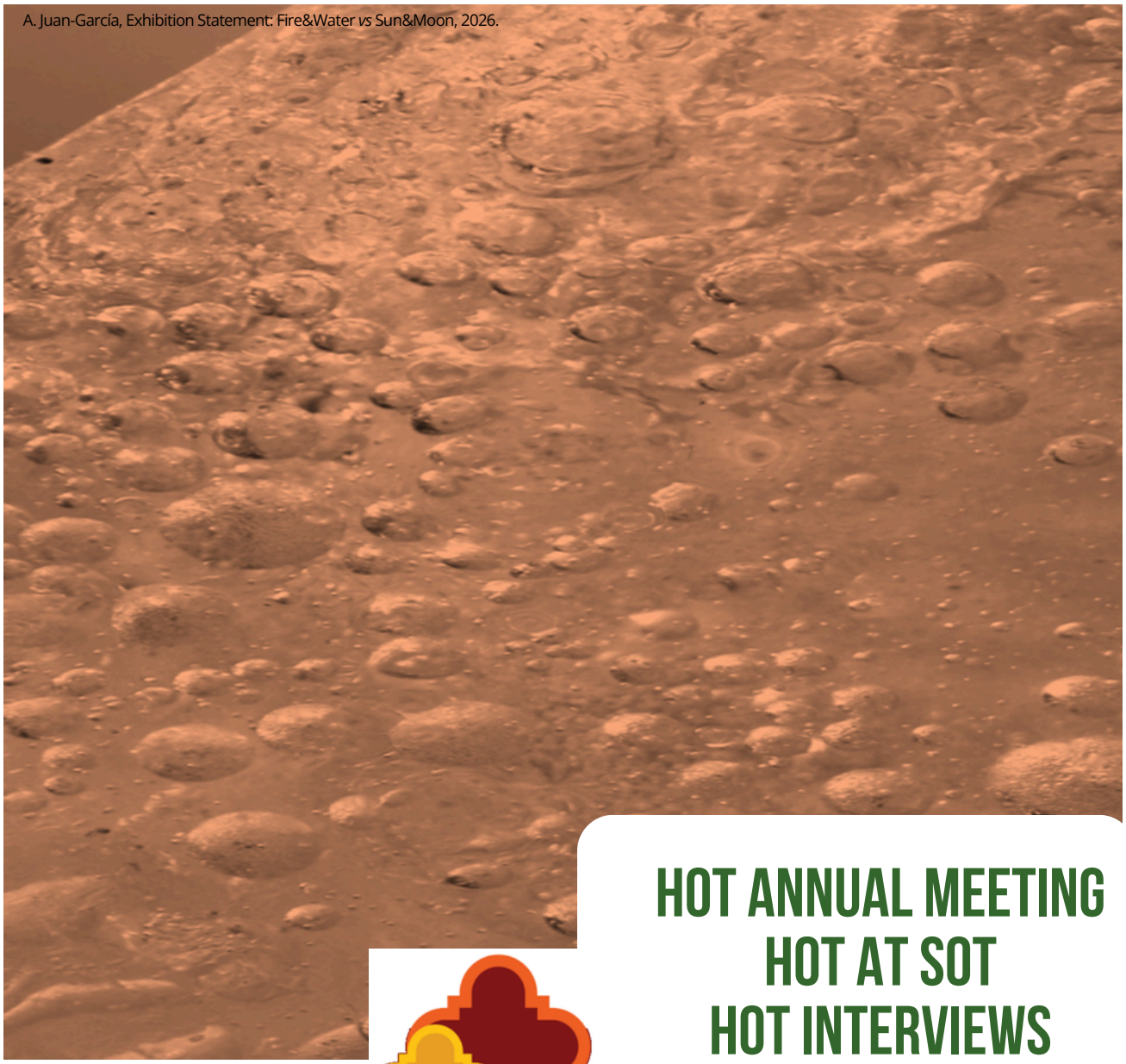
Summer ISSUE | MAY- SEPTEMBER 2026

TOXENLACES

BUILDING BRIDGES THROUGH TOXICOLOGY

ISSUE 83



A. Juan-García, Exhibition Statement: Fire&Water *vs* Sun&Moon, 2026.

HOT ANNUAL MEETING
HOT AT SOT
HOT INTERVIEWS

ECLIPSE
IMPACT AND INSPIRATION
HOT AWARDEES
UPCOMING EVENTS

2025-2026 HOT OFFICERS

Jorge G. Muñiz Ortiz
President

Patricia Ruiz
Vice President

Azita J. Cuevas
Vice President-Elect

Carolina Ghanem
Secretary

Federico Sinche Chele
Treasurer

Kelly Salinas
Past President

Ana Juan-Garcia
Councilor

Danielle Palma de Oliveira
Councilor

Iris Camacho Ramos
Councilor

Manuel Alejandro Ramirez-Lee
Councilor

Nilda Sánchez-Castellanos
Postdoctoral Representative

Alma Ávila Oropeza
Graduate Student Representative

Ana Juan-García
Toxenlaces Editor-in-Chief
Federico Sinche
Assistant Editor

General Contact
hispanicorgtox@gmail.com

FIND US ON FACEBOOK

SUPPORT OUR FUND

MESSAGE FROM THE PRESIDENT

Hola a todos,

For those who don't know me, my name is Jorge G. Muñiz Ortiz, and I'm the current 2026-2027 HOT president. I would like to take this opportunity to welcome all our HOT members back to this new operational year and welcome all the new members! I've been a proud member of HOT since 2008. I've held many leadership positions in the organization since then and I'm very happy and proud to have been elected President. I would also like to say thank you to so many people that have made this opportunity happen. THANK YOU!

In my experience, not only with HOT, but in other organizations, I've seen how it is that the new incoming members and volunteers are the ones that really make the organizations be what they are. They make the organizations run at a great pace as they bring in great ideas and new paradigms. I'm counting on the new members that are undergraduates, masters and