

# Salman R. Khetani, PhD

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## EDUCATION

Sept 2002 - Mar 2006	Ph.D., Bioengineering University of California at San Diego, La Jolla, California
Sept 2000 - Aug 2002	M.S., Bioengineering University of California at San Diego, La Jolla, California
Sept 1995 - Aug 2000	B.S., Electrical Engineering Marquette University, Milwaukee, Wisconsin
Sept 1995 - Jun 2000	B.S., Biomedical Engineering ( <i>Summa cum laude</i> ) Marquette University, Milwaukee, Wisconsin

## POSITIONS

Aug 2015 - Present	Associate Professor Department of Bioengineering University of Illinois at Chicago Chicago, Illinois
Jan 2012 - Aug 2015	Tenure-track Assistant Professor ( <i>non-tenure track Oct-Dec '11</i> ) Department of Mechanical Engineering School of Biomedical Engineering Colorado State University Fort Collins, Colorado
Oct 2011 – Nov 2016	Member, Scientific Advisory Board Hepregen Corporation Medford, Massachusetts
Sept 2008 - Sept 2011	Co-founder and Director of Research Hepregen Corporation Medford, Massachusetts
Mar 2006 - Aug 2008	Postdoctoral Associate Lab for Multiscale Regenerative Tech. (PI: Sangeeta Bhatia) Harvard-M.I.T. Division of Health Sciences and Technology Cambridge, Massachusetts

Jul 2001 – Feb 2006	Graduate Research Assistant Microscale Tissue Engineering Lab (PI: Sangeeta Bhatia) University of California at San Diego La Jolla, California
Jun 1997 – Jun 2000	Co-op Intern (2 summers, 2 semesters) at GE Medical Milwaukee, Wisconsin

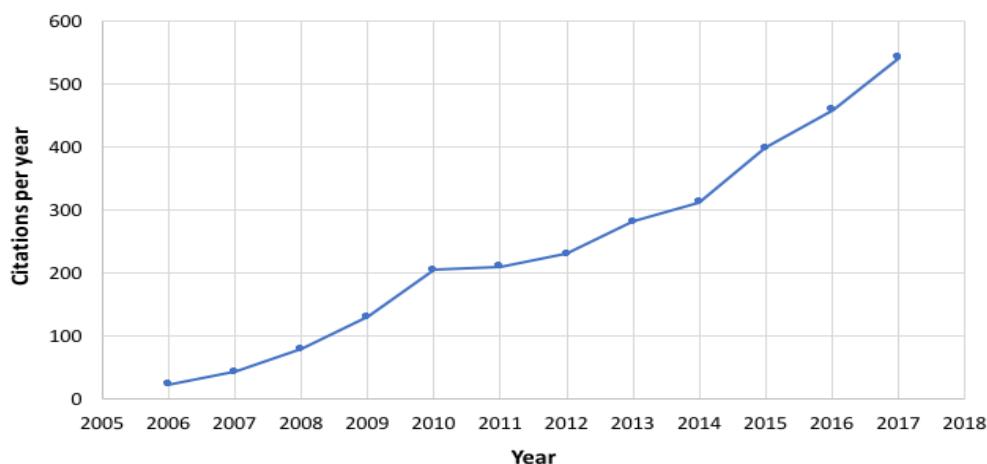
## **AWARDS AND HONORS**

- NSF CAREER award, 2014-2019
- College of Engineering Teaching Award, UIC, 2017
- School of Biomedical Engineering Teaching Excellence Award, CSU, 2015
- Nominee, Best Professor of the Year Award, CSU Engineering College Council, 2015
- Nominee, George T. Abell Outstanding Early-Career Faculty Award, CSU, 2014
- Nominee, Honors Professor Award, CSU, 2014
- Poster Presentation (2<sup>nd</sup> place), Meeting of Int'l Society for the Study of Xenobiotics, 2010
- Poster Presentation (2<sup>nd</sup> place), California Tissue Engineering Meeting, 2003
- Awardee, NSF Graduate Research Fellowship, 2001-2004
- Honorable Mention, NSF Graduate Research Fellowship, 2000
- Poster Presentation (2<sup>nd</sup> place), Telemicroscopy Meeting, 2000
- Jacobs Fellowship, University of California at San Diego, 2000-2001
- Top Scholar in Biomedical Engineering Award, Marquette University, 2000
- Ignatius Scholarship, Marquette University, 1995-1999

*Continued on next page*

## PEER-REVIEWED JOURNAL ARTICLES

Total citations = 2997. *h-index* = 24. *i10-index* = 30 (source: Google Scholar)



1. Brown, G., and **Khetani, S.R.**\* Microfabrication of Liver and Heart Tissues for Drug Development. *Philosophical Transactions B* (in press). \***Corresponding author**
2. Underhill, G.H.\*, and **Khetani, S.R.**\* Bioengineered liver models for drug testing and cell differentiation studies. *Cellular and Molecular Gastroenterology and Hepatology* doi: 10.1016/j.jcmgh.2017.11.012 (2017). \***Co-corresponding authors**
3. Meseguer-Ripolles, J., **Khetani, S.R.**, Blanco, J.G., Iredale, M., Hay, D.C. Pluripotent Stem Cell Derived Human Tissue: Platforms to Evaluate Drug Metabolism and Safety. *The AAPS journal* 20(1):20 (2017)
4. Ware, B.R., Durham, M.J., Monckton, C.P., and **Khetani, S.R.**\* A cell culture platform to maintain long-term phenotype of primary human hepatocytes and endothelial cells. *Cellular and Molecular Gastroenterology and Hepatology* 5(3):187-207 (2017). \***Corresponding author**
5. Lin, C., Romero, R., Sorokina, L.V., Ballinger, K.R., Place, L.W., Kipper, M.J., and **Khetani, S.R.**\* A polyelectrolyte multilayer platform for investigating growth factor delivery modes in human liver cultures. *Journal of Biomedical Materials Research – Part A* doi: 10.1002/jbm.a.36293 (2017). \***Corresponding author**
6. Mosedale, M., Eaddy, J.S., Trask, O.J., Holman, N., Wolf, K.K., LeCluyse, E., Ware, B., **Khetani, S.R.**, Lu, J., Brock, W.J., Roth, S.E., and Watkins, P.B. miR-122 release in exosomes precedes overt tolvaftan-induced necrosis in a primary human hepatocyte micropatterned coculture model. *Toxicological Sciences* 161(1):149-158 (2017)
7. Davidson, M.D., Kukla, D., and **Khetani, S.R.**\* Microengineered cultures containing human hepatic stellate cells and hepatocytes for drug development. *Integrative Biology* 9(8):662-677 (2017). \***Corresponding author** (Featured on the journal cover)
8. Ware, B.R., Sunada, W., McVay, M., and **Khetani, S.R.**\* Exploring chronic drug effects in microengineered human liver cultures using global gene expression profiling. *Toxicological Sciences* 157(2):387-398 (2017). \***Corresponding author** (Recommended by F1000Prime <https://f1000.com/prime/727472597>)

9. Lin, C., and **Khetani, S.R.**\* Micropatterned co-cultures of human hepatocytes and stromal cells for the assessment of drug clearance and drug-drug interactions. *Current Protocols in Toxicology* 72:14.17.1-14.17.23 (2017). \***Corresponding author**
10. Ware, B.R and **Khetani, S.R.**\* Engineered liver platforms for different phases of drug development. *Trends in Biotechnology* 35(2):172-183 (2016). \***Corresponding author**
11. Lin, C. and **Khetani, S.R.**\* Advances in engineered liver models for investigating drug-induced liver injury. *BioMed Research International* 2016:1829148 (2016). \***Corresponding author**
12. Wang, W., Lockwood, K., Boyd, L., Davidson, M., Movafaghi, S., Vahabi, H., **Khetani, S.R.**, and Kota, A.K. Superhydrophobic coatings with edible materials. *ACS Applied Materials and Interfaces* (29):18664-19668 (2016)
13. Neufeld, M.J., Ware, B.R., Lutzke, A., **Khetani, S.R.**, and Reynolds, M.M. Water-stable metal-organic framework polymer composites compatible with human hepatocytes. *ACS Applied Materials and Interfaces* 8(30):19343-19352 (2016)
14. Davidson, M.D., Ballinger, K.R., and **Khetani, S.R.**\* Long-term exposure to abnormal glucose levels alters drug metabolism pathways and insulin sensitivity in primary human hepatocytes. *Scientific Reports* 6:28178 (2016). \***Corresponding author**
15. Lin, C., Shi, J., Moore, A., and **Khetani, S.R.**\* Prediction of drug clearance and drug-drug interactions in microscale cultures of human hepatocytes. *Drug Metabolism and Disposition* 44(1):127-136 (2016). \***Corresponding author**
16. March, S., Trehan, K., Ramanan, V., Ng, S., Galstian, A., Scull, M.A., Shlomai, A., Mota, M., Fleming, H.E., **Khetani, S.R.**, Rice, C.M., and Bhatia, S.N. Micropatterned co-cultures of primary human hepatocytes for the study of hepatotropic pathogens. *Nature Protocols* 10(12): 2027-2053 (2015)
17. Davidson, M.D.\* , Ware, B.R.\* and **Khetani, S.R.**# Stem cell-derived liver cells for drug testing and disease modeling. *Discovery Medicine* 19(106):349-358 (2015). \**These authors contributed equally* #**Corresponding author**
18. Lin, C\*, Ballinger, K\*, and **Khetani, S.R.**# The application of engineered liver tissues for novel drug discovery. *Expert Opinion on Drug Discovery* 10(5):519-540 (2015). \**These authors contributed equally* #**Corresponding author**
19. Nguyen, T., Ukairo, O., **Khetani, S.R.**, McVay, M., Kanchagar, C., Seghezzi, W., Ayanoglu, G., Irrechukwu, O., and Evers, R. Establishment of a hepatocyte-Kupffer cell co-culture model for assessment of proinflammatory cytokine effects on metabolizing enzymes and drug transporters. *Drug Metabolism and Disposition* 43(5):774-785 (2015)
20. Ware, B., Berger, D., and **Khetani, S.R.**\* Prediction of drug-induced liver injury in micropatterned co-cultures containing iPSC-derived human hepatocytes. *Toxicological Sciences* 145(2):252-262 (2015). \***Corresponding author** (*Featured on the journal cover. Top 10% of most downloaded articles in the journal from 2015-2017*)
21. Mitchell, A.M., Stone, A.E.L., Cheng, L., Ballinger, K., Edwards, M., Stoddard, M., Li, H., Golden-Mason, L., Shaw, G.M., **Khetani, S.R.**, and Rosen, H.R. Transmitted/founder hepatitis C viruses induce cell type- and genotype-specific differences in innate signaling within the liver. *mBio* 6(2):e02510 (2015)

