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Editors:
Tarana Arman (Chair)
Rashmi Pathak
Jaya Chilakapati
Durgesh K. Dwivedi
Dear ASIO Members,

Happy 2020 to all of you! The 59th SOT Annual Meeting in Anaheim is next month and the ASIO Executive Committee (EC) is looking forward to seeing many of our members at this year’s meeting. On behalf of the ASIO EC, I cordially invite you to the ASIO Reception on Monday March 16th from 7 pm to 9.30 pm at the Anaheim Marriott, Marquis Ballroom Northwest. Please plan to attend and enjoy the food while networking with fellow ASIO members. You will also have the opportunity to meet the current and the newly elected ASIO EC officers and provide suggestions to further strengthen ASIO and/or volunteer and get engaged with ASIO activities.

In addition to the ASIO Reception at the SOT meeting, we have two events focused on mentoring for ASIO members. Talk with Toxperts on Monday March 16th from 4.45 pm to 5.45 pm at the Anaheim Marriott, Marquis Ballroom Northwest. The “Talk with Toxperts” mentoring program is a platform to provide an hour to chat with experts in toxicology. “Talk with Toxperts” features a panel discussion with professionals from sectors such as government, academia, and industry to discuss topics that would benefit ASIO members at large. I would like to thank the SOT Education and Career Development Committee (ECDC) for awarding us Mentoring Initiative Matching Funds for this event.

ASIO will also have another mentoring event “Coffee Hour” during the 2020 SOT meeting for students and postdocs, which is a less formal and more convenient way to network with experts in their fields by meeting over coffee. Mentors and mentees will be matched by ASIO EC Committee members according to similarities in research interests and career aspirations. Mentors will be provided with questions or topics of mentees’ interests. If you wish to be a mentor or a mentee, please reach out to ASIO Student Representative, Tarana Arman.

The important event during the reception would be the awards presentation, like every year we plan to give student (graduate and postdoctoral) awards, young professional and senior toxicologist awards as well as international travel awards.

I am also proud of the fact that we are one of the SIGs who give many awards to accommodate the diverse range of ASIO members. I want to thank Ashwini Phadnis-Moghe (Chair) and Vijayavel Kannappan (Co-Chair) and all the ASIO volunteers on the ASIO Awards Committee for doing an amazing job. I also want to thank the endowment sponsors and all the ASIO members for their contributions to maintain these endowments and supporting the ASIO general budget.

This year we plan to do a series of scientific as well as professional development webinars. The first ASIO webinar on “Staying focused on your career - Challenges and solutions for the early and mid-career toxicologist” on March 6th, 2020. Many thanks in advance to Dr. Ashwini Phadnis-Moghe for leading this effort and speakers Drs. Satheesh Anand and Brinda Mahadevan. If you have interest in being a speaker or have a suggestion on a topic for the webinar, please reach out to ASIO Secretary, Vishakha Bhave.

Finally, it’s never too late to start thinking about proposals for the 2021 SOT Annual Meeting (details below in the newsletter).

In closing, I would like to thank the entire ASIO membership for giving me an opportunity to serve as your President. It has been a privilege and honor to work with an amazing and dedicated EC team. Thanks to Ashley Black from SOT for her timely assistance with ASIO activities. Many thanks to all the volunteers who served on the various ASIO committees throughout the year. Serving as ASIO President has been an exciting and rewarding experience for me. Thank you for your continued support and interest in ASIO and I look forward to seeing all of you at ASIO reception and events at the SOT meeting in Anaheim!

Warm Regards,
Sharmilee P. Sawant, PhD, DABT, RAC
President, ASIO-SIG

Avanos Medical
“Individually we are one drop. Together, we are an ocean.” ~Ryunosuke Satorio

## 2019-2020 ASIO Officers

### President
Sharmilee Sawant, PhD, DABT, RAC
Avanos Medical Inc

### Vice President
Vijay P. Kale, PhD, DABT, ERT
Amgen Inc.

### Vice President-Elect
Jaya Chilakapati, PhD, DABT
Boehringer-Ingelheim Animal Health

### Past President
Udayan Apte, PhD, DABT
University of Kansas Medical Center

### Treasurer/Secretary
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PCOM Georgia, School of Pharmacy

### Sr. Councilor
Ashwini Phadnis-Moghe, PhD
Covance Laboratories

### Councilor
Vijay Kannapan, PhD, ERT
Georgia Pacific LLC

### Postdoc Representative
Rashmi Pathak, PhD
University of Pittsburgh

### Student Representative
Tarana Arman
Washington State University
Dr. K.S. Rao
Scientist
Eurofins Advinus Limited
ks.rao@advinus.com

