International Society for Neuroethology

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ISN Officers

President: Catharine Rankin, Department of Psychology, Kenny Room 3525 – 2136 West Mall, University of British Columbia, Vancouver, BC Canada V6T 1Z4
PHONE: +1-604-822-5449 FAX: +1-604-822-7299
E-mail: crankin@psych.ubc.ca

Treasurer: Karen Mesce, Department of Entomology and Graduate Program in Neuroscience, University of Minnesota, 219 Hodson Hall, 1980 Folwell Avenue, Saint Paul, MN 55108 USA
PHONE: +1-612-624-3734 FAX: +1-612-625-5299
E-mail: mesce001@umn.edu

Secretary: Susan Fahrbach, Department of Biology, Wake Forest University, Box 7325, Winston-Salem, NC 27109 USA
PHONE: +1-336-758-5023 FAX: +1-336-758-6008
E-mail: fahrbach@wfu.edu

Past-President: Peter Narins, Department of Integrative Biology and Physiology, 621 Charles E. Young Drive South, Box 951606, Los Angeles, CA 90095-1606 USA
PHONE: +1-310-825-0265 FAX: +1-310-206-3987
E-mail: pnarins@ucla.edu

President-Elect: Eric Warrant, Department of Biology, Lund University, Biology Building, Sölvegatan 35 223 62 Lund, Sweden
PHONE: +46 46 222 93 41
E-mail: eric.warrant@biol.lu.se

THIS ISSUE INCLUDES

President's Column by *Catharine Rankin*
2017 Gordon Research Conference Preview
Early Career Perspective by *Cynthia Harley*
Applying for a Faculty Position at an Undergraduate-focused University in the U.S. by *Susan Fahrbach*

The Prez Says
Catharine Rankin
President of the ISN

Happy New Year Everyone!

Here we are with our "end of one year, start of another" newsletter…another year gone by…hard to believe. I have just gotten used to writing 2016 and suddenly it is going to be 2017 and I have to start all over again! I firmly believe the world is spinning faster and faster – I know I am. I hope 2016 was a productive year for all of you, as it certainly was for ISN! The **2016 Congress in Montevideo** was a great success, and the launching of the build-up for 2018 in **Brisbane** is well on track. By now you will have checked out the website for **ICN2018** (and if not, do so immediately!) and seen the call for symposia proposals (due by May 31, 2017) and

for satellite meetings. Organizing a symposium or a satellite meeting is a great way to spend time with old friends and share the great culture and knowledge offered at the Congress with people who have not yet discovered neuroethology. Make sure you are telling your friends and colleagues about this great meeting. I was just at a Workshop on Adaptation and Evolution at the NCBS (National Centre for Biological Sciences) in Bangalore, India, and heard some great talks that could be considered neuroethology. I let the speakers know about the meeting and showed them the wonderful website for ICN2018 (http://www.icn2018.com/). Hopefully they will join us down under. Remember that you are our best form of advertising – invite your colleagues to check us out!

Planning is also progressing well for the **Neuroethology Gordon Research Conference** that will be held at **Les Diablerets Conference Center in Switzerland, June 18-23, 2017**. The theme of this GRC is Neural, Behavioral and Evolutionary Strategies for Animal Survival. A preliminary program is available on the GRC website, and the line-up looks stellar.

Don't forget to check out the **Facebook** page for the ISN. This page is public so anyone can look at it, and it is simple to join so that you can post to the page. Members (and there are now over 800!) frequently post ads for grad students, post docs, and faculty positions to this page. In addition, there are great conversations about articles and books to use for teaching neuroethology and notices of conferences you might not otherwise hear about. If you haven't checked it out take a minute to do so, and if you have something to say that the community would be interested in, or a job to fill take a minute and post it!

Looking ahead to 2017, I must get invitations out for the ***Presidential Symposium at the 2018 Congress.*** **Past-President Peter Narins** set the bar very high with the first symposium in Montevideo. Here is Peter's own description of the goal of the Symposium: *The Presidential Symposium consists of six high profile talks by speakers especially invited by the current ISN President, each of whom represents an area of broad neuroethological interest, a model system with deep neuroethological roots, or a recent novel finding that broadens our understanding of the field.*

I have a few thoughts about invited speakers, however I am open to suggestions – if you have heard an excellent speaker who would bring a new and exciting story to the 2018 Congress drop me a note (crankin@psych.ubc.ca)! As we move past the holiday season into a new year I wish you all a great start to 2017. Let's all plan for a productive and successful year with great publications, wonderful

teaching opportunities and enough funding to keep the wolf away from the door! Best wishes for 2017!

