

## International Society for Neuroethology

### **Newsletter/May 2023**

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#### THIS ISSUE FEATURES

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The Prez Sez Karen Mesce President of the ISN



Greetings Colleagues,

I am writing this column with a view through my patio window that is finally colored in green. I can now hear the sounds of nature and smell newness all around; the grass has greened, and the tulips are now vibrating with color. Living in the state of Minnesota, in the USA (which borders our northern neighbor of Canada), means that my winters can be fairly long, cold, and often quite snowy. In fact, my state had its third snowiest winter on record. But enough is enough, and this year Mother Nature played a cruel joke on us all when we awoke on April Fools' Day (April 1) and were met with blizzard-like weather conditions and over 7 inches of snow—ice crystals on the same patio within my view that is now adorned with cakes of yellowish-green pollen.

Although the origins of April Fools' Day are still in question, one idea is that it is tied to the Northern Hemisphere's Vernal Equinox (March 20/21). This is a time when Mother Nature is especially unpredictable with the weather it might bring, and thus we become the fools of April's dramatic whims. Unfortunately, we humans, as caretakers of our planet, are looking more and more foolish to Mother Nature because of our harmful contributions to climate change. This past March, for example, Cyclone Freddy that hit Mozambique was deemed one of the most "energetic storms" and one of the longest-lived storms on global record. In the USA, California saw a record number of ferocious storms. After a record 3-year drought period, California was inundated with massive flooding and mudslides. In other parts of the USA, tornadoes killed more people from January-March than in a single year previously. Record breaking snowfall was seen in much of the Western mountains; the Sierra Nevada mountains hit the 50-foot mark of snow. The take-home message: we must all do our part, however small, to combat climate change.

On a brighter note, there was some fun to be had if you were a skier like myself. My family and I were fortunate



to travel to the state of Utah (USA) for a short over Easter stay weekend (April 9). The record yearly amount of snow for the Utah Alta ski resort, for example, was 877 inches or about 73 feet (22.2 meters)! We actually skied on the other side of the Canyon, Deer at Valley Mountain resort, which also had an all-time snowfall of

over 600 inches (50 feet). We were glad to have chosen to ski at the Deer Valley Mountain resort because an avalanche had blocked the only road up to Alta and Snowbird resort, and skiers were not allowed to depart their hotels/condos for many days! Here is a photo that I took of my husband, Terry, who is approaching the front door of our snowy abode. It is clearly not a typical springtime image. So, after a long winter behind me, I am eager to experience the outdoors without protective mittens, hats and heavy coats. I love the long summer days whereby I find myself working long hours in oblivion of the lateness of the day. Late spring/summer is, indeed, a glorious time for many neuroethologists in the Northern Hemisphere to conduct their field work and to take a peek at how their animals behave naturally—the hum of the hummingbirds at my feeder and buzzy bumblebees visiting my garden beds routinely delight me before I head to my indoor lab to focus on fictive behaviors 'in the dish'.

This summer 2023 will also be filled with the opportunity to attend the Neuroethology (Behavior, Evolution, and Neurobiology) Gordon Research Conference (GRC). The Topic this year is: "Linking Diversity in Cells, Circuits, and Brain Architecture to Ecologically Relevant Behaviors". The meeting will be held August 6-11, 2023 at Mount Snow Resort, West Dover, Vermont, USA. The Chairs are Kim Hoke and Stefan Schuster. The application deadline for this meeting is July 9, 2023. 2023 Neuroethology: Behavior, Evolution and Neurobiology Conference GRC. Preceding this GRC, is the Gordon Conference Seminar (GRS), which is traditionally run by our early-career scientists and students. This year's theme is: "Linking Genes and Neural Circuits to Behavior and Evolution" (Dates: August 5-6; Chairs Duncan Mearns and Sweta Agrawal; Application deadline is July 8, 2023). 2023 Neuroethology: Behavior, Evolution and Neurobiology (GRS) Seminar GRC

