



# Society of General Physiologists

eNewsletter Summer 2021



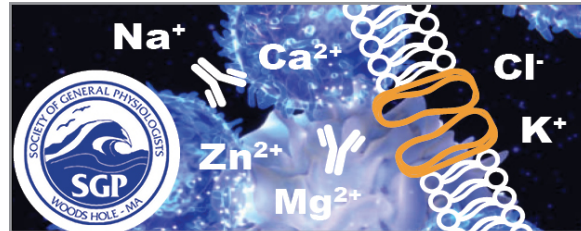
## Call for Abstracts: 74th Annual SGP Meeting

**Abstract Deadline: 31 July 2021**

Organized by  
Stefan Feske, M.D. & Bimal Desai, Ph.D.

[sgp2021.com/registration](https://sgp2021.com/registration)

The meeting will be held in person at the Marine Biological Laboratory in Woods Hole, MA, beginning with the Friends of Physiology Keynote Lecture delivered by Michael Cahalan, Ph.D. The **abstract deadline** for Short Talk and Travel Award consideration is **31 July 2021**.



**SGP 74TH ANNUAL MEETING**  
**Ion Channels & Transporters in**  
**Immunity, Inflammation &**  
**Antitumor Immunity**

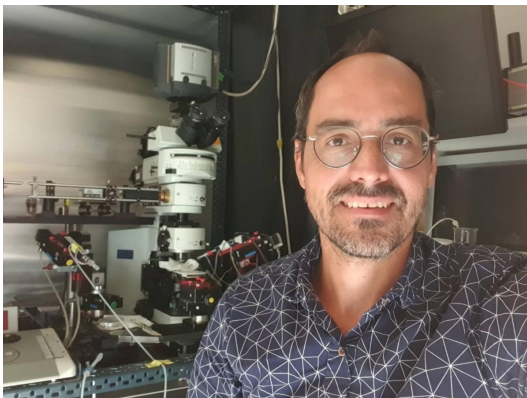
**New Date: SEP 22-26, 2021**, Woods Hole, MA



## Congratulations to the recipients of the 2021 Cranefield Awards!

The Paul F. Cranefield Award was created by the Council of the Society of General Physiologists to honor Paul F. Cranefield, M.D., Ph.D., who for 30 years served as Editor of Journal of General Physiology. The Award is meant to recognize an independent young investigator, postdoctoral fellows, and graduate students, who in the preceding calendar year has published an outstanding article in the Journal of General Physiology. Read about these award winners from JGP editor in chief David Eisner:

<https://rupress.org/jgp/article/153/4/e202112908/211887/The-Cranefield-AwardsThe-Cranefield-Awards>



**Federico Trigo, Ph.D.**

**Recipient of Paul F. Cranefield Award**

**Instituto de Investigaciones Biológicas Clemente Estable, Montevideo**

**SGP:** What are your current research interests?

**FT:** I'm studying the physiology of unmyelinated CNS axons, using as a model a cerebellar GABAergic interneuron. Axons are not just cables that allow action potential propagation but actively participate in neuronal computation. They deserve much more attention!! Also interested in the physiology of spinal cerebrospinal-fluid contacting neurons, a neuronal type that is at the interphase between the CSF and the brain interstitial space. Their dendrite (apical process) is a big black box whose function is still unknown.

**SGP:** Please share a little known personal fact about yourself. Doesn't have to be science related!

**FT:** I like tinkering, playing with my kids and eating barbecues with family and friends. And I love patching neurons as well!!

**SGP:** What does receiving the award mean to you?

**FT:** A lot!! It is awesome to have your work recognized by renowned colleagues. But even if the award is an individual prize, research is a cooperative activity. I regard the Cranefield award as a collective recognition, for my co-auth, and mentors and colleagues at the Physiology Dept. in Uruguay, University Paris Descartes and IIBCE.

**SGP:** Could you give some words of encouragement for rising scientists that want to pursue a scientific career?

**FT:** Scientific research can be tiring, frustrating and time consuming. But science can change the world. If you have chosen to do research, don't give up; future generations will appreciate.

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**Martin Prieto, Ph.D.**

**Recipient of Cranefield Postdoctoral Fellow Award**

**Stanford University**

**SGP:** What are your current research interests?

**MP:** Developing ultrasound neuromodulation devices that are compatible with modern high-resolution live cell and tissue imaging microscopes. Developing applications of acoustic radiation force in the field of molecular and cellular mechanobiology.

**SGP:** Please share a little known personal fact about yourself. Doesn't have to be science related!

**MP:** I hold the record for the most first place votes in the Stanford Molecular and Cellular Physiology annual holiday dessert contest.

**SGP:** What does receiving the award mean to you?

**MP:** JGP is known for its high scientific standards of careful experimental design, precise articulation of hypotheses, rigorous quantitative analysis, and mechanistic thinking. My goal with this article was to show that these standards can be applied to ultrasound neuromodulation, a field where these standards have generally been missing. This award confirms to me that I have achieved that goal.

**SGP:** What words of advice will you give to rising scientists that want to pursue a scientific career?

**MP:** My advice would be to work with people who believe in you and believe in the work you are doing.

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**Cassandra Hays, Ph.D.**

**Recipient of Cranefield Graduate Student Award**

**University of Nebraska**

**SGP:** What are your current research interests?

**CH:** We are following up the results we reported in JGP with studies investigating the rods sensitivity to very small voltage changes such as would occur after absorption of a single photon. Also, I am shifting my scholarly activities to include teaching and integrating physiology into medical curricula.

