florida Section of *American Chemical Society (SoFL-ACS)*, Nova Southeastern University, Fort Lauderdale, FL, 2016
18. A Omidian, S Mondal, J de Sa, Y Joshi, S Muppalaneni, H Omidian: [Solid State Properties of Polyethylene Oxide \(PEO\) under Abuse Conditions](#), Chemical Sciences Symposium, South Florida Section of *American Chemical Society (SoFL-ACS)*, Nova Southeastern University, Fort Lauderdale, FL, 2016
19. Y Joshi, A Omidian, S Mondal, J de Sa, S Muppalaneni, H Omidian: [Viscosity of Polyethylene Oxide \(PEO\) under Abuse Conditions](#), Chemical Sciences Symposium, South Florida Section of *American Chemical Society (SoFL-ACS)*, Nova Southeastern University, Fort Lauderdale, FL, 2016
20. H Omidian, D Mastropietro: [Abuse Deterrent Technologies](#), *Joint COP and CTI Mini-symposium*, Nova Southeastern University, Fort Lauderdale, FL, 2016
21. S Muppalaneni, S Mondal, D Mastropietro, H Omidian: [Effect of Needle Size and Solvent on Injectability of Polyethylene Oxide \(PEO\) Solutions](#), *NSU College of Pharmacy's HPD Research Day*, Fort Lauderdale, FL, Feb 2016
22. S Muppalaneni, A Kariman, D Mastropietro, H Omidian: [Ease of Manipulating Dosage Forms for Nasal Insufflation](#), *NSU College of Pharmacy's HPD Research Day*, Fort Lauderdale, FL, Feb 2016
23. S Muppalaneni, A Kariman, D Mastropietro, H Omidian: [Developing In-Vitro Tests for Solid-State Abuse Deterrence Capacity](#), *NSU College of Pharmacy's HPD Research Day*, Fort Lauderdale, FL, Feb 2016
24. S Muppalaneni, S Mondal, D Mastropietro, H Omidian: [Dynamic Glide Force \(DGF\) to Measure Resistance to Intravenous Abuse](#), *NSU College of Pharmacy's HPD Research Day*, Fort Lauderdale, FL, Feb 2016
25. A Kariman, Y Joshi, D Mastropietro, H Omidian: [Preventing Drug Extraction Via Surface Adsorption](#), *NSU College of Pharmacy's HPD Research Day*, Fort Lauderdale, FL, Feb 2016
26. Y Joshi, D Mastropietro, H Omidian: [Abuse Vulnerability of Currently-Marketed Abuse-Deterrent Medications](#), *NSU College of Pharmacy's HPD Research Day*, Fort Lauderdale, FL, Feb 2016
27. Y Joshi, A Kariman, D Mastropietro, H Omidian: [Complexation Efficiency of Croscarmellose Sodium \(CCS\) as an Effective Abuse-Deterrent Agent](#), *NSU College of Pharmacy's HPD Research Day*, Fort Lauderdale, FL, Feb 2016
28. Y Joshi, D Mastropietro, H Omidian: [Prevention of Active Drug Extraction Using Absorbent Clay Composite](#), *NSU College of Pharmacy's HPD Research Day*, Fort Lauderdale, FL, Feb 2016

29. D Mastropietro, H Omidian: [Binding Endurance and Deterrence Capacity of Croscarmellose Sodium \(CCS\) in Various Solvents](#), *NSU College of Pharmacy's HPD Research Day*, Fort Lauderdale, FL, Feb 2016
30. D Mastropietro, H Omidian: [Superabsorbent Materials to Hinder Drug Extraction and Syringeability](#), *NSU College of Pharmacy's HPD Research Day*, Fort Lauderdale, FL, Feb 2016
31. D Mastropietro, H Omidian: [Gel-Forming Excipients to Slow Alcohol Absorption into Systemic Circulation](#), *NSU College of Pharmacy's HPD Research Day*, Fort Lauderdale, FL, Feb 2016
32. D Mastropietro, H Omidian: [Complexing Agents to Prevent Intentional Drug Abuse by Rapid Extraction](#), *NSU College of Pharmacy's HPD Research Day*, Fort Lauderdale, FL, Feb 2016
33. Y Joshi, D Mastropietro, H Omidian: [Reduced Abuse Deterrent Features of Poly\(ethylene oxide\) at High Temperatures](#), *American Association of Pharmaceutical Scientists (AAPS)*, Orlando, Florida, 2015
