JERED B. HAUN

Education and Training:

University of Minnesota	Minneapolis, MN	Chemical Engineering	B.S.	2000
Johns Hopkins University	Baltimore, MD	Biomedical Engineering	M.S.E	2003
University of Pennsylvania	Philadelphia, PA	Bioengineering	Ph.D.	2008

Appointments:

2013-present	**Joint appointment**, Chemical Engineering and Materials Science, UC Irvine, Irvine, CA
2011-present	**Member**, Chao Family Comprehensive Cancer Center, UC Irvine, Irvine, CA
2011-present	**Assistant Professor**, Biomedical Engineering, UC Irvine, Irvine, CA
2011	**Visiting Researcher**, Biomedical Engineering, UC Irvine, Irvine, CA
2008-2011	**Postdoctoral Researcher**, Center for Systems Biology, Massachusetts General Hospital and Harvard Medical School, Boston, MA

Honors & Awards

2015, 2016	Biomedical Engineering Professor of the Year, UCI Engineering Student Council
2013-2014	Hellman Fellow
2010-2011	NIH NRSA Postdoctoral Fellowship
2002-2004	Leadership Fellow, Department of Bioengineering, University of Pennsylvania

Selected Publications:

Five publications related to this proposal:

1. Banyard DA, Sarantopoulos CN, Borovikova AA, Qiu X, Wirth GA, Paydar KZ, **Haun JB**, Evans GRD, Widgerow AD. Phenotypic analysis of stromal vascular fraction after mechanical shear reveals stress-induced progenitor populations. *J. Plastic Surg.* In press
2. X. Qiu, J. De Jesus, M. Pennell, M. Troiani, and **J. B. Haun**. 2015. Microfluidic device for mechanical dissociation of cancer cell aggregates into single cells. *Lab Chip.* 15: 339-50.
3. M. K. Rahim, R. Kota, and **J. B. Haun**. 2015. Enhancing reactivity for bioorthogonal pretargeting by unmasking antibody conjugated *trans*-cyclooctenes. *Bioconj. Chem.,* 26(2): 352-60.
4. **J. B. Haun**, C. M. Castro, R. Wang, V. M. Peterson, B. S. Marinelli, H. Lee, and R. Weissleder. 2011. MicroNMR for rapid analysis of human tumor samples. *Sci. Transl. Med*., 3(71): 71ra16.
5. **J. B. Haun**, N. K. Devaraj, S. A. Hilderbrand, H. Lee, and R. Weissleder. 2010. Bioorthogonal Chemistry Amplifies Nanoparticle Binding and Enhances Signal Detection. *Nat. Nanotechnol.*, 5(9), 660-5.

Five other significant publications:

6. M. K. Rahim, R. Kota, S. Lee, and **J. B. Haun**. 2013. Bioorthogonal chemistries for nanomaterial conjugation and targeting. *Nanotechnol. Rev.* 2(2): 215-27.

7. **J. B. Haun**, N.K Devaraj, B. S. Marinelli, H. Lee, and R. Weissleder. 2011. Probing intracellular biomarkers and mediators of cell activation using nanosensors and bioorthogonal chemistry. *ACS Nano.*, 5(4): 3204-13.
8. **J. B. Haun**, L. R. Pepper, E. T. Boder, and D. A. Hammer. 2011. Using engineered single-chain antibodies to correlate molecular binding properties and nanoparticle adhesion dynamics. *Langmuir*, 27(22): 13701-12.
9. **J. B. Haun**, T. J. Yoon, H. Lee, and R. Weissleder. 2010. Magnetic nanoparticle biosensors. *Wiley Interdiscip. Rev. Nanomed. Nanobiotechnol.,* 2(3): 291-304.
10. **J. B. Haun** and D. A. Hammer. 2008. Quantifying nanoparticle adhesion mediated by specific interactions. *Langmuir*, 24(16): 8821-32.

Synergistic Activities

2015-2016	American Heart Association grant proposal review
2014	Program chair, Annual UC Systemwide Bioengineering Symposium, UCI
2014	Session chair and reviewer, Biomedical Engineering Society Annual Meeting

Journal reviewer for ACS Nano, Angewandte Chemie, Biomaterials, Bioconjugate Chemistry, Analytical Chemistry, Langmuir, Lab on a Chip, Journal of Controlled Release, Cell and Molecular Biology, ChemMedChem, Applied Physics Letters, Biomacromolecules, Journal of Nanomedicine and Nanotechnology, International Journal of Nanomedicine, Biomedical Optics Express, PLOS One, Molecular Imaging and Biology, Journal of Biomechanics, Journal of Biomechanical Engineering

Collaborators and Other Affiliations:

Faculty collaborators (past 48 months): Professor Elliot Hui (UCI), Dr. Edward Nelson (UCI), Professor Enrico Gratton (UCI), Professor Neal Devaraj (UCSD), Dr. Robert Edwards (UCI), Professor Gultekin Gulsen (UCI), Professor Abraham Lee (UCI), Professor Wendy Liu (UCI), Professor Elliot Botvinick (UCI), Professor Matthew Paszek (Cornell U.), Professor Bill Tang (UCI), Dr. Valerie Weaver (UCSF), Dr. Alan Widgerow (UCI), Professor Eric Boder (U. of Tennessee)

Graduate and Postdoctoral Advisors: Professor B. Rita Alevriadou, Department of Biomedical Engineering, The Ohio State University (M.S.E. at Johns Hopkins University); Professor Daniel A. Hammer, Department of Bioengineering, University of Pennsylvania (Ph.D.); Dr. Ralph Weissleder, Center for Systems Biology, Massachusetts General Hospital and Harvard Medical School (postdoctoral research).

Postdoctoral advisees: Rajesh Kota, Ph.D. (Chemistry, 2014-present), Sumi Lee, Ph.D. (Chemical Engineering, 2012-2014, currently at Samsung)

Graduate students advised:

Ph.D. students: Maha Rahim (Biomedical Engineering), Xiaolong Qiu (Biomedical Engineering), Mingqiu Wang (Biomedical Engineering), Vanessa Herrera (Biomedical Engineering, NSF GRF)

Masters students: Soo Song (BME), Yusi Miao (BME), Marissa Pennell (BME), Ting-Yi Chu (BME), Vivian Le (Chemical Engineering), Yuting Ji (BME), Anand Gopalan (Chemical Engineering), Huylong Ngo (BME), Bahar Mousapour (BME), Ellie Lee (Chemical Engineering), Dweep Jhaveri (BME, 2015), Bassel Malek (Chemical Engineering, 2015), Janice De Jesus (BME, 2013), Yi Luo (BME, 2013), Lili Zeng (BME, 2013)

Total number of graduate students advised: 19 (13 women, 1 underrepresented minority, 1 NSF GRF)

I have also mentored 28 undergraduate students (14 women, 4 underrepresented minorities)