doctoral students, postdoctoral fellows or scholars, and new investigators to jump at the opportunity to help HOT be an organization that everyone from SOT would want to support. I would like to see the established toxicologists, veterans in the field like me, support the new members and mentor them. This organization cannot be run only by us veterans; we need this new breed of toxicologists to take charge and guide HOT towards the future. I depend on all to have a great year for HOT.

With that said, or written, I welcome you all to this new HOT operational year. Hopefully I can be as great as my predecessors and continue this great legacy into the future with the new breed of toxicologists coming up. If at any time anyone has any concerns, suggestions, recommendations, questions, or would like to volunteer in any way to make HOT better, please don't hesitate to reach out. I'm at your service and eternally grateful for the opportunity to represent us!

Con amor y cariño para todos,

Jorge G. Muñiz Ortiz, PhD, DABT
CDR, U.S. Public Health Service
President, Hispanic Organization of Toxicologists
Society of Toxicology

Jorge G. Muñiz Ortiz, PhD, DABT
2026-2027 HOT President
Hispanic Organization of Toxicologists

Contents

#WE ARE HOT

BUILDING BRIDGES THROUGH TOXICOLOGY

ECLIPSE 4
Science and Research

7
HOT Impact and Inspiration

10
HOT Activities of Interest

11
HOT Endorsed activities during SOT2026

12
HOT Awards 2025-2026

EDITORIAL BOARD

Ana Juan García (Ed.-in- Chief)
Federico L. Sinche (Ed. Assit.)
Jorge G. Muñiz Ortiz (President 2026)
Kelly Salinas (Past President 2025)

13 HOT AT SOT2026- Welcome Attendees

14 Upcoming SOT 2027

15-17 Sponsors, Sister Organizations, and Announcement

Prof. Isabel Cordero-Carrión

Picture of August 12th, 2026 taken by Asociación Sapiencia, Puerto de Sagunto (Valencia, Spain)