34. S Muppalaneni, S Mondal, D Mastropietro, H Omidian: [Injectability and Rheology of Poly\(ethylene oxide\) Solutions Under Abuse Conditions](#), *American Association of Pharmaceutical Scientists (AAPS)*, Orlando, Florida, 2015
35. D Mastropietro, A Kariman, H Omidian: [Potential Therapeutic Polymer to Absorb Ethanol Under Severe Gastric Conditions](#), *American Association of Pharmaceutical Scientists (AAPS)*, Orlando, Florida, 2015
36. D Mastropietro and H Omidian: [Abuse Deterrent Capacity of Swellable Tablets Containing Superabsorbent Polymers](#), *American Association of Pharmaceutical Scientists (AAPS)*, Orlando, Florida, 2015
37. D Mastropietro and H Omidian: [Extraction Resistant Abuse Deterrent Formulations \(ADFs\) Containing Tramadol HCl](#), *American Association of Pharmaceutical Scientists (AAPS)*, Orlando, Florida, 2015
38. D Mastropietro and H Omidian: [Evaluation of an Abuse Deterrent Excipient in Preventing Drug Extractions in Aqueous Medium](#), *American Association of Pharmaceutical Scientists (AAPS)*, Orlando, Florida, 2015
39. S Muppalaneni, D Mastropietro, H Omidian: [Effect of Molecular Weight on Thermal Properties of Poly\(ethylene oxide\)](#), *International Conference and Exhibition on Pain Medicine*, Chicago, IL, June 2015
40. S Muppalaneni, A Kariman, D Mastropietro, H Omidian: [Effect of Tampering Methods on Particle Size Reduction of Poly\(ethylene oxide\)-based Tablets](#), *International Conference and Exhibition on Pain Medicine*, Chicago, IL, June 2015
41. S Muppalaneni, A Kariman, D Mastropietro, H Omidian: [Effect of Heat Treatment on Mechanical Properties of Poly\(ethylene oxide\)-based Tablets](#), *International Conference and Exhibition on Pain Medicine*, Chicago, IL, June 2015
42. S Muppalaneni, D Mastropietro, H Omidian: [Thermal Depolymerization and Oxidative Degradation of PEO-based Tablets](#), *International Conference and Exhibition on Pain Medicine*, Chicago, IL, June 2015
43. Y Joshi, D Mastropietro, A Kariman, H Omidian: [Swelling Pressure of Superdisintegrants in the Presence of Alcohol](#), *GRASP conference* (poster), Mercer University, Atlanta, GA, June 2015
44. Y Joshi, D Mastropietro, A Kariman, H Omidian: [Swelling Pressure of Superdisintegrants in the Presence of Alcohol](#), *GRASP conference* (podium), Mercer University, Atlanta, GA, June 2015
45. S Muppalaneni, D Mastropietro, H Omidian: [Method Development to Characterize Injectability of Drug Abstracts for Abuse](#), *GRASP conference*, College of Pharmacy, Mercer University, Atlanta, GA, June 2015
46. Y Joshi, D Mastropietro, A Kariman, H Omidian: [Mechanical Tester to Measure Swelling Pressure of Superdisintegrants in Aqueous Media](#), *American Chemical Society (ACS)*, Florida Annual Meeting and Exposition, Tampa, FL, May 2015

47. S Muppalaneni, D Mastropietro, H Omidian: [Viscoelastic and Drug Release Properties of Acetaminophen-Loaded PVOH Cryogels](#), *American Chemical Society (ACS)*, Florida Annual Meeting and Exposition, Tampa, FL, May 2015
48. D Mastropietro and H Omidian: [Polymeric Deterrence Layer for Bi-Layer Tablet Compositions](#), *American Chemical Society (ACS)*, Florida Annual Meeting and Exposition, Tampa, FL, May 2015
49. D Mastropietro, A Kariman, H Omidian: [Swellable Polymers for Drug Abuse Deterrence](#), *American Chemical Society (ACS)*, Florida Annual Meeting and Exposition, Tampa, FL, May 2015
50. D Mastropietro and H Omidian: [Role of Polymers in Decreasing Prescription Drug Abuse](#), *American Chemical Society (ACS)*, Florida Annual Meeting and Exposition, Tampa, FL, May 2015