


## EDITORIAL

# The Cranefield Awards

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An important part of the mission of the *Journal of General Physiology* is to nurture future generations of independent researchers (<https://rupress.org/jgp/pages/history>). This is particularly important in the face of the challenge of the current pandemic, which has led to the suspension of scientific meetings and the loss of networking and support opportunities. Many of JGP's activities should help mitigate this. For example, we try to ensure that one of the reviewers of each submitted manuscript is a postdoc. These reviewers receive feedback from the editors on their reports to help them hone their skills. Another important opportunity is provided by our Junior Faculty Networking Cohort. Members of this group are at the stage of setting up their own independent laboratories and are mentored by a senior scientist.

I would like to highlight the longest established activity relating to future research leaders, the *Cranefield Awards*. Named after Paul F. Cranefield, who was editor of JGP from 1966 until 1995 and made massive contributions to the development of cardiac electrophysiology (Hoffman and Cranefield, 1960; Andersen et al., 2003), the awards are made by the Society of General Physiologists for the best papers published in JGP. Many nominations were made this year for each of the three categories, and the committee, chaired by Alessio Accardi, was charged with reading a lot of first-class science. It is very pleasing to see such superb work being performed by scientists at all levels from graduate student to junior faculty.

The *Cranefield Graduate Student Award* has been conferred on Cassandra Hays. She performed her PhD under the mentorship of Wallace Thoreson at the University of Nebraska, examining the patterning of synaptic vesicle release in rod photoreceptors (Hays et al., 2020). This was shown to be very sensitive to membrane potential (see the Commentary by Short [2020]).

The *Cranefield Postdoctoral Fellow Award* was won by Martin Prieto, working in Merritt Maduke's laboratory at Stanford University, for his study showing that ultrasound modulates the firing of action potentials via a temperature- or mechanical-dependent effect on potassium channels (Prieto et al., 2020).

These findings will be important for the future development of ultrasound as a tool for neuromodulation.

Finally, the longest established of the *Cranefield Awards*, dating back to 1996, is for an independent young investigator. This year's award has been made to Federico Trigo (Université Paris Descartes; now at the Instituto de Investigaciones Biológicas Clemente Estable, Montevideo) for a paper showing how different pools of vesicles contribute to fast and slow release at synapses (Blanchard et al., 2020). In particular, the work characterized the effects of increasing intracellular calcium concentration on the components of release. This is the second consecutive year that this award has gone to a European laboratory, following Stephan Pless in 2019 (Gasparri et al., 2019), a tribute to the international profile of both the Society and *Journal of General Physiology*.

It is a pleasure to congratulate all three winners!

## References

- Andersen, O.S., D.C. Gadsby, and M.J. Held. 2003. Paul F. Cranefield, M.D., Ph.D. April 28, 1925 to May 31, 2003. *J. Gen. Physiol.* 122:1–2. <https://doi.org/10.1085/jgp.200308887>
- Blanchard, K., J. Zorrilla de San Martín, A. Marty, I. Llano, and F.F. Trigo. 2020. Differentially poised vesicles underlie fast and slow components of release at single synapses. *J. Gen. Physiol.* 152:e201912523. <https://doi.org/10.1085/jgp.201912523>
- Gasparri, F., J. Wengel, T. Grutter, and S.A. Pless. 2019. Molecular determinants for agonist recognition and discrimination in P2X2 receptors. *J. Gen. Physiol.* 151:898–911. <https://doi.org/10.1085/jgp.201912347>
- Hays, C.L., A.L. Sladek, and W.B. Thoreson. 2020. Resting and stimulated mouse rod photoreceptors show distinct patterns of vesicle release at ribbon synapses. *J. Gen. Physiol.* 152:e202012716. <https://doi.org/10.1085/jgp.202012716>
- Hoffman, B.F., and P.F. Cranefield. 1960. *Electrophysiology of the heart*. McGraw-Hill, Blakiston Division, New York. 323 pp.
- Prieto, M.L., K. Firouzi, B.T. Khuri-Yakub, D.V. Madison, and M. Maduke. 2020. Spike frequency-dependent inhibition and excitation of neural activity by high-frequency ultrasound. *J. Gen. Physiol.* 152:e202012672. <https://doi.org/10.1085/jgp.202012672>
- Short, B. 2020. Synaptic vesicles burst into sight. *J. Gen. Physiol.* 152:e202012817. <https://doi.org/10.1085/jgp.202012817>

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