22. **Khetani, S.R.\***, Ballinger, K.R., Berger, D.R., Davidson, M.D., Lin, C., and Ware, B. Micro-engineered liver tissues for drug testing. *Journal of Laboratory Automation* 20(3):216-250 (2015).  
**\*Corresponding author**
23. Davidson, M.D., Lehrer, M., and **Khetani, S.R.\*** Hormone and drug-mediated modulation of glucose metabolism in a microscale model of the human liver. *Tissue Engineering, Part C Methods* 21(7):716-725 (2015). **\*Corresponding author**
24. Berger, D.R, Ware, B.R, Davidson, M.D, Allsup, S.R., and **Khetani, S.R.\*** Enhancing the functional maturity of iPSC-derived human hepatocytes via controlled presentation of cell-cell interactions in vitro. *Hepatology* 61(4):1370-1381 (2015). **\*Corresponding author**
25. Giugliano, S., Golden-Mason, L., Dobrinskikh, E., Stone, A., Kriss, M., Soto-Gutierrez, A., Mitchell, A., **Khetani, S.R.**, Shaw, G.M., Stolz, D., Yamane, D., Lemon, S.M., Gale, M., Shah, V., and Rosen, H.R. Hepatitis C virus infection induces autocrine interferon signaling by human liver endothelial cell and release of exosomes, which inhibits viral replication. *Gastroenterology* 148(2):392-402.e13 (2015)
26. Schwartz, R.E., Fleming, H.E., **Khetani, S.R.**, and Bhatia, S.N. Pluripotent stem cell-derived hepatocyte-like cells. *Biotechnology Advances* 32(2):504-513 (2014)
27. Chan, T.S., Yu, H., Moore, A., **Khetani, S.R.** and Tweedie, D. Meeting the challenge of predicting hepatic clearance of compounds slowly metabolized by cytochrome P450 using a novel hepatocyte model, HepatoPac. *Drug Metabolism and Disposition* 41(12):2024-1032 (2013)
28. Ukairo, O., McVay, M., Krzyzewski, S., Aoyama, S., Rose, K., Andersen, M.E., **Khetani, S.R.\***, and LeCluyse, E.L. Bioactivation and toxicity of acetaminophen in a rat hepatocyte micropatterned co-culture system. *Journal of Biochemical and Molecular Toxicology* 27(10):471-480 (2013). **\*Corresponding author**
29. Ukairo, O., Kanchagar, C., Moore, A., Shi, J., Gaffney, J., Aoyama, S., Rose, K., Krzyzewski, S., McGeehan, J., Andersen, M.E., **Khetani, S.R.\***, and LeCluyse, E.L. Long-term stability of primary rat hepatocytes in micropatterned co-cultures. *Journal of Biochemical and Molecular Toxicology* 27(3):204-212 (2013). **\*Corresponding author**
30. **Khetani, S.R.**, Kanchagar, C., Krzyzewski, S., Aleo, M., and Will, Y. Use of micropatterned co-cultures to detect compounds that cause drug induced liver injury in humans. *Toxicological Sciences* 132(1):107-117 (2013)
31. Wang, W.W., **Khetani, S.R.**, Krzyzewski, S., Duignan, D.B., and Obach, R.S. Assessment of a micropatterned hepatocyte coculture system to generate major human excretory and circulating drug metabolites. *Drug Metabolism and Disposition* 38(10):1900-1905 (2010)
32. Ploss, A.\*, **Khetani, S.R.\***, Jones, C.T., Syder, A. J., Trehan, K., Gaysinskaya, V.A., Mu, K., Ritola, K. D., Rice, C.M., and Bhatia, S.N. Persistent hepatitis C virus infection in microscale primary human hepatocyte cultures. *Proceedings of the National Academy of Sciences* 107(7):3141-3145 (2010). *\*These authors contributed equally to this work*
33. Jones, C.T., Catanes, M.T., Law, L.M., **Khetani, S.R.**, Syder A.J., Ploss, A., Oh, T.S., Schoggins, J.W., MacDonald, M.R., Bhatia S.N., Rice, C.M. Real-time imaging of hepatitis C virus infection using a fluorescent cell-based reporter system. *Nature Biotechnology* 28(2):167-171 (2010)
34. March, S., Hui, E.E., Underhill G.H., **Khetani, S.**, and Bhatia, S.N. Microenvironmental regulation of the sinusoidal endothelial cell phenotype in vitro. *Hepatology* 50(3): 920-928 (2009)

35. Chen, A.A.\* , **Khetani, S.R.\***, Bhatia, S.N., and Van Vliet, K. J. Modulation of hepatocyte phenotype in vitro via chemomechanical tuning of polyelectrolyte multilayers. *Biomaterials* 30(6):1113-1120 (2009). **\*These authors contributed equally to this work**
36. **Khetani, S.R.**, Chen, A.A., Ranscht, B., and Bhatia, S.N. T-Cadherin Modulates Hepatocyte Functions In Vitro. *FASEB Journal* 22(11):3768-75 (2008)
37. **Khetani, S.R.**, and Bhatia, S.N. Microscale human liver tissue for drug development. *Nature Biotechnology* 26(1):120-126 (2007)
38. Allen, J.W., **Khetani, S.R.**, Johnson, R.S., and Bhatia, S.N. In vitro liver tissue model established from transgenic mice: role of HIF-1alpha on hypoxic gene expression. *Tissue Engineering* 12(11):3135-3147 (2006)
39. **Khetani, S.R.**, and Bhatia, S.N. Engineering tissues for in vitro applications. *Current Opinion in Biotechnology* 17(5): 524-531 (2006)
40. Chen, A.A.\* , Derfus, A.M.\* , **Khetani, S.R.**, and Bhatia, S.N. Quantum dots to monitor siRNA delivery and improve gene silencing. *Nucleic Acids Research* 33(22):190 (2005). **\*These authors contributed equally**
41. **Khetani, S.R.**, Szulgit, G., Del Rio, J.A., Barlow, C., and Bhatia, S.N. Exploring interactions between rat hepatocytes and nonparenchymal cells using gene expression profiling. *Hepatology* 40(3):545-554 (2004)
42. Allen, J.W., **Khetani, S.R.**, and Bhatia, S.N. In vitro zonation and toxicity in a hepatocyte bioreactor. *Toxicological Sciences* 84:110-119 (2004)

## BOOK CHAPTERS

1. Monckton, C.P. and **Khetani, S.R.** “Engineered Human Liver Co-cultures for Investigating Drug-Induced Liver Injury”, Chapter 11 in Drug Induced Liver Toxicity, First Edition, doi: 10.1007/978-1-4939-7677-5. M. Chen and Y. Will (editors), Springer (2018) **\*Corresponding author**
2. Ware, B.R. and **Khetani, S.R.\*** “Micropatterned Co-Cultures of Induced Pluripotent Stem Cell-Derived Hepatocytes and Stromal Cells for Prediction of Drug-Induced Liver Injury”, Chapter 16 in Stem Cell-Derived Models in Toxicology, First Edition, doi: 10.1007/978-1-4939-6661-5. M. Clements and L. Roquemore (editors), Springer, p. 311-334 (2016) **\*Corresponding author**
3. Hui, E.E, **Khetani, S.R.**, and Bhatia, S.N. “Micromechanical control of cell-cell interactions”, Chapter 3 in Microdevices in Biology and Medicine, First Edition, ISBN-10: 1596934042. Y. Nahmias and S. N. Bhatia (editors), Artech House, p. 43-63 (2009)
4. Underhill, G.H., **Khetani, S.R.**, Chen, A.A., and Bhatia, S.N. “Liver”, Chapter 48 in Principles of Tissue Engineering, Third Edition, ISBN-10: 0123706157. R. Lanza, R. Langer, and J.P. Vacanti (editors), Elsevier, p. 707-732 (2007)
5. Underhill, G.H., Felix, J., Allen, J.W., Tsang, V.L., **Khetani, S.R.**, and Bhatia, S.N. “Tissue engineering of the liver”, Chapter 15 in Culture of Cells for Tissue Engineering. First Edition, ISBN-10: 0471629359. G. Vunjak-Novakovic and R.I. Freshney (editors), John Wiley and Sons, p. 417-473 (2006)

