SALMAN R. KHETANI – BIOGRAPHICAL SKETCH

University of Illinois at Chicago, 851 S Morgan St, 218 SEO, Chicago, IL 60607
Phone: (312) 413-9424; E-mail: skhetani@uic.edu

Professional Preparation

University of California, San Diego	Ph.D.	2002-2006	Bioengineering
University of California, San Diego	M.S.	2000-2002	Bioengineering
Marquette University (Milwaukee, WI)	B.S.	1995-2000	Biomedical Engineering, Electrical Engineering

Appointments

2015- present Associate Professor, Bioengineering Department, University of Illinois at Chicago (Chicago, IL)

2011- 2015 Assistant Professor, Mechanical Engineering Department and School of Biomedical Engineering, Colorado State University (Fort Collins, CO)

2008-2011 Co-founder and Director of Research, Hepregen Corporation (Medford, MA)

2006-2008 Postdoctoral Associate, Harvard-M.I.T. Division of Health Sciences and Technology (Cambridge, MA)

Recent Publications

1. Davidson, M.D., Kukla, D., and Khetani, S.R.* Microengineered cultures containing human hepatic stellate cells and hepatocytes for drug development. *Integrative Biology* DOI: 10.1039/c7ib00027h (2017) *Corresponding author
2. 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
3. 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
4. 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
5. 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
6. 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
7. 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
8. 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
9. 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

10. 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)
11. 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*
12. 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*
13. 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)
14. Khetani, S.R., and Bhatia, S.N. Microscale human liver tissue for drug development. *Nature Biotechnology* 26(1): 120-126 (2007)
15. 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)

Issued Patents (+ 8 pending patent applications)

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)

Synergistic Activities

Symposium/Session Organizer at Conferences: Nanoengineering for Medicine and Biology Congress (2016); National meeting of the American Chemical Society (2015); Annual Meeting of the Biomedical Engineering Society (2014, 2016, 2017); American Meeting of the International Society for the Study of Xenobiotics (2011). ***Outreach and Diversity:*** Bioengineering Experience for Science Teachers Program (2016, 2017); STEM learning modules for K-6 students in after school program in Fort Collins, CO (2013 – 2014); Fort Collins High School summer research internship program (2013, 2014); Fossil Ridge High School summer research internship program (2014, 2015). ***Journals:*** Editorial Board, *Experimental Biology and Medicine* (2017-); Advisory Board Member, *Nature Partner Journal, Regenerative Medicine* (2016). ***Curriculum Development:*** Quantitative Systems Physiology (2013); Introduction to Biomedical Engineering (2013); Cell and Tissue Engineering Laboratory (2016). ***Service to the Community:*** Scientific Advisor, Tissue Engineering and Regenerative Medicine International Society (2016); Reviewer for manuscripts submitted to 58 different journals; Reviewer for abstracts submitted to the Annual Meeting of the Biomedical Engineering Society (2014, 2015, 2016, 2017); Reviewer for National Science Foundation CAREER grants (2015); Reviewer for grants submitted to Center for Scientific Review on behalf of the National Institutes of Health (2014, 2016)

Graduate Advisees (Year of Degree)

Matthew Davidson (Ph.D. 2016), Kimberly Ballinger, Dustin Berger, Grace Brown, Erika Ferrari, David Kukla, Christine Lin, Jennifer Liu, Chase Monckton, Regeant Panday, Fabio Pradella, Lioudmila Sorokina, Brenton Ware, and Yang Yuan

Advisor

Professor Sangeeta N. Bhatia, M.I.T. (graduate and postdoctoral advisor)