

Suhair Sunoqrot, PhD

Assistant Professor of Pharmaceutics

Department of Pharmacy

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Education

- 2013 **Doctor of Philosophy**, Biopharmaceutical Sciences (Advisor: Dr. Seungpyo Hong)
Dissertation: "A Multi-scale Hybrid Nanoparticle Platform with Controlled Cellular Interactions and Targeting Kinetics"
University of Illinois, College of Pharmacy, Chicago, IL, USA
- 2007 **Bachelor of Science**, Pharmacy
University of Jordan, Faculty of Pharmacy, Amman, Jordan

Professional Experience

- 2014 - Present **Assistant Professor of Pharmaceutics**
Department of Pharmacy, Faculty of Pharmacy
Al-Zaytoonah University of Jordan, Amman, Jordan
- 2015 **Visiting Researcher**
Department of Drug Science and Technology (Host: Prof. Roberta Cavalli)
Università degli Studi di Torino, Turin, Italy
- 2014 **Visiting Researcher**
Department of Chemistry (Host: Dr. Jean-Maurice Mallet)
École Normale Supérieure, Paris, France
- 2013 **Research Specialist**
Institute for Tuberculosis Research, University of Illinois, Chicago, IL, USA
- 2010 - 2013 **Research Assistant**
Department of Biopharmaceutical Sciences, University of Illinois, Chicago, IL, USA
- 2008 - 2013 **Teaching Assistant**
Department of Biopharmaceutical Sciences, University of Illinois, Chicago, IL, USA
- 2007 - 2008 **Staff Pharmacist**,
Aboud Pharmacy, Amman, Jordan

Funded Research Projects

- 2015 - 2017 Mussel-inspired Mucoadhesive Nanoparticles as Novel Gastroretentive Dosage Forms (**Role: Principal Investigator**)
Deanship of Scientific Research and Graduate Studies, Al-Zaytoonah University of Jordan, Amman, Jordan

Prizes and Honors

- 2013 **Charles Wesley Petranek Scholarship**
Department of Biopharmaceutical Sciences, College of Pharmacy, University of Illinois, Chicago, IL, USA
- 2012 **Chancellor's Student Service and Leadership Award**
Office of the Vice Chancellor for Student Affairs, University of Illinois, Chicago, IL, USA
- 2012 **W.E. van Doren Scholarship**
Department of Biopharmaceutical Sciences, College of Pharmacy, University of Illinois, Chicago, IL, USA
- 2011 **Graduate Student Council Travel Award**
Graduate Student Council, University of Illinois, Chicago, IL, USA
- 2011 **Provost and Deiss Award for Research**
Graduate College, University of Illinois, Chicago, IL, USA
- 2010 **Graduate College Student Presenter Award**
Graduate College, University of Illinois, Chicago, IL, USA
- 2009 - 2011 **Chancellor's Supplemental Graduate Research Fellowship**
Graduate College, University of Illinois, Chicago, IL, USA
- 2010 **Rho Chi Pharmacy Honor Society Honoree**
- 2007 **Hikma Pharmaceuticals Award for Academic Excellence**
Hikma Pharmaceuticals, Amman, Jordan
- 2003 - 2007 **Undergraduate tuition waiver**
Ministry of Higher Education, Amman, Jordan

Organization of Scientific Meetings

- 2015 **Organizing Committee Member**, Al-Zaytoonah University of Jordan and The University of Toledo 5th International Pharmaceutical Conference (ZTIPC), Amman, Jordan
- 2015 **Scientific Committee Member**, the 1st International Conference of the Jordanian Faculties of Pharmacy, Amman, Jordan
- 2010 - 2011 **Planning Committee Member**, CRS-IL Student Chapter Annual Seminar Series, Chicago, IL, USA
- 2009 - 2011 **Planning Committee Member**, CRS-IL Student Chapter Annual Symposium, Chicago, IL, USA
- 2008 - 2009 **Events Coordinator**, CRS-IL Student Chapter, Chicago, IL, USA

Professional and Extracurricular Activities

- 2015 - Present **Reviewer**, Jordan Journal of Pharmaceutical Sciences
- 2014 - Present **Reviewer**, Post-approval Changes (PAC) Committee, Jordan Food and Drug Administration, Amman, Jordan
- 2014 - Present **Member**, Alumni Relations Committee, Faculty of Pharmacy, Al-Zaytoonah University of Jordan, Amman, Jordan
- 2014 - Present **Member**, E-learning Committee, Faculty of Pharmacy, Al-Zaytoonah University of Jordan, Amman, Jordan