## PUBLISHED ABSTRACTS IN CONFERENCE PROCEEDINGS

1. Lin, C., Heyward, S., Brown, C.A., and **Khetani, S.R.** Engineering Highly Functional Cocultures of Cryopreserved Primary Human Hepatocytes and Kupffer Macrophages. *Drug Metabolism Reviews* 47 (Supplement 1): 168-169 (2015)
2. **Khetani, S.R.**, Berger, D., Ware, B.R., and Davidson, M.D. Long-term Engineered Cultures of iPSC-derived Human Hepatocytes for Disease Modeling and Drug Screening. *Hepatology* 60 (Supplement S1): 179A (2014)
3. Ukairo, O., McVay, M., Krzyzewski, S., Rose, K., Anderson, M., **Khetani, S.**, and LeCluyse, E. Bioactivation and Toxicity of Acetaminophen in Rat Primary Hepatocytes Cultured in Micropatterned Co-cultures. *Drug Metabolism Reviews* 45 (Supplement 1): 150 (2014)
4. McVay, M., Kanchagar, C., **Khetani, S.R.**, and Ukairo, O. In Vitro Modeling of Cytokine-Drug Interactions Using Micropatterned Co-cultures of Primary Hepatocytes and Kupffer Macrophages. *Toxicology Letters* 221 (Supplement): S150 (2013)
5. Ukairo, O., McVay, M., Kanchagar, C. and **Khetani, S.R.** A Micropatterned Culture with Human Hepatocytes and Kupffer Macrophages For Studying Inflammation-Drug Interactions. *Drug Metabolism Reviews* 44 (Supplement 1): 108 (2012)
6. **Khetani, S.R.** Microscale Engineered Models of the Liver For Drug Development. *Drug Metabolism Reviews* 43 (Supplement 2): 7 (2011)
7. Chan, T.S., **Khetani, S.R.**, Moore, A., and Yu, H.B. Accurate Prediction of Hepatic Clearance For Low-Clearance Compounds Using Micropatterned Hepatocyte-Stromal Cell Co-Cultures. *Drug Metabolism Reviews* 43 (Supplement 2): 48 (2011)
8. Quinn, K., Nakamura, D., Zhang, H., Gauby, S., Lorentzen, C., Goldbach, E., Moore, A., **Khetani, S.R.**, Liang, E., and Sauer, J.M. Be Careful What you Ask For: Challenges of Predicting Human Clearance For A Low Metabolic Turnover Compound, ELND006. *Drug Metabolism Reviews* 43 (Supplement 2): 49 (2011)
9. McVay, M., and **Khetani, S.R.** Global Gene Expression Changes Induced in Primary Human Hepatocytes by Thiazolidinediones Upon Repeat Dosing of HepatoPac Cultures. *Drug Metabolism Reviews* 43 (Supplement 2): 115-116 (2011)
10. Aoyama, S., Lambirth, S., and **Khetani, S.R.** A Long Term Culture Model For Primary Hepatocytes From Cynomolgus Monkeys. *Drug Metabolism Reviews* 43 (Supplement 2): 124 (2011)
11. **Khetani, S.R.**, Krzyzewski, S.A., Moore, A., Wang, W.W., Duignan, D., and Obach, R.S. Investigation of Hepatotoxicity and Drug Metabolism In a Microscale Model of the Human Liver. *Hepatology* 52 (Supplement): 366A (2010)
12. **Khetani, S.R.**, Krzyzewski, S., Moore, A., Gaffney, J., McGeehan, J., Wang, W.W., Duignan, D., and Obach, R.S. Microscale Engineered Human Liver Model for Investigative Toxicology, Drug Metabolism and Efficacy Assessment. *Drug Metabolism Reviews* 42 (Supplement 1): 36-37 (2010)
13. **Khetani, S.R.**, and Bhatia, S.N. Development and Characterization of Microscale Models of Rat and Human Livers. *Hepatology* 46 (Supplement): 773A (2007)
14. Martone, M.E., Peltier, S., Lamont, S., Gupta, A., Ludaescher, B., **Khetani, S.**, Molina, T., and Ellisman, M.H. Increasing access to tomographic resources: web-based telemicroscopy and database. *Microsc. Micronanal.* 7 (Suppl 2: Proceedings Microscopy Society of America): 92–93 (2001)



## PATENTS AND PATENT APPLICATIONS

### Granted Patents

1. US Patent No. 9441202. Molecules with Effects on Cellular Development and Function. Bhatia, S.N. and **Khetani, S.R.** (2016) – continuation patent to US Patent No. 8617815
2. European Patent No. EP 1904625 B1. Microscale micropatterned engineered in vitro tissue. Bhatia, S.N. and **Khetani, S.R.** (2015)
3. US Patent No. 8617815. Molecules with Effects on Cellular Development and Function. Bhatia, S.N. and **Khetani, S.R.** (2013)

### Pending Patent Applications

4. International PCT Application PCT/US16/61638. Compositions and Methods For Increasing Hepatocyte Functional Lifetime In Vitro. Davidson, M.D. and **Khetani, S.R.** (2016)
5. International PCT Application PCT/US16/45719. Engineered platforms to stabilize both hepatocytes and endothelial cells in vitro. Ware, B., Durham, M. and **Khetani, S.R.** (2016)
6. International PCT Application PCT/US2016/039068. An engineered model of fibrotic diseases. Davidson, M.D. and **Khetani, S.R.** (2016)
7. International PCT Application PCT/US2015/011363. Stem Cell-Derived Hepatocytes in Co-Culture and Uses Thereof. **Khetani, S.R.**, Berger, D., and Ware, B (2015)
8. International PCT Application PCT/US2014/045463. Hepatocytes In Co-Culture And Uses Thereof. **Khetani, S.R.** and Lehrer, M (2014)
9. International PCT Application PCT/US2013/030542. Systems and Methods for Studying Inflammation-Drug Interactions. McVay M., Kanchagar, C., Ukairo, O., and **Khetani, S.R.** (2013)
10. International PCT Application PCT/US2009/049849. Micropatterned Co-culture Systems as Infectious Disease Analysis Platforms. Bhatia, S.N., and **Khetani, S.R.** (2009)
11. International PCT Application PCT/US2006/020019. Microscale Micropatterned Engineered In Vitro Tissue. Bhatia, S.N. and **Khetani, S.R.** (2006)

### Provisional Patent Applications

12. U.S. Provisional Patent Application 62/376,633. Davidson, M.D., and **Khetani, S.R.** (2016)
13. U.S. Provisional Patent Application 62/326,934. Ballinger, K. and **Khetani, S.R.** (2016)



## FUNDED GRANTS

1R01DK115747-01A1 ( <b>PIs: S. Khetani, G. Underhill</b> ) \$719,549 (Total: \$ \$1,380,334)	NIH	02/08/18 – 01/31/22
CBET-1706393 ( <b>PIs: S. Khetani, D. Wood</b> ) \$300,000 (Total: \$600,000)	NSF	09/01/17 - 08/31/20
1R21ES027622-01 ( <b>PI: S. Khetani</b> ) \$426,595 (NIEHS)	NIH	04/01/17 - 03/31/19
CAREER (CBET-1351909) ( <b>PI: S. Khetani</b> ) \$405,886	NSF	04/01/14 - 03/30/19
W81XWH-14-C-0054 ( <b>PI: J. Papin, co-PI: Khetani</b> ) \$39,887 (Total: \$1,250,000)	DOD	02/01/14 - 1/31/19
1R03AI115171-01 ( <b>PI: S. Khetani</b> ) \$150,000 (NIAID)	NIH	12/01/14 - 11/30/16
1R03EB019184-01 ( <b>PI: S. Khetani</b> ) \$158,865 (NIBIB)	NIH	09/22/14 - 06/30/16
Bioscience Discovery Evaluation Grant ( <b>PI: S. Khetani</b> ) \$71,000	Colorado	09/01/14 - 12/31/15
Infectious Disease Supercluster ( <b>PI: S. Khetani</b> ) \$30,000	Colorado	07/01/13 - 06/30/14
2R44FD003503-02 ( <b>PI: S. Khetani</b> ) \$113,044	FDA	9/17/10 - 09/16/11
IIP-0956888 ( <b>PI: S. Khetani</b> ) \$500,001	NSF	01/15/10 - 12/31/11
1RC1AA019624-01/02 ( <b>PI: S. Khetani</b> ) \$910,000	NIH	09/30/09 - 08/31/11
1R43 FD003503-01 ( <b>PI: S. Khetani</b> ) \$100,000	FDA	09/20/08 - 04/30/09
IIP-0810551 ( <b>PI: S. Khetani</b> ) \$150,000	NSF	07/01/08 - 06/30/09

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## INVITED TALKS

1. Khetani, S.R. “Investigation of Drug-Induced Liver Injury with Microfabricated Liver Platforms” Digestive Disease Week Annual Meeting, Washington, DC (Scheduled for June, 2018).
2. Khetani, S.R. “Engineered Human Liver Models for Disease Modeling” Brown University School of Medicine Seminar Series, Providence, RI (November, 2017).
3. Khetani, S.R., and Ware, B.W. “Long-Term Microfluidic Human Liver Co-Cultures for Drug Development” Annual Meeting of the Biomedical Engineering Society (BMES), Phoenix, AZ (October 2017).
4. Khetani, S.R., “Engineering Miniature Livers for Drug Development and Regenerative Medicine” UIC College of Pharmacy Colloquium, Rockford, IL (September 2017).
5. Khetani, S.R., “Microengineered Liver Platforms for Multiple Applications in the Drug Development Pipeline” 14<sup>th</sup> European Meeting of the International Society for the Study of Xenobiotics, Cologne, Germany (June 2017).
6. Khetani, S.R., “The Utility of Hepatocyte Models for Predicting Drug Clearance and Drug-Transporter Interactions” 14<sup>th</sup> European Meeting of the International Society for the Study of Xenobiotics, Cologne, Germany (June 2017).
7. Khetani, S.R., “Microfabricated Liver Models for Stem Cell Differentiation and Regenerative Medicine” Stem Cell Seminar Series, University of Illinois, Chicago, IL (May 2017).
8. Khetani, S.R., “Engineering Miniature Liver Platforms for Drug Development and Regenerative Medicine” Department of Biomedical Sciences Seminar Series, University of Illinois, Rockford, IL (April 2017).
9. Khetani, S.R., “Physiological Micro-Liver Platforms for Drug Development” School of Biomedical Engineering Seminar Series, Purdue University, West Lafayette, IN (March 2017).
10. Khetani, S.R., “Primary Human Hepatocytes in the Drug Development Pipeline” Webinar organized by Lonza, Chicago, IL (March 2017).
11. Khetani, S.R., “Long-Lasting and Highly Functional Micro-Livers for Modeling Global Diseases” Division of Gastroenterology and Hepatology Seminar Series, University of Illinois at Chicago, Chicago, IL (February 2017).
12. Khetani, S.R., “Miniaturized Human Liver Constructs for Modeling Physiology and Disease” Department of Physiology Seminar Series, University of Illinois at Chicago, Chicago, IL (January 2017).
13. Khetani, S.R., “Engineering Micro-Livers for Drug Screening and Disease Modeling” Department of Biomedical Engineering Seminar Series, University of Miami, Miami, FL (January 2017).
14. Khetani, S.R., “The Utility of Microfabrication Technology for Maturing iPSC-Derived Human Hepatocytes” Annual meeting of the American Association of Pharmaceutical Scientists, Denver, CO (November 2016).
15. Khetani, S.R., “Fatty Liver Disease on a Chip” The Annual Meeting of the Biomedical Engineering Society, Minneapolis, MN (October 2016).

