International Society for Neuroethology

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THIS ISSUE FEATURES

The Prez Sez

Cindy Moss

President of the ISN

Dear ISN Friends and Colleagues,

I'm writing to you from Baltimore, Maryland, where I'm on the opposite side of the world from my new granddaughter, Isabel, who lives in Hong Kong. Fortunately, technology helps us stay close, and from this photo, you can see that Isabel, at six months, is already a budding Neuroethologist and honorary member of the Johns Hopkins Bat Lab!

What have we been up to? The ISN Leadership, Councilors, Early Career Representatives and Committee Members have been working on a variety of new initiatives, webinars, and planning for the upcoming 2026 International Congress for Neuroethology in Vancouver. Below is a brief report of our activities to keep you apprised.

Inaugural ISN Fundraising Committee! **Paul Katz (Chair), John Hildebrand, and Eric Warrant** have generously taken on fundraising responsibilities for the ISN, and we are all deeply grateful! Their first fundraising campaign honors the memory of past ISN President, Ed Kravitz, with an annual **International Society for Neuroethology Edward Kravitz Memorial Scholarship**. Ed was a strong supporter of summer courses at the Marine Biological Laboratory (MBL) in Woods Hole MA, which have been a tremendous asset to our neuroethology community. The campaign will raise funds to support a student who enrolls in summer courses at the MBL, such as Neurobiology, Neural Systems and Behavior, SPINES, or Computational Neuroscience.

2026 Vancouver International Congress for Neuroethology! Check out the ICN website https://icn2026vancouver.com, where you'll find a listing of keynote speakers, photos of the beautiful venue, and housing information. Please join me in expressing thanks to the **Scientific Program Chairs, Marie Dacke and Michael Dickinson, the Local Organizing Committee Chair, Doug Altshuler, and other members of the local and program committees,** who have been working tirelessly to plan a vibrant scientific program and social events to facilitate networking and build community. Additional program information will be announced soon.

Future of Neuroethology Webinar Series! Here's a shoutout to **Angie Salles,** supported by **Lukas Weiss** and other members of the ISN Community and Inclusivity Committee and Early Career Representatives, **Claire Rusch and Alex Winsor**, for organizing this superb webinar series, which offers a vibrant platform for early career investigators to share their latest discoveries and to engage in discussions on a wide range of topics. The October webinar featured outstanding talks by **Wataru Yamamoto** (A simple interoceptive circuit for water balance in Hydra vulgaris; Columbia University, USA), **Usan Dan** (Spatial transcriptomic insights into neural co-activity patterns in the transition to and evolutionary loss of parental care; University of Illinois Urbana Champaign, USA) and **Faelan Mourmourakis (**The brains and behaviour of Australian native bees; Macquarie University, Australia**)** and informative conversations about intensive graduate/postdoc summer courses, led by **Martina Radice** (Nencki School of Ideas in Neuroscience)**, Lauren O'Connell** (MBL Neural Systems and Behavior) and **Kenji Doya** (OIST Computational Neuroscience). The December webinar featured fantastic talks by **Brandon Fricker** (Hijacking Time: Leveraging "zombie flies" to understand the collapse of circadian timing; Harvard University), **Tanner Mierow** (The neuroethology of partner choice in snapping shrimp-goby Mutualisms; University of Tulsa), and **Kate Otter (**Satiety-based modulation of predatory behavior and potential neuropeptide correlates in a nudibranch; U. Mass Amherst). Keep your eyes out for announcements for upcoming Future of Neuroethology webinars in 2026!

"What's in a name? That which we call a rose by any other name would smell as sweet, as spoken by Shakespeare's Juliet. I want to bring to your attention that the ISN IDC has a new name, the Community and Inclusivity Committee (CIC), a change that is driven by the need to preserve access to US grant support for our International Congresses. Please be assured that this name change in no way reflects a shift in our values, which remain strongly committed to the diversity of our community. For evidence of our commitment, look no further than Value #5 in the mission statement below.

ISN Mission, Vision, Values and Goals. The ISN Leadership Team, Councilors and Early Career Representatives have been working together to articulate the Mission, Vision, Values and Goals of the International Society for Neuroethology (see the text below)**.** We met numerous times over the course of 10 months to reflect on the core functions of our society. We discussed the results of the ISN survey, the importance of supporting early career investigators, our commitment to diversity, sources of funding for ISN awards, the organization and location

of our biennial international congresses, and new ways to network and interact outside of our biennial congresses. We crafted the ISN Mission, Vision, Values and Goals statements to reflect what we understand to be the most important functions and aspirations of ISN for its membership. This effort was supported by the professional guidance of Bruce Jackson of the Attentional Leadership Institute. We've undertaken this task to strengthen our society and identify ways to best serve you. We consider it a work in progress and welcome your feedback.

Check out the new ISN website. You'll note that it's been reorganized to permit easy access to important information on conferences, awards, mentoring, and other resources. Once you login, you'll be able to access a member hub, where you can enter your professional bio, address, and other information you'd like to share with other ISN members. Through the member portal, you will have access to the membership directory and other resources. There is also an app that you can download to your smartphone to access the ISN website and membership hub. **If you haven't already, please take a few minutes today to enter your information in the ISN membership hub to connect with colleagues and help build our network.**

Stay strong! Wishing you all the best in your professional and personal lives!

Cindy Moss
ISN President

ISN MISSION, VISION, VALUES & GOALS

The ISN Executive Committee worked with Bruce Jackson from the Attentional Leadership Institute, members of the ISN Council and the newly renamed Community and Inclusivity Committee to craft the following strategic plan. The first step was conducting a survey of the ISN membership and using your feedback as guidance for steering the society into the future.