- 2012 - 2013 **Member**, International Society of Pharmaceutical Engineers (ISPE)
 2011 - 2013 **Member**, American Association of Pharmaceutical Scientists (AAPS)
 2010 - 2011 **Member**, Materials Research Society (MRS)
 2010 - 2011 **President**, Controlled Release Society (CRS)-IL Student Chapter, Chicago, IL, USA
 2009 - 2011 **Member**, Controlled Release Society (CRS)
 2009 - 2010 **Vice President**, CRS-IL Student Chapter, Chicago, IL, USA
 2008 - 2013 **Member**, CRS-IL Student Chapter, Chicago, IL, USA
 2008 - 2013 **Member**, AAPS-University of Illinois Student Chapter, Chicago, IL, USA
 2007 - **Member**, Jordanian Pharmacists Association (JPA), Amman, Jordan

Students Supervised

- 2015 - Present **Reem Al-Junabi** (*as co-advisor*), Master of Science Student, Faculty of Pharmacy, Al-Zaytoonah University of Jordan, Amman, Jordan
 2015 **Ali Jasim** (*as examiner*), Master of Science Student, Faculty of Pharmacy, Al-Zaytoonah University of Jordan, Amman, Jordan
 2014 - 2015 **Marwa Al-Zaben** (*as co-advisor*), Master of Science Student, Faculty of Pharmacy, Al-Zaytoonah University of Jordan, Amman, Jordan
 2014 **Areej Awadallah** (*as examiner*), Master of Science Student, Faculty of Pharmacy, Al-Zaytoonah University of Jordan, Amman, Jordan
 2012 - 2013 **Eri Iwasaki**, Master of Science Student, Department of Bioengineering, University of Illinois, Chicago, IL, USA (Currently a Scientist at Takeda Pharmaceuticals, Japan)
 2012 - 2013 **Jason Bugno**, PharmD/PhD Student, Department of Biopharmaceutical Sciences, University of Illinois, Chicago, IL, USA
 2012 **Frehiwot Gebrehiwot**, Teacher, Academy of Scholastic Achievement, Chicago, IL, USA
 2011 - 2012 **Tahir Mohideen**, High School Student, Illinois Mathematics and Science Academy, Aurora, IL, USA
 2011 **Jacquelyn Handley**, Undergraduate Student, Department of Materials Science and Engineering, University of Illinois at Urbana-Champaign, Urbana, IL (Currently a PhD candidate at The University of Chicago, Department of Molecular Pathogenesis and Molecular Medicine, Chicago, IL, USA)
 2010 **Jeromy Bentley**, Teacher, Naperville Central High School, Naperville, IL, USA

Courses Taught

Graduate

- 201762 Advanced Pharmaceutical Technology

Undergraduate

- 201221 Pharmaceutics I
 201322 Pharmaceutics Laboratory
 201521 Pharmacy Practice I
 201541 Pharmaceutical Technology

Peer-Reviewed Publications (*corresponding author, †co-first authors)

