TIME FOR OUR AWARD WINNERS!

HOT Awardees
HOT Trainee Wall
HOT Professional Tip
Dear HOT members,

On behalf of the HOT Executive Committee, I wish you a great New Year. I hope that 2022 is a year full of opportunities and achievements for all of you. Creativity, capacity to adapt and resiliency. I would say that we are all improving these abilities after almost 2 years of confronting the COVID-19 pandemic. We are a few weeks away from the 2022 SOT Annual Meeting, which will happen as an in-person meeting, but still allowing participants that cannot attend in-person to watch most of sessions remotely through livestreams. Most members of the HOT Executive Committee will not be able to attend in-person, mostly due to work-related travel restrictions. Thus, we had to be creative and adapt our traditional activities. Unfortunately, this year there will be no HOT Reception and Awards Ceremony or HOT Mentoring Activity during the 2022 SOT Annual Meeting. Instead, to celebrate our achievements and awardees, we will release a video that you will receive by email during the week of the conference. The traditional HOT Mentoring Activity will happen right after SOT. It will be a webinar with the theme: Conflict resolution skills in the workplace. More information about this activity will be released soon. Certainly, we are going to miss our friendly connection and environment, but let’s stay resilient and imagine how good it will be when we see each other next time.

I enjoy this opportunity to congratulate the 2022 HOT Travel Awardees. This year we had a significant number of applications from our community, all with high level of research. This is excellent. It is a reflection of competency and desire to grow professionally. Bravo! For the 2022 Awardees: we are proud of you! Specially, big congrats to our Distinguished Toxicologist Awardee, an example of dedication and compassion to our organization. I will keep the mystery until you reach pages 8-9 and learn about them. For those applicants that were not selected, we encourage you to re-apply again next year. We will do our best to support you.

We are delighted with the news that the HOT Past-President, Professor Silvia Berlanga de Moraes Barro, received the 2022 SOT Education Award. This is a well-deserved award. Dr. Barro has contributed to the global progress of toxicology and has made outstanding contributions to the teaching of toxicology students in Brazil and Latin America. Silvia, you rock! Learn more about her story on pages 5-7.

Thinking about the future, it is not too early to start thinking about the 2023 SOT Meeting. Did you know that the deadline to submit a session proposal is during May 2022? That is right, in less than 6 months. So, if you have an idea to develop a scientific or educational session and would like to have our input and support, please reach out to us and we will be happy to discuss it with you.

I would also like to draw your attention to our Fundraising Campaign. The HOT Endowment Fund Award (HOT Award Fund) few thousands short of the $50,000 threshold required for the fund to become a Permanently Restricted Net Asset Fund that will allow its continuation in perpetuity. This endowment fund will support awards for toxicologists from our community. Thus, it is critical that we reach the $50,000 threshold. We would like to request your kind contribution to help the fund reach this amount by June 30, 2022. This would allow the endowment to be used by the SOT meeting in 2023. Any amount helps and is greatly appreciated! Learn more about the HOT Award Fund on page 12. To donate online, please click here and select HOT Award Fund from the drop down.

And last but not least, don’t forget to use our organization as a tool to connect with your peers. Together, we can go further!

Aline de Conti
HOT President
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UNFORTUNATELY, THIS YEAR WE WILL NOT HAVE THE HOT ANNUAL AWARD CEREMONY AND RECEPTION...

...but don’t be sad! We will be sending a very special video during the week of the SOT meeting, covering our 2022 Awardees, Fundraising Campaign and all our 2021-2022 accomplishments... You cannot miss it!

...and stay tuned for more information on our upcoming online activities: a webinar on USA immigration and VISA challenges and a mentoring activity on conflict resolution in the workplace!

Follow us on Facebook for the latest news and events!
HOT IS VERY PROUD TO ANNOUNCE

SILVIA BERLANGA DE MORAES BARROS

as the winner of 2022 SOT Education Award

Dr. Barros is the first Latin American woman to win this award! Our community would like to congratulate for her distinguished work by teaching and training toxicologists all around the world. Thank you so much, Dr. Barros!