MISSION STATEMENT

To advance the field of neuroethology by deepening our understanding of how nervous systems generate natural behaviors and by cultivating a global community committed to inquiry, collaboration, mentorship, and advocacy.

VISION STATEMENT

ISN cultivates a global and inclusive community of researchers, educators, and students dedicated to advancing knowledge of how nervous systems generate natural behaviors. Through scientific inquiry, collaboration, mentorship, and sustained engagement, we shape and lead the field and future of neuroethology and foster meaningful scientific connections.

VALUES

1. **Scientific Advancement**: We foster the development of knowledge in neuroethology through analysis of the neural circuits that underlie naturally occurring behavior.
2. **Integrity and Transparency**: We commit to upholding ethical conduct, promoting shared governance, and maintaining transparent communication.
3. **Global Collaboration**: We unite a diverse international community to foster scientific exchange, mutual respect, and support.
4. **Education, Relationships, Mentorship, and Career Support**: We offer educational opportunities, scientific networks, professional development resources, and mentorship across all career stages.
5. **Diversity and Inclusion**: We embrace the richness of different perspectives and advance equitable access to opportunities to support a growing, interconnected, and thriving field.
6. **Communication and Engagement**: We foster communication through our biennial conferences, social media, newsletters, and member-driven initiatives, which bring together and strengthen our community and advance the field.
7. **Recognition and Advocacy**: We recognize excellence and promote awareness of neuroethology's impact on science and society.

STRATEGIC INITIATIVES AND GOALS

The following goals were shaped through dialogue with ISN leadership and active contributors from across our membership. Insights from member surveys, leadership conversations, and stakeholder interviews revealed key areas of opportunity where thoughtful action can yield meaningful progress:

- Strengthening pathways for membership engagement.
- Enhancing clarity and consistency in committee roles and Council engagement.
- Elevating communication strategies to better connect with members in a crowded information landscape.

- Advancing a sustainable funding model to support ISN's future growth.
- Expanding programming and engagement opportunities between international congresses.

These areas inspired the development of **strategic priorities and focused goals**—a proactive roadmap designed to align ISN's mission with the needs and energy of its community.

These efforts reflect ISN's commitment to cultivating a vibrant and inclusive future for neuroethology.

STRATEGIC PRIORITIES & GOALS

These priorities reflect both expressed urgency and realistic near-term capacity. They are focused on organizational infrastructure, member engagement, and visibility, laying a foundation for sustainable growth.

1. Membership Growth & Engagement

- **Goal 1:** Invite non-member conference attendees into ISN members through integrated registration and targeted outreach.
- **Goal 2:** Promote and communicate clear pathways for committee involvement and volunteering across all member tiers.

2. Organizational Structure & Governance

- **Goal 3:** Strengthen existing and new ISN committees (e.g., Fundraising, Social Media Team, Community and Inclusivity Committee (CIC) with clear roles, responsibilities, and public-facing descriptions.
- **Goal 4:** Develop an onboarding kit for elected council members and early career representatives, including defined expectations, committee assignments, and communication responsibilities (e.g., newsletter contribution).

3. Fundraising & Financial Sustainability

- **Goal 5:** Support the newly activated Fundraising Committee in launching an initial fundraising strategy.
- **Goal 6:** Identify and pursue sponsorship and donor opportunities, including outreach to lifetime members and aligned funders.

4. Educational Initiatives & Professional Development

- **Goal 7:** Expand visibility and impact of the ISN Mentoring Program, ensuring updated orientation, awareness, and participation mechanisms are in place,
- **Goal 8:** Additional career development panels and workshops (techniques and/or problem-focused) or member-led knowledge-sharing events that align with emerging topics and cross-generational interests, in addition to the Future of Neuroethology series.

5. Communication & Visibility

- **Goal 9:** Strengthen ISN's communication infrastructure by aligning committee work, member contributions, and strategic messaging through social media, newsletters, and web content.
- **Goal 10:** Ensure public-facing documents and committee statements are readily accessible and regularly updated on the ISN website.

6. Conference & Engagement Model Optimization

- **Goal 11:** Explore complementary models to the biennial international congress, including regional or hybrid formats that are sustainable, member-driven, and aligned with ISN's mission.

If you would like to provide feedback or help advance any of ISN's goals, please contact Cindy Moss cynthia.moss@jhu.edu.

LIFETIME MEMBERSHIP IN THE ISN

ISN Treasurer **Susan Fahrbach** interviewed a group of our Lifetime Members to gain insights into their commitment and decision-making process.

What inspires a member of a scientific society to become a lifetime member? The benefits to the society are clear – a permanent core of committed members offers financial stability paired with reduced administrative costs – but, given the relatively large one-time fee (currently $1200 USD), what motivates the member? In the case of the ISN, there is no public recognition of our lifetime members; there are no eligibility criteria; there are no direct benefits above and beyond those on offer to all who join at any membership level. In other words, it is a personal and private decision made one member at a time.

As Treasurer of the ISN, I receive a membership update from our management company every month. I recently sorted the big spreadsheet by membership category and learned that 92 ISN members (almost 18%) are lifetime members. One of my goals as Treasurer is to ensure the ISN has sufficient financial resources to take advantage of new opportunities and to deepen connections with our global membership. The return on long-term investments established by earlier generations of ISN leadership combined with dues covers operating expenses and allows us to provide local organizers with seed money in

advance of each ICN. These investments, however, are no longer sufficient to support new activities or subsidize ICN registrations in a substantial way. I wondered if the time might be right to strengthen our base of lifetime members.

I realized that I knew only my own story of when and why I became a lifetime member. I had no way to know if my experience was typical. This knowledge gap led me to ask current ISN lifetime members why they decided to commit. I heard back from 36 (40%) of our lifetime members. Here I summarize their thoughts and share their words.

