BALAJI V. SRIDHAR
balaji@nanoly.info
(720) 273-2875

3415 Colorado Avenue
JSC Biotechnology Center,596 UCB
Boulder, CO 80303

EDUCATION

Massachusetts Institute of Technology (MIT), Cambridge, MA 4.7/5.0 GPA B.S. 2009
Chemical-Biological Engineering Major, Applied International Studies Minor, Concentration in Spanish
University of Colorado, Boulder, CO Ph.D. 2015
Chemical & Biological Engineering in Prof. Kristi Anseth's lab
University of Colorado School of Medicine, Denver, CO M.D. Candidate
Pathology, Physiology, and Pharmacology for each organ system of the body. Completed USMLE Step I exam

RELEVANT EXPERIENCE

Anseth Lab, University of Colorado *Boulder, CO*
PhD. Project (2011-15): Use of Biofunctional Hydrogel Matrices for Chondrocyte Transplantation Applications
Summer 2009: Characterizing growth of pulmonary epithelial cells in a photodegradable hydrogel
Bryant Lab, University of Colorado *Boulder, CO*
Summer 2010; Quantified cardiomyocyte gene expression and modeled degradation of a hidrogel.
Dr. JM Torné Lab, Consejo Superior de Investigaciones Científicas (CSIC) *Barcelona, Spain*
January 2008: Purified, stabilized, and characterized transglutaminases from E. *coli* and tobacco plants.
Langer Lab, Massachusetts Institute of Technology *Cambridge, MA*
Fall 2005- Spring 2009: Various tissue engineering projects characterizing cell growth on patterned surfaces.
Gutierrez-Hartmann Lab, University of Colorado *Denver, CO*
Summer 2006 & Summer 2007: Effect of ESE-1 on breast cancer, role of Ras pathway in pituitary tumors.
University of Colorado Health Sciences Cancer Center Fellow
Dr. John James (Epidemiologist and Microbiologist), Children's Hospital, Denver *Denver, CO*
Summer 2003 Optimization of a novel treatment of removing arsenic from drinking water treatment sludge
Summer 2002 Removal of arsenic from drinking water treatment sludge, Children's Hospital, Denver.

RECENT PUBLICATIONS

1. **B.V. Sridhar,** E.A. Dailing, J.L Brock, J.W. Stansbury, M.A. Randolph, K.S. Anseth. "A biosynthetic scaffold that facilitates chondrocyte-mediated degradation and promotes articular cartilage extracellular matrix deposition." *Submitted to Regenerative Engineering and Translational Medicine*
2. **B.V. Sridhar,** J.L. Brock, J.S. Silver, J.L. Leight, M.A. Randolph, K.S. Anseth. "Development of a cellularly degradable PEG hydrogel to promote articular cartilage extracellular matrix deposition." Advanced Healthcare Materials. Vol. 4, Issue 5, 2015, Pages 635-781. Featured cover image and article for *Advanced Healthcare Materials* vol 4 issue 5, 2015.
3. **B.V. Sridhar,** N.R. Doyle, M.A. Randolph, K.S. Anseth. "Covalently tethered TGF-β1 with encapsulated chondrocytes in a PEG hydrogel system enhances extracellular matrix production." Journal of Biomedical Materials Research Part A. Vol 102, Issue 12, December 2014, Pages 4464-4472.
4. Huan Wang**, Balaji V. Sridhar,** Leslie A Leinwand, Kristi S. Anseth, "Defining new cellular composition of porcine cardiac valces," PLOS One, Vol. 8, Issue 7, July 2013, Pages 59-67.
5. Stephanie L. Hume, Sarah M. Hoyt, John S. Walker, **Balaji V. Sridhar**, John F. Ashley, Christopher N. Bowman, Stephanie J. Bryant, "Alignment of multi-layered muscle cells within three-dimensional hydrogel macrochannels," Acta Biomaterialia, Vol 8., Issue 6, July 2012, Pages 2193-2202.