16. Khetani, S.R., “The Potential of Engineered Human Liver Co-Cultures in Phenotypic Drug Discovery for Liver Diseases” Webinar organized by Solvo Biotechnology, Chicago, IL (June 2016).
17. Khetani, S.R., “Microengineered Culture Platforms for Modeling Human Fatty Liver Disease” Chicago Diabetes Day at the University of Chicago, Chicago, IL (May 2016).
18. Khetani, S.R., “The Utility of Microscale Human Liver Co-Cultures for Investigating Drug Toxicity Outcomes” Webinar organized by Solvo Biotechnology, Chicago, IL (April 2016).
19. Khetani, S.R., “Microengineered Human Liver Models for Drug Screening and Disease Modeling” Keystone Symposia on *Modern Phenotypic Drug Discovery: Defining the Path Forward*, Big Sky, MT (April 2016).
20. Khetani, S.R., “Using Micropatterned Co-Cultures to Model Human-Specific Drug Metabolism, Disposition and Drug-Drug Interactions” Webinar organized by Solvo Biotechnology, Chicago, IL (March 2016).
21. Khetani, S.R., “Engineering Microscale Co-Cultures for Drug Screening and Disease Modeling” RTP-Drug Metabolism and Discussion Group Winter Symposium, Durham, NC (March 2016).
22. Khetani, S.R., “Microengineered iPSC-Derived Human Hepatocyte Models for Drug Development” Webinar organized by Solvo Biotechnology, Chicago, IL (January 2016).
23. Khetani, S.R., “Engineered Human Liver Cultures for Investigating HCV Pathogenesis” 35th Meeting of the US-Japan Cooperative Medical Sciences Program Hepatitis Panel, Bethesda, MD (January 2016).
24. Khetani, S.R., “Engineered Liver Models for Drug Development and Disease Modeling: From Bench to Marketplace” Innovation Medicine Program Seminar Series, University of Illinois, Chicago, IL (November 2015).
25. Khetani, S.R., “Predicting Clinically-Relevant Drug Disposition and Drug-Drug Interactions Using Micropatterned Co-cultures” Webinar organized by Hepregen Corporation, Chicago, IL (November 2015).
26. Khetani, S.R., “Engineered Human Liver Models for Investigating Drug Toxicity” The Liver Meeting®, San Francisco, CA (November 2015).
27. Khetani, S.R., “Engineered Liver Models for Drug Development and Disease Modeling” Roche Pharmaceuticals Seminar Series, Basel, Switzerland (November 2015).
28. Khetani, S.R., “Semiconductor-Driven Microscale Technologies to Create Organs-On-A-Chip: Case Study in the Liver” Illinois Ophthalmology Engineering Workshop, Chicago, IL (October 2015).
29. Khetani, S.R., “Microengineered Liver Models for Applications in Drug Development” Meet The Experts Transporter Conference, Boston, MA (October 2015).
30. Khetani, S.R., “Microengineered Human Liver Models for Drug Screening and Disease Modeling” Stem Cell Seminar Series, University of Illinois, Chicago, IL (October 2015).
31. Khetani, S.R., “Engineering Stable Liver Models for Applications in Drug Screening and Disease Modeling” Department of Biomedical Engineering Seminar Series, Tufts University, Medford, MA (September 2015).

32. Khetani, S.R., “Microengineered Liver Models for Novel Drug Discovery” Bioengineering Seminar Series, University of Illinois, Chicago, IL (September 2015).
33. Khetani, S.R., “Engineering the Niche Around iPSC-Derived Liver Cells” Stem Cell Biotherapy Colloquium, Fort Collins, CO (April 2015).
34. Khetani, S.R., “Bioengineering Approaches for Creating Stable Liver Models” Medical University of South Carolina Seminar Series, Charleston, SC (March 2015).
35. Khetani, S.R., “Developing Microengineered Liver Models for Toxicology Research” Annual Meeting of the Society of Toxicology, San Diego, CA (March 2015).
36. Khetani, S.R., “Microengineered Liver Models for Disease Modeling” Children’s Research Institute Conference, Medical College of Wisconsin, Milwaukee, WI (February 2015).
37. Khetani, S.R., “Hormone and Drug-Mediated Modulation of Glucose Metabolism in a Microscale Model of The Human Liver” Webinar organized by Hepregen Corporation, Fort Collins, CO (February 2015).
38. Khetani, S.R., “Microengineered Liver Models for Drug Screening and Disease Modeling” Mechanical Engineering Seminar Series, University of Colorado, Boulder, CO (January 2015).
39. Khetani, S.R., “Microscale Engineering Strategies to Create Functionally Stable Models of the Human Liver” Liver Research Center Seminar Series, Albert Einstein College of Medicine, Bronx, NY (December 2014).
40. Khetani, S.R., “Engineering Stable Liver Models for Applications in Drug Screening and Disease Modeling” University of Virginia, Charlottesville, VA (December 2014).
41. Khetani, S.R., “Engineering Stable Liver Models for Drug Screening and Disease Modeling” Bioengineering Seminar Series, University of Illinois, Chicago, IL (November 2014).
42. Khetani, S.R., “Engineering Stable Liver Models for Drug Screening and Disease Modeling” Department of Chemical and Petroleum Engineering Seminar Series, University of Wyoming, Laramie, WY (November 2014).
43. Khetani, S.R., “The Story of Hepregen Corporation: Bringing Engineered Liver Devices to the Marketplace” The Annual Meeting of the Biomedical Engineering Society, San Antonio, TX (October 2014).
44. Khetani, S.R., “Engineering Culture Systems Using Primary and iPSC-Derived Liver Cells for Modeling Diseases and Drug Screening” Bioengineering Seminar Series, University of California, Berkeley, CA (October 2014).
45. Khetani, S.R., “Microscale Engineering Strategies to Functionally Mature iPSC-derived Human Hepatocytes” Webinar organized by Hepregen Corporation and Cellular Dynamics International, Fort Collins, CO (September 2014).
46. Khetani, S.R., “Engineering Stable Liver Models for Modeling Diseases In Vitro” University of Northern Colorado School of Biological Sciences Seminar Series, Greeley, CO (September 2014).
47. Khetani, S.R., “Developing Micro-Engineered Cultures Using Primary and iPSC-Derived Liver Cells for Modeling Diseases and Drug Screening” University of Virginia Biomedical Engineering Seminar Series, Charlottesville, VA (September 2014).

48. Khetani, S.R., “Liver Tissue Engineering: Applications in Drug Screening and Disease Modeling” Colorado School of Mines Department of Chemical and Biological Engineering Seminar Series, Golden, CO (August 2014).
49. Khetani, S.R., “Developing Microengineered Models of the Liver for Toxicology and Disease Modeling” Wright-Patterson Air Force Base Seminar Series, Wright-Patterson AFB, OH (August 2014).
50. Khetani, S.R., “Microscale Engineering Approaches to Improve Liver Maturation of iPSC-derived Human Hepatocytes In Vitro” Cellular Dynamics International Users Group Meeting, Boston, MA (August 2014).
51. Khetani, S.R., “Enhancing the Functional Maturity and Longevity of iPSC-derived Human Hepatocytes Using Controlled Presentation of Cell-Cell Interactions In Vitro” FASEB Liver Biology Conference, Keystone, CO (July 2014).
52. Khetani, S.R., “The Micropatterned Co-culture Platform: Past, Present and the Future” Mid-Atlantic Hepregen User Group Meeting, West Conshohocken, PA (May 2014).
53. Khetani, S.R., “Engineering Long-lasting Models of the Liver for Drug Screening and Disease Modeling” Seminar at the University of Pennsylvania, Philadelphia, PA (May 2014).
54. Khetani, S.R., “The Role of Tissue Architecture in Optimizing Human Hepatocyte Functions In Vitro” Webinar organized by Hepregen Corporation for Pharmaceutical Scientists and Academics, Fort Collins, CO (May 2014).
55. Khetani, S.R., “Engineering Miniature Human Livers for Drug Screening” CSU Ventures Innovation Symposium, Fort Collins, CO (April 2014).
56. Khetani, S.R., “Engineering the Microscale Environment Around iPSC-Derived Human Hepatocytes In Vitro” Annual meeting of the Society of Toxicology, Phoenix, AZ (March 2014).
57. Khetani, S.R., “Microscale Culture of Human Liver Cells for Drug Development” Annual meeting of the American Association of Pharmaceutical Scientists, San Antonio, TX (November 2013).
58. Khetani, S.R., “Micro-engineered Models of the Liver for Drug Screening and Disease Modeling” University of Colorado Department of Bioengineering, Denver, CO (November 2013).
59. Khetani, S.R., “Exploring the Role of Cell-cell Interactions in Long-term Differentiated Functions of Induced Pluripotent Stem Cell-derived Human Hepatocytes” Cellular Dynamics International Users Group Meeting, Madison, WI (August 2013).
60. Khetani, S.R., “Co-culture Approaches to Create More Stable Models of the Liver” University of Colorado medical school, Denver, CO (July 2013).
61. Khetani, S.R., “Microfabrication and Co-culture Approaches for Creating More Stable Liver Models” The Hamner Institutes for Health Sciences, RTP, NC (July 2013).
62. Khetani, S.R., “Microfabrication Approaches for Creating More Stable In Vitro Liver Models” National Center for Toxicology Research of FDA, Little Rock, AR (May 2013).
63. Khetani, S.R., “Engineered Approaches to Assess Liver Toxicity” Annual Meeting of the Society of Toxicology, San Antonio, TX (March 2013).