Within a blink of an eye, the seasons will turn yet again, and another summer will eventually emerge. Thus, it is not too early to start thinking about attending our next (15<sup>th</sup>) biennial International Congress of Neuroethology (ICN) to be held in Berlin, Germany, Sunday July 28-August 2, 2024. The Henry Ford Bau, which belongs to the Freie Universität Berlin, will serve as the main conference venue. The Co-Chairs of the Program Committee (Elke K. Buschbeck, University of Cincinnati, USA and Coen P. H. Elemans, University of Southern Denmark) have been busily generating what will be an exciting and memorable meeting. The Local Organizing Committee (Mathias F. Wernet, Chair, Freie Universität Berlin; Rüdiger Krahe, Co-Chair, Humboldt-Universität zu Berlin; Constance Scharff, Co-Chair, Freie Universität Berlin) is also hard at work ensuring a great experience for all. During early June, 2023, the ISN Executive Committee will be hosting a virtual meeting with the Program and Local organizers to share best practices in conference preparations and work together to organize an amazing meeting not to be missed.

Finally, I am thrilled that our proactive Inclusion and Diversity Committee, chaired by Ana Silva (Universidad de la República de Uruguay, Montevideo, Uruguay), has

come up with a creative way to raise funds for some of its initiatives while promoting our early-career scientists. They have developed a novel 2023 ISN webinar series: "The future of Neuroethology". These webinars are slated to be held on the following dates: September 20, 2023, 16:00 UTC; November 8, 2023, 00:00 UTC; February 21, 2024, 16:00 UTC; and April 17, 2024, 20:00 UTC. Their mission is to, "bring together the neuroethology community by promoting sustainable and inclusive ISN academic activities during the off-meeting years and to reinforce the participation of early-career students and investigators. Each webinar will provide opportunities to discuss career paths combined with presentations of cutting-edge science by early career ISN members." The registration fees will be minimal, and I highly endorse this important addition to our scheduled in-person meetings. Please, submit your nominations of early-career speakers or self-nomination to ISNwebinarseries@gmail.com. The deadline for such nominations is now targeted to be May 31, 2023.

With warmest wishes for a delightful and prosperous summer!

#### Karen Mesce ISN President



ALISON MERCER ELECTED TO NAS

Congratulations to Alison on her induction to the National Academy of Sciences as an International Member.



Last month, Alison Mercer, former ISN President was inducted into the NAS in recognition of her outstanding contributions to research in neuroethology. Alison is an Emerita Professor at the University of Otago, New Zealand where she pioneered work on neuromodulation of honey bee behaviors including olfactory learning and memory and pheromonal control of worker behavior by queen bees. Her research group has also characterized olfactory circuit development, dopamine receptor mechanics, and olfactory responses to parasitic vectors of viruses that may contribute to colony collapse. Alison was previously inducted into the Royal Society of New Zealand in 2002. We are proud to be represented by such an exceptional researcher!



#### **ECR COLUMN**

Early Career Representatives **Claire Rusch** and **Saumya Gupta** interviewed four of our newest Council members for their latest advice column.

In the previous issue of the ISN newsletter, you were introduced to our seven newly elected council members who are dedicated to supporting and representing our community of researchers. In this edition, we have reached out to several council members to get their views on the academic career progression of early-career researchers (ECRs). Our goal is to offer you a diverse range of perspectives on the challenges and opportunities facing those who are just starting out in their academic careers. So, whether you are an early-career researcher or simply interested in this important topic, we invite you to read on and discover the insights and advice shared by four of our council members.



**Basil el Jundi** is an associate professor at the Department of Biology at the NTNU, Norway. He received his PhD in 2011 from the Department of Neuroethology of the University of Marburg, Germany. His research focuses on understanding

the behavioral and neural mechanisms of spatial orientation and navigation in insects.



Jessica Fox is a professor in the Department of Biology at Case Western Reserve University. She holds a bachelor's degree in entomology from Cornell University (2005) and a PhD in neurobiology from the University of Washington (2010). Her lab focuses on mechanosensation and multi-modal sensory integration for fly flight, including both genetic manipulations in Drosophila and comparative approaches across diverse flies.



