



## Current Research in Neurobiology, an experimental platform for innovation

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## ABSTRACT

Welcome to *Current Research in Neurobiology* (CRNEUR), the gold open access, sibling journal to *Current Opinion in Neurobiology*, a journal for timely original research in neuroscience. At its very core, CRNEUR is a journal for creativity and innovation in science and publishing. As a journal, we ambitiously aim for CRNEUR to be a vehicle for what many of us envisioned an academic journal could be. Empowered by our commitment to fairness and transparency—to hold ourselves and others to a higher standard—here we describe our ambitions for innovation going forward. We need your help in this process and welcome your views via this survey (<https://www.surveymonkey.co.uk/r/5LHWMTML>) and on social media (to start or join a discussion please use the hashtag #CRNEUR).

As founding editors of *Current Research in Neurobiology* (CRNEUR), we believe that academic journals should be platforms for scientific excellence and innovation. In this editorial introduction, we first announce the launch of CRNEUR and welcome your original neuroscientific submissions. We then present the journal guiding charter, a commitment to openness, inclusion and innovation. Finally, we describe the steps taken since the journal launch and ambitions going forward. In closing, we would be delighted to see your neuroscientific contributions and to hear your voice via this survey (<https://www.surveymonkey.co.uk/r/5LHWMTML>) and on social media (#CRNEUR).

## 1. Warm welcome to Current Research in Neurobiology

CRNEUR is a gold open access neuroscience journal and the companion to *Current Opinion in Neurobiology*, part of the *Current Opinion and Research* (CO+RE) suite of journals. Gold open access means that all published articles are immediately and permanently free for everyone to read, download, copy and distribute, and authors retain copyright for their article (Creative Commons Attribution: CC BY or CC BY-NC-ND).

The journal aims to attract high-quality papers that uncover original findings, whether they were hypothesized or unexpected and thus raise new hypotheses. We also encourage and value theoretical papers and those that provide careful experimental analysis addressing important neuroscientific questions, or papers that require different publishing formats that may not yet exist.

CRNEUR aims to disseminate high quality research in the field of neuroscience ranging from molecules to mind. Topics may include fundamental discoveries as well as clinically or translationally relevant neural science, along the gamut of relevant animal and machine model systems. Neuroscientific topics can cover aspects of neurobiological structure, function and evolution or bases for sensation, perception,

cognition, movement and mind. Research may study individually varying 'typical' neural systems or subclinical and clinical areas of interest, including areas where neuroscience can contribute towards public health. Our aim is to be the neuroscientific community's preferred publishing venue and one that scientists, funders, charities, government bodies and the public can rely on for timely discoveries and advances. We aim to be responsive to and better engaged with the scientific and public community, and to work diligently towards improving global research culture.

## 2. CRNEUR has a broad range of publishing options for your work

Research work could aim to advance fundamental knowledge in its own right or neuroscience that advances diagnosis, prognosis and treatment options. We also encourage the submission of data and code as resources, or curation papers linking to vital technical or scientific information wherever it might be found. Moreover, we publish Hypotheses and Intersections papers, comprehensive reviews and papers on 'meta-neuroscience', such as empirical papers assessing or advancing welfare, bioethics, or efforts to improve research culture.

The Guide for Authors can be found here, and we have created a range of publishing options: <https://www.elsevier.com/journals/current-research-in-neurobiology/2665-945x/guide-for-authors>. Please contact us for guidance or to suggest an unmet need that you think we could be addressing.

## 3. Our guiding charter: commitment to openness, inclusion and innovation

Our guiding charter is a commitment to openness, inclusion and

innovation. We have been inspired by other innovative journals experimenting and evolving their approach. We believe *CRNEUR* also has a role to play as an experimental platform, questioning every aspect of the publishing process for improvement and inclusivity. In the following sections, we describe our motivations, journal model and some of the ambitions going forward.