64. Khetani, S.R., "Microscale Engineered Models of the Liver for Drug Development and Modeling Disease" Physiology seminar series, Department of Biomedical Sciences, Colorado State University, Fort Collins, CO (February 2013).
65. Khetani, S.R., "Engineered Models of Liver Disease" Annual Meeting of the Society for Laboratory Automation and Screening, Orlando, FL (January 2013).
66. Khetani, S.R., "Engineered Models of Liver Diseases for Drug Development" Harvard's Wyss Institute Seminar, Boston, MA (December 2012).
67. Khetani, S.R., "Microscale Engineering of Tissue Models for Compound Screening" Annual Meeting of the Society of Toxicology, Phoenix, AZ (October 2012).
68. Khetani, S.R., "Microscale Liver Models for Drug Development" Marquette University Biomedical Engineering Seminar, Milwaukee, WI (November 2011).
69. Khetani, S.R.\*, "Engineered Tissue Models For In Vitro and In Vivo Metabolism and Toxicity Testing" American Meeting of the International Society for the Study of Xenobiotics, Atlanta, GA (October 2011). **\*Invited Chair of Plenary Session**
70. Khetani, S.R., "Applications of microscale animal and human in vitro liver models in toxicology" Annual Meeting of the Society of Toxicology, Washington, DC (March 2011).
71. Khetani, S.R., "Investigation and Hepatotoxicity and Drug Metabolism in a Microscale Model of the Human Liver" The Annual Meeting of the American Association for the Study of Liver Diseases, Boston, MA (October 2010).
72. Khetani, S.R., "A Microscale Engineered Liver Platform for Compound Metabolism and Toxicity Studies" The Annual Meeting of the Northeast Chapter of the Society of Toxicology, Storrs, CT (October 2010).
73. Khetani, S.R., "Engineering Microscale Liver Models for Drug Development" The Annual Meeting of the Biomedical Engineering Society, Austin, TX (October 2010).
74. Khetani, S.R., "Assessing the Impact of Engineered Human Tissue Models for Drug Development and Research" Predictive In Vitro Models, Boston, MA (September 2010).
75. Khetani, S.R., "Engineering Microscale Models of the Liver for Drug Development and Toxicity Screening" Early Toxicity Screening, Seattle, WA (June 2010).
76. Khetani, S.R., "Miniaturized Microscale Liver Models for Drug Development" Lab Automation, Palm Springs, CA (January 2010).
77. Khetani, S.R., "Microscale Engineered Platforms for Hepatocyte Culture" The 5th Annual Hepatocyte Research Association, Baltimore, MD (October 2009).
78. Khetani, S.R., and Bhatia, S.N., "Microscale Liver Models for Drug Development and Toxicity Screening" Annual Meeting of the Society of Toxicology, Baltimore, MD (March 2009).
79. Khetani, S.R., and Bhatia, S.N., "Engineering Microscale Models of Human Liver Tissue for Drug Development" Boehringer-Ingelheim Seminar Series, Ridgefield, CT (February 2008).
80. Khetani, S.R., and Bhatia, S.N., "Engineering Microscale Models of Human Liver Tissue for Drug Development" University of Virginia BME Department Seminar Series, Charlottesville, VA (February 2008).

81. Khetani, S.R., and Bhatia, S.N., “Microscale Hepatic Tissue Engineering” Center for the Study of Hepatitis C, Rockefeller University, New York, NY (October 2007).
82. Khetani, S.R., and Bhatia, S.N., “Microscale Hepatic Tissue Engineering” Predictive Human Toxicity and ADME/Tox Studies, Brussels, Belgium (January 2007).
83. Khetani, S.R., and Bhatia, S.N., “Microscale Engineered Human Liver Tissue for Drug Development” Annual Meeting of the Biomedical Engineering Society (BMES), Baltimore, MD (September 2005).
84. Khetani, S.R., and Bhatia, S.N., “Microscale Engineered Liver Tissue for Toxicant Testing” Annual Meeting of the Biomedical Engineering Society, Philadelphia, PA (October 2004).
85. Khetani, S.R., Yeo, W-S., Szulgit, G., Del Rio, J.A., Mrksich, M., Barlow, C., and Bhatia, S.N., “Exploring Mechanisms of Cell-Cell Interaction in Hepatic Co-Cultures Using Gene Expression Profiling and Dynamic Substrates” Annual Meeting of the Biomedical Engineering Society (BMES), Nashville, TN (October 2003).

## POSTER PRESENTATIONS

1. Khetani, S.R., Lin, C., Ballinger, K.R, Place, L.W., and Kipper, M.J. “Modulating Primary Human Hepatocyte Functions via Growth Factor Delivery from Chitosan-Heparin Polyelectrolyte Multilayers” Annual Meeting of the Society for Biomaterials, Minneapolis, MN (April 2017).
2. Khetani, S.R., and Lin, C. “Microengineered Stem Cell-Derived Human Liver Platform for Infectious Disease Applications” Annual Meeting of the Biomedical Engineering Society, Minneapolis, MN (October 2016).
3. Khetani, S.R., and Davidson, M.D. “Investigating Human Hepatocyte-Stellate Cell Interactions in Microengineered Cultures” FASEB Liver Biology Conference, West Palm Beach, FL (June 2016).
4. Khetani, S.R., Davidson, M., Lehrer, M. “Hormone and Drug-mediated Modulation of Glucose Metabolism in a Microscale Model of the Human Liver” FASEB Liver Biology Conference, Keystone, CO (July 2014).
5. Khetani, S.R., “Microscale Engineered Human Liver Model for Investigative Toxicology, Drug Metabolism and Efficacy Assessment” Annual Meeting of the International Society for the Study of Xenobiotics, Istanbul, Turkey (September 2010).
6. Khetani, S.R., “Microscale Engineered Human Liver Model for Investigative Toxicology, Drug Metabolism and Efficacy Assessment” Annual Meeting of the International Society for the Study of Xenobiotics, Istanbul, Turkey (September 2010).
7. Khetani, S.R., and Bhatia, S.N., “Development and Characterization of Microscale Models of Rat and Human Livers” Annual Meeting of the American Association of the Study of Liver Diseases, Boston, MA (Nov 2007).
8. Khetani, S.R., and Bhatia, S.N., “Microscale Human Liver Tissue for Drug Development” Gordon Research Conferences – Drug Metabolism, Plymouth, NH (July 2007).



9. Khetani, S.R., and Bhatia, S.N., “Microscale Engineered Human Liver Tissue for Drug Development” Annual Symposium of the Computational and Systems Biology Group at MIT, Cambridge, MA (February 2007).
10. Khetani, S.R., and Bhatia, S.N., “Microscale Engineered Liver Tissue for Drug Development” Annual Meeting of the Biomedical Engineering Society (BMES), Chicago, IL (October 2006).
11. Khetani, S.R., Ranscht, B., and Bhatia, S.N., “T-cadherin Modulates Hepatocyte Functions In Vitro” Gordon Research Conference - Cell Contact and Adhesion, Andover, NH (June 2005).
12. Khetani, S.R., Yeo, W-S., Szulgit, G., Del Rio, J.A., Mrksich, M., Barlow, C., and Bhatia, S.N., “Exploring Cell-Cell Interactions Using Gene Expression Profiling and Dynamic Substrates” California Tissue Engineering Meeting, La Jolla, CA (September 2003).
13. Khetani, S.R., Szulgit, G., Del Rio, J.A., Barlow, C., and Bhatia, S.N., “Exploring Mechanisms of Cell-Cell Interaction in Hepatic Co-cultures Using Gene Expression Profiling” Annual Meeting of the Biomedical Engineering Society (BMES), Houston, TX (October 2002).
14. Khetani, S.R., Yeo, W-S., Szulgit, G., Del Rio, J.A., Mrksich, M., Barlow, C., and Bhatia, S.N., “Exploring Cell-Cell Interactions Using Gene Expression Profiling and Dynamic Substrates” Federation of American Societies for Experimental Biology (FASEB) Meeting on Mechanisms of Liver Growth, Development and Disease, Snowmass, CO (August 2004).
15. Khetani, S.R., Szulgit, G., Del Rio, J.A., Barlow, C., and Bhatia, S.N., “Exploring Mechanisms of Cell-Cell Interaction in Hepatic Co-cultures Using Gene Expression Profiling” Southern California Tissue Engineering Symposium, Los Angeles, CA (September 2002).
16. Khetani, S.R., Szulgit, G., Del Rio, J.A., Barlow, C., and Bhatia, S.N., “Exploring Mechanisms of Cell-Cell Interaction in Hepatic Co-cultures Using Gene Expression Profiling” American Association for the Study of Liver Diseases (AASLD) Meeting on Human Liver Cells in Biomedical Research, Warrenton, VA (June 2002).