Sanjay P. Sane is a professor at the National Centre for Biological Sciences, in Bangalore, India. He completed his PhD from the University of California, Berkeley in 2001. Currently, his laboratory works on two major questions. First.

during flight, how do insects acquire and integrate the sensory information from multiple modalities to generate rapid and precisely patterned motor responses? Second, how do insects collectively and cooperatively build complex nests?



Anna Stöckl is a junior group leader in the department of Biology at the University of Konstanz. She is also a fellow of the universities' Zukunftskolleg. an institute focused on interdisciplinary exchange. She earned her PhD from

Lund University in Sweden in 2016. Currently, her laboratory works on dynamic visual processing, visual guidance of insect locomotion and the neural basis of insect pattern vision.

Mental health in academia is a big issue, especially for ECRs and underrepresented groups. As a community, what can we do to improve this crisis and what steps should ECRs, who are often at the lowest rank in academic hierarchy, take for their mental well-being?

**Sanjay Sane:** Mental health issues are indeed a major issue across the world, and at all levels of academia. There are strong reasons for this. ECRs often face the most uncertainties in their professional and personal lives, neither of which may have fully crystallized. We must be empathetic to their predicament and realize that each case is unique, and so a generic solution may not work for every person. As a community, we must strive to reduce their uncertainties. We should encourage ECRs to communicate their problems and anxieties without fear of being judged. It often helps to know that your

problems may not be unique, even if your emotional response to them may be. Try to reach out to your family, friends and colleagues. If that does not work, seek professional help. Try to not get caught up in bubbles of negativity – and there are plenty around us. Above all, it is essential to create positive and open work environments.

Jessica Fox: There are many things about academia that are terrible for mental health. It's low-paying for a decade or more of training, and it's insecure: will you be a postdoc for two years, or eight? The job market is highly competitive and, if you're lucky enough to get a job, you have to pack up your whole life and move to a new location with very little notice. Often this period of career insecurity coincides with or significantly delays your own reproduction, both of which are stressful. Sending your work out into the world and inviting criticism of it is an inherently scary thing to do, and we're forced to do it if we want to publish papers and get grants. Peer review makes science better. but it is a fundamentally uncomfortable process. It took me several papers to internalize the fact that criticisms of the paper are not criticisms of me as a scientist- and I still can't always separate them.

There are many things about academia that are GOOD for mental health, though! Working hard on something you find interesting and important is great for mental health. Our work can be very fulfilling: we are discovering new things about the world around us, and we do this while teaching other people to love animals and their brains in the same way we do. There's lots of opportunity to be creative and try new things. Flexible schedules mean that you can be successful if your circadian rhythm doesn't allow for 8AM business meetings, or that you can sneak out of the lab at lunchtime to go for a swim. Conferences allow us to visit new places and meet new friends-and if you regularly attend conferences, soon they will be filled with old friends. But looking on the bright side won't solve the mental health crisis; for that, we need better pay, more job security, and better health care, especially in the US. I am happy to see young academics pushing for these things, and I advocate for better conditions for students and postdocs whenever I can.

**Basil el Jundi:** Ideally, ECRs should not have to take any steps and be responsible for mental well-being. This is in my opinion is clearly the responsibility of the more established researchers. There is much that can/should be improved but one important aspect that we, as a community can easily improve is to develop scientific environments that are less judgmental. I felt and still feel constantly evaluated by the system (which is unavoidable) as well as many colleagues (which can be avoided). Thus, scientific occasions in which I can relax and that I don't rank as stressful are still an exception. Our workload can often be overwhelming, most often due to certain deadlines or goals that we would like to achieve in a system that mostly works according to a "the winner takes all" strategy. Thus, balancing this out by making sure that lab environments, meetings, conferences, and workshops are organized in a way that emphasizes scientific exchange rather than focusing on scientific recognition, would be a step forward.