You may see a special interview in the next pages to know more about her career in the toxicology field. Enjoy!
SOT Education Award
Silvia Berlanga de Moraes Barros, PharmD, PhD
University of São Paulo – School of Pharmaceutical Sciences, São Paulo, Brazil

INTERVIEW TO SILVIA BERLANGA DE MORAES BARROS

1. What does it mean to you to receive the SOT Education Award? How important is this award in your career and in your personal life?

After 47 years as a professor at the Faculty of Pharmaceutical Sciences at the University of São Paulo, receiving this award from SOT meant the recognition of a life dedicated to the University, to Toxicology, to the students and to what Toxicology represents for the society. For me, it gives me great satisfaction to be the first Latin American and Brazilian to receive this prestigious award.

2. We know that you are the first Latin American woman to win this award. How do you intend to represent and support minorities by receiving this important award?

Being the first Latin American to obtain this recognition from the SOT, which is a Scientific Society US based with an international outreach in the Toxicology promotion, brings me an even greater responsibility. This responsibility involves showing our Iberoamerican colleagues that we can be internationally competitive in our field of expertise. Supporting young people who want to build a career in toxicology, as well as those looking to increase their knowledge, is a goal I will never stop pursuing. I hope that this award serves as an inspiration to the young generation of toxicologists.

3. How was it like for you to educate, inspire and support young toxicologists in such difficult pandemic years? Tell us about how you managed to reach young scientists, even with limited resources.

All of us experienced very difficult times. The physical distance forced me to learn how to use digital communications, which in a way greatly favored the contact with students. I would say that it would have been impossible to survive without it. In addition, I was able to participate in some international remote seminars and lectures that I hope have made students aware of the Toxicology career.

4. What skills did you develop and stood out in the field of toxicology education that led to you receiving the SOT Education Award? And how do you intend to continue engaging scientists to develop a career in toxicology in the future?

My career in Toxicology was inspired by one of my teachers Prof. Ester de Camargo Fonseca Moraes, one of the most important toxicologists of her generation. Since my undergraduate course she made me see how important is Toxicology, so after completing the Pharmacy course I opted for the Master's and Doctorate in Toxicology. And it was with this spirit that I continued my training, developing lines of research in experimental toxicology, participating in events in the area, and always studying. Studying is what I have learned from my mentors. Never leave a question unanswered.

Also my activities in the organization of national and international meetings, workshops, like the Latin America Risk Assement Workshop, showed me the importance of providing the means for the constant improvement of our colleagues and especially the new generations.

At this point in my career I believe that my contribution can be mainly by mentoring the new generation and showing the paths (which may not be easy) for those who became passionate with Toxicology, as I was and continue to be.
5. What are the most significant challenges facing the field of education in toxicology in Latin America?

The importance of Toxicology as a professional career in Latin American countries is not yet fully consolidated. Toxicology has several specializations and each of them has its own characteristics and requires specific knowledge and skills.

One of the challenges is to make Toxicology a subject of study in different professions like medicine, chemistry, environmental health, engineering, among others; introducing the basic knowledge that allows professionals to understand the importance of the safe and responsible use of chemical substances. For sure, mainly in developing countries, there is a need to create positions for toxicologists in their different areas of expertise.

6. How your participation within HOT contributed for your career and to achieve this award?

HOT was one of the positive turning points of my career in Toxicology. I met HOT during a SOT meeting even before its official foundation. I could understand the importance of this group in valuing minorities, and how joint and solidary efforts can boost promising careers. I have met committed people who showed me the importance of volunteer work for the common good. Having participated in the HOT structure for a few years was a rewarding activity. Undoubtedly, HOT was fundamental for the conquest of this award that I share with everyone who have supported me.