**SGP:** Please share a little known personal fact about yourself. Doesn't have to be science related!

**CH:** I've been cage diving with Great White sharks in South Africa.

**SGP:** What does receiving this award mean to you?

**CH:** I am usually modest about my research but discovering a synaptic behavior that was so different from what retinal physiologists have always assumed was really exciting with a host of interesting implications, so it feels amazing to have that be appreciated.

**SGP:** Could you give some words of encouragement for rising scientists that want to pursue a scientific career?

**CH:** Find a good mentor! It is important to have a mentor that allows for free exchange of ideas and supports your vision for your project. It is **INVALUABLE** to have a mentor that supports your physical, mental, and emotional welfare too- grad school is hard! Dr. Thoreson was an excellent mentor and I will look up to him as a human and scientist for the rest of my life!

## SGP Excelsior Award



**Angel Solis, Ph.D. Receives First Excelsior Award**

The purpose of the Excelsior award is to identify and promote exceptional early career scientists underrepresented within the fields of physiology and biophysics who seek to become scientists and mentors. Presented each year at the SGP Annual Meeting, the award includes a travel stipend to attend the meeting and present a platform talk, two years of formal mentorship from a senior member of SGP, and a one-year SGP membership.

## DEI Committee Update to Members

Our recent SGP diversity survey has provided important suggestions on how to tackle issues of Diversity, Equity and Inclusion (DEI). As scientists, we value discussing such critical issues in the context of published data. Thus, we will use our newsletter to share with you facts from the current literature that will help us continue to reflect on these issues. We hope these facts shed light on how much progress remains to be made, such that our scientific community is more equitable and just.

Facts:

1. The number of URM's who complete biomedical Ph.D.'s between 1980 and 2013 increased by 930%. Conversely, no significant increase in the number of URM assistant professors occurred during the same time period<sup>1,2</sup>.
2. The percentage of white, Asian and international Assistant Professors grew by 8.6% between 2005 and 2014. On the other hand, six fewer URM Assistant Professors were added to the ranks<sup>1,2</sup>.

1. Gibbs KD, Basson J, Xierali IM, Broniatowski DA. Decoupling of the minority PhD talent pool and assistant professor hiring in medical school basic science departments in the US. *Elife*. 2016 Nov 17;5:e21393. doi: 10.7554/eLife.21393.

2 Johnson MDL. mSphere of Influence: Hiring of Underrepresented Minority Assistant Professors in Medical School Basic Science Departments Has a Long Way To Go. *mSphere*. 2019 Sep 18;4(5):e00599-19. doi: 10.1128/mSphere.00599-19.

## 2020 SGP Business Meeting Report

The Society of General Physiologists typically holds annual business meetings in person at Woods Hole, MA. However, COVID-19 kept us from traveling to meet in person for the 2020 meeting. Instead, the council met online, which was a success! With record attendance of nearly fifty members, the council plans to continue gathering online for these annual meetings. Stay tuned for information regarding the 2021 business meeting, to be held at the end of this year!

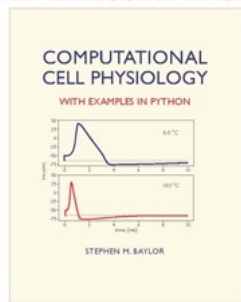
## Member Spotlight

### Member Spotlight

If you have news you would like to share with the SGP, please send to [newsletter@sgpweb.org](mailto:newsletter@sgpweb.org)

SGP is pleased to announce that former Councilor Dr. Stephen Baylor recently published the text *Computational Cell Physiology: with examples in python*. From Dr. Baylor: *The book is intended for self-study or for a university course for advanced undergraduates or early graduate students. I hope my book might be seen as following in the tradition of Katz's "Nerve, Muscle and Synapse", which had an important effect on me in my formative years.*

### NEW TEXTBOOK IN PHYSIOLOGY AND BIOPHYSICS



Available on Amazon, this book explores the mechanisms that govern the function of nerve, muscle, and secretory cells. The laws of diffusion, electricity, and mass action are explained and applied to elucidate how cells establish a resting membrane potential, achieve osmotic balance, generate action potentials, initiate secretion, and control muscle contraction. The main text is complemented by computer programs in Python, an easy-to-learn, modern programming language. These programs, the explanatory text, and the exercises at the end of each chapter provide a unique framework for the exploration of the underlying mechanisms at a quantitative level. The material is suitable for a 1- or 2-semester course for advanced undergraduates or early graduate students.

The author is Professor Emeritus of Physiology at the University of Pennsylvania.

## SGP Council

### Officers

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2020-2021

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**Executive Director:** Gregory Malar



### SGP Mission Statement

The Society of General Physiologists is an inclusive, international scientific society whose goal is to advance the understanding of the fundamental physiological mechanisms and physical principles that govern the functioning of biological systems. In addition to promoting pioneering and innovative research, the Society advocates for education and training, and it is committed to increasing diversity in the scientific workforce.

[Click here to join SGP or Renew your Membership](#)

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