



Stem Cells @ UCR

Stem Cell Center Newsletter – July 2020, No. 4

News and Events!

**The 2020 Inland Empire
Stem Cell Consortium
Symposium is Coming!**
Theme: Aging and Stem Cells

Save The Date!

October 29th, 2020

Hosted by Loma Linda Univ.
In case we are not able meet in person,
the symposium will be held virtually

**The Stem Cell Core has
been approved for Phase 2
See more info below!**

What's Inside

News and Events

Where are they now?

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CIRM Bridges Interns

Phase 2 Stem Cell Core

Where are they now? Checking in with past graduate students!

Dr. Maricela Maldonado - graduated from Nam lab.

Maricela is currently a postdoctoral fellow in the lab of Dr. Hung Ping Shih in the Diabetes and Metabolism Research Institute (DMRI) at City of Hope. She was awarded a Juvenile Diabetes Research Foundation (JDRF) postdoctoral fellowship to investigate the role of the mechanical microenvironment on pancreatic beta cell maturation. She utilizes in vivo and in vitro models to study pancreatic islet development with the goal of generating functionally mature pluripotent stem cell-derived beta cells for the treatment of end-stage type I diabetic patients.

Dr. Devon Ehnes – graduated from zur Nieden Lab

Devon is currently a postdoctoral fellow in Dr. Hannele Ruohola-Baker's lab at the University of Washington School of Medicine in Seattle. She is studying human salivary gland development and working toward generating a functional, clinically relevant human organoid. She was also recently awarded the NIH T90 Postdoctoral Fellowship through the UW School of Dentistry to conduct this research.

Dr. Cheryl Stork – graduated from Zheng Lab

Cheryl is a Pre-clinical Translation Scientist at Progenity, Inc. In her position, Cheryl plays a key role in helping design, execute, and ensure scientific management and provide supervision of pre-clinical studies, draft study reports and documents for regulatory filings. Her day to day responsibilities include contributing and reviewing synopsis, protocols, analysis of data, review of draft reports, publications, and other study related documents for preclinical and translational studies that are being done at the company. She is also involved in pre-clinical projects in development from scientific assessment of the project to the final deliverable.

Recent Publications!

Learn about Stem Cell Research @ UCR

Hydrodynamic characterization within a spinner flask and a rotary wall vessel for stem cell culture. Ghasemian M, Layton C, Nampe D, zur Nieden NI, Tsutsui H, and Princevac M. *Biochemical Engineering Journal* 2020;157:107533.

Synthesis, characterization, and cytocompatibility of yttria stabilized zirconia nanopowders for creating a window to the brain. Rutherford D, Exarhos S, Xu C, Niacaris M, Mariano C, Dayap B, Mangolini L, and Liu H. *Journal of Biomedical Materials Research Part B: Applied Biomaterials* 2020;108:925–38.

RNA-based CRISPR-Mediated Loss-of-Function Mutagenesis in Human Pluripotent Stem Cells. Leung AW, Broton C, Bogacheva MS, Xiao AZ, Garcia-Castro MI, and Lou YR. *Journal of Molecular Biology* Published Online First: 25 April 2020.

Blastula stage specification of avian neural crest. Prasad MS, Uribe-Querol E, Marquez J, Vadasz S, Yardley N, Shelar PB, Charney RM, and Garcia-Castro MI. *Developmental Biology* 2020;458:64–74.

Putative Coiled-Coil Domain-Dependent Autoinhibition and Alternative Splicing Determine SHTN1's Actin-Binding Activity Volkan Ergin and Sika Zheng. *Journal of Molecular Biology*, 2020, 432: Issue 14, 4154-4166.

An Xist-dependent protein assembly mediates Xist localization and gene silencing. Pandya-Jones A, Markaki Y, Serizay J, Chitiashvili T, Mancina W, Damianov A, Chronis K, Papp B, Chen C-K, McKee R, Wang X-J, Chau A, Leonhardt H, Zheng S, Guttman M, Black DL, Plath K. *Nature* (in press). Preprint - bioRxiv 2020.03.09.979369.

Awards and Press Releases

- **Stem Cell Research, Treatments & Cures Initiative Qualifies for November 2020 Statewide Ballot!**

If this prop passes, it will extend CIRM for another 10 years.

<https://www.regmedfoundation.org/2020/06/23/stem-cell-research-treatments-cures-initiative-qualifies-for-november-2020-statewide-ballot/>

- Congratulations to **Dr. Huinan Liu** for winning the Chancellor's Award for Excellence in Undergraduate Research and Creative Achievement!
- UCR Highlander Venture Fund's investment in the startup spun out of **Dr. Masaru Rao's** lab to commercialize their nanomechanical gene delivery technology for engineering ex vivo cell and gene therapies: <https://news.ucr.edu/articles/2020/02/20/highlander-venture-fund-invests-basilard-biotech>

Congratulations to these recent graduates!



Dr. Patrick Shelar (Garcia-Castro Lab)
Dr. Nabjot Sandhu (Garcia-Castro Lab)
Dr. Zhelin Jeff Li (Zheng Lab)

Interested in learning more about stem cells? Watch out for these courses in the future!

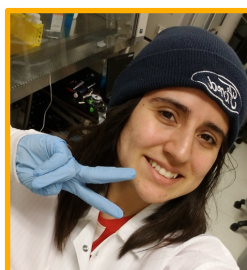
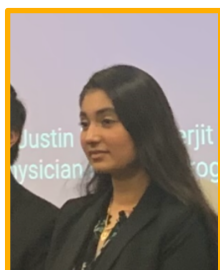


CBNS 165 - Stem Cell Biology
CBNS 169 - Human Embryology
CMDB 207 - Stem Cell Biology and Medicine

CIRM Bridges Interns Working in Stem Cell Research Labs on Campus at UCR

Two CIRM Bridges interns who participated in the Stem Cell Core's January training course in human embryonic stem cell culture are now working in stem cell labs on campus at UCR.

Inderjit Kaur (left), who is working in Dr. Prue Talbot's lab, is studying the hypothesis that harmful chemicals in electronic cigarettes adversely affect human prenatal development by delaying or preventing proliferation and differentiation in human embryonic stem cells.



Jeniree Martinez (right), who is working in Dr. Jin Nam's lab, is working on a project to induce differentiation of neural crest cells into multiple phenotypes of neurons and Schwann cells to form a functional peripheral nerve tissue. With the success of this project, Jeniree believes a new method to treat nerve injuries can be developed.

The Stem Cell Core is Open for Phase 1 and Phase 2 Approved Researchers

If you have been approved to resume research on campus by your respective Dean:

1. Contact Rachel Behar (rbeha001@ucr.edu) if you want to get started working in the Stem Cell Core again.
2. Ask your PI to send written confirmation to Rachel of the Dean's approval or forward the Dean's approval email.
3. Follow campus COVID-19 rules and regulations as well as the Core's regulations (which will be emailed to you).