Dr. K.S. Rao (MVSc, PhD, DABT), is a Board-Certified Toxicologist with more than 40 + years of global experience in safety evaluation. He started his career in 1971 at G.D. Searle and later moved to Dow Chemical and Quintiles, USA. After returning to India, he was heading M/s Jai Research Foundation, Gujarat and Head of Toxicology at, M/s Advinus Therapeutics and M/s Syngene International, Bangalore. He is an international expert in the toxicological assessment of Agrochemicals, Industrial Chemicals (REACH), Drug Development (small and large molecules) from Discovery Toxicology to IND and NDA filing, Food Additives, Nutraceuticals, Vaccines, Medical Devices and Cosmetic Ingredients. Dr. Rao has been providing guidance on product development to hundreds of companies across the world with major emphasis on testing schemes/strategies and Risk Assessment. He is an Emeritus Member of the Society of Toxicology (SOT) in USA. The first Indian Toxicologist, appointed for this status for being a member of the SOT for 40 years. Dr. Rao is the recipient of the Life Time Achievement award from the Society of Toxicology of India (STOX) for his outstanding contributions in Toxicology. He is instrumental in getting the Diplomate of American Board of Toxicology (DABT) examination to India since 2009. In the last 8 years, 90 candidates have passed the DABT examination from India. Dr. Rao has published and presented papers in international journals and conferences. He is the principal author of more than 500 safety evaluation study reports of various new compounds marketed or to be marketed. These reports are submitted to regulatory authorities of several countries including FDA & EPA (U.S.A), EMA, Japanese Health and Indian Regulatory Authorities.
ToxGurukul Activities in India
K.S. Rao, MVSc, PhD, DABT, Emeritus Member of SOT
Vice President, SME – Safety Assessment
Eurofins Advinus Limited, Bangalore, India
toxrao@gmail.com  +91-733-783-0074

Feb 2020 Newsletter

Dr. K.S. Rao (KS), after having worked for 40-years in US, came to India in 2006 at the request of the CEO of Advinus to uplift the toxicology facility and the toxicological base in India. After having seen the immense scientific competence in India, KS negotiated with the American Board of Toxicology to conduct the DABT exam in India, for which they agreed. Since 2009, India is one of the DABT centers, which resulted in close to 100 people passing the exam from India which has vastly increased the talent pool of toxicology in India. There is no formal toxicology education in India, as a result most people employed in toxicology come from general sciences, pharmacy, biotechnology or veterinary science. In order to inculcate a structured and fundamental knowledge base in Toxicology, KS has formed the ToxGurukul Foundation (www.toxgurukul.org) in India. The mission of ToxGurukul is to foster and nurture toxicologists for the enrichment of human health and a better world. ToxGurukul is a registered non-profit organization for professionals working in the field of toxicology who are in search of a platform to learn and share the vast knowledge in this area. This syndicate belongs to independent professionals from different backgrounds of toxicology who share their knowledge to un-puzzle the Rubik’s cube that each face in their daily work routine.

Scope of ToxGurukul
- To conduct training programs in the field of toxicology
- To act as a platform for scientists who are working in different areas of toxicology
- To support/motivate toxicology community by awards and appreciation
- To act as a link between international and Indian toxicology community
- To promote publications related to toxicology
- To solve puzzles in Toxicology
- To support regulatory authorities to upgrade the existing guidelines or building new by giving valuable comments
- To act as a risk assessor and public adviser in case of any chemical hazard noted in public

- To develop the new generation leaders to catalyze the future of Toxicology in India
- To enhance the knowledge and skills of Indian toxicologists to meet international standards.
- To support the toxicologists to upgrade themselves to the current trends to meet the future requirements of the market
- To guide the young toxicologists to design their career
- To act as a link between CROs across India
- To enhance ethics, scientific integrity in the field of toxicology testing and animal welfare
- To motivate toxicologists to learn and teach

In addition, KS writes a monthly toxicology newsletter (https://toxgurukul.org/libraryon) on variety of topics to impart toxicological knowledge to Indian toxicologists. This newsletter is distributed to over 2000 scientists across the globe. As of now, over 100 newsletters have been distributed which has enhanced and broadened the spectrum of toxicology knowledge among Indian scientists. KS continues to give live lectures (on average two to three times a month) on toxicology at various national and international meetings in India, academic institutes and to employees in private industry who has increased their awareness in the science of toxicology. This type of intensive education in toxicology has resulted in numerous candidates migrating from India to US for postgraduate studies in US and Europe.
We cordially invite you to our Annual

**ASIO-SIG Business Meeting & Reception**

**Date:** March 16\(^{th}\), 2020 (Monday)
**Time:** 7:00 PM – 9:30 PM
**Venue:** Marquis Ballroom Northwest, Anaheim Marriott

**Reception forecast:**

- Network and bond with fellow toxicologists, students, postdocs, and friends
- Congratulate the award recipients
- Acknowledge the support of our donors and sponsors
- Enjoy delicious food
ASIO Professional Development

Feb 2020 Newsletter

“Career Talk with Toxperts”

An ASIO Career Resource and Development Event for Graduate students, Postdocs and Early Career Professionals. Meet, network, and learn from the experts in toxicology!