ECLIPSE

SCIENCE-RESEARCH

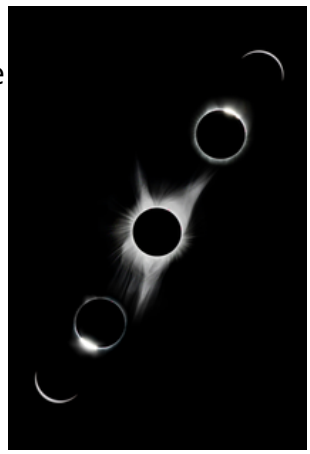
Isabel Cordero

On August 12 of this year, a total solar eclipse swept across part of the planet, from Greenland to the Iberian Peninsula (Spain) and ending in the Balearic Islands, touching Iceland along the way. This event sparked great interest; as many astronomers rightly note, a total eclipse, however brief, is an unforgettable experience: in mere seconds, day turns into night, and after a few seconds or minutes, daylight returns. Animals experience a moment of great confusion, while small children delight in the fact that, on this particular night, their parents haven't forced them to go to bed. This eclipse was particularly special, as it was the first total solar eclipse visible from the Iberian Peninsula in over a century; the previous one took place on August 30th, 1905, 121 years ago. After the fortunate sequence of eclipses over the Iberian Peninsula in the coming years –the so-called Iberian trio (total in 2026, total in 2027, and annular in 2028)– we will not see another total eclipse from Spain until 2053. Generally speaking, an eclipse occurs somewhere on the planet approximately every 18 months, whenever the Moon's orbit around Earth and Earth's orbit around the Sun –which are slightly inclined relative to one another– intersect. However, if we focus on any specific location on Earth, a total eclipse occurs there, on average, only once around every 370 years.

Let's start with the **basics**. An eclipse is simply an alignment of the Sun, the Moon, and the Earth. During a lunar eclipse, the Earth positions itself between the Sun and the Moon, generating a shadow (as well as a penumbra region) that blocks the sunlight reaching the Moon. Consequently, from Earth, the Moon appears partially or completely shaded. In a solar eclipse, the Moon positions itself between the Sun and Earth, generating a shadow on the sunlight reaching Earth and causing the Sun to darken –or, more accurately, to be hidden. However, the sizes of these objects differ vastly. Due to the combination of their sizes and relative positions, the effects of this alignment are very remarkable: the Sun is about 400 times larger than the Moon but it is also about 400 times farther away. As a result, both the Sun and the Moon appear to be roughly the same size when viewed from Earth, allowing them to obscure one another. These factors are not constant; at perigee –the point in its orbit closest to Earth– the Moon is just under 363,000 kilometers away and appears slightly larger, whereas at apogee –the point farthest from Earth– it is just over 405,000 kilometers away and appears slightly smaller. This gives rise to various types of solar eclipses: total, when the Moon completely covers the Sun as viewed from Earth; annular, when the alignment is perfect but the Moon is slightly farther away, leaving a ring of fire visible; partial, when the alignment is not perfect and the Moon covers only part of the Sun, leaving a crescent visible; and finally, hybrid, when the eclipse shifts from annular to total due to the Earth's curvature. The eclipse that took place on August 12 was a total eclipse, the most spectacular of all possible combinations. It is worth noting that the Moon's orbit is moving a few centimeters farther away from Earth each year, and, therefore, it is not advisable to wait dozens of millions of years to witness this magnificent phenomenon, as we will no longer be able to enjoy it in the same way by then.

For a few centuries now, and thanks to scientists like Newton and Kepler, we have been clever enough to predict eclipses with precision. Furthermore, we now understand the nature of the light reaching us from the Sun, as well as the fact that its intensity and energy can cause irreversible eye damage if observed directly with a naked eye, even for just a few seconds. To enjoy this experience, we simply need to take the proper safety precautions in advance and keep our fingers crossed that the clouds don't spoil the show. Throughout history, however, eclipses have been associated with divine retribution and rituals of all kinds, appearing in depictions ranging from the Bronze Age Minoan civilization to the Aztec culture (such as in the Codex Telleriano-Remensis). The Spanish Astronomical Society provides a fascinating collection of historical records regarding eclipses in its web page https://sea-mundoeclipses.es (in Spanish). It is science, fundamental knowledge, that transforms fear or mysticism into phenomena we can understand, predict, and enjoy.

