



MSU Neuroscience Program

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Neuroscience Program

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Editor: Katie Miller

Improving Your Teaching: A Practical Certificate Program

By Kyle Christensen

Does this sound familiar? Forcing yourself to attend a class you loathe because the professor attempting to teach is ineffective, dull, or apathetic. Unfortunately, a long-held criticism of higher education, especially at research intensive institutions, targets the lack of training for faculty members to become successful educators. Teaching experience as a requirement for tenuretrack positions often take a less important role than research accomplishments and a track record of obtaining grant funding. While it's important for the university and its faculty to continually produce meaningful research and raise their reputation, motivated and curious students paying thousands of dollars to learn should not be the ones to suffer as a result. Faculty members want to be capable and compelling teachers; therefore, several institutions across the country are implementing career development opportunities in teaching college level science courses to address these concerns.

The Graduate School at MSU offers a Certificate in Teaching College Science and Mathematics for graduate students and postdoctoral researchers interested in gaining practical teaching experience to prepare them for their future careers. This is the only formal program in the state of Michigan designed to prepare students to teach and improve the quality of their teaching. Upon completion of the program, participants will have produced a teaching portfolio containing evidence of teaching competence, including a teaching philosophy, samples of teaching materials, documentation of student reviews, and others. This portfolio becomes a valuable resource when searching for employment opportunities beyond graduate school, as it demonstrates successful teaching through real-world examples and experiences.

The certificate program takes about two years to complete and has four requirements: enrolling in ISE 870 "Teaching College Science" offered during



spring semesters, participation in workshops to demonstrate knowledge in core teaching areas, two semesters of teaching experience, and compilation of the teaching portfolio. While this sounds like a massive time commitment, the program is largely flexible and is designed to fit your needs as much as possible. The class meets once each week and has minimal outside work and the workshops can be finished throughout the year or completed all at once over a day and a half. Additionally, the teaching experiences can be individually tailored to each participant to fit best with their schedule and accommodate other academic responsibilities. After all, we're all busy trying to graduate in a reasonable amount of time, and thankfully this program understands that. Any graduate students and postdoctoral researchers interested in a teaching-intensive career or looking to improve their future job applications should explore the opportunities this excellent and unique program has to offer.

More information about this certification program through the College of Natural Science can be found at https://natsci.msu.edu/academics/ graduate/certification-in-teaching/.



Important Graduate Student Handbook Changes starting Fall 2017

By Zach Grieb and Katie Miller

Neuroscience Program will be required to complete an updated graduate studies at MSU, with the exception of your fifth year. teaching requirement. The Graduate Advisory Committee (GAC) Currently, students should participate at least once in their held a lengthy discussion regarding the teaching requirement for tenure. Any questions or concerns can be the program. Currently, the requirement is quite variable and non-specific. The teaching requirement can be fulfilled with something as straightforward as volunteering for outreach or guest lecturing for a class, or as intensive as TAing for a NEU class or completing the Graduate School's Certificate in College Teaching. GAC felt it would benefit students to standardize the teaching requirement and make the requirement more intensive. Therefore GAC revised what can fulfill the teaching requirement. Students will have to either complete a one semester of a halftime TAship for a NEU course or complete the Certificate in College Teaching to fulfill their teaching requirement. NOTE: all students currently in the program are grandfathered into the structure of the program. The goal is to provide the best previous requirements.

participate annually in our outreach activities, such as brain suggestions are welcome from all, and can be sent to awareness week, school visits and the Neuroscience Fair katie.m.miller2@gmail.com

Effective Fall Semester 2017, incoming graduate students to the (including the outreach activities in Grand Rapids) during your sent to griebzac@msu.edu.

Additionally, the Graduate Curriculum Committee, led by faculty member Dr. Cheryl Sisk, is reviewing and revamping the Neuroscience Program curriculum. The committee, made up of faculty and students from the East Lansing and Grand Rapids campuses, will be analyzing the strengths and weaknesses of our curriculum, compared with several other schools in the country. Possible changes might include: courses offered and required, structure of the courses, number and duration of rotations, teaching, seminar, other requirements, and overall curriculum possible to prepare our students for successful careers, while still providing sufficient time for thesis work to The Neuroscience Program will also require all students to ensure students graduate in a timely manner. Comments and

NSP Mini-symposium

By Claire Manning

The weekly seminar is a strong tradition in the Neuroscience now will forge bonds between you others in your subfield. program, and consists of any number of formats: student These are the people who will review you papers, grants, and thesis proposals/defenses, faculty lectures, or guest speakers. be potential PIs and collaborators. In fact, after Marie Doyle While practicing public speaking is excellent for us as invited our first speaker this year, Dr. Chris Pierce at University burgeoning neuroscientists, the result is that our neuroscience of Pennsylvania, a 5th year student in the Robison lab set up a seminars are somewhat varied in quality. (I know my frenetic post-doc interview within several weeks of this visit and just dissertation proposal is significantly less engaging than the received an offer, setting the stage for long term contact eloquence of a polished professor's talk). I try to go most between Marie and Dr. Pierce. weeks, regardless of the topic or style of talk to hear our community of neuroscientists speak. However, of all the semester seminars, the most useful are the student-invitedspeakers, aka the mini-symposium.