1. Hamed, R., Jasim, A., Al Baraghthi, T., **Sunoqrot, S.**, Tarawneh, O., Nazzal, S., and Abbas, A. Design and Evaluation of Controlled-Release Hydroxypropyl Methylcellulose and Compritol® H5D ATO Matrix Tablets of Quetiapine Fumarate. **Submitted 2015**
2. **Sunoqrot, S.***, Hamed, R., Abdel-Halim, H., and Tarawneh, O. Synergistic Interplay of Medicinal Chemistry and Formulation Strategies in Nanotechnology – From Drug Discovery to Nanocarrier Design and Development. **Current Topics in Medicinal Chemistry 2015 (Under Revision)**
3. Hamed, R., Basil, M., Al Baraghthi, T., **Sunoqrot, S.**, and Tarawneh, O. Nanoemulsion-Based Gel Formulation of Diclofenac Diethylamine: Design, Optimization, Rheological Behavior and *In Vitro* Diffusion Studies. **Pharmaceutical Development and Technology 2015 (Epub Ahead of Print)**
4. Hamed, R., Awadallah, A., **Sunoqrot, S.**, Tarawneh, O., Nazzal, S., Al Baraghthi, T., Al Sayyad, J., and Abbas, A. pH-Dependent Solubility and Dissolution Behavior of Carvedilol – Case Example of A Weakly Basic BCS Class II Drug. **AAPS PharmSciTech 2015 (Epub Ahead of Print)**
5. Gao, W., Kim, J.Y., Anderson, J.R., Akopian, T., Hong, S., Jin, Y.-Y., Kandrор, O., Kim, J.-W., Lee, I.-A., Lee, S.-Y., McAlpine, J.B., Mulugeta, S., **Sunoqrot, S.**, Wang, Y., Yang, S.-H., Yoon, T.-M., Goldberg, A.L., Pauli, G.F., Suh, J.W., Franzblau, S.G., and Cho, S. The Cyclic Peptide Ecumicin Targeting ClpC1 is Active against Mycobacterium Tuberculosis In Vivo. **Antimicrobial Agents and Chemotherapy 2015**, 59(2), 880-889
6. **Sunoqrot, S.**, Bugno, J., Lantvit, D.D., Burdette, J.E., and Hong, S. Prolonged Blood Circulation and Enhanced Tumor Accumulation of Folate-Targeted Dendrimer-Polymer Hybrid Nanoparticles. **Journal of Controlled Release 2014**, 191, 115-122
7. Modi, D.A.[†], **Sunoqrot, S.[†]**, Bugno, J., Lantvit, D.D., Hong, S., and Burdette, J.E. Targeting of Follicle Stimulating Hormone Peptide-Conjugated Dendrimers to Ovarian Cancer Cells. **Nanoscale 2014**, 6, 2812-2820
8. Turturro, S.[†], **Sunoqrot, S.[†]**, Ying, H.[†], Hong, S., and Yue, B. Sustained Release of Matrix Metalloproteinase-3 to Trabecular Meshwork Cells using Biodegradable PLGA Microparticles. **Molecular Pharmaceutics 2013**, 10(8), 3023-3032
9. **Sunoqrot, S.**, Liu, Y., Kim, D.H., and Hong, S. In Vitro Evaluation of Dendrimer-Polymer Hybrid Nanoparticles on their Controlled Cellular Targeting Kinetics. **Molecular Pharmaceutics 2013**, 10(6), 2157-2166
10. Gonzalez, L.[†], Loza, R.J.[†], Han, K.-Y., **Sunoqrot, S.**, Cunningham, C., Purta, P., Drake, J., Jain, S., Hong, S., and Chang, J.-H. Nanotechnology in Corneal Neovascularization Therapy – A Review. **Journal of Ocular Pharmacology and Therapeutics 2013**, 29(2), 124-134
11. Pearson, R.M., **Sunoqrot, S.**, Hsu, H.-J., Bae, J.W., and Hong, S. Dendritic Nanoparticles: The Next Generation of Nanocarriers? **Therapeutic Delivery 2012**, 3(8), 941-959

12. Yang, Y., **Sunoqrot, S.**, Stowell, C., Ji, J., Lee, C.-W., Kim, J.W., Khan, S.A., and Hong, S. The Effect of Size, Surface Charge and Hydrophobicity of Poly(amidoamine) Dendrimers on their Skin Penetration. **Biomacromolecules** **2012**, 13(7), 2154-2162
13. **Sunoqrot, S.**, Bae, J.W., Pearson, R.M., Shyu, K., Liu, Y., Kim, D.H., and Hong, S. Temporal Control over Cellular Targeting through Hybridization of Folate-targeted Dendrimers and PEG-PLA Nanoparticles. **Biomacromolecules** **2012**, 13(4), 1223-1230
14. Bae, J.W.[†], Pearson, R.M.[†], Patra, N., **Sunoqrot, S.**, Vukovic, L., Král, P. and Hong, S. Dendron-mediated Self-assembly of Highly PEGylated Block Copolymers: A Modular Nanocarrier Platform. **Chemical Communications** **2011**, 47(37), 10302-10304
15. **Sunoqrot, S.**, Bae, J.W., Jin, S.-E., Pearson, R.M., Liu, Y. and Hong, S. Kinetically Controlled Cellular Interactions of Novel Polymer-Polymer and Polymer-Liposome Nanohybrid Systems. **Bioconjugate Chemistry** **2011**, 22(3), 466-474