Anna Stöckl: I think one big source of strain on our mental health is the competitive environment in academia, which creates the performance pressure that creates existential concerns and self-doubt. Coupled with very few institutional checks on those in power, it enables behavior that not only negatively impacts our own mental health, but also that of others. In the long-term, I think we as a community have to work on making the system more transparent, to improve job security and to implement enforceable measures for both good scientific practice and personal conduct. One thing I feel is crucial is that we should avoid normalizing behavior that impairs mental health. I think the idea that "academia is just tough, and suffering is part of it" is completely absurd, and we need to work on all levels to expel this from our minds. We should be more aware of the signs of personal malpractice, because recognizing the patterns in even seemingly harmless remarks is key to helping victims. Having support networks (colleagues, mentors, PhD buddies) to share experiences and ask for advice is so important on that iourney – and I do think it is wonderful that these are not restricted to a physical location, but that we can reach our friends and colleagues across the world in an instant nowadays. To relieve some of the constant performance pressure, I strongly support the current trend of sharing the setbacks and the frustrations with others in the community, as well as the fun and success. While my career seems to have been pretty smooth sailing so far, I started my post-doctoral phase with rejections on all the fellowships I applied for. Being aware that no one succeeds in everything they attempt in science helps to encourage more realistic expectations for ourselves. Finally, what helps me when I feel overwhelmed by the pressure is to remind myself that being a scientist is just a job. It is a wonderful job, one that connects deeply to my private life, but it is not my whole life. And if we feel like it is, it might be worth taking a step back and exploring hobbies, relationships, and outlets we really enjoy that can help put things back in perspective.

#### According to you, what is the most important/useful skill to develop during a PhD or postdoc, and why?

**Basil el Jundi:** In my opinion, this highly depends on what someone wants to achieve. If the question is specifically directed to staying in science/ academia, the most important skill to develop is excitement for research. Only in this way will you be resilient enough to overcome all scientific or career-related setbacks that you will inevitably experience during your career. If you asked me about a more general skill, I would say solving upcoming problems. This gives you some degree of independence and is a more general skill that every employer is looking for. In addition, solving problems can be highly rewarding and motivating – at least for me.

Anna Stöckl: I feel the most important skill is to learn to manage yourself and others. It is key to learn to plan, organize and conduct research under one's own guidance. Managing other people is so important because science is at its core a collaborative venture. In the best of cases, working with people is one of the most amazing aspects of our job. But it can also be the root of some of the more painful experiences we face. And while not all of this is within our control, I think learning to work effectively and respectfully with others on all levels of hierarchy is crucial to conducting successful projects.

# The research of an early career trainee (PhD/postdoc) is often linked to their advisor's research. How should ECRs get started to create their own long-term research program?

Jessica Fox: It's really on the advisors to make sure their trainees have something meaty to work on that will let them get their labs started! A good advisor will help you sketch out your first grant and stake out your own territory. Absent this kind of mentoring, trainees can take matters into their own hands by building a broad toolkit of techniques (e.g. choose a different technique for your postdoc work than the one you did for your PhD work) and then asking interesting questions that can be answered with those techniques. Towards the end of my PhD work, I started a Google document of my project ideas. Some of these eventually became big grants, some of them became undergraduate projects, some of them will probably never see daylight. My lab started with one of the smaller projects that I knew I could do

relatively quickly with new students. This turned into a Konishi grant from ISN, which turned into a short paper, which snowballed into a bigger grant and more papers. Tom Daniel always told me to work on the things that I was most excited about, because this would result in the best research output. This has turned out to be correct.

Sanjay Sane: There are many possibilities that come to mind. One, in many cases, advisors should allow and encourage ECRs to develop their own line of questions, even if framed within the larger context of the lab's focus. Two, if the ECRs can seek independent funding, that is one way in which they could develop their own projects within their host/advisor's lab. Three, ECRs could generate collaborations that are distinct from their advisor. This helps them go beyond the boundary conditions of the host lab and have a line of continuity when they eventually step into the shoes of a new faculty member and lab head. Additionally, I think ECRs should pro-actively seek to teach or participate in teaching undergraduate courses, mentor interns, and engage with academic societies. These are all important steps towards creating a long-term research program.