Inspired by Gratitude

Based on personal experience, I naively assumed that most lifetime memberships reflected the feeling of gratitude experienced at important career transitions – in other words, *yes, I'm the one who got the job, I'm the one who got tenure, I'm the one promoted, but I know in my heart I was supported by my community every step of the way.* It turned out that my own experience was instructive, as many, many respondents mentioned a career transition.

Carola Städele (Goettingen, Germany) wrote: *I became a lifetime member at the end of my postdoc once I was finally in a position to afford it. By then, ISN had been part of my journey for years – from nervously giving my first conference talk to finding mentors and friends all over the world. Making the commitment felt like a way of saying "thank you" to the community that had shaped my career, and a promise to stay part of it wherever life takes me. Although it took me a little longer to scrape together the necessary funds!*

Angie Salles (Chicago, IL) also used an important career transition as motivation: *I decided to become a lifetime member when I got my position as an Assistant Professor at the University of Illinois, Chicago. It was a perfect use of my start-up funds, as many grants do not allow for membership fees. It also made sense financially, as I hope to have a long career in the field, and I am committed to staying involved with the society long-term.*

Trevor Wardill (St. Paul, MN) hopped on board as early as possible: *I became a lifetime member as soon as I got tenure and had startup funds to pay for it. Sometimes it can be tricky to pay for such things so this was an ideal way (no grant paperwork or justification hassles for things that extend past a grant cycle).*

Eva Fischer (Davis, CA) wrote simply: *The ISN Lifetime Membership was the first thing I purchased with start-up funds when I got my faculty position!*

Paul Faure (Ontario, Canada) made lifetime membership in scientific societies a goal at an early stage of his career and acted on this impulse as soon as he could: *I wanted to become a lifetime member of the ISN since I was a graduate student; alas I did not have any institutional funding to pay for the dues. Back then, the meetings were every three years so I would let my membership lapse on the off cycle. But after I landed a faculty position, I used my annual Professional Development Allowance to pay for lifetime memberships in all my favourite scientific societies that offered this class of membership. And I am very happy that I did.*

Inspired by Caring for Others

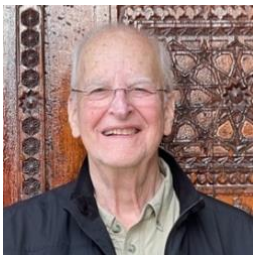
Related to a feeling of gratitude, I think, is the sense of responsibility that arises out of service to the ISN.

Amir Ayali (Tel Aviv) wrote: *I believe I became a lifetime member a few years ago during a period in which I was heavily involved with the ISN's IDC (I joined following a request from Eric Warrant). Being active induced more involvement, more involvement brought with it solidarity which came with a feeling of responsibility which led to becoming a lifetime member. Hence, my 2 cents would be: We tend to work with a limited group or network of friends. We should put efforts in expanding the circle of people involved and be active in the ISN (ad hoc committees, organizing and program committees, invited speakers, anything that may give a feeling of responsibility and solidarity).*

Inspired by Ties to the ISN's Early Days

Several lifetime members referred to the excitement of being part of the early history of the ISN as their motivation to commit. Professor **Kentaro Arikawa (SOKENDAI, Japan)** wrote: *I have had a special attachment to the ICN, because the first conference was held in my alma mater in Tokyo. My PhD mentor was a member of the committee, and I was also involved*

in its organization. Some of my long-lasting friendships started at the conference. In this vein, Past-President and ISN Fellow **Peter Narins (Los Angeles, CA)** shared: *I first became a neuroethologist as a graduate student in Bob Capranica's lab but became a true, card-carrying neuroethologist when I joined the International Society for Neuroethology. In August 1981, Bob invited me to a meeting entitled Advances in Vertebrate Neuroethology in Kassel, Germany at which the ISN was hatched. To this day I realize how lucky I was to have been there at that meeting, and as a result, I was forever hooked.*



Last summer, another Past-President, ISN Fellow **Ed Kravitz (Cambridge, MA)** shared a harrowing tale of a tour boat trip nearly going very, very wrong at the 2007 Vancouver ICN. In addition to this dramatic bonding experience, he stated: *The ISN is just terrific. I have never gone to any other meeting or congress where I was interested in listening to every talk.*

Inspired by Practical Concerns

The practical side of many ISN members was evident in many responses. Neuroethologists are busy and thrifty! They are also seeking peace of mind. While I was surprised to learn how many early career investigators use start-up funds to invest in a career-long membership, I was less surprised to learn that many members enjoy crossing the task of membership renewal off their to-do list FOREVER. Past President and ISN Fellow **Paul Katz (Amherst, MA)** was honest: *Having a lifetime membership is such a good deal that it feels like I'm stealing from the Society. I got the membership over 20 years ago for $1000, so that comes out to just $50 per year and getting cheaper by the year. So, my advice is that if you plan to make ISN your academic home, then the sooner you get a lifetime membership, the more of a bargain it becomes. Plus, there's the peace of mind about not having to worry about renewing.*

Troy Margrie (London, UK) combined practicality with a vision of his future in his response: *Knowing that I will attend many future conferences I felt it wasn't some kind of reckless investment but rather one that reflects both my support of ISN and future levels of engagement.* Current ISN Secretary **Gabriella Wolff (Cleveland, OH)** highlighted another practical reason to get a lifetime membership: *I used to let my membership lapse between ICNs and realized I was missing important emails from the ISN and was out of the loop about things like workshops and award deadlines. When I became a lifetime member, I got peace of mind that I wouldn't miss any newsletters or announcements!*

Inspired by "Feeling at Home"