## MENTORED STUDENT RESEARCH PRESENTATIONS

*Student presenter is underlined*

1. Ware, B.R., and Khetani, S.R. “Microfluidic Human Liver Co-cultures for Drug Screening and Disease Modeling” Center for Advanced Design and Manufacturing of Integrated Microfluidics (CADMIM) meeting, Chicago, IL (September 2017). *Poster presentation*
2. Ware, B.R., and Khetani, S.R. “Long-term Engineered Cultures of Primary Mouse Hepatocytes for Genotype-Phenotype Studies” Center for Advanced Design and Manufacturing of Integrated Microfluidics (CADMIM) meeting, Chicago, IL (September 2017). *Poster presentation*
3. Lin, C., and Khetani, S.R. “Microengineered Co-Cultures of Primary Human Hepatocytes and Kupffer Macrophages for Investigating Drug-Induced Liver Injury” Center for Advanced Design and Manufacturing of Integrated Microfluidics (CADMIM) meeting, Chicago, IL (September 2017). *Poster presentation*
4. Calzadilla, N., Lin, C., and Khetani, S.R. “Microengineered Co-cultures of Primary Human Hepatocytes and Kupffer Macrophages for Investigating Drug-induced Liver Injury” GEMS Research Symposium, Chicago, IL (September 2017). *Oral presentation*

5. Sorokina, L., Lin, C., and Khetani, S.R. “Decellularized Liver Extracellular Matrix for Long-Term Culture of Primary Human Hepatocytes” Student Research Forum, University of Illinois at Chicago, Chicago, IL (April 2017). *Poster presentation*
6. Lin, C. and Khetani, S.R. “Microengineered Co-cultures of Human Liver Cells for Studying Drug-Inflammation Interactions” BIOE 102 – Bioengineering Freshman Seminar, University of Illinois at Chicago, Chicago, IL (March 2017). *Oral presentation*
7. Kukla, D., Stoppel, W., Kaplan, D., and Khetani, S.R. “Engineering a Long-term and Highly Functional 3D Human Liver Model Using Silk Scaffolds” Annual Meeting of the Society for Biomaterials, Minneapolis, MN (April 2017). *Poster presentation*
8. Lin, C., and Khetani, S.R. “Microengineered Co-cultures of Primary Human Hepatocytes and Kupffer Macrophages for Investigating Drug-induced Liver Injury” Annual Meeting of the Society of Toxicology, Baltimore, MD (March 2017). *Poster presentation*
9. Ware, B., and Khetani, S.R. “Microfluidic Human Liver Co-cultures for Drug Screening and Disease Modeling” Annual Meeting of the Society for Laboratory Automation and Screening, Washington, DC (February 2017). *Poster presentation*
10. Lin, C., and Khetani, S.R. “Microengineered Co-cultures of Primary Human Hepatocytes and Kupffer Macrophages for Drug Disposition Studies” SBME seminar series, Colorado State University, Fort Collins, CO (February 2017). *Oral presentation.*
11. Ware, B., and Khetani, S.R. “Engineered In Vitro Platforms for Drug Toxicity Prediction and Elucidation” SBME seminar series, Colorado State University, Fort Collins, CO (January 2017). *Oral presentation.*
12. Davidson, M.D., and Khetani, S.R. “Investigating Steatosis and Insulin Resistance in Microengineered Human Liver Cultures” UIC Diabetes & Obesity Research Day, Chicago, IL (October 2016). *Oral presentation*
13. Kukla, D., Stoppel, W., Kaplan, D., and Khetani, S.R. “Engineering a Long-term and Highly Functional 3D Human Liver Model Using Silk Scaffolds” Annual Meeting of the Biomedical Engineering Society, Minneapolis, MN (October 2016). *Oral presentation*
14. Davidson, M.D., and Khetani, S.R. “A Bioinspired Culture Medium Prolongs the Functional Lifetime of Human Liver Cells in Culture” Annual Meeting of the Biomedical Engineering Society, Minneapolis, MN (October 2016). *Poster presentation*
15. Davidson, M.D., and Khetani, S.R. “Modeling the Early Stages of Fatty Liver Disease and Fibrosis in Microengineered Human Liver Cultures” Annual Meeting of the Biomedical Engineering Society, Minneapolis, MN (October 2016). *Poster presentation*
16. Davidson, M.D., and Khetani, S.R. “Investigating steatosis and insulin resistance in microengineered human liver cultures” Chicago Diabetes Day at the University of Chicago, Chicago, IL (May 2016). *Poster presentation (award winner)*
17. Ware, B., and Khetani, S.R. “Microfabricated Co-Cultures Containing Induced Pluripotent Stem Cell-Derived Liver Cells for Drug Development” NanoEngineering for Medicine and Biology, Houston, TX (February 2016). *Oral presentation.*
18. Allsup, S., Berger, D., and Khetani, S.R. “Maturation of Induced Pluripotent Stem Cell-Derived Human Liver Cells in Engineered Co-cultures” Annual Meeting of the Biomedical Engineering Society, Tampa, FL (October 2015). *Oral presentation.*

19. Davidson, M.D. and Khetani, S.R. “Engineering an In Vitro Model of Human Non-Alcoholic Fatty Liver Disease and Insulin Resistance” Annual Meeting of the Biomedical Engineering Society, Tampa, FL (October 2015). *Oral presentation.*
20. Durham, M., Ware, B., and Khetani, S.R. “Engineered Co-cultures of Primary Human Liver Sinusoidal Endothelial Cells and Hepatocytes” Annual Meeting of the Biomedical Engineering Society, Tampa, FL (October 2015). *Poster presentation.*
21. Lin, C. and Khetani, S.R. “Microengineered Co-cultures of Human Liver Cells for Studying Drug-Inflammation Interactions” Annual Meeting of the Biomedical Engineering Society, Tampa, FL (October 2015). *Oral presentation.*
22. Lin, C., Faulk, D.M., Badylak, S.F., and Khetani, S.R. “Decellularized Liver Extracellular Matrix for Long-term Culture of Human Liver Cells” Annual Meeting of the Biomedical Engineering Society, Tampa, FL (October 2015). *Poster presentation.*
23. Allsup, S., Berger, D., and Khetani, S.R. “Functional Maturation of iPSC-Derived Human Liver Cells in Engineering Co-cultures” Celebrate Undergraduate Research and Creativity (CURC) showcase at Colorado State University, Fort Collins, CO (April 2015). *Poster presentation (undergraduate).*
24. Ballinger, K. and Khetani, S.R. “Effect of co-culture on hepatic cell line functions” School of Biomedical Engineering Symposium, Fort Collins, CO (March 2015). *Poster presentation.*
25. Berger, D., and Khetani, S.R. “Improving Functional Maturity of iPSC-derived Human Hepatocytes via Microfabrication” School of Biomedical Engineering Symposium, Fort Collins, CO (March 2015). *Poster presentation.*
26. Davidson, M. and Khetani, S.R. “Long-term Effects of Glucose Levels on Human Hepatocyte Functions” School of Biomedical Engineering Symposium, Fort Collins, CO (March 2015). *Poster presentation.*
27. Lin, C. and Khetani, S.R. “Co-culture of Human Hepatocytes and Kupffer Macrophages for Drug-Inflammation Interaction Studies” School of Biomedical Engineering Symposium, Fort Collins, CO (March 2015). *Poster presentation.*
28. Ware, B. and Khetani, S.R. “Optimizing Phenotype of Primary Mouse Hepatocytes Using Microscale Engineering Approaches” School of Biomedical Engineering Symposium, Fort Collins, CO (March 2015). *Poster presentation.*
29. Ballinger, K. and Khetani, S.R. “Improving Liver Functions of Hepatic Cell Lines in vitro” Colorado State University Graduate Student Showcase, Fort Collins, CO (February 2015). *Poster presentation.*
30. Berger, D., and Khetani, S.R. “Microscale Engineering Strategies to Functionally Mature iPSC-derived Human Hepatocytes” Colorado State University Graduate Student Showcase, Fort Collins, CO (February 2015). *Poster presentation.*
31. Davidson, M., Ballinger, K., and Khetani, S.R. “Mimicking Chronic Hypo- and Hyper-glycemia in Engineered Cultures of Hepatocytes” Colorado State University Graduate Student Showcase, Fort Collins, CO (February 2015). *Poster presentation.*
32. Lin, C. and Khetani, S.R. “Engineering Cocultures of Primary Human Hepatocytes and Kupffer Macrophages” Colorado State University Graduate Student Showcase, Fort Collins, CO (February 2015). *Poster presentation.*