Virunya Bhat, Ph.D., DABT
Senior Scientist
Mechanistic and Computational Biology
ToxStrategies

Sudin Bhattacharya, Ph.D.
Assistant Professor
Dept. of Biomedical Engineering and
Pharmacology & Toxicology
Michigan State University

Sabitha Papineni, Ph.D.
Global Senior Regulatory Toxicologist
Corteva AgriScience™

Theme: Effective Communication
Venue: Anaheim Marriott, Room: Marquis Ballroom Northwest
Time: Monday, March 16, 2020; 4:45 PM-5:45PM PST

Please send your questions for mentors in advance to Rashmi Pathak (rpathak1@lsu.edu).

We thank the SOT Education and Career Development Committee (ECDC) for awarding us Mentoring Initiative Matching Funds for this event.

ASIO offers “Coffee Hour” to students. It is a less formal and more convenient way to have a ‘one-on-one’/’group’ networking session with experts in their fields.

For last minute RSVPs or additional information please contact: Tarana Arman (tarana.arman@wsu.edu)
Single Cell Technologies: A Potentially Transformative Tool for Toxicology

By: Sudin Bhattacharya, Michigan State University and Justin Colacino, University of Michigan

Date: March 18th, 2020 (Wednesday)
Time: 8:00 AM – 10:45 AM
Venue: CC Ballroom C

Single cell genomics and epigenomics have been among the breakthrough biological technologies of the last few years. These methods provide detailed views of living systems at unprecedented resolution and bypass the problems associated with averaging over heterogeneous cellular responses in bulk assays. Some spectacular successes of single cell RNA sequencing (scRNA-seq) include cell-by-cell reconstruction of transcriptomic atlases of xenopus and zebrafish embryos, along with ambitious undertakings like the Human Cell Atlas to map the transcriptomes of all cell types in the human body. This timely and topical Symposium will provide an overview of the capacities and limitations of current single cell technologies and describe cutting-edge applications of single cell methods in detecting perturbations in cellular state in health and disease, including identification of rare and altered cell types. The presenters will explore the role of single cell transcriptomic profiling in revealing phenotypic heterogeneity among breast cancer stem cells, mapping alterations in the developmental trajectory of early germ cells subject to environmental insult, discovery of a novel subpopulation of alveolar macrophages in an animal model of asbestos-induced pulmonary fibrosis, and identification of an altered effector CD8 T lymphocyte population in smokers. Overall, the presentations in this Symposium will introduce the field of single cell ‘omics

Call for Proposals for the 60th SOT Annual Meeting

ASIO encourages everyone to submit session proposals for the 2021 SOT Annual Meeting in Orlando, Florida. All topics welcome.

Please contact:
Dr. Jaya Chilakapati (Jaya.Chilakapti@Boehringer-Ingelheim.com)
ASIO SIG and ECDC Webinar

*Staying Focused On Your Career: Challenges And Solutions For The Early And Mid-career Toxicologist*

**Date:** March 6th, 2020 (Friday)

**Time:** 11:00 AM EST (New York, GMT-05:00)

**Registration link:**
https://aim-hq.webex.com/aim-hq/onstage/g.php?MTID=e87f8e809f5d4a5ea48e3eebf93017a62

**Presenters**

- **Dr. Brinda Mahadevan**, Director of Global Preclinical Development at Abbott Healthcare, India
- **Dr. S. Satheesh Anand**, Principal Scientist, Drug Safety at Boehringer Ingelheim (Animal Health), GA, USA

**Moderators**

- **Dr. Ashwini Phadnis-Moghe**, Study Director and Contributing Scientist, Covance Laboratories
- **Dr. Agnes Karmaus**, Senior Toxicologist at ILS
ASIO welcomes!!!

Looking forward to working with the ASIO EC team through all the process and proceedings.

Dr. Adhithiya Charli, PhD
Councilor

Dr. Saurabh Vispute, PhD, DABT
Vice President-Elect

Dr. Rashmi Pathak, PhD
Postdoc representative (re-elected)

The new EC members for the year 2020-21

I’m honored and excited about this opportunity to serve the ASIO membership.