Catharine Rankin
President, ISN

2017 GORDON RESEARCH CONFERENCE

Please plan to attend the **2017 Gordon Research Conference for Neuroethology**. The meeting will take place at the **Les Diablerets Conference Center, Switzerland from June 18 – 23**. Les Diablerets is near Geneva, in the Alps at an altitude of 1150 m. The village of Les Diablerets is at the foot of the Les Diablerets mountain/glacier. The location provides a stunning backdrop for what is sure to be an exciting meeting.

Map from http://www.skiswitzerland.com/lesdiabl/leshow.htm

The theme for this GRC is **Neural, Behavioral, and Evolutionary Strategies for Survival**. Co-chairs **Melissa Coleman** and **Keith Sillar** have an exciting GRC program with excellent speakers lined up, now listed on the GRC website. Attendees are encouraged to present posters on their research.
https://www.grc.org/programs.aspx?id=12877

The GRC is preceded by a **Gordon Research Seminar** (GRS), from June 17 – 18, which is designed for graduate students and post-docs. The GRS is being organized by **Lena Veit** and **Eva Fischer**, and the theme is **The Changing Face of Neuroethology: Integrating New and Old Approaches to Brains and Behavior**.
https://www.grc.org/programs.aspx?id=14999

EARLY CAREER PERSPECTIVE: CROWD-SOURCING YOUR RESEARCH

Early Career Representative **Cynthia Harley** (Metropolitan State University-Twin Cities) has been exploring a new approach to research funding: crowd-sourcing. Here's what she learned.

Let's face it, no matter where you are, research funding can be hard to get. NSF and NIH grants are more competitive than ever, with non-citizens working in the US having even more limited options, Brexit has caused reduced scientific funding in the UK, and even when funding is available, much of it is limited to translational research and does not fund basic research. Options for funding small projects are even harder to find.

Recently, there has been a movement for small startup companies to seek crowd-sourced funding of projects. One such company, Kickstarter, states its mission as *helping artists, musicians, filmmakers, designers, and other creators find the resources and support they need to make their ideas a reality.* To date 2.7 billion US dollars has been raised through donations by 12 million people, funding over 110,000 projects. What if science could be funded in a similar way, especially small projects which may only need a few thousand dollars to be started?

One such crowd-sourced group for the funding of scientific research already exists. It is called Experiment (https://experiment.com/). Recently, I interviewed its co-founder, **Cindy Wu**.

CH: Why did you get in to crowd sourced funding?

CW: We built Experiment to solve our own problem. During our senior year of undergrad at the University of Washington, my co-founder and I couldn't find funding for an independent project we were working on. We had published in a peer-reviewed journal where we designed an anthrax therapeutic using the video game fold.it. We found that staph and anthrax have the same virulence mechanism and we wanted to test our drug on staphylococcus epidermidis.

When I asked my Professor where we could get $5,000 to pursue this project he said, *The system doesn't fund people like you.* We were young, didn't have PhDs, and didn't need more than $50,000. There was no government funding for projects like ours.

CH: What are the advantages/disadvantages to crowd-sourced funding?

CW: Experiment is very good for funding pilot projects that will cost you $10,000 or less. It is also very good for supplementing existing grants, and adding a student on a field expedition or increasing the sample size of an experiment.

We've had one project raise over $2.5 million US dollars, but it is unlikely that crowdsourced funding is going to replace the NIH R01 or any government grants.

What crowdsourced funding is good at is providing funding for the early stage ideas that the traditional funders won't take a chance on being they are risk averse. We call these ideas *the long-tail*.

CH: What about indirect costs and other funding limitations?

CW: Crowd-sourced funding is transferred to the University or institution as a single gift with no reporting requirements. The amount of funding is usually less than $5,000. We have a strict policy that institutions cannot take indirects on these small gifts.

Conclusions

Whether you are an early career investigator trying to find a way to fund preliminary data for the project you are proposing for your lab or if you are just trying to investigate new avenues for your research, Experiment provides a new and innovative way to generate the necessary funding. Anyone can propose a project at any time, but publicized competitions can bring more attention to your work. Most recently, Experiment ran a competition (one of 14 run so far) called the **Animal Superpower Grant Challenge**. This challenge involved 20 different projects, most of which were neuroethological in nature. Of those, 40% reached or surpassed their funding goal raising a total of $40,944 from 1399 individuals. Many more challenges are planned with details being released monthly at experiment.com/grants. Challenges that do not reach their funding goals, do not get any funds. A success rate of 40% is far better, however, than any granting agency's funding rate.

When funding is hard to get, sometimes you just have to be creative about how to obtain it. Crowd-sourced

funding provides a new and intriguing avenue for funding research projects. Furthermore, it is a way to engage the public directly in the funding of scientific research. Crowd-sourcing could be the answer to the funding problems that many of us face.