Harder to reduce to a simple descriptor is a sense that *neuroethology is my guiding star, my spiritual home, something that captures who I really am.* Past-President **Eric Warrant (Lund, Sweden)** initially responded to my questions by referring to *annoying online payments* but then confessed: *Trumping all other reasons was the fact that I loved being a part of the ISN. So many of the other members – who I often first met at one of our congresses – are now close and dear personal friends, even if we don't work on the same questions (or animals). There is something about neuroethology, and neuroethologists, that pushes all of my buttons, both personally and scientifically. I often say to people who ask, that I do the kind of research that turns up in David Attenborough documentaries – and this is true of all the neuroethologists I know! Our field is full of a joy and wonder that many other fields lack – and you can feel this so clearly at every ICN. It's a no-brainer that you would want to be a part of that for life!*

Michael Dickinson (Pasadena, CA) noted that the ISN will be there for you for the long run: *As academic science has gone through many changes - some good, some not-so-good - I never fail to feel at home when I am at an ISN meeting, and seeing my old friends and colleagues there is like going home to see friends and family… I have come to appreciate the importance of assembled families, which in my case includes many members from the ISN community.*

Is it time?

If you are currently a lifetime member, thank you. You can be assured that ISN works tirelessly to be a good

steward of the funds you committed to our future. If you are considering becoming a lifetime member the next time you renew, I hope you are inspired by members who have already made this decision. If you have never considered a lifetime membership, it is my hope that you see yourself reflected in our current lifetime members. When the opportunity arises – a promotion, a chance to serve, generous start-up funds, a sense of community, the feeling of being *home* that a Congress brings – perhaps you will take this step. We can't recapitulate the feelings engendered by the early days of the ISN, but we can work together to ensure that the ISN is around to serve our students and our students' students.

I'll let lifetime member and ISN Fellow **Eve Marder (Waltham, MA)** have the last word.

I have no idea when I enrolled in the lifetime membership in ISN. I would have had two reasons, and would do it again today for the same reasons:

1) I detest having to keep track of which memberships I have updated and find the opportunity to enroll in a lifetime membership that I would expect to do every year frees me from just another thing to do.

2) I believe that the ISN is one of the most important forces and voices in the field and plays a substantial role in maintaining necessary diversity in animals and problems studied. Most of my lab people say that they enjoy the ISN meeting more than others precisely because it celebrates and supports research on animals that are experts in adapting and functioning in their natural worlds. Helping to ensure that ISN has a stable base of funding to plan into the future is significant.

Warm thanks to all others who responded to my questions! I'm sorry that I could not fit everyone in, but I was grateful to hear from *Doug Altshuler, Friedrich Barth, Catherine Carr, Maria de la Paz Fernandez, Fred Delcomyn, Jessica Fox, Kim Hoke, Martin How, Almut Kelber, Darcy Kelley, Gerit Linneweber, Alison Mercer, Vivek Nityananda, Lauren O'Connell, Tom Smulders, Wolfgang Stein, Anna Stöckl, German Sumbre, Barry Trimmer,* and *Barbara Webb.* Your wise words and encouragement contributed much to my article.

SPOTLIGHT ON EARLY CAREER RESEARCH

Early Career Representative **Claire Rusch** interviewed two early career neuroethologists to highlight their work. If you would like your research featured in the next newsletter, please contact Claire: claire.rusch@research.fchampalimaud.org.

In this edition, I (virtually) sat down with two early career researchers, **Dr. Adam Blake** (University of Washington, USA) and **Dr. Norma Kühn** (NERF, Belgium). Both recently published peer-reviewed articles that I found thought provoking, insightful and overall, a pleasure to read.

Both Adam and Norma bring fresh perspectives and clever experiments designed to better understand visual systems. Adam is currently investigating how sensory systems affect the behavioral choices of one of human's worst enemies, the yellow-fever mosquito (*Aedes aegypti*). Norma is advancing our understanding of motion detection in the visual system of mice (*Mus musculus*), an important process for survival, whether to catch a prey or evade a predator.

If you're an early-career researcher and would like your work to be featured in a future newsletter, please email me or Alex, your early career representatives, with a brief summary of your research, a publication or preprint (optional!), and cool photos. If you think we should highlight one of your early career colleagues' recent work, please send us your nomination.

How are visual preferences modulated by odors in the yellow fever mosquito? Recent work led by Adam Blake in the Riffell lab at University of Washington reveals a shift in spectral preferences when exposed to different ethologically relevant odors.

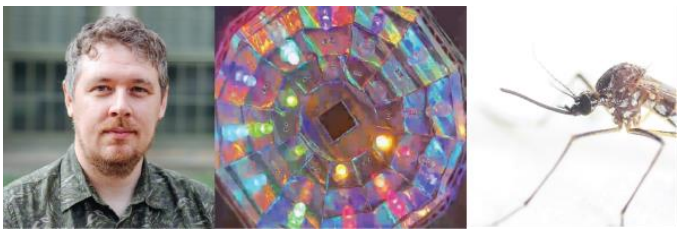
Mosquitoes use a combination of senses to locate hosts, find plant nectar sources, and a place to lay their eggs. While we increasingly know more about the mosquito's sense of smell, very little is known about their other sensory systems, especially vision. However, previous work in the Riffell lab has shown that when *Aedes aegypti* mosquitoes smell CO2, it "turns on" their visual system and they become attracted to dark, high contrast, objects. But very little is known about color vision in mosquitoes, and as you've probably noticed, humans, flowers, and puddles look, and smell, very differently. This led Adam and his colleagues to wonder if and how mosquitoes shift their visual preferences when they smell these different resources.