#### What is one piece of practical advice you would want to give to someone who is going on the job market for a faculty position?

**Anna Stöckl:** My advice on this is still based on rather limited experience, as I have only just begun to apply for faculty positions. What I have found critical is talking to people at the department you are planning to apply to, because customs and expectations differ between countries, universities and even faculties. To tailor your application to a position, it is great to get advice "from the inside". Reaching out to colleagues at the institutes you are interested in is vital to assessing whether this is the right environment for you to thrive, personally and professionally.

**Sanjay Sane:** Ideally, you should seek to go into the 'job market' only when your ideas outnumber your hands. As a faculty member, you need to develop a multi-faceted research program rather than a research project. For a person who seeks to land a faculty position, it is always a good idea to get in touch with scientists at various places through conferences and meetings, and to get a finger on the pulse of what departments may be looking for. Offer to give talks, formally or informally. Finally, when you are ready, apply broadly - don't turn down options before you have them. The early career stage is a fantastic time

of our academic life. My other advice is to pursue your science without worrying about what will get you tenure. Worrying about a "tenure strategy" can often lead you to pursue conservative and formulaic science that can fetch you more papers but not necessarily interesting ones. You can either have fun or worry about tenure, but not both at the same time. Chances are that if you are having enough fun, then the tenure will take care of itself.

Jessica Fox: My advice for those on the job market is related to my comment above about separating any specific failure (to publish in a particular journal, to get a particular job or grant) from a sense of failure as a scientist. This is especially true on the job market because jobs are about the candidate's fit for THIS department and THIS university at THIS time. You may be the world's most talented neuroethologist, and you will still not make the short list if the department needs a taxonomist or a cell biologist. The job market is less like the Olympics, where training hard can translate linearly into success, and more like The Bachelor, where there can be only one winner and that winner is chosen in a byzantine process that would raise more than a few eyebrows.

Jobs are often about connection, on both an intellectual and personal level. Aim to convince your future colleagues that your work is relevant to theirs, regardless of what they do. Connect your work to broader themes within biology or neuroscience and explain how hiring you will help them further their work. And in interviews, have a good time and be yourself! Your CV already convinced the committee that you are accomplished enough to hire; now we want to see if you'll be a good colleague, someone we will want to have in our faculty meetings and on our students' committees for the next thirty years. Good luck out there!

#### What are some of the biggest challenges while setting up a new lab and an independent research program?

**Basil el Jundi:** To learn to be patient. This applies to, for instance, the progress of your lab infrastructure. It takes at least one year until your equipment is set up and ready to be used. It takes roughly another year until everything runs smoothly and you obtain your first meaningful results that can steer your research in different directions. In addition, you also need to learn to be patient with the progress of your lab members. Everyone has a certain way of performing their experiments as well as analyzing data, and you need to give them space to explore science at their own

pace. Finally, it is difficult to accept that your prospective research success strongly depends on your lab members. Thus, hiring excellent people that fit into your lab and who will have a strong impact on your research is highly critical.



#### 2023 ISN AWARD WINNERS

Each year the ISN awards honors and prizes to members of our community who have made significant contributions to the field of neuroethology. Travel and research awards are also granted to early career scientists who show serious promise. Here is this year's excellent roster of winners!