Note from the ISN Secretary Susan Fahrbach: I recently received an unsolicited e-mail from Cindy Wu urging me to consider Experiment for funding to extend a recently published project. As I suspect many scientists over 60 would do, I immediately assumed the e-mail was some sort of scam and deleted it. When I received a follow-up e-mail, however, I shared it with my post-doc, **ISN member Byron Van Nest**. *He quickly determined that the site is legitimate and broadened my perspective on sources of funding. I was therefore extremely receptive when ISN* **Early Career Rep Cynthia Harley** *proposed to tackle this subject for the newsletter. I strongly urge investigators of all ages to take a few minutes in the new year to explore this interesting web site and consider the relevance of crowd-sourcing for their own projects.* If you have your own perspective on crowd-sourced funding (positive or negative), please consider sharing your experiences with the ISN membership via a future ISN newsletter. Send your comments and story ideas to the ISN Secretary (fahrbach@wfu.edu).

CRAFTING SUCCESSFUL APPLICATIONS FOR FACULTY POSITIONS

The ISN recently received a very interesting request from member **Paloma Gonzalez Bellido**. Here are the thoughts of ISN Secretary Susan Fahrbach, some suggestions for those applying for positions at small colleges and universities in the US, and an opportunity for ISN members to help other ISN members compete effectively for faculty positions.

Paloma wrote the following about the daunting process of applying for faculty positions in an international context: *Since I am based in the UK, I was hoping that our Neuroethology website would have a tab dedicated to application packages. Something that would give me a strong guide on how to present an application in our field to a US institution (appropriate pitch is so dependent on national culture!). Alas, I cannot find it. Of course, I can get examples from many other fields/disciplines, but this situation made me think that we would save people in our field a lot of time and also perhaps increase their chances at securing jobs if the society had a strong section for advice on application packages...I was thinking that we*

could have sections of example packages (from people that were successful and willing to share?) and also advice sheets from those that sit in hiring panels: what they look for, what are the common pitfalls...etc.

Paloma's idea is of course an excellent one, but I immediately thought of many barriers to its implementation. The two barriers uppermost in my mind were first, that no two institutions are exactly alike, so that it might not be possible to give general advice; and second, who would provide the advice and examples? Upon further reflection, I decided that we should just get started. Here are some of my thoughts, based on my particular experience. I present them to assist job applicants but also in the hope that those with involved in hiring at other types of institution and in other countries will follow up by sending me their thoughts and tips for publication in future newsletters and for compilation on the ISN web site.

My perspective and experience: I am Chair of the Biology Department at Wake Forest University in Winston-Salem, NC, USA. This is a broad-based biology department of 25 faculty (soon to be 26, we hope, if an ongoing faculty search is completed successfully this spring). Wake Forest is a medium-sized private collegiate university, home to approximately 5000 undergraduates but also contains a medical school, a law school, a divinity school, a graduate school, and a business school. Although the typical faculty member's responsibilities at Wake Forest are defined as 40% teaching, 40% research/scholarship, and 20% service, faculty hiring is strictly dependent upon our undergraduate teaching needs: that is, research is absolutely required of tenure-track faculty, but the areas in which we hire are constrained by the courses we need to offer to undergraduates. I strongly suspect that this is the case at most small to medium-sized institutions in the US. This means that when a job ad conveys information about what courses the new hire will need to be able to teach, we really mean it! So this is **Tip #1** for applications directed to this type of US institution: if you cannot immediately teach the course or courses listed in the phrase "the successful candidate will teach x, y, and z), you are probably not a good match for the position and are likely wasting your time if you apply. If you lack teaching experience but have the expertise to teach the requested course or courses, do your best to prove it to the search committee by including details of the topics you will cover, choice of textbook etc. in the teaching part of your application. If you don't know where to begin, friends who are already teaching can help you get started. There is also much useful material available online on topics such as syllabus construction. I recommend the Cornell Center for Teaching Excellence and the Stanford University Teaching Commons as good places to start

(links provided at the end of this article). An addendum to my Tip #1 is that if you don't already have a firm grasp on the concept of *learning goals*, develop one before you apply for any positions at colleges that emphasize undergraduate teaching.