#### 4. Focusing on authors

The traditional role of journals—as platforms for selecting, peer-reviewing, and publishing scientific discovery—can overlook the needs of authors and the scientific community that provide that content. It is too easy with traditional models for authors to be seen as a service and as wanting or needing to provide academic content, with journals largely determining the rules that authors need to engage with. At *CRNEUR*, we do not want to treat authors as a service, but we do want to provide an excellent service for them. We aim to provide author-focused services, options and tools.

#### 5. Focusing on a fairer review process and transparency

Authors often have few publishing options and little say in how their papers are evaluated. When it works well, the review process can lead to a fair and balanced academic discussion with professionally conducted

review facilitating a strong and clear paper. Unfortunately, the process can be opaque and reviewers and editors ultimately determine what constitutes a better or publishable paper. At *CRNEUR*, we aim to develop ways to better involve authors in the review process, including by allowing authors a voice in the decision-making on their paper, which the journal *eLife* has recently been experimenting with (*eLife*, 2019). This academic ‘discussion’ between authors, reviewers and editors that forms a part of the peer-review process is essential to balance and get right, and we believe that openness and transparency need to be the bedrock for this process.

Authors are often given few options in how their papers get handled. The most common submission methods are a single blind or double blind review process. In the single blind process, authors are known to reviewers, with whatever influence that might play on how the quality of their science is judged. In the double blind process, the authors too can remain anonymous. Some journals are experimenting with openness and transparency in the paper reviewing process. For example, a double blind process during paper review can complete with publishing the author and reviewer interactions, with reviewers being encouraged to name themselves (*Bravo et al.*, 2019). Transparency experiments in journals like *eLife*, *European Journal of Neuroscience*, *PLoS*, *Progress in Neurobiology* and *Wellcome Open Research* appear to be well received and are working (*Bravo et al.*, 2019), alleviating initial concerns (*Bolam and Foxe*, 2017). At *CRNEUR*, we are now one of two Elsevier journals alongside *Progress in*

## Two published authors describe their scientific journey to publication in Current Research in Neurobiology

Nadine Thiele & Christine Köppl

Both at Department of Neuroscience, School of Medicine and Health Sciences, Carl von Ossietzky University Oldenburg, Germany



Nadine Thiele and Christine Köppl share their story from research to published article in *Current Research in Neurobiology*: ‘**Gene delivery to neurons in the auditory brainstem of barn owls using standard recombinant adeno-associated virus vectors**’

Could you tell us a little bit about the basis for your study?

**Fig. 1.** Author Q&A for the scientific advance by Nadine Thiele, Christine Köppl and team: <https://www.journals.elsevier.com/current-research-in-neurobiology/author-interviews/two-published-authors-describe-their-scientific-journey>.

*Neurobiology* that have transparent reviews publishing, and we will be further assessing the process for fairness and inclusivity going forward.

Openness and transparency are not by themselves necessarily going to introduce a fairer process. Fundamentally there needs to be balanced editor, reviewer and author discussions, guided by editors and reviewers committed to fairness and inclusivity. This may require clearer and more transparent guidance on the review and editorial process and efficient guidance materials. We will also be collecting and sharing data as we evaluate our processes at regular intervals to measure progress and to hold ourselves to a higher standard.

## 6. Contributing towards diversity and inclusion

The traditional process can also be biased towards better funded and known scientific teams, and it leaves some individuals frustrated and feeling out of the game. Few under-represented individuals from ethnic minority groups break through (Summers and Hrabowski, 2006), and imbalances continue to be perpetuated, such as few women publishing in top journals in first or senior authors roles and their work being under-cited (Dworkin et al., 2020).

At *CRNEUR*, we are working towards greater diversity in the editorial and academic roles on the journal, as we seek to expand editorial scientific expertise. We will seek to be a diverse and inclusive journal, showcasing exciting science and the inspiring stories and perspectives behind the science, as we did with the Author Q&A for our first paper. The scientific team led by Nadine Thiele and Christine Köppl broke ground with an optogenetics advance to control neuronal responses in the barn owl auditory tectum. They shared advice with early career researchers (ECRs) as part of the Author Q&A linked to the paper (Fig. 1).