or take chances reaching out at conferences. The mini- insight into the habits of highly successful people and their symposium is a student invited lecture series, focused around perspectives on funding and lab management, which are great a student selected theme. In addition to quality speakers, the examples to model your future career. Next year consider mini-symposium offers an avenue for networking beyond our inviting someone you're interested in to the Mini-symposium! mentors or connections made at conferences. Although most tangibly helpful when you're looking for post-docs, networking

In addition to forming powerful connections, being able to speak casually face-to-face with these PIs gives more of a historical context surrounding their seminal and current work, something that would not be possible in any other Usually when networking we either piggy-back off our mentors, circumstance. At the bare minimum, these visits offer valuable

PREPROFESSIONAL NEWSLETTER

MSU Grand Rapids Research Center

By Katie Miller

As we being to roll into summer, the Grand Rapids Spartans are anxiously awaiting the big move into the brand new Grand Rapids Research Center (GRRC). Located at the end of downtown's "Medical Mile", the building will add to the prospering biomedical presence in Grand Rapids.

PIs and 5 core labs, with a total of 260 employees. The core labs include bioinformatics, flow cytometer, long-term storage, and analytical and advanced microscopy. Primary areas of scientific study will include Parkinson's disease, Alzheimer's disease, pediatric neurology, autism, inflammation, transplantation, cancer, genetics and women's health and reproductive medicine. The building features open lab spaces, conducive to collaboration among researchers. Labs will tracting business in life sciences and growth in the biotechbegin moving as soon as October, 2017.



The 162,800 ft² research center is outfitted to hold up to 44 The new research center will occupy a parcel of land roughly half of the site; in future months, Michigan State University plans to engage public private partnership (P3) developers in discussions about complementary projects for the remainder of the site that could further enhance MSU's vision for medical education and commercialization of science. "We envision the MSU research building and Grand Rapids Innovation Park to be a gateway to the Medical Mile and a magnet atnology sectors," MSU president Lou Anna K. Simon said.





PREPROFESSIONAL NEWSLETTER

Brain Awareness Week in March, 2017 was a huge success at were human brains, candy DNA, get DNA from a banana and both the Grand Rapids (GR) and East Lansing (EL) campuses! the photo booth! EL had an estimated 850 visitors, 100 volun-GR had 20 tables, with almost 2,000 visitors. Popular tables

teers, and 34 booths.

Grand Rapids Brain Awareness Week 2017



Dr. Matt Benskey showing brain slices under a microscope.



Dr. Fredric Manfredsson handling real brains from a variety of species.



Undergraduate student Hannah Gloede points out differences between brains of different animals.



Graduate student Ninotchska Delvalle-Dorta uses oatmeal and pantyhose to explain peristalsis.

MICHIGAN STATE UNIVERSITY

Incoming Graduate Students

Welcome our incoming graduate students for Fall Semester 2017

Rebecca Dangremond is coming to MSU from Northern Michigan University where she completed her MA in Biology. Her research experience includes assessed the role of skeletal muscle BDNS in retrograde transport function of motorneurons with Dr. Erich Ottem. Rebecca will rotate with Dr. Nick Kanaan during summer semester.

Amber Garrison recently completed her BS in Psychology with a minor in Neuroscience from Bradley University. Her research experiences includes role of trauma (single prolonged stress model) influences drug reward and DAT expression in the mPFC and NAcc with Dr. Timothy Koeltzow. Amber will rotate with Dr. Alison Bernstein during summer semester.

Wilmarie Morales-Soto completed her BS in Biology from the University of Puerto Rico—Cayey. Wilmarie is returning to MSU, she previously attended MSU as a Bridge to the PhD in Neuroscience student. Her previous research includes examining a potential correlation between enteric neuron loss and the mitochondrial protein Sirtuin2 in IBS with Dr. Brian Gulbransen. Wilmarie will rotate with Dr. Julia Ganz during summer semester.

MiSFN Conference

The Michigan Chapter of the Society for Neuroscience meeting is quickly approaching! Please register before the Friday, May 5th deadline. This gathering annual of neuroscientists from across the state will be held on Monday, May 22nd at the University of Michigan. This is a great opportunity to share your work with other neuroscientists in the state in the poster session. The keynote speaker, David Sweatt, is a top researcher in memory, and will be discussing his latest work on the epigenetics of memory formation.

This is also a GREAT opportunity for undergraduate and graduate students to present their work in a friendly, engaging environment. There are poster awards specifically for undergraduates, as well as for graduate students and post-docs/technicians.

Please register, attend, and come meet your fellow state neuroscientists.

More information on the meeting is on the chapter web site, which also includes pages for registration and abstract submission.

https://www.mi-sfn.org

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NSP Website

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