Using LEDs, they controlled and matched the intensities of different colors to test and characterize mosquito spectral preferences. They found that mosquitos were

least attractied to wavelengths in and around green (500-550 nm). Intriguingly, they noticed that odors shifted these color preferences. For instance, the odor of common tansy flowers increased mosquito attraction to the green and yellow light that is characteristic of this flower. Adam and his colleagues think that odors allow mosquitoes to become sensitive to specific visual objects that are essential for their survival and reproduction.

Adam shared that the hardest thing that he had to do for this project was creating the LED targets and getting them to work with the existing 3D tracking systems of their wind tunnel. They created visual targets with a pair of LED synths consisting of 17 different LED colors, allowing them to mix light from these LEDs into any desired color. While it was quite a headache to balance the brightness of the 17 color channels, this was just the beginning of his problems, as adding the synths to the wind tunnel caused issues with the ability to track the mosquitoes. He iterated through a many possible solutions before eventually finding one that allowed him to have precise control over the spectral characteristic of the target, while individually tracking swarms of flying mosquitoes.

Read the full paper here:
https://doi.org/10.1242/jeb.250318



Left: Adam Blake (UW, USA). *Middle:* Picture of the inside of one of the LED synthesizers used to generate stimuli in the wind tunnel. *Right:* A photo of a female yellow fever mosquito (*Aedes aegypti*).

How do small mammals detect threats and opportunities in a split second? Recent research by Norma Kühn at Neuro-Electronics Research Flanders (NERF, Belgium) reveals how a midbrain structure helps animals rapidly identify motion that signals predators or prey — not just by relaying visual signals from the eye, but by actively *computing* what matters.

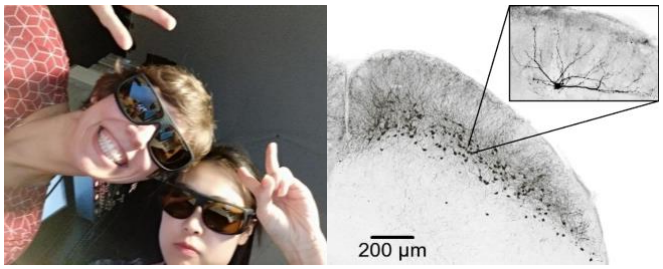
For animals like mice, survival depends on detecting movement: something approaching could be a predator, while something retreating might be prey. This critical processing happens in the superior colliculus, a brain region that receives direct input from the eye. These afferents are highly spatially organized — with different visual features arriving at different depths and visual space is mapped directly into anatomical space.

Norma's work focuses on wide-field neurons of the colliculus, a cell type found across many species, including birds, rodents, and small primates. These neurons are defined by their large, vertically oriented dendritic arbors, which span the entire depth of the visual input layers. This architecture allows them to integrate a wide range of visual inputs across both space and feature channels.

In transgenic mice, Norma and her team used viral tracing and two-photon imaging to record how these neurons — and their retinal inputs — respond to different types of motion. Combined with computational modeling, their experiments showed that wide-field neurons selectively amplify motion while filtering out static features. Critically, while the retina already signals approaching motion, these neurons compute sensitivity to *receding* motion on their own — a new feature not present in the input, but essential for detecting fleeing prey or retreating threats. This computation relies on the precise layout of inputs along the neurons' dendrites.

The findings highlight the superior colliculus as an active processing center, where the spatial organization of connections and the shape of neurons work together to extract behaviorally relevant motion features. Because wide-field neurons are evolutionarily conserved, their role in motion-driven behaviors may be widespread across vertebrates.

Read the full paper here:
https://doi.org/10.1016/j.cub.2025.06.060



Left: Norma Kühn (NERF, Leuven) and Chen Li (now at Yale School of Medicine), preparing for laser alignment. *Right:* Wide-field neurons lining the retinorecipient layers of the mouse superior colliculus and an example of an individually labeled cell.

Looking ahead, Norma — currently a postdoc in the Farrow lab — aims to establish her own research group. Her future work will explore how the physiological properties of individual neurons influence the features they compute, how these features shape network-level dynamics, and ultimately how they guide animal behavior.

UPDATING THE ISN MENTORSHIP PROGRAM

Early Career Representatives **Alex Winsor** and **Claire Rusch** are excited to highlight important updates to the ISN Mentorship Program, an initiative designed to help early-career neuroethologists feel connected and supported within our community.

Whether you are choosing a graduate program, shaping a research trajectory, preparing for the job market, or simply seeking advice from someone who has "been there before," the ISN Mentorship Program offers a straightforward way to build new relationships. If you are a graduate student, postdoc, or early-stage faculty member, the mentorship program offers a structured yet flexible way to receive guidance from senior ISN members. Our goal is simple: **to ensure early-career researchers feel supported by our community**. Mentorship is one of the most effective ways to build a sense of support and belonging, and we are working hard to make the mentorship program as useful as possible.

Improving the Program Through Careful Matching
This year we have implemented several changes based on mentor survey responses and an internal review of current pairings. We evaluated which mentor/mentee relationships are still active and found that many mentors are unpaired and remain eager and available to take on new mentees. This means there is **plenty of room for new matchings**! We have also had several brand-new potential mentors reach out looking for a mentee.

To help make pairings more effective, we now use a short form to match mentees with mentors based on interests, career stage, goals, and preferred mentoring style. This replaces the older system where mentees simply selected mentors from a list, and it allows us to create matches that better reflect each mentee's needs.

We also have a concise document outlining reasonable expectations for the mentoring relationship. These expectations are flexible and can be adapted by each pair, but they provide a helpful starting framework, especially for new mentees who may be seeking guidance on how to make the most of their first mentoring experience.