Tip #2 is to appreciate the role of what is typically referred to as the search committee in the hiring process. In many institutions, including my own, the role of the search committee (usually 5 faculty members) is to screen the entire applicant pool to develop the *long version of the short list*. For example, positions in my department typically attract between 200 and 300 applicants. The search committee's task is to reduce the applicant pool to the long short list of approximately 10 candidates for Skype interviews with the committee. Information gleaned from the Skype interviews (including your ability to communicate in spoken English) is summarized in writing by the search committee and then shared with all faculty members, who also, if they choose, read the application materials from those top ten candidates. At this point the work of the search committee is more or less done. After discussion, the entire faculty votes in successive rounds to identify the top 3 candidates. This forms the actual short list of candidates who will be invited to come to campus to interview. From here on, the chair of the department and the administrative staff take over and organize the visit. This means that you will need to impress the search committee to make it to short list, but that from this point on you will need to impress the entire faculty by convincing them that you can balance the demands of undergraduate teaching and research. I've already addressed some aspects of presenting yourself as a teacher. What gives an applicant appeal to the search committee? This is not all that mysterious, as least in my department. First, the search committee asks if the applicant is qualified to meet the teaching needs of the department, and looks for evidence that the teaching will be thoughtful and excellent. Second, the search committee evaluates past research productivity primarily by focusing on the list of publications in peer-reviewed journals. Of course, first author publications are especially valuable. Third, the search committee reads the research plan in a fashion similar to that of a grant review panel composed of knowledgeable scientists who are not necessarily experts in the applicant's specific area of research. They are looking for clarity, something interesting/exciting, and trying to assess future funding potential. They are also attempting to assess if you can conduct your research with the resources available in our department, and if you could involve undergraduates in your projects. This leads to **Tip #3**, which is actually a list of items you need to address in the research statement. (Note that I didn't mention letters of recommendation. This is because, they are rarely decisive. You may have a letter from a Nobel laureate, but if you can't teach what I need someone to teach next year you are unlikely to make it to the short list.)

First, don't write to impress the search committee. Instead, write so clearly that any intelligent person can understand the questions you ask in your research. Second, don't make the search committee guess what is exciting and original about your research. Tell them (and if you have received media coverage or funding to back of this assertion, deploy that information here even if it is also listed on your CV). Third, help the search committee assess your future funding potential by being explicit about the proposals you plan to submit (titles, agencies, even specific panels) during your first year as a faculty member. Fourth, emphasize that the resources you need to support your current research are already present in the department (e.g. you need a confocal microscope, we have a confocal microscope; you need a computing cluster, we have a computing cluster), affordable as part of your start-up, or accessible at another (preferably nearby) location. You need to convince the search committee that you can get your lab up and running even if it takes several years for you to obtain extramural funding. (If you can't address the resource question, you either haven't done your homework or are wasting your time applying to this position.) Finally, provide concrete examples of the types of projects undergraduates will work on in your lab (bonus points if you have prior experience mentoring undergraduate researchers). *You will probably be given a page limit that will force you to cut what you consider essential research information from this section of your application, but trust me on this one.* You will have numerous opportunities to present and discuss your past, present, and future research if you win a spot on the short list. But you won't win a spot on the short list at my university if you don't include the information I've described here.

My final thought about crafting an application for this type of institution is to ask yourself if your career goal is to be a researcher or a professor. Don't apply if your primary identification is as a researcher. To be happy as a professor requires being able to divide your attention daily among teaching, research, and service to your department and beyond. It's all the better if you have broad interests beyond biology, as you will often interact with colleagues in the arts, humanities, and social sciences. You should be as excited about helping young adults grow up and begin their careers as you are about your research. And, you should recognize that your experience in other regions of the world, your knowledge of languages other than English, and your familiarity with other cultural contexts will all be regarded as assets to your application.

Resources

Syllabus preparation, course planning, learning goals
https://teachingcommons.stanford.edu/resources/course-preparation-resources/creating-syllabus

https://www.cte.cornell.edu/teaching-ideas/designing-your-course/writing-a-syllabus.html
You should also check if the institution you are applying to has a teaching center, as this will give you clues to the local norms.

Unfamiliar overall with US higher education and need to learn more? Browse the free portions of **Inside Higher Ed** and the **Chronicle of Higher Education** online to get a sense of what faculty are talking about on US campuses. Many faculty and most administrators in the US read both on a regular basis.

https://www.insidehighered.com/
http://www.chronicle.com/

A resource you should not overlook is **Curriculum Vitae**, a free section of the Chronicle of Higher Education designed for job seekers and academic employers. In addition to the list of positions available, be sure to look at the **News** and **Advice** Sections. These will help you decode the ads you read! I especially recommend the **Career Lingo Advice** columns. For example, if you found my description of how to interpret what ads say about teaching confusing, you should definitely read the the Career Lingo column titled *Teaching Responsibilities Include*. Note that you do not need to create an account to read the advice columns.

https://chroniclevitae.com/

https://chroniclevitae.com/news/1612-career-lingo-teaching-responsibilities-include