33. Ware, B., Soldatow, V., Berger, D., LeCluyse, E., and Khetani, S.R. “Long-Term Engineered Cultures of Mouse Hepatocytes for Genotype-Phenotype Studies” Colorado State University Graduate Student Showcase, Fort Collins, CO (February 2015). *Poster presentation.*
34. Ware, B., Berger, D., Davidson, M., and Khetani, S.R. “Prediction of Drug-Induced Liver Injury in Engineered Cultures of iPSC-Derived Human Hepatocytes” Annual Meeting of the Biomedical Engineering Society, San Antonio, TX (October 2014). *Poster presentation.*
35. Ware, B., Soldatow, V., Berger, D., LeCluyse, E., and Khetani, S.R. “Long-Term Engineered Cultures of Primary Mouse Hepatocytes for Genotype-Phenotype Studies” Annual Meeting of the Biomedical Engineering Society, San Antonio, TX (October 2014). *Poster presentation.*
36. Lin, C., Ballinger, K., Kipper, M., and Khetani, S.R. “Spatiotemporal Delivery of Growth Factors to Hepatocytes via Polyelectrolyte Multilayers” Annual Meeting of the Biomedical Engineering Society, San Antonio, TX (October 2014). *Oral presentation.*
37. Lin, C., Shi, J., Moore, A., and Khetani, S.R. “Modeling Drug Clearance and Drug-Drug Interactions in Long-Term Engineered Human Liver Cultures” Annual Meeting of the Biomedical Engineering Society, San Antonio, TX (October 2014). *Poster presentation.*
38. Lin, C., Heyward, S., Brown, C.A., and Khetani, S.R. “Engineering Highly Functional Cocultures of Cryopreserved Primary Human Hepatocytes and Kupffer Macrophages via Microfabrication” Annual Meeting of the International Society for the Study of Xenobiotics, San Francisco, CA (October 2014). *Poster presentation.*
39. Ware, B., Berger, D., Davidson, M., and Khetani, S.R. “Controlled Cell-Cell Interactions Enhance Functional Maturation of iPSC-Derived Human Hepatocytes” Annual Meeting of the Biomedical Engineering Society, San Antonio, TX (October 2014). *Oral presentation.*
40. Berger, D., McVay, M., and Khetani, S.R. “Exploring Chronic Drug Dosing in Engineered Human Liver Cultures Using Global Expression Profiling” Annual Meeting of the Biomedical Engineering Society, San Antonio, TX (October 2014). *Poster presentation.*
41. Ballinger, K., Bailey, A., and Khetani, S.R. “Improving Liver Functions of Hepatic Cell Lines in vitro by Co-Culture with Stromal Support Cells” Annual Meeting of the Biomedical Engineering Society, San Antonio, TX (October 2014). *Poster presentation.*
42. Davidson, M., Ballinger, K., and Khetani, S.R. “Mimicking Chronic Hypo- and Hyper-glycemia in Engineered Cultures of Human Hepatocytes” Annual Meeting of the Biomedical Engineering Society, San Antonio, TX (October 2014). *Poster presentation.*
43. Berger, D., and Khetani, S.R. “Microscale Engineering Strategies to Functionally Mature iPSC-derived Human Liver Cells” SBME seminar series, Colorado State University, Fort Collins, CO (September 2014). *Oral presentation.*
44. Davidson, M., and Khetani, S.R. “Investigating effects of over-nutrition and diabetes in engineered human liver cultures” SBME seminar series, Colorado State University, Fort Collins, CO (September 2014). *Oral presentation.*
45. Ware, B., Berger, D., Davidson, M., and Khetani, S.R. “Evaluating drug induced liver injury with induced pluripotent stem cells *in vitro*” SBME seminar series, Colorado State University, Fort Collins, CO (April 2014). *Oral presentation.*

46. Lin, C., Shi, J., Moore, A., and Khetani, S.R. “Prediction of drug clearance and drug-drug interactions in micropatterned co-cultures of human hepatocytes” SBME seminar series, Colorado State University, Fort Collins, CO (April 2014). *Oral presentation.*
47. Davidson, M., Ware, B., Berger, D., and Khetani, S.R. "Microscale human liver model for assessing glucose metabolism and drug screening efforts in diabetes" CSU Ventures 2014 Innovation Symposium, Fort Collins, CO (April 2014). *Poster presentation.*
48. Lin, C., Shi, J., Moore, A., and Khetani, S.R., “Prediction of *in vivo*-relevant drug disposition in a micro-engineered model of the human liver” CSU Ventures 2014 Innovation Symposium, Fort Collins, CO (April 2014). *Poster presentation.*
49. Lin, C. and Khetani, S.R., “Drug clearance prediction in micropatterned co-cultures” Research Symposium – Colorado State University, Fort Collins, CO (March 2014). *Poster presentation.*
50. Berger, D. and Khetani, S.R., “Long-term engineered cultures of iPSC-derived human hepatocytes for drug screening” Research Symposium – Colorado State University, Fort Collins, CO (March 2014). *Poster presentation.*
51. Davidson, M., Lehrer, M., and Khetani, S.R. "Hormone and Drug-Mediated Modulation of Glucose Metabolism in a Microscale Model of the Human Liver" Annual Meeting of the Biomedical Engineering Society, Seattle, WA (September 2013). *Oral presentation.*
52. Berger, D., Ware, B., Davidson, M., Bailey, A., and Khetani, S.R., “Heterotypic Cell Interactions Enhance Liver Functions of iPSC-Derived Human Hepatocytes” Annual Meeting of the Biomedical Engineering Society, Seattle, WA (September 2013). *Poster presentation.*
53. Lin, C., Ware, B., Berger, D., and Khetani, S.R., “Prediction of In Vivo-Relevant Drug Disposition in a Micro-Engineered Model of the Human Liver” Annual Meeting of the Biomedical Engineering Society, Seattle, WA (September 2013). *Poster presentation.*

## REVIEWER FOR MANUSCRIPTS IN PEER-REVIEWED JOURNALS

1. Acta Biomaterialia
2. ACS Biomaterials Science & Engineering
3. ALTEX (Alternatives to Animal Experimentation)
4. American Journal of Pathology
5. Artificial Cells, Nanomedicine and Biotechnology
6. Biomacromolecules
7. Biomaterials
8. Biomedical Microdevices
9. Biomicrofluidics
10. Biotechnology Advances
11. Biotechnology and Bioengineering
12. Biotechnology Journal
13. Cell Biology and Toxicology
14. Cellular and Molecular Gastroenterology and Hepatology
15. Cellular and Molecular Life Sciences
16. Cell and Tissue Research
17. Chemical Research in Toxicology

18. Current Medicinal Chemistry
19. Cytotherapy
20. Data in Brief
21. Disease Models & Mechanisms
22. Drug and Chemical Toxicology
23. Drug Metabolism Letters
24. Drug Safety
25. Experimental Biology and Medicine
26. Expert Opinion on Drug Metabolism and Toxicology
27. European Journal of Cell Biology
28. FASEB Journal
29. Food & Function
30. Gastroenterology
31. Genes
32. Hepatology
33. IEEE Journal of Biomedical and Health Informatics
34. Integrative Biology
35. International Journal of Molecular Sciences
36. International Journal of Nanomedicine
37. Journal of Applied Toxicology
38. Journal of Biomedical Materials Research: Part A
39. Journal of Biomedical Materials Research: Part B - Applied Biomaterials
40. Journal of Immunology and Regenerative Medicine
41. Journal of Physiology and Pharmacology
42. Journal of Tissue Engineering and Regenerative Medicine
43. Lab on a Chip
44. Metabolites
45. Methods
46. Molecular Pharmaceutics
47. Nanobiomedicine
48. Nature Communications
49. Philosophical Transactions of the Royal Society B
50. PLOS One
51. Science Translational Medicine
52. Scientific Reports
53. Stem Cells International
54. Stem Cell Reports
55. Stem Cell Reviews and Reports
56. Technology
57. The ILAR journal
58. Tissue Engineering
59. Tissue Engineering, Part C – Methods
60. Toxicology In Vitro
61. Toxicological Sciences
62. Trends in Biotechnology
63. Wiley-Blackwell Biotechnology Series
64. Xenobiotica

## REVIEWER FOR ABSTRACTS SUBMITTED TO CONFERENCES

1. Tissue Engineering & Regenerative Medicine Int'l Society Americas (TERMIS-AM) (2016)
2. Nanoengineering for Medicine and Biology (2015)
3. Annual Meeting of the Biomedical Engineering Society (2014, 2015, 2016, 2017)
4. American Chemical Society National Meeting and Exposition (2014)
5. Society for Biomaterials Annual Meeting (2014)

## REVIEWER FOR GRANTS SUBMITTED TO FUNDING AGENCIES

1. Study section: Cellular and Molecular Technologies – on behalf of the National Institutes of Health (Scheduled for Feb 2018)
2. Study section: ZAI1-BLG-M-J1 – on behalf of the National Institutes of Health (Dec 2016)
3. HBCU-UP Research Initiation Award review panel – on behalf of the National Science Foundation (Nov 2016)
4. Study section: ZRG1 BST-W (90) – on behalf of the National Institutes of Health (Nov 2016)
5. Study section: Superfund C Workgroup 2017/01 ZES1 LWJ-K (S2) 1 – on behalf of the National Institutes of Health (Sep 2016)
6. Oak Ridge Associated Universities (ORAU) – on behalf of the Republic of Georgia (Sep 2016)
7. Study section: NIH Director's Early Independence Award (DP5) ZRG1 RPHB-W-53-R – on behalf of the NIH (Apr 2016)
8. Oak Ridge Associated University (ORAU) – on behalf of state of Florida (Dec 2015)
9. Biotechnology and Biochemical Engineering CAREER grant review panel – on behalf of the National Science Foundation (Sep 2015)
10. Study section: Cutting-Edge Basic Research Awards (CEBRA) ZDA1 JXR-G (10) – on behalf of the National Institutes of Health (Apr 2015)
11. Study section: Hepatobiliary Pathophysiology – on behalf of the National Institutes of Health (Feb 2014)
12. Oak Ridge Associated Universities (ORAU) – on behalf of state of Pennsylvania (Apr 2012)

## CHAIR OR CO-CHAIR AT CONFERENCES

1. Annual Meeting of the Biomedical Engineering Society, Phoenix, AZ. **Co-chair of track session** entitled “Organ-on-a-Chip Models for Drug Discovery and the Study of Disease IV” (October 2017)
2. Scientific Advisor for “Tissue Engineering and Regenerative Medicine International Society Americas (TERMIS-AM)” conference (December 2016)
3. Annual Meeting of the Biomedical Engineering Society, Minneapolis, MN. **Co-chair of track session** entitled “Biomaterials for Immunoengineering III” (October 2016)
4. Annual Meeting of the Biomedical Engineering Society, Minneapolis, MN. **Co-chair of track session** entitled “Organs-on-a-chip models for study of disease and drug discovery I” (October 2016)
5. ASME Nanoengineering for Medicine and Biology Conference (NEMB), Houston, TX. **Co-chair of track** entitled “Nano- and Micro-fluidics.” (February 2016)