A Mentee-Driven Program
A key feature of the ISN Mentorship Program is that it is mentee-driven**.** Mentees set the pace, identify goals, and decide what kind of support they are seeking, whether that is career planning, navigating a transition, discussing research directions, or simply having someone outside their institution to chat with. This flexibility helps each mentoring relationship develop naturally, and it allows mentees to drive their growth. Mentor/mentee pairs decide for themselves how often to meet and what style of engagement works best, from quick check-ins to ongoing conversations.

Inclusivity is also central to our approach. We are committed to creating mentoring relationships where all early-career researchers feel welcome and supported. Our matching process allows mentees to indicate any preferences that would help them feel more comfortable.

Gathering Data for the Future
Looking ahead, we plan to gather brief, structured data to help us quantify how the program is working and where it can improve. We have already collected input from mentors, and we will soon be reaching out not only to past mentees but also to early career ISN members who have not participated before. This will help us increase participation and understand what early-career researchers are looking for, as well as what would make the program more valuable.

A Surprising Challenge: We Need More Mentees
Perhaps the most unexpected outcome of this year's enrollment? **We currently have more mentors than mentees.** This is a great opportunity: we have an abundance of experienced scientists who want to help. If you have ever considered seeking mentorship, now is the perfect time! Your future mentor is very likely already waiting in the queue.

A Perfect Time to Join
If you are:

- Curious about a new research direction
- Navigating a transition
- Seeking advice on publishing, grants, or lab culture
- Hoping to build connections beyond your institution
- Or simply wishing you could talk things through with someone a step ahead

...you are exactly who this program is meant to support.

With the ISN Congress taking place this July in Vancouver, the timing for new mentees is ideal. Stay tuned for mentorship-themed activities that will unfold at the congress.

If you would like to join the ISN Mentorship Program, please fill out the Google form or reach out to us directly with any questions: amwinsor@umass.edu and claire.rusch@research.fchampalimaud.org).

HIGHLIGHTS OF THE 2025 GORDON RESEARCH CONFERENCE ON NEUROETHOLOGY

Some recollections from vice chair **Eva Fischer** on this year's GRC in Neuroethology: A Systems View on Behavior, Genes, Neurons and the Environment

Another year, another fantastic Gordon Research Conference and Seminar! Old friends and new faces met up in Lucca, Italy for one of the biggest Neuroethology GRCs to date – we had more applications than we could accept and 177 attendees!

A huge THANK YOU to GRC Chairs **Miriam Liedvogel**, **Julie Simpson** and GRS Chairs **Maya Enriquez** and **Sreeparna Pradhan** for putting together diverse and exciting scientific programs, and facilitating friendly, thoughtful conversations about Neuroethology past, present, and future.

The whole event kicked off with the one and a half day GRS that featured talks from students, postdocs, and faculty from around the world. Complimentary sessions featured work linking genes to behavior, linking neural circuits to behavior, and centering behavior in neuroethological exploration. The GRS always includes a mentorship component, and this year the meeting wrapped up with panelists Andrés Bendesky, Andrew Gordus, and current ISN president Cynthia Moss discussing *A Look at the Past and the Present in Neuroethology*. If you are a graduate student or postdoc and have not yet attended a GRS we strongly recommend – they are an amazing way to hear about science from your peers and make long-lasting Neuroethology buddies.

The GRC featured 36 talks and 113 posters. As is the hallmark of the Neuroethology community, talks featured a wide range of critters – worms, flies, spiders, birds, naked mole rats, baboons, oh my! – and approaches ranging from electrophysiology, to genomics, and knockouts. Sessions on *Krogh's Many Marvelous Animals* and *Lessons from the Future: Updates, Methods, and Questions for Studying Neural Control of Behavior* put the breadth of animals and approaches (both new and tried and true) on display. The session on *Invertebrate Cognition* (and Consciousness?) included historical perspectives, new data, and sparked some lively discussion.

Notable in many talks and discussions were AI tools and techniques (e.g., machine learning and vision for tracking animal movements and behavior at high resolution). Sessions on *Behavior in the Lab and in the Wild* and *Tinbergen's Four Questions Today* featured some very cool examples of how new techniques can be brought to bear on old questions, as did sessions on *Extended Phenotypes, Specialized Sensors*, and *Behavioral Evolution*. We imagine there will be much more to come!

The session *Life at the Extremes: Thriving on a Changing Planet* highlighted animals that can (or cannot) respond to climate change. Indeed, warming temperatures were on the minds of many attendees as folks enjoyed or avoided baking under the Tuscan sun.

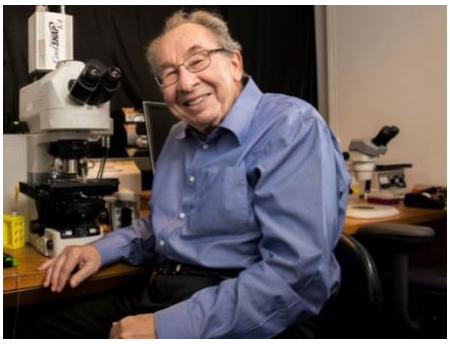
Another thing heavy on our minds and in discussions over food and drink was the current global and political climate. The effects of these changes were felt directly by those who could not attend due to travel restrictions/concerns or funding loss, and changes in policy implemented by the GRC, including the elimination of the 'Power Hour' from the official program. The Power Hour is a space intended to foster open dialogue, inclusivity, and support the professional growth of all scientists. Undeterred by official changes, **Kim Hoke** and **Maya Enriquez** led an informal power hour that was attended by Neuroethologists of all career stages and started thought-provoking conversations about the factors that influence our sense of belonging. Several folks voiced the importance of the Neuroethology community for them intellectually and personally.