## 7. Focusing on early career researchers

At *CRNEUR*, we believe that researchers at all career stages have important roles to play and aim to foster interactions between early career and established researchers. We will be providing venues for ECRs to engage with and help to steer *CRNEUR*. Our ECR editors will explore efficient ways in which researchers at every career stage can be heard and for bidirectional skills exchange with more established researchers.

## 8. Focusing on reviewers

Reviewers appear to want a more efficient review process, but the quality of reviews needs to remain high. At *CRNEUR* we plan to provide support for a more efficient high-quality review that falls within reviewers' areas of expertise. Scientific communities are developing platforms whereby authors can have access to a community of reviewers that could review their paper before it is submitted to a journal for publication. At *CRNEUR*, we find it appealing for authors and reviewers to focus on the science rather than where the paper should be published. Our editors may benefit from having access to papers that are already some way into the review process. This too is an exciting area for innovation.

## 9. Author recognition for submitted papers

We recognize that scientific discoveries require efficient review that takes time and can often clarify and improve a submitted paper. At the same time, scientists' careers depend on expedient recognition for their work soon after a study has completed. At *CRNEUR*, we embrace *publish-before-review* models, and thus encourage contributors to use pre-print services so that their papers are recognized as they are peer reviewed. We also encourage the use of services, such as *First Look* on SSRN which will be available for neuroscience articles in 2021, which allow flagging up the authors' work to the world while it undergoes peer review. Starting this public engagement process early can also assist with press-office and media engagement when the paper completes the peer-review process and is officially published as such.

## 10. Living papers and focusing on readers

Living papers are those that go beyond the written pages, whereby the reader can interact with the figures, run code, or use online tools to explore data. For example, brain imaging results from published papers could be visualized and linked to broader community resources where the data are shared. Data resources and tools allow access to the author shared data from their paper. They assist in results replicability and encourage scientists to conduct further analysis and discovery with the data. At *CRNEUR*, we are harnessing tools to assist authors in efficiently producing living papers and to standardize methods reporting (e.g., STAR Methods). These efforts can provide a richer experience for readers, whatever their interest in the paper may be.

## 11. Closer links with scientists and international scientific communities

Scientific communities regularly innovate and evolve their science. We also periodically need to adapt to unexpected challenges such as the Covid-19 global pandemic, and scientific societies have found creative ways to adapt their communities to the global challenge. *CRNEUR* seeks to develop more synergistic partnerships with scientific societies across the world empowered by scientific creativity around scientific meetings, and we aim to support career development and job prospects. We have editors that will be seeking to develop such partnerships. We will also seek to streamline the process between conference proceeding—including the materials that authors make available at scientific meetings—and the published papers once the scientific work comes to fruition. Available material by authors could be efficiently transformed into educational or promotional content linked to their paper.

## 12. Hearing your voice

In closing, every aspect of academic publishing could be questioned and steps taken to make the process fairer and more inclusive. This does not need to be more time consuming, but it will require commitment and steady progress towards openness, inclusion and innovation. Ultimately, we need to experiment with the process, collect data and take evidence-based decisions, whenever possible, in order to know which tools and procedures are most helpful. We will be regularly sharing updates and asking you for your guidance and thoughts, as part of surveys (<https://www.surveymonkey.co.uk/r/5LHWTML>) and discussions on social media (#*CRNEUR*). We might not be able to implement every idea, but will aim to listen to and consider them all.

Thank you for trusting us with your science and helping *Current Research in Neurobiology* continue to innovate to be an outstanding neuroscience journal all around.

Your founding *CRNEUR* editorial team,  
Chris, Abhi, Yogita, Kerry, Xiaoqin, and Anna.

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