Eclipses have served as a means of conducting science –tools for better understanding the sorrounding universe and its sometimes elusive or surprising laws. Eraosthenes used the shadow of a stick, estimates of distances between cities, and basic trigonometry to make an astonishingly accurate estimate of Earth's radius. Aristarchus devised a method –still considered entirely correct today– that also relied on basic trigonometry and angular measurements (including those taken during eclipses) to determine the distances from Earth to the Moon and from Earth to the Sun, expressed in units of Earth's radius.



However, Aristarchus' approximations lacked precision due to the difficulty of accurately measuring these angles. Eclipses have also enabled a better understanding and study of the solar corona, which is safely visible to the naked eye during a total eclipse (since the Sun is completely obscured, and therefore one must not forget to wear proper eye protection during the partial eclipse phases). Perhaps the most famous eclipse in science was the total solar eclipse of 1919, which catapulted Albert Eintein –and his theory of General Relativity, proposed in 1915– to public fame. For the 1919 eclipse, two British expeditions, one in Brazil and other one off the west coast of Africa, successfully photographed the sky during the event (following several previous attempts thwarted by cloudy weather). These observations confirmed the apparent shift in the positions of stars near the eclipsed Sun, a phenomenon predicted by General Relativity; the stars themselves had not moved, but the path of their light had been altered as it passed near the Sun, which was capable of slightly curving the surrounding space-time.

We do not know whether these phenomena will yield further scientific insights; that is the nature of the adventure known as research. My work involves using the theory of General Relativity to numerically model events in some of the universe's more exotic regions –such as black holes–, as well as the vibrations of spacetime itself –the gravitational waves–, that occur when black holes merge or in other complex astrophysical scenarios. In Valencia, Spain, we have major research groups in Mathematics and Physics that use the language of Mathematics to study phenomena that affects very small regions to phenomena involving the entire universe. Today, we can predict and marvel at eclipses and, as the great Carl Sagan put it, understand that we are nothing more than a pale blue dot in a fascinating universe that we are constantly striving to know a little better.

Prof. Isabel Cordero

Isabel Cordero-Carrión is Associate Professor in the Mathematics Department of the University of Valencia, Spain. She has a degree in Mathematics and did her PhD Thesis in the field of computational astrophysics. Her research lines focus on applied mathematics and numerical relativity, with special interest in the development of numerical methods for partial differential equations and gravitational waves. She is member of the Virgo Collaboration, and former outreach coordinator. She is also a former member of the Board of the Spanish Society of Gravitation and Relativity.

IMPACT & INSPIRATION

What Does HOT Mean to You?

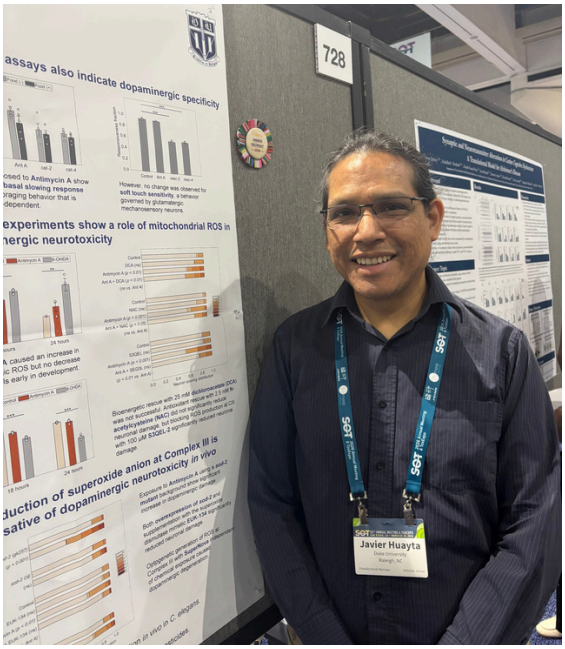
We are thrilled to welcome **JAVIER HUAYTA** from the Nicholas School of the Environment at Duke University to this edition of *Toxenlaces*!
Join us as Javier shares how HOT contributed to his success as an emerging researcher. Javier offers valuable insights from his professional journey.

RESEARCH AREA & CONTRIBUTION TO THE FIELD OF TOXICOLOGY

Before becoming involved with HOT, what motivated you to pursue your current field of study, research, or profession, and what were some of the challenges you faced along the way?