On a personal note, I found the meeting especially uplifting this year because it provided the opportunity to hear about amazing science going on around the world and to see new and familiar Neuroethologist faces. For me, the best part of the GRC meeting structure specifically is hearing about the science, followed by the opportunity to continue and grow the discussion over shared meals and local outings. My postdoc who attended for the first time commented, "The science was so cool, and the people were so nice!" to which I could only respond, "Yup – that is what keeps me coming back."

The chairs for the 2027 meeting are **Dave Schulz** and me (Eva Fischer), supported by our newly elected GRC vice chairs **Jessica Fox**, **Scott Juntti** and GRS co-chairs **Alexandra Venuto** and **Facundo Fernandez-Duque**.

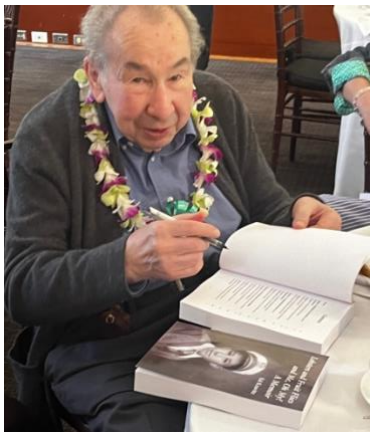
We hope to see you at the 2027 GRC!

REMEMBERING ED KRAVITZ



Ed Kravitz, a beloved member of our Neuroethology Community, passed away in September at the age of 92. As a founding member of the Harvard University Department of Neurobiology, past president of ISN (2004-2007) and ISN Fellow, long-time member of the National Academy of Sciences and the American Academy of Arts and Sciences, political activist in the 1960's, champion of diversity, and supporter of the Marine Biological Laboratory in Woods Hole, Ed touched many of our lives deeply.

Ed Kravitz's commitment to students and postdocs is unmatched by anyone I know. He was the first director of Harvard's Graduate Program in Neuroscience. He also served as Director of the Neurobiology Course in Woods Hole for many years. He was Co-founder and Chairman of the Organizing Committee for the "Neurobiology of Disease" teaching workshops run by the Society for Neuroscience and the Neurobiology of Disease Course at Harvard Medical School. He was recognized with Harvard Medical School's "Lifetime Achievement in Mentoring" award, and later with the Association of Neuroscience Departments and Programs' "Education" award. Ed worked closely with faculty at the University of Puerto Rico's Institute of Neurobiology to help build research and training programs, and he organized student exchanges and internship opportunities to help broaden the diversity of our scientific community. Ed trained over 40 graduate students and postdocs, many of whom now continue as independent scientists and contribute to the field of Neuroethology.



Ed has been my cherished friend and colleague for 35 years. We started the "Harvard Behavior Club" in the 1990's, and after I left Harvard, we met most every year at SfN for dinner, which sometimes led to unexpected adventures. For example, in San Diego one year, we were greeted by a friendly restaurant hostess who chatted with us for a few minutes after we got seated. As the night progressed, she got VERY drunk, began slurring her words and losing her balance. Ed insisted that we escort her home by taxi, and that was a wild ride! Those who know Ed well are probably familiar with his spirited contributions to social events at meetings: making margaritas, telling the suit joke, and dancing until wee hours of the morning. He even recruited my then 8-year-old son to squeeze dozens of limes for a margarita and story-telling party at my house after his visit to the University of Maryland. You can read many great stories in Ed's memoir, *Lobsters and Fruit Flies and Me, Oh My!*

Cindy Moss
ISN President

Below are some personal remembrances of Ed from close friends and colleagues:

Catherine Carr: I may be telling a common and well-loved story, but here goes.

Every year Ed kindly agreed to talk to the Grass fellows in Woods Hole. My, did we look forward to this - an elegant talk in his inimitable style, followed by Kravitz made margaritas and stories. One year Ed needed to come early, and sent me this email " In previous years, I've then

given a seminar and helped in the organization of a margarita and dancing party with the Grass Fellows on the next evening (Monday, June 19 this year). Since housing arrangements are due by this Wednesday, could you please let me know whether you would like me to do this again?"

Others will say this, but Ed's generosity had no bounds, like his passion for his science and his devotion to his family. Dear Ed, you lived life to the fullest and we'll miss you.

Bjoern Brembs: It is with great sorrow that I hear of Ed's passing. As biologists, we expect death once a person reaches a certain age, but as humans, every individual death still remains a tragedy.

When I think of Ed, I always have to think back to 1998. We were having a summer school at Bodega Bay, California and a fellow graduate student of ours from the Heisenberg lab, Marcus Reif, showed videos of fruit fly courtship. At the end, Marcus showed us what he thought was an entertaining video of two male flies fighting, a chance observation he had made. Nobody at the summer school knew that flies would fight.

Ed, who was working on lobster aggression at the time, was all over the video and kept asking us fly people about fighting flies. In these conversations, Ed and I agreed that I could try and see if I could get flies to fight reliably as a side project to my PhD work. I searched the literature, found some experiments on the behavioral ecology of fruit fly territoriality out of the lab of Ari Hoffman in Australia almost ten years earlier. Together with two undergraduate student volunteers, I adapted the setup from the literature and started recording the behavior of the flies - and they reliably started to fight! Of course, Ed and I remained in close contact all the time and hearing about our results, he decided to completely switch his lab from lobster to Drosophila!

I remember how impressed I was at how quickly and consequentially Ed changed course: he immediately realized the potential of Drosophila for this kind of research and didn't hesitate or blink and just grasped the opportunity when it arose. I'm quite proud of having played a small role in this, even though I basically only did what Ed asked me to do. I will miss him and science is poorer for losing someone like him.

I think this story exemplifies how he always was a role model for everyone who knew him.