6. Division of Biochemical Toxicology (BIOT) Symposia of the national meeting of the American Chemical Society, Denver, CO. **Invited co-chair of session** entitled “Colorado Biotechnology: Biomedical Research.” (March 2015)
7. Annual Meeting of the Biomedical Engineering Society, San Antonio, TX. **Co-chair of track session** entitled “Hepatic, pancreatic, digestive and renal tissue engineering.” (October 2014)
8. American Meeting of the International Society for the Study of Xenobiotics, Atlanta, GA. **Chair of plenary session** entitled “Engineered Tissue Models For *In-vitro* and *In-vivo* Metabolism and Toxicity Testing.” (October 2011)

## PARTICIPATION ON BOARDS OF JOURNALS

- Editorial Board, *Experimental Biology and Medicine*, 2017-Present
- Guest editor for special issue in *Cellular and Molecular Gastroenterology and Hepatology*, an American Gastroenterology Association journal, 2017
- Member of Advisory Board, *Regenerative Medicine*, a Nature Partner Journal, 2016 - Present

## TEACHING EXPERIENCE (AS PRIMARY INSTRUCTOR)

### At the University of Illinois at Chicago (UIC)

- Quantitative Human Physiology
  - Fall 2017 (17 students). Overall instructor rating 4.5 Overall course rating 4.7 (out of 5)
  - Fall 2016 (25 students). Overall instructor rating 4.42. Overall course rating 4 (out of 5)
- Cell and Tissue Engineering Laboratory (undergraduate course)
  - Spring 2017 (35 students). Overall instructor rating 4.8. Overall course rating 4.76 (out of 5)
  - Spring 2016 (36 students). Overall instructor rating 4.83. Overall course rating 4.78 (out of 5)
- Bioengineering Seminar (graduate course designed to teach scientific communication skills)
  - Fall 2017 (36 students). Overall instructor rating 4.18. Overall course rating 3.74 (out of 5)
  - Fall 2016 (39 students). Overall instructor rating 4.37. Overall course rating 3.91 (out of 5)
  - Fall 2015 (33 students). Overall instructor rating 4.44. Overall course rating 4.28 (out of 5)

### At Colorado State University (CSU)

- Quantitative Systems Physiology (new graduate course developed)
  - Spring 2015 (16 students). Overall instructor rating 4.91. Overall course rating 4.54 (out of 5)
  - Spring 2014 (14 students). Overall instructor rating 4.77. Overall course rating 4.77 (out of 5)
  - Spring 2013 (16 students). Overall instructor rating 4.38. Overall course rating 4.21 (out of 5)
- Intro to Biomedical Engineering (new version of undergraduate course developed)
  - Fall 2014 (143 students). Overall instructor rating 4.91. Overall course rating 4.77 (out of 5)
  - Fall 2013 (112 students). Overall instructor rating 4.64. Overall course rating 4.39 (out of 5)
- Mechanics and Thermodynamics of Flow Processes (undergraduate)
  - Fall 2013 (17 students). Overall instructor rating 4.06. Overall course rating 4.06 (out of 5)

## TEACHING EXPERIENCE (AS ASSISTANT TO INSTRUCTOR)

1. Introduction to Biomedical Engineering, CSU, Fall 2012 (apprentice under prof)
2. Mechanics and Thermodynamics of Flow Processes, CSU, Fall 2012 (apprentice under prof)
3. Head/Senior Teaching Assistant for the Department of Bioengineering at UCSD 2003-2005
4. Teaching Assistant, Biotechnology Laboratory, UCSD 2003
5. Teaching Assistant, Foundations of Tissue Engineering Science, UCSD 2002, 2003
6. Teaching Assistant, Cell and Tissue Engineering, UCSD 2002
7. Teaching Assistant, Bioengineering Physiology, UCSD 2001

## GRADUATE STUDENTS MENTORED IN RESEARCH

### PhD students

1. Yang Yuan, UIC Bioengineering, July 2017 – Present
2. Grace Brown, UIC Bioengineering, June 2017 – Present
3. David Kukla, UIC Bioengineering, June 2017 – Present
4. Regeant Panday, UIC Bioengineering, Jan 2017 – Present
5. Chase Monckton, UIC Bioengineering, Jun 2016 – Present
6. Christine Lin, CSU Biomedical Engineering, Jun 2013 – Dec 2017
7. Brenton Ware, CSU Biomedical Engineering, Sept 2012 – Dec 2017
  - *Current:* Research associate at the University of Illinois at Chicago (Microfabricated Tissue Models Laboratory)
8. Matthew Davidson, CSU Biomedical Engineering, Jun 2012 – Dec 2016
  - *Current:* Postdoctoral associate at the University of Pennsylvania (Jason Burdick's lab)
9. Kimberly Ballinger, CSU Mechanical Engineering, Sept 2014 – July 2015
  - *Current:* Research associate at KBI BioPharma
10. Dustin Berger, CSU Biomedical Engineering, Apr 2012 – Mar 2015
  - *Current:* Research Scientist at the Interventional Orthopedics Foundation

### Masters students

1. Erika Ferrari, UIC Bioengineering, Aug 2017 – Present
2. Fabio Pradella, UIC Bioengineering, Aug 2017 – Present
3. Jennifer Liu, UIC Bioengineering, Dec 2016 – Present
4. Lioudmila Sorokina, UIC Bioengineering, May 2016 – Present
5. Grace Brown, UIC Bioengineering, Aug 2016 – May 2017
6. David Kukla, UIC Bioengineering, Aug 2015 – May 2017

## UNDERGRADUATE STUDENTS MENTORED IN RESEARCH

- UIC (6): Grace Brown, Wasinee Siewsrichol, Joshua Smejkal, Lioudmila Sorokina, Kristin Wiseman, Berenice Zarate

- CSU (15): Joshua Pickrell, Alison Bailey, Kim Ballinger, Michael Lehrer, Connor Redalen, Olivia Smith, Aaron Paulding, Samuel Allsup, Mitch Durham, Oscar Safai-rad, Kelly Scharlau, Adam LeJeune, Jase Wyeno, Jaron Thompson, Wendy Sunada
- M.I.T. (7): Boyla Mainsah, Julia Kiberd, Swetha Kambhampati, Jennifer Yeh, Elise Liu, Ekavali Mishra, Sheena Bhalla
- UCSD (3): Brandon Fanelli, Ian Gaudet, Craig Sharp

## **PARTICIPATION IN UNIVERSITY COMMITTEES AND ACTIVITIES**

### At the University of Illinois at Chicago (UIC)

#### *Graduate student committees*

- PhD thesis committee for Nickolas Anderson, UIC Bioengineering, Dec 2017 – Present
- PhD thesis committee for Kevin Tangen, UIC Bioengineering, Apr 2017 – Present
- PhD thesis committee for Mahsa Ghaffari, UIC Bioengineering, Jan 2017 – Present
- PhD thesis committee for Arghya Bishal, UIC Bioengineering, Jan 2017 – Present
- PhD thesis committee for Jason Bugno, UIC Pharmaceutical Sciences, Oct 2016 – Present
- PhD thesis committee for Theodore Christoforidis, UIC Bioengineering, Sep 2016 – Present
- PhD thesis committee for Megan Rexius-Hall, UIC Bioengineering, Jul 2017 – Aug 2017
- PhD thesis committee for Martin Brennan, UIC Bioengineering, Oct 2015 – May 2017
- PhD thesis committee for Hao-jui Hsu, UIC Pharmaceutical Sciences, 2016
- MS thesis committee for Snehal Gaikwad, UIC Bioengineering, 2017
- MS thesis committee for Mehar Cheema, UIC Bioengineering, 2017
- MS thesis committee for Sebastian Pernal, UIC Bioengineering, 2016
- MS thesis committee for Esther Shin, UIC Bioengineering, 2016

#### *Other committees*

- Advisor for Biomedical Engineering Society (BMES) student chapter, UIC, May 2017 – Present
- Graduate College Awards Committee, UIC, Aug 2017 – May 2018
- Advisory Committee, UIC Department of Bioengineering, Nov 2016 – Present
- Faculty advisory committee for Jae Won Shin, Dept. of Pharmacology, UIC, Apr 2016 – Present
- Faculty search committee, UIC Bioengineering, Dec 2016 – May 2017

### At Colorado State University (CSU)

#### *Graduate student committees*

- PhD thesis committee for Renee Lake, CSU Biomedical Engineering, Sep 2012 – Sep 2015
- PhD thesis committee for Victoria Harcy, CSU CMB, Sep 2012 – Jan 2014
- MS thesis committee for Stephen Gatlin, CSU Chemistry, May 2013 – May 2014

*Other committees*

- Mechanical Engineering Advisory Board Liaison, CSU, 2015
- Undergraduate curriculum committee (Biomedical Engineering), CSU, Sep 2012 – Sep 2015
- *Ad hoc* grade appeal committee, 2013
- *Ad hoc* biomaterials new courses committee, 2014
- Postdoctoral search committee for Civil and Environmental Engineering, 2014
- Honors thesis committee for Maria Sekyi, CBE undergraduate at CSU, 2014

**K-12 EDUCATIONAL OUTREACH**

- Bioengineering Experience for Science Teachers, University of Illinois at Chicago (John O'Brien - 2016, Kevin Connolly - 2017)
- Stevenson High School (Lincolnshire, IL) summer research intern: Shreya Viswanathan (2017)
- Fossil Ridge High School (Fort Collins, CO) summer research intern: Ben Allsup (2014, 2015)
- Scientific presentations at Fort Collins High School and Fossil Ridge High School (2014)
- Fort Collins High School summer research interns: Autumn Dern (2013), Ashley Brock (2013), Zachary Stetter (2014)
- 1<sup>st</sup> Choice After School Kare (A.S.K.) STEM learning modules for K-6 students (2013, 2014)