US PATENT APPLICATIONS

Photodegradable Groups for Tunable Polymeric Materials. US Patent Application No. 13/725,674

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PRESENTATIONS

1. **B.V. Sridhar,** J.L. Brock, J.S. Silver, M.A. Randolph, J.L. Leight, K.S. Anseth, "Development of a cellularly degradable PEG hydrogel to promote articular cartilage matrix deposition." 2015 249th American Chemical Society National Meeting and Exposition March 22-26, Denver, CO
2. **B.V. Sridhar**, M.A. Randolph, K.S. Anseth, "Cellularly Degradable PEG Hydrogels with Tethered TGF-β1 for Improved Cartilage Engineering." 2014 Society for Biomaterials Annual Meeting April 16-19, Denver, CO
3. **B.V. Sridhar,** N.R. Doyle, K.S. Anseth, "Covalently Tethered Transforming Growth Factor Beta-1 in PEG Hydrogels Expedites Cartilage ECM Production of Encapsulated Primary Chondrocytes." 2013 Society for Biomaterials Annual Meeting, April 10-14, Boston, MA.
4. **B.V. Sridhar**, N.R. Doyle, K.S. Anseth, "Covalently Tethered Transforming Growth Factor Beta-1 in PEG Hydrogels Expedites Cartilage ECM Production of Encapsulated Primary Chondrocytes ." 2013 MSTP Student Conference, July 26-28, Keystone, CO.

RELEVANT SKILLS

Laboratory: Poly (ethylene glycol) (PEG) polymer synthesis, peptide synthesis, 3-D culture of cells. RT-PCR, High performance liquid chromatography (HPLC), DNA recombination (gene knockout), vector cloning gel electrophoresis, Southern, Western, and Northern blot methods. Fluorescent and confocal microscopy, cell cultures techniques (bacterial, endothelial, nerve cells, smooth muscle, cancer cells, and stem cells).
Languages: Spanish (fluent), Tamil (native language), Mandarin Chinese (Level V), German (Level IV)
Computer Skills: Excel, Matlab

LEADERSHIP

Leadership: -CEO/President and cofounder of Nanoly Bioscience, Inc.
-Selected as an Educational Counselor for MIT to recruit, serve as a community resource, and interview high school students to aid the admissions office in selecting students to attend MIT. Started in Fall 2014.
-Volunteered at a clinic in rural Kenya with the Matibabu foundation to assist in performing low cost surgeries.
-Selected by CU to teach classes on how to succeed in the USMLE Step I licensing exam to medical students.
-Initiated program to bring in students from Aurora Hills Middle School to see the school of medicine campus, talk to other medical students, and perform dissections. The program's intention is to inspire minority students from generally low-income backgrounds. Currently run by students at the campus.
- Key member of organizing committee for 2012 National MD/PhD Student conference in Keystone , Colorado.

AWARDS & RECOGNITIONS:

-2015 Nanoly Bioscience: Nominated and selected as part of the B.E.T.A. class of 2015 by the Artiman Whitespace Investment Venture Group.
-2014 Nanoly Bioscience: Tech Awards Katherine M. Swanson Young Innovator Laureate & winner of category, State of Colorado OEDIT BDEG Grant, Finalist in OneStart Americas $150k Competition ,UW GSEC Competition- NCIIA travel grant.
-2013 Nanoly Bioscience: Intel Global Challenge Social Innovation Award, UC Denver Bard Business Plan Competition 2nd place. Colorado Apex technology conference challenge 2nd place
-2012 Nanoly Bioscience: Duke University Start-up Challenge Winner out of 118 companies, Placed 3rd out of 1,800 teams in the Dell Social Innovation Challenge, Placed Top 10 in NASA and Space Frontier competition, UC Berkeley Startup Competition Elevator Pitch Winner out of 38 teams, 1st place in VC Taskforce's Life Sciences Investor Pitch, 3rd place out of 70 companies in Cornell Venture Challenge.
-2013-2014: Nominated and selected for Outstanding Service to the University of Colorado by an Individual
-2010 & 2011: Recognized as one of the best students at the University of Colorado SOM class of 2013.

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-2004 World Engineering Congress: Shanghai, China, represented the U.S. in the Quadrennial International Project Show for Future Engineers, 3rd prize.
-2004 Stockholm Junior Water Prize: New Orleans, LA, U.S. Finalist; invited to exhibit project at the Oct 2004 Water Environment Federation (WEF) Technical Exhibition and Conference.
-Water Environment Research Foundation's 2004 Paul L. Busch Award: Research paper on Optimization of arsenic removal selected as one among top ten submitted from all researchers, all ages.

ACTIVITIES

Athletics: - Squash: Currently 5.0 player, MIT Varsity NCAA Squash (4 yrs) only MIT player to play in the 2008/2009 individual nationals. Elected Captain '07-'08 & '08-'09; Voted Most Improved Player '06-'07.
-Basketball: Currently play recreational basketball. Part of CU intermural 2012 basketball championship team.
-Swimming: Competed at national level for 9 years
-Dancing- Qualified to be on Bhangra and hip hop dance teams in 2009