Kristin Harris: I took the neurobiology course at Woods Hole in which Ed taught, while I was still a graduate student in Ohio. I was on the Harvard faculty when Ed was in his prime. One of my visits to Woods Hole included a fabulous intimate conference, hosted by Ed. As usual he told several jokes, including the suit joke. But more importantly for me, he had invited Mary Kennedy to present her pivotal work on the major PSD protein at the symposium, That inspiring encounter has lasted my entire career. When I moved from Harvard to BU - my first graduate student did a summer rotation in Ed's lab before arriving at BU-- Ed's letter indicated she had the potential to be a superstar, all true -- and in fact we are now submitting a large brain initiative grant together with her as a co-I from Univ. Connecticut. All roads lead back to Ed -- he was an inspiration at Harvard and beyond.

Hans Hoffmann: I have so many Ed stories as well, I need to write them down sometime.

When Ed was on sabbatical in Franz Huber's (my doctoral adviser) lab, he got Maine lobster delivered weekly to the Max Planck Institute, so he could do some electrophysiology on a little ganglion. Of course, the rest of the lobsters needed to be consumed somehow, and we had so much lobster every week that we ended up putting it on pizza, and we always had plenty of margaritas!
Ed will be missed

Karen Mesce: I never worked with Ed, but he had a tremendous influence on my thinking of how neuromodulators, especially the biogenic amines, influence behavior. Ever since my earlier days as a graduate student, I recall the many meetings and events that Ed would enliven with his humor (e.g., suit joke!), altruism, welcoming nature, and, yes, fabulous margaritas. After the 2001 ICN in Bonn, Germany, Ed and his lovely wife Kathryn gave me the opportunity to travel with them on a trip to Switzerland, where we stayed in the beautiful town of Valbella. Oh, the stories Ed did tell, of his Hollywood connections, his children, the arts, and his potato latkes cook-offs. But his excitement was most contagious when it came to his telling of his past scientific adventures at a time when neuroscience was a relatively young field. Ed absolutely loved his craft and continued to be an inspiring presence for me and others for another two decades. Ed always made me feel welcome no matter where our paths met, and his kindness will never be forgotten; he will be sorely missed.

John Hildebrand: Adventures in Kravitzlab.

Life is all about chance and serendipity, and somehow those forces brought me to Ed's lab in June, 1969, just days after I had received my Ph.D. diploma. My training had been in biochemistry, with no preparation or experience in neurobiology, but there I was, very

uncertain of myself as I found my way to the already-renowned "Steve Kuffler's Department." Ed unceremoniously welcomed me, showed me to my desk in a shared postdoc office, pointed to my lab bench, and all but told me to get to work. Somehow everything felt natural, and everyone I met was friendly and welcoming. And so it would be throughout my three years in Ed's group.

Ed's lab stood out back then as a place of good work-mirth balance. We worked hard and at the same time had a lot of fun together. By example, Ed showed all of us that we should and could do challenging and important science and at the same time enjoy camaraderie, humor, and of course frequent "chocolate breaks." For more than fifty years, I've emulated Ed's philosophy in my own workplaces, and as he and I kept in frequent contact throughout those decades, we laughed and shared jokes as much as we considered scientific challenges and the state of the world.

Thanks Ed.

EXERPT FROM "THE LOCUST, THE COCKROACH, AND ME"

ISN Emeritus member **Jeff Camhi** recently completed a memoire of his life as a neuroethologist, titled "The Locust, the Cockroach, and Me: Fifty Years Together but Why?" and wishes to share it with colleagues for free. Jeff was a member of the faculty at Cornell for twelve years before moving to the Hebrew University of Jerusalem as a full professor and is now retired. Below is an excerpt from the prologue of the memoire, but you can read the full version here.

Locusts are airborne superstars, able to fly nonstop all day long, gathered into exceedingly dense swarms that can include several million individuals. I wondered how these extremely close-flying individuals manage not to crash into one another and how, on the contrary, they might help each other keep on flying.

A common cockroach is a different type of superstar, climbing up walls, walking upside-down on ceilings, running on the ground almost as fast as the record-breaking cheetah (measured as body lengths traversed per second), yet instantly switching to an escape-swivel when a predator strikes, even though the cockroach apparently neither saw nor heard the predator.

A different cockroach species displays a unique response to a predator's attack—remaining still while presenting the predator with a shield.

During my career, I chose primarily these three distinct insects, one at a time, as my main research subjects, asking myself how nature installed in their nerve cells the means to carry out, among other skills, remarkable lifesaving tasks. Along the way additional questions emerged, and seeking their answers further broadened our studies.

Having grown up in Hastings-on-Hudson (just north of New York City) and attended Tufts University, I then began my research as a Harvard PhD student, following which I continued the research as a Cornell professor, advancing from assistant prof to tenured full professor. Then I moved with my family to Israel where, for decades, I continued my research as a tenured full prof at the Hebrew University of Jerusalem. Along the way, I carried out my research together with numerous excellent undergraduates, grad students, postdocs and professorial colleagues. In this essay I reveal how, through our research on behavior and neurobiology, we uncovered some of the magic that makes these insects so remarkable.

Of course being a professor is not only about research, and I describe among these chapters certain other experiences, involved in teaching and other pursuits, that enriched my working life and hopefully the lives of students. And some of these experiences, though from many years ago, still make me laugh, while others make me smile, and a few almost make me cry.

NEUROETHOLOGY CALENDAR

- ICN Abstract submission open January 14 – March 31, 2026
- ICN registration opens January 21, 2026
  - Early bird deadline April 22, 2026
- The Future of Neuroethology Webinar
  - March 12, 2026
- ISN Awards deadline April 15, 2026
- International Congress on Neuroethology
  - July 26 - 31, 2026
  - https://icn2026vancouver.com/