****From the Director****

We are pleased to announce that Jim Heys will be stepping into the position of Recruitment Chair for the Neuroscience Program. Jim’s duties will include serving as a member of the Neuroscience Directorate. He will be the NP contact person for organizing our presence at grad fairs (SN, ABRCMS, SACNAS, etc). Jim is taking over the position that Chris Gregg has held for the past 2 years. The NP would like to extend our gratitude for all of Chris’s service to the program. He has also served for 4 years on the Admissions committee. Chris was instrumental in creating our recruitment video that we have posted on our web page. If you haven’t seen it, please click here: https://neuroscience.med.utah.edu/application.php and scroll to the video. He has also let me know that version 2.0 is coming soon.

Welcome Jim to your new position!

****2019 Incoming Students****

Erin Bigus, Pomona College
Fei Chang, Nanjing Medical University
Maggie Chvilicek, Seattle University
Rachel Gatin, Western Washington University
Kevin Sattler, University of Texas, Austin
Mitali Tyagi, Jiwaji University
Kaliana Veros, SUNY, Buffalo
Adam Weinbrom, Gettysburg College

****ACADEMIC DEFENSES****

Since the last issue of NeuroNews, the Neuroscience Program congratulates the following students on successfully passing their qualifying exams: Keith Jones (Mickey lab),

and dissertation proposals: Jenifer Einstein (Shepherd lab), Charlotte Magee (Fleckenstein lab) and Dominic Skinner (Lane lab),

and dissertation defenses: Brent Young (Tian lab), Donn Van Deren, Jr. (Capecechi lab), and Kyle Jenks (Shepherd lab).

****STUDENT AWARDS****

Dominic Skinner (Lane lab) is the recipient of the Pierre and Claudette McKay Lassonde New Venture Development Scholarship.

Danielle Giangrasso (Keefe lab) has been awarded a Skaggs Graduate Research Fellowship for 2019-2020.

Daniel Lathen (Rothenfluh lab) has been selected as a trainee on the Genetics Training Grant for 2019-2021.

****SEMINAR SERIES 2019-2020****

September 17: Nicola Allen, Ph.D., Salk Institute
October 15: C. Savio Chan, Ph.D., Northwestern U.
November 19: Helen Bateup, Ph.D., UC - Berkeley
January 21: Aaron Batista, Ph.D., U. of Pittsburgh
February 18: Grant Gordon, Ph.D., U. of Calgary
March 17: David McCormick, Ph.D., U. of Oregon
April 21: David Olson, Ph.D., UC - Davis

see more details at:
https://neuroscience.med.utah.edu/meetings.php

****Other Important Dates****

Sept. 5: Neuroscience Program: Meet the New Students Reception
Jewish Community Center; 5-8PM

Sept. 10: Bioscience Symposium

Oct. 19-23: The Society for Neuroscience Annual Meeting held this year in Chicago, IL.

Nov. 1: Annual Neuroscience Program Symposium @ Snowbird
“Molecular Machines Drive Your Brain: Current Trends in Cellular and Molecular Neuroscience”
https://neuroscience.med.utah.edu/snowbird.php

This year’s invited speakers:
Aaron Gitler, Ph.D., Stanford University
Samara Reck-Peterson, Ph.D., HHMI
Ruth M. Barrientos, Ph.D., The Ohio State University
Craig Montell, Ph.D., UC - Santa Barbara
Megan Williams, Ph.D., University of Utah
Sungjin Park, Ph.D., University of Utah
Jason Shepherd, Ph.D., University of Utah
Janet Iwasa, Ph.D., University of Utah

A call for abstracts for the SFN poster session at Snowbird will be coming soon.

We've just published a paper in Science Robotics showing that we can begin to restore the sense of touch after hand amputation, Luke-Skywalker style, by stimulating the remaining arm nerve sensory fibers.

Nerve stimulation that mimicked the body’s natural firing patterns especially helped restore not only dexterity of a bionic arm (DEKA’s “LUKE” arm), but also the ability to use the hand to explore and understand the world via tactile sensation.

The story has been picked up internationally (London Times, The Guardian), nationally (CNN, USA Today, NPR), locally (Des News, front page), Reddit (front page, but NSFW)…


…and now: Twitter. By none other than…Yup. You guessed it: https://twitter.com/HamillHimself/status/1156634184468746240?s=19

With a moving tweet:

More completely, and a bit more formally:

Our Science Robotics paper using the DEKA LUKE arm with dexterous motor control enhanced by biologically realistic sensory feedback has just been published, 7/24/2019.

The paper demonstrates that sensory feedback provided by nerve stimulation improves motor control of a bionic hand, and that biomimetic neural activation patterns work better than do less natural ones.

Science Robotics:
Biomimetic sensory feedback through peripheral nerve stimulation improves dexterous use of a bionic hand
https://robotics.sciencemag.org/content/4/32/eaax2352 (abstract and paper)
https://twitter.com/SciRobotics/status/1154391084669317127 (video)

The COE press release, with video:
https://www.coe.utah.edu/2019/07/24/prosthetic-arm-that-can-feel/ (and https://unews.utah.edu/star-wars-inspired-arm/)

(Continued on page 4)
****Greg Clark lab media coverage continued****

Below is a summary image of the publicity we’ve reviewed for this publication. The quote at the top is from Vincent Horiuchi (Public Relations Associate for the COE).

![Image of publicity summary]

****More Faculty News****


Chris Butson’s (Director of Neuromodulation Research Faculty, Scientific Computing & Imaging (SCI) Institute) work was featured in the NIH Director’s blog at the beginning of August. [https://directorsblog.nih.gov/2019/08/01/the-amazing-brain-deep-brain-stimulation/?fbclid=IwAR3q-UflkSvcSF6GsuZqOclDz8MMVKhfAngU_OViekDhC1M3McUASLSrTwg](https://directorsblog.nih.gov/2019/08/01/the-amazing-brain-deep-brain-stimulation/?fbclid=IwAR3q-UflkSvcSF6GsuZqOclDz8MMVKhfAngU_OViekDhC1M3McUASLSrTwg)