My training, both undergraduate and graduate, is in chemical engineering. During my doctoral training I worked with the small nematode *Caenorhabditis elegans* developing tools for its use in aging research. I was also involved in a project investigating the effects of co-exposure to naphthoquinones mixtures, dietary restriction, and heat-stress using the same model organism. This experience was my first involvement with toxicology and guided my interest in keep pursuing this research topic. Because of this, during my postdoctoral training I transitioned into researching neurotoxicity linked to environmental exposures in the context of mitochondrial dysfunction, still using *C. elegans* as my model of choice. At this point it made sense to get involved with the Society of Toxicology at large and with HOT in particular.

In what ways has HOT inspired or influenced your research interests and professional goals? Because of my engineering background, that is still the aspect of scholarship in my native Peru that I'm still more connect to. However, after meeting so many amazing toxicologists through HOT, now I'm aiming at revisiting my scholar connections and seek links and intersections with Peruvian toxicology. I even noticed that HOT's sister organization in Peru is located at my alma mater "Universidad Nacional Mayor de San Marcos".



Can you share a particular achievement or milestone in your career or studies where you believe HOT played an important role?
I was a recipient of a HOT Travel Award to attend the 2026 SOT Annual Meeting. HOT's support allowed me attend and present my postdoctoral research at SOT. But HOT's assistance went beyond this, because many HOT members came to my poster to learn more about my research or just to chat and connect, all very valuable and appreciated experiences.

How has HOT helped you expand your professional network and connect with other toxicologists or scientists?
During the same SOT meeting, I was invited to attend HOT's reception. During this gathering of Hispanic toxicologists and scientists I met and connected with many HOT members at all levels of their academic careers and investigating many different aspects of toxicology. I think this reception was definitely one of the highlights of my time at San Diego this year, and I'm already looking forward to catching up with everyone next year at San Antonio.

What skills or perspectives have you developed through your involvement with HOT that you now apply to your research, studies, or professional work?
I learned that our Hispanic community is represented in all aspects of toxicological research. I was happily amazed at the large network that HOT has built inside of SOT, while still providing a great sense of closeness and support across the membership. I was able to gain insightful perspectives about being a Hispanic toxicologist from senior HOT members and I will apply their advice and guidance during my future independent career.

How has your experience with HOT shaped your vision for your future career?

I have been involved with service and volunteering with the Society of Toxicology since I became a member in 2022. Now I want to become more involved with giving my time and service to HOT. Their mission of providing the resources to enhance and advance the professional development of Hispanic toxicologists is one I fully support and one to be part of. Both during my predoctoral and postdoctoral training I have taken any opportunity I was given to mentor and train Hispanic high-school and undergraduate students interested in STEM in general or toxicology in particular. I hope that I can continue doing so during my future career with the help of HOT.

What advice would you give to students and early-career toxicologists who are considering becoming involved with HOT?

Go ahead and do it! You will feel a welcomed and valued member of HOT immediately. Not only that, but you will be able to hear and learn from toxicologists that may have faced similar challenges in the past and can provide guidance on how to navigate them.

FIND US ON FACEBOOK

SUPPORT OR FUND

ACTIVITIES OF INTEREST

FREE WEBINAR

WHAT'S IN THE PACKAGE? UNDERSTANDING PACKAGING SAFETY.

Jessica Camacho, PhD. and Rafael Cerrato, PhD.
Division of Food Contact Substances - US Food and Drug Administration

September 17th, 2026 @ 5.00 PM

ABSTRACT: Substances used in food packaging, processing equipment, and other food-contact applications can migrate into food at low levels. In the United States, food contact substances (FCS) that are food additives must be authorized by the US FDA prior to marketing — typically through a food contact notification (FCN). FCN submissions undergo interdisciplinary review encompassing chemistry, toxicology, environmental science, and, where applicable, microbiology. This webinar, presented in Spanish, provides a detailed overview from a toxicology reviewer and a review chemist of how US FDA scientists evaluate the safety of food contact substances and introduces emerging issues and novel scientific approaches that are shaping the future of food contact safety.