You may find more information about Dr. Barros and 2022 SOT Education Award at:

SOT Awardee
2022 SOT Translational Impact Award

TOMÁS R. GUILARTE
2018 HOT Distinguished Toxicologist

Dr. Guilarte has received the 2022 SOT Translational Impact Award in recognition of his translational work involving the role of the translocator protein 18 kDa (TSPO) as a biomarker of neuroinflammation and brain injury caused by neurotoxicants and for his study of neurodegenerative disorders.

HOT Past Presidents Elected for SOT Officers

BETINA LEW
HOT Past President 2013-2014
Elected as SOT Councilor

ENRIQUE FUENTES-MATTEI
HOT Past President 2020-2021
Elected for SOT Awards Committee
Amanda Armijo, DVM, Ph.D.
Postdoctoral Fellow
Massachusetts Institute of Technology
Abstract: "Mutational spectra of N-nitrosodimethylamine in mice reflect mutational patterns in human cancers and in cells treated with SN1 alkylating agents"

Brianna Nichole Rivera
Ph.D. Student
Oregon State University
Abstract: “A Novel Framework to Form Sufficiently Similar Mixtures”

Gisselle Soberanes Rodriguez
Undergraduate student
Arizona State University
Abstract: “Toxic Effects of Cosmetic Products through Epigenetic Reprogramming of Dermal Stem Cells”

Valerie Pihen
Ph.D. Student – International
Universidad de las Americas Puebla, Puebla, Mexico
Abstract: “Toxicity Reduction of Phenolic Compounds in Water Systems by Yeasts”
Gut microbiome and inflammation
how it is related to obesity

B Y  C A N D A C E  L O N G O R I A

My name is Candace Longoria and I am a fourth-year PhD candidate in the Kinesiology and Applied Physiology program within the department of Kinesiology and Health at Rutgers, The State University of New Jersey. I have two research interests: the first is studying the gut microbiome-brown adipose tissue axis using a knockout mouse model; the second is exploring the effects of the chemical 4-vinylcyclohexene diepoxide and high omega-6 fatty acid diets on gut inflammation and goblet cell numbers in a chemically induced menopausal mouse model.
What is going on?

The contemporary pandemic of obesity is devastating in size, breadth, and rate of growth. Over 1 billion adults are either overweight (BMI >25) or obese (BMI>30) [1]. Public health studies have linked environmental toxins to obesity, as exposure may alter adipocyte differentiation and energy storage in white adipose tissue (WAT) [2]. Alternately, brown adipose tissue (BAT), which burns energy for thermogenesis and thereby increases energy expenditure, has become a target of anti-obesity therapies [3]. Evidence has identified BAT and the gut microbiome as major mechanisms of energy metabolism regulation [4-8].

Recent findings from our laboratory and my research using the Regulator of G Protein Signaling 14 knockout (RGS14 KO) mouse model reveals a distinct mechanism by which BAT mediates the RGS14 KO phenotypes of healthy aging and reduced body weight [9]. We have also shown that the RGS14 KO mouse model possesses more BAT per body weight compared to their wild-type (WT) littermates.

My current research continues to explore the RGS14 KO mouse as a novel model to study the gut microbiome-BAT axis, its bidirectional communication, and how it relates to improved metabolic health. I am also investigating how sex differences may be involved in this gut microbiome-BAT relationship, as our laboratory has also explored sex differences in the gut microbiome and inflammation [10]. Current experiments utilize an antibiotic cocktail to ablate the gut microbiota and study the phenotypic responses from WT and RGS14 KO male and female mice. Our data suggests that RGS14KO mice are an ideal drug development model for studying the link between the gut microbiota and BAT.

Candace Longoria, M.Sc.
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References
SUPPORT HOT AWARD FUND

We are currently striving to achieve the $50,000 threshold required for the fund to reach Permanently Restricted Net Asset Fund, by June 30, 2022.

Your donation to the Endowment Fund and thus, support of students and postdocs is greatly appreciated.

Please, know that no donation is too small and that all contributions make a difference. Together we can accomplish our goal!

To donate online, please click here and select HOT Award Fund from the drop down.