#### **Capranica Neuroethology Prize**



#### Ajinkya Dahake

Ajinkya is a graduate student at Cornell University working with Rob Raguso to study hygrosensation in pollinators. He was awarded the 2023 Capranica Neuroethology Prize for his outstanding publication,

"A signal-like role for floral humidity in a nocturnal pollination system" published in 2022 in the journal Nature Communications. He writes, "Pollinators rely on a variety of signals and cues to locate flowers in complex environments. Visual and olfactory signals from flowers can serve as long-distance attractants for foraging pollinators. However, the signals that assist pollinators in accessing hidden nectar sources at close proximity to flowers, particularly in flowers lacking visual nectar guides, remain unclear. My study investigates the role of floral humidity in the nocturnal trumpet-shaped flowers

of Datura wrightii. I discovered that these flowers generate a significant humidity gradient within their surrounding airspace, which is actively regulated through stomatal conductance and remains persistent despite environmental disturbances such as wind or nectar removal. Through single sensillum electrophysiological recordings, I confirmed that the primary hawkmoth pollinator, Manduca sexta, can perceive these floral humidity gradients via specialized sensilla on their antennae. I further characterized the tuning curves of the underlying hygrosensing neurons. Behavior assays revealed that moths innately prefer humid flowers, and experimental occlusion of the sensilla abolished this innate preference. By combining approaches from the fields of plant physiology, sensory neurobiology, and animal behavior, my research sheds light on the unexpected role of floral humidity in pollination biology within this nocturnal pollination system."

#### Konishi Neuroethology Research Awards



#### Vikram Gadagkar

Vikram is an Assistant Professor at Columbia University in the Department of Neuroscience, Zuckerman Mind Brain Behavior Institute studying female songbirds and the neuroethology of mate choice. Describing his

current research, he says, "Neuroscience is making rapid progress understanding how an individual brain learns and produces behavior, yet we know very little about how one brain evaluates the behavior of another, a key component of virtually all social interactions. Second, much of neuroscience has been biased toward male brains, leaving female brains largely neglected. [My] research on the neural basis of mate choice, courtship, and monogamy will at once fill both these gaps by combining neuroethology, computation, and technology, to pioneer the female songbird, which has evolved specialized circuits to evaluate male song, as a novel mechanistic model for how we evaluate the actions of others."



#### **Matteo Santon**

Matteo is a Marie Cure Research Fellow at the University of Bristol in the Ecology of Vision Group working with Martin How working on the neuroethology of dynamic displays of broadclub cuttlefish. He writes, "High

contrast stripes are renowned for generating motion illusions in humans by disrupting the expected motion pattern in a visual scene. Striped patterns are also widespread in nature, from insects to mammals. Yet, there is still little experimental evidence about whether, and how, animals evolved such patterns to dazzle, jam, or disrupt target visual systems. We research the role of high contrast stripes in nature focusing on a real biological predator-prey interaction, the broadclub cuttlefish hunting crabs... By combining interdisciplinary lines of enquiry from behavioural, visual ecology, and neurobiology, based on a variety of established methodologies, [my] project aims to collect independent, yet interconnected, evidence that dynamic striped displays can confuse the visual system of target species in real biological interactions."

#### Sarah McKay Strobel



Sarah is an NSF Postdoctoral Research Fellow at Utah State University working with Molly Womack and Eva Fisher (University of Illinois Urbana Champaign) to research the effects of developmental stress on senses and cognition

through growth-differentiation trade-offs. She writes, "Trade-offs between growth and differentiation are biological systems. fundamental across During development individuals adjust growth in response to environmental cues; however, plasticity often comes at the cost of traits that influence survival and fitness. Relatively little research has considered growthdifferentiation trade-offs in sensory and cognitive systems, which are metabolically expensive and guide an individual's behavioral interactions with its environment. My research goal is to assess how accelerated growth in early development influences trade-offs in sensory and cognitive systems. I manipulate larval density to induce developmental timing plasticity in two species of anurans (frogs and toads). I assess the consequences of accelerated development on sensory and cognitive structures and functions across multiple timepoints, as well as the and genomic drivers physiological of these consequences."