This webinar is intended for Spanish-speaking toxicologists, food chemists, regulatory scientists, and public health professionals.

FOOD SAFETY SPECIALTY SECTION & HISPANIC ORGANIZATION OF TOXICOLOGISTS

Food Safety Specialty Section of the Society of Toxicology

The recording of this webinar is available free to members in the SOT Learning Library at:
https://www.pathlms.com/society-of-toxicology/courses/337696

MARCH 22-25
SAN DIEGO

ENDORSED ACTIVITIES

22 MAR, 2026
7:30 PM–9:00 PM

STUDENT/POSTDOCTORAL SCHOLAR MIXER (SOT 26)

Hosted by the Graduate Student Leadership Committee

West Terrace, Convention Center

23-25 MAR, 2026
9:15 AM–4:15 PM

HOT MEMBERS PRESENTATIONS

Hosted by HOT attendees

Conference Ballrooms, Convention Center

23-25 MAR, 2026
9:00 AM–4:30 PM

SOT COMPONENT GROUP POSTERS

Hosted by SOT Regional Chapters, Special Interest Groups, and Specialty Sections

Exhibitor Hall, Convention Center

24-25 MAR, 2026
9:15 PM–4:15 PM

HOT MEMBERS SPECIAL TOPICS PRESENTATIONS

Hosted by HOT attendees

Tiny Tox Theater in ToxExpo, Convention Center

24 MAR, 2026
7:00 PM–10:00 PM

HISPANIC ORGANIZATION OF TOXICOLOGISTS ANNUAL RECEPTION

House of Blues (Voodoo Room)
1055 Fifth Ave, San Diego, CA 92101

AWARDS 2025-2026

POSTDOCTORAL TRAVEL AWARD

Dr. Idoia Meaza
University of Louisville

GRADUATE STUDENT TRAVEL AWARD

Alma Ávila Oropeza
University of Rochester

Alfredo Rojas
Clemson University

Patrick Vieira de Souza
Universidade Estadual Paulista

HONORABLE MENTION TRAVEL AWARD

Chloe Wray
Helmholtz Centre for
Environmental Research

SOT MARCH 22-25 SAN DIEGO

WELCOMING ATTENDEES DURING 2026 SOT ANNUAL MEETING

MARCH 22-25
SAN DIEGO

POSTDOCTORAL TRAVEL AWARD

Dr. Javier Hauyta
Duke University

GRADUATE STUDENT TRAVEL AWARD

Alanis Torres-Berrios
Michigan State University

SOT SAN ANTONIO MARCH 14–17

SAVE THE DATES

SOT Returns to San Antonio

The SOT 66th Annual Meeting and ToxExpo will feature four days of Continuing Education courses, sessions, posters, exhibits, and social events. That's right—the meeting will end the evening of Wednesday, March 17.

Where

Henry B. González Convention Center
900 E. Market Street, San Antonio, TX 78205

When

Sunday, March 14, 2027, to
Wednesday, March 17, 2027

SOT
SAN ANTONIO, TX
66TH ANNUAL MEETING
& ToxExpo • March 14–17, 2027

SPONSORS 2025-2026

Krishan and Vicky Joshi Foundation

Michelle Hernandez

Teresa de Jesus Palacios-Hernández

Betina Lew

ENDOWMENT FUND SPONSORS

- Silvia Barros
- Burroughs Wellcome Fund
- Robert P Casillas
- Aline de Conti
- Linval R DePass
- Enrique Fuentes-Mattei
- Peter L Goering
- Michelle Hernandez
- Betina J Lew
- José E Manautou
- Johnson & Johnson on behalf of Betina Lew
- Lemus-Joshi Joint Revocable Living Trust
- Merck Partnership for Giving on behalf of Michelle Hernandez
- Merck Foundation on behalf of Michelle Hernandez
- Merck Sharp & Dohme
- Keity Miller in honor of Kelly Salinas
- Ofelia A Oliveira
- Patricia Ruiz
- Teresa Palacios-Hernández & Jose Francisco Delgado
- Bob Roth & Patty Ganey
- Kelly Salinas
- Mari S Stavanja
- TD Ameritrade