Our HOT Award Fund will provide financial awards to domestic or international Iberoamerican (countries of Latin-American, Spain, and Portugal) students (undergraduate, graduate students), and/or postdoctoral fellows whose studies and/or research interests are in the toxicological sciences. These awards will support their development through various educational and scientific activities, including attendance at international scientific meetings, symposiums, workshops, courses, internships, etc.
Hello folks! Hope you are doing well and safe. Happy 2022!

I am very happy to bring you again the Professional Tip. The one I have prepared for you is very exciting and is related to conference attendance. I decided to revisit this topic because this year we will finally have the SOT Annual Meeting in both in-person and virtual modalities! This is wonderful news for all of us and I am sure that you want to be prepared to enjoy and take advantage of all the resources available if you will be there in-person. However, if you are attending virtually, no worries! You can also have a very productive meeting by using the best strategies to interact online with colleagues/presenters/vendors.
In our Toxenlaces newsletter, issue #56 (December 2018-January 2019), I presented tips and strategies for people attending a conference for the first time. The tips I proposed for all of you are still valid for a conference like SOT Annual Meeting & ToxExpo 2022. However, I would like to expand these tips and include additional ones related to strategies for attending virtual conferences. With that being said, the following tips and strategies will ensure a successful conference for both in-person and virtual modalities:

1. Visit the website from the conference organizers and take a look at the program to know more about the speakers that are presenting and that you are interested in. It would be nice if you read some of their papers to get more information about them, but also try to identify if they have a poster/platform session where you can talk directly to them and learn more about their research.

2. Prioritize the sessions you are going to attend. I am sure that you would like to list as many as possible, however sometimes they can overlap. In these cases, make a list with the names of the speakers or abstracts you are interested in and make an effort get in touch with them by e-mail if you miss their talk or poster session. Be sure to block your calendar with the sessions you really wish to attend.

3. If you are planning to attend a conference in-person, it is a good time to start practicing your elevator speech. You don’t know if you are going to share it with the speaker that you listened to the previous day, or maybe with a Nobel Prize recipient! It would be nice to start with some general questions about their work. Also, if someone wants to know more about your research topic or your affiliation, be prepared to have in mind something easy to remember by you, and by them.

4. Whether you are attending in person or virtually: ask questions! You don’t want to miss something important that might be helpful to learn more about the topic. Just don’t be shy and do it! The in-person modality is the best because you can directly interact with the speaker, but if you are attending virtually, take advantage of the chat options to ask questions. You can send your questions to the speakers and later contact them by e-mail, just introducing yourself and saying, “I attended your talk and made the question related to x, y and z”. They will most likely remember you and will be interested in responding, since you were interested in their research!

5. Try to attend the social events organized by the different groups or companies participating in the conference, even if you are attending virtually. This is a great way to build new contacts and meet potential collaborators. Don’t forget to prepare cards with your information and ask for theirs if you are attending in person. If you are online, take advantage of chat options on websites and start with a big “Hi! May I ask you something?”.

6. The most important: Enjoy the experience and learn as much as you can! Regardless of the modality of your attendance, try to do your best of learning new things and establishing a network with nice and interesting colleagues.

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Teresa Palacios-Hernández
HOT Vice President

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Disclaimer: The views expressed in this article by the authors are personal and do not necessarily represent the official views of their respective organizations.
The program accepts mentor applications on an ongoing basis. Mentees applications will open February 15-June 15.

*The Toxicology Mentoring and Skills Development Training program is funded by the National Institute of Health (NIH).
# SPONSORS & SISTER ORGANIZATIONS

## Sponsors

### Ofelia A. Olivero

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### Michelle Hernandez

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### Krishan & Vicky Joshi Foundation

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## Sister Organizations

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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 in the upcoming *Toxenlaces* issues, send an email to Alexandra Maria Moita Antunes (Councilor for Sister Organizations) at alexandra.antunes@tecnico.ulisboa.pt.
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 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:


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 Julia Rezende da Silva (Toxenlaces Editor) at juliaerezende@usp.br.

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