#### Clifford Harpole

Clifford is a post-doctoral researcher at Cold Spring Harbor Laboratory, working with Arkarup Banerjee to explore the neural mechanisms for contex-dependent vocal flexibility in singing mice. He

writes, "We have recently begun investigating the neural mechanisms underlying vocal flexibility in a novel model system - the singing mouse (*Scotinomys teguina*), a highly vocal rodent native to Central America... We recently observed that it has two such vocal modes: 1) their namesake *songs*, loud series of ~100 notes that last for several seconds which they produce both socially and in isolation, and 2) calls more akin to the well-characterized ultrasonic vocalizations (*USVs*) present in most other rodents, produced only when nearby one another in social settings... [My] experiments, a crucial component of a larger project on the brain-wide neural circuitry underlying the vocal behavior of singing mice, will elucidate neural mechanisms by which mammals can flexibly modulate their vocal communication behaviors."

#### **Diversity Awards**



#### **Romina Najarro-Flores**

Romina is a Peruvian biologist interested in sensory ecology, communication animal and She behavior. did her undergraduate studies at Universidad Peruana Cayetano Heredia. Peru has limited

opportunities to be trained in research and to find positions to study behavior. Romina had the privilege to participate in behavioral research projects on wild birds and mammals. She decided she needed to be trained in research, so she started her PhD at Purdue University (IN, USA). She currently aims to investigate the potential role of the auditory system in the cultural evolution of birdsongs.



#### **Federico Gascue**

Federico Gascue is a PhD student at University of Buenos Aires, Argentina. He specializes in neuroethology, with a focus on the role and mechanism of sensory adaptation in the olfactory system of honey bees. Under

supervision of Dr. Fernando Locatelli he conducts both behavioral and physiological experiments to unravel the neural underpinnings and behavioral implications of sensory adaptation.

#### **Heiligenberg Student Travel Awards**



Ronja Bigge University of Konstanz

Research topic: Contrast Processing in the Visual System of the Hummingbird Hawkmoth

Varun Sharma Georgia Institute of Technology

> Luminance-Dependent Mechanosensory and Visual Integration in Hawkmoth Flower-Tracking



**Catherine Macri** Université Toulouse III Paul Sabatier

Research topic: Similar but different: Delay vs. trace conditioning in honey bees



Jessica Zung Princeton University

Research topic: Exploring natural odour landscapes: A case study with implications for human-biting insects



**Timothy Schwanitz** *Princeton University* 

Research topic: Mapping Human Preference in the Brain of the Yellow Fever Mosquito



#### FUTURE OF NEUROETHOLOGY WEBINAR SERIES

We are excited to announce our 2023 ISN webinar series "The future of Neuroethology". These webinars will be held on the following date: **September 20, 2023**, 16:00 UTC; **November 8, 2023**, 00:00 UTC; **February 21, 2024**, 16:00 UTC; and **April 17, 2024**, 20:00 UTC, through an international online platform.

We aim to bring together the neuroethology community by promoting sustainable and inclusive ISN academic activities during the off-meeting years and to reinforce the participation of early career students and investigators. Each webinar will provide opportunities to discuss career paths combined with presentations of cutting-edge science by early career ISN members.

#### CALL FOR SPEAKERS

We plan to have 4 slots for 15-min presentations (12 min presentation + 3 min for questions) in each of the four webinars. We invite all interested parties to nominate (or self-nominate) early career ISN members (graduate students, postdocs, and investigators within five years of starting their first position) as speakers of the 2023 ISN webinar series "The future of Neuroethology". Please, **submit your nomination by May 31, 2023** by email to ISNwebinarseries@gmail.com including the following information:

- Name, affiliation, and contact information of the proposed speaker
- Availability to present in the scheduled dates and times, and/or date-times preferences
- Short bio + motivation (100 words)
- Tentative title of the presentation (or 3 keywords)
- Photograph
- Abstract (100 words)
- Links to related paper(s) or preprint(s) (optional, no more than 2)
- Twitter & Researchgate account info (if applicable)

The Organizing Committee of the 2023 ISN webinar series "The future of Neuroethology" will select speakers among nominees considering geographical, ethnic, and gender balance. Priority will be given to applicants who have never attended ISN meetings.