Conference Proceedings

1. **Sunoqrot, S.**, and Hong, S. A Multi-scale Hybrid Nanoparticle Platform for Targeted Drug Delivery to Cancer Cells. **The 15th Scientific Congress of the Jordanian Pharmacists Association 2014**, Amman, Jordan
2. **Sunoqrot, S.**, Bae, J.W., Liu, Y., Kim, D.-H., and Hong, S. In Vitro Evaluation of Dendrimer-Polymer Hybrid Nanoparticles on their Controlled Cellular Targeting Kinetics. **American Chemical Society (ACS) Annual Meeting 2013**, Indianapolis, IN, USA
3. **Sunoqrot, S.**, Bae, J.W., Liu, Y., Kim, D.-H., and Hong, S. The Janus-faced Biological Properties of Dendrimer-Polymer Hybrid Nanoparticles. **University of Illinois College of Pharmacy Research Day 2013**, Chicago, IL, USA
4. **Sunoqrot, S.**, Bae, J.W., Liu, Y., Kim, D.-H., and Hong, S. The Janus-faced Biological Properties of Dendrimer-Polymer Hybrid Nanoparticles. **American Association of Pharmaceutical Scientists (AAPS) Annual Meeting 2012**, Chicago, IL, USA
5. **Sunoqrot, S.**, Bae, J.W., Pearson, R.M., Shyu, K., and Hong, S. Hybrid Nanoparticles of Folate-targeted Dendrimers and PEG-PLA for Controlled Cellular Targeting. **Midwest Pharmaceutical Graduate Student Research Meeting (PGSRM) 2012**, Omaha, NE, USA
6. **Sunoqrot, S.**, Bae, J.W., Pearson, R.M., Shyu, K., Liu, Y., and Hong, S. Novel Hybrid Nanoparticles Folate-targeted Dendrimers and PEG-PLA Nanoparticles for Temporal Control over Targeting. **University of Illinois Cancer Center Research Forum 2012**, Chicago, IL, USA
7. **Sunoqrot, S.**, Bae, J.W., Pearson, R.M., Shyu, K., Liu, Y., and Hong, S. Novel Hybrid Nanoparticles Folate-targeted Dendrimers and PEG-PLA Nanoparticles for Temporal Control over Targeting. **University of Illinois College of Pharmacy Research Day 2012**, Chicago, IL, USA

8. **Sunoqrot, S.**, Bae, J.W., Pearson, R.M., Shyu, K., Liu, Y., and Hong, S. Novel Hybrid Nanoparticles Folate-targeted Dendrimers and PEG-PLA Nanoparticles for Temporal Control over Targeting. **American Association of Pharmaceutical Scientists (AAPS) Annual Meeting 2011**, Washington, DC, USA
9. **Sunoqrot, S.**, Bae, J.W., Jin, S.-E., Pearson, R.M., Liu, Y., and Hong, S. Kinetically Controlled Cellular Interactions of Novel Polymer-Polymer and Polymer-Liposome Nanohybrid Systems. **Chicago Biomedical Consortium (CBC) Annual Symposium 2011**, Chicago, IL, USA
10. **Sunoqrot, S.**, Bae, J.W., Jin, S.-E., Pearson, R.M., Liu, Y. and Hong, S. Kinetically Controlled Cellular Interactions of Novel Polymer-Polymer and Polymer-Liposome Nanohybrid Systems. **Midwest Pharmaceutical Graduate Student Research Meeting (PGSRM) 2011**, Madison, WI, USA
11. **Sunoqrot, S.**, Bae, J.W., Jin, S.-E., Pearson, R.M., Liu, Y. and Hong, S. Kinetically Controlled Cellular Interactions of Novel Polymer-Polymer and Polymer-Liposome Nanohybrid Systems. **University of Illinois College of Pharmacy Research Day 2011**, Chicago, IL, USA
12. **Sunoqrot, S.**, Bae, J.W., Jin, S.-E., Pearson, R.M., Liu, Y. and Hong, S. Polymer-Polymer and Polymer-Liposome Nanohybrid Systems with Kinetically Controlled Cellular Interactions. **Materials Research Society (MRS) Annual Meeting 2010**, Boston, MA, USA
13. **Sunoqrot, S.**, Jin, S.-E., Bae, J.W., Liu, Y. and Hong, S. Novel Polymer-Polymer and Polymer-Liposome Nanohybrid Systems as Potential Targeted Delivery Vehicles. **Midwest Pharmaceutics Graduate Students Research Meeting (PGSRM) 2010**, Columbus, OH, USA
14. **Sunoqrot, S.**, Jin, S.-E., Bae, J.W., Liu, Y. and Hong, S. Novel Polymer-Polymer and Polymer-Liposome Nanohybrid Systems as Potential Targeted Delivery Vehicles. **UIC Graduate Student Research Forum 2010**, Chicago, IL, USA
15. **Sunoqrot, S.**, Jin, S.-E., Bae, J.W., Liu, Y. and Hong, S. Novel Polymer-Polymer and Polymer-Liposome Nanohybrid Systems as Potential Targeted Delivery Vehicles. **UIC College of Pharmacy Research Day 2010**, Chicago, IL, USA

Invited talks

1. A Multi-scale Hybrid Nanoparticle Platform for Targeted Drug Delivery to Cancer Cells. Faculty of Pharmacy, **The Royal University for Medical Sciences 2013**, Amman, Jordan
2. A Multi-scale Hybrid Nanoparticle Platform with Controlled Cellular Interactions and Targeting Kinetics. **The Jordanian Pharmaceutical Manufacturing Co. PLC 2013**, Amman, Jordan