SISTER ORGANIZATIONS

Asociación Española de Toxicología	http://www.aetox.es/
Asociación Latinoamericana de Toxicología	http://www.alatox.org
Asociación Latinoamericana de Patología Toxicológica y Experimental	http://www.alapte.com/
Asociación Toxicológica Argentina	https://toxicologia.org.ar/
Asociación Venezolana de Toxicología Médica	https://www.facebook.com/groups/176740585757320/?ref=br
Center of Environmental and Toxicological Research-University of Puerto Rico.	https://rcm1.rcm.upr.edu/centerenvironmental/
Centro de Toxicología y Biomedicina de Santiago de Cuba - Universidad de Ciencias Médicas.	https://instituciones.sld.cu/toximed/
Escuela Académico-Profesional de Toxicología de la Universidad Nacional Mayor de San Marcos (Lima, Perú)	https://farmacia.unmsm.edu.pe/
PLAGBOL-Salud, Agricultura y Medio Ambiente	http://plagbol.org.bo/
Red Iberoamericana de Toxicología y Seguridad Química	http://www.ritsq.org/
Sociedade Brasileira de Toxicologia	http://www.sbtox.org
Sociedade Brasileira de Ecotoxicologia	https://ecotoxbrasil.org.br/
Sociedad Cubana de Toxicología	http://www.sld.cu/sitios/toxicologia/
Sociedad Mexicana de Toxicología	http://www.somtox.com.mx/
Sociedad de Toxicología de Chile	http://sotox.cl/
Society for Latin American Risk Analysis	https://www.sra.org/regional-organizations/sra-la/
Toxicología Acuática ambiental, medicina veterinaria - Universidad Nacional de Colombia	https://unal.edu.co/
Universidad de Cartagena - Colombia	https://www.unicartagena.edu.co/

If your Hispanic Organization is planning a Toxicology meeting or if you are organizing a Toxicology event intended for a primarily Hispanic audience and want to promote it in the upcoming *Toxenlaces* issues, send an email to Ana Juan-García, PhD (Councilor and ToxEnlaces Editor-in-Chief) at ana.juan@uv.es

ANNOUNCEMENT

HOT wants you to be part of the organization! To make it available to everyone, HOT accepts applications from **non-SOT members** to **become HOT members**. Yes, that is right! You only have to have the desire to collaborate with and be part of our great organization.

Your HOT membership provides you with valuable resources throughout your scientific career, as for networking through the largest Hispanic toxicologist community, giving you the opportunity for Travel Awards or serving as a mentor to the young Hispanic toxicologists; besides you receive the *Toxenlaces* newsletter!

Download the application by clicking on the following link: Non-SOT Member Application.

So, what are you waiting for? **We are looking forward to receiving your application today!**

Follow us on Facebook at: http://www.facebook.com/hispanicorganizationoftoxicologists

Don't forget to visit also the **SOT** Facebook page:

http://www.facebook.com/pages/Society-of-Toxicology-SOT/163627880427831?fref=ts

Toxenlaces is the newsletter that informs Hispanic toxicologists in the United States and the international Spanish and Portuguese-speaking scientific communities about important toxicological events and issues occurring in our countries. It is electronically published and distributed to our membership and Sister Organizations in Ibero-America. *Toxenlaces* disseminates critical dates for events, health perspectives and funding and training opportunities. It serves as a toxicology forum for our members and other partner organizations, engages in educational outreach to the Hispanic communities and provides the essential elements to support networking among Hispanic toxicologists. *Toxenlaces* is open to receive collaborations from HOT and SOT members and Sister Organizations. You can collaborate with short scientific articles, news or notes related with toxicology. Other ways to collaborate is by nominating your peers or yourself for the HOT Trainee Wall. For more information about collaborating with *Toxenlaces* send an email to Prof. Ana Juan-García, PhD (*Toxenlaces* Editor-in-chief 2026) at ana.juan@uv.es

The views expressed in this *Toxenlaces* issue do not necessarily represent those of the Hispanic Organization of Toxicologists (HOT) or Society of Toxicology (SOT).