“Every moment is a fresh beginning. “ ~T.S. Eliot
ASIO congratulates

Feb 2020 Newsletter

Dharmin Rokad, PhD
Iowa State University
- Defended Ph.D. thesis on February 14, 2020
- Received graduate student travel grant for American College of Toxicology meeting 2019.
- Received international travel reimbursement award from the College of Veterinary Medicine, Iowa State University.

Swetha Inturi, PhD, DABT
SK Life Science, Inc.
- Passed the ABT certification exam to earn the DABT certification.

Vivek Lawana, PhD
American Preclinical Services
- Published postdoctoral work as; Vivek Lawana, et. al., Toxicological Sciences, Volume 173, Issue 1, January 2020. (doi-10.1093/toxsci/kfz210)
- Finished postdoctoral training at Purdue University.
- Started working as Study Director/Scientist and Toxicology at American Preclinical Service, Minneapolis, MN.

Avinash Kumar, PhD
University of Pittsburgh
- Selected as a finalist for the Gabriel L. Plaa Education Award 2020 from Society of Toxicology.
- Published an article as Avinash Kumar et. al., Nutrition and Metabolism, volume 17, January 2020. (doi-10.1186/s12986-019-0422-z)

Saurabh G. Vispute, PhD, DABT
Pfizer
- Diplomate of American Board of Toxicology Certification
- Invited speaker at several undergraduate and graduate schools in Mumbai, Nashik, and Aurangabad in Maharashtra, India
- International ToxScholar visit focused on toxicology education and outreach for biology, biotechnology and pharmacy students
- Invited speaker at Bridgewater State University, MA
- Domestic ToxScholar visit for toxicology outreach
To succeed in life and achieve results, you must understand and master three mighty forces—desire, belief, and expectation. “ ~A.P.J. Abdul Kalam

## ASIO congratulates

### Sudin Bhattacharya, PhD
Michigan State University

- Corresponding author in the research article published in Archives of Toxicology, Volume 94 January 2020. ([doi-10.1007/s00204-019-02620-5](https://doi.org/10.1007/s00204-019-02620-5))
- Invited seminar: Computational Mapping and Modeling of Tissue-specific Toxicity Pathways, NYU Langone Medical Center, NY.

### Vikas Kumar, PhD
Chartwell Pharmaceuticals
Congers, NY

- Won the Treasurer position in the recent Mid-Atlantic Society of Toxicology (MASOT) election. Term will begin on May 1, 2020.

### Ashish Dwivedi, PhD
CSIR-IITR, Lucknow, India

- Joined as Scientist in Food, Drug & Chemical Toxicology Group, CSIR-IITR, Lucknow, India.

### Isha Mhatre, MS
Kent State University

- Published a paper as co-author in the journal Pharmacology & Therapeutics. July 2019. ([doi-10.1016/j.pharmthera.2019.03.005](https://doi.org/10.1016/j.pharmthera.2019.03.005))

### Durgesh K. Dwivedi, PhD (Ongoing)
NIPER, Punjab, India

- Received International Travel Grant from the SERB-DST, Government of India to attend the SOT 2020 meeting.

### Bhaja Krushna Padhi, PhD
Environmental Health Science and Research Bureau, HEALTH CANADA

- DABT, re-certification
“Optimism is the faith that leads to achievement. Nothing can be done without hope and confidence.” ~Hellen Keller

ASIO congratulates

Feb 2020 Newsletter

Abhishek Kumar, PhD (Pursuing) University of Allahabad
- Published his first author manuscript as Abhishek Kumar et. al., in Biological Trace Element Research Journal in Jan 2020. (doi-10.1007/s12011-019-01957-3)

Vijay P. Kale, PhD, DABT, ERT Amgen Inc.
- Published his first author manuscript as Vijay P. Kale et. al., in Regulatory Toxicology and Pharmacology Journal in Dec 2019 (doi-10.1016/j.yrtph.2019.104483)
- Joined Amgen Inc (South San Francisco) as a Project Toxicologist in its Translational Safety and Bioanalytical Sciences division.

Tarana Arman, PhD (ongoing) Washington State University
- Published her first author manuscript as Tarana Arman et. al., in the MDPI journal ‘Toxins’ July 2019. (doi: 10.3390/toxins11070398)
- Awarded the Best Platform Presentation award at the Pacific Northwest Association of Toxicologists (PANWAT) conference, a regional chapter of SOT.

Rashmi Pathak, PhD Louisiana State University
- Published an article as co-author in the journal Nutrition and Metabolism, volume 17, January 2020. (doi-10.1186/s12986-019-0422-z)
- Accepted new job offer as Postdoctoral Researcher in Louisiana State University.

Prathyusha Bagam, MS Southern university & A& M College
- Received 1880 Southern university Foundation Scholarship.
ASIO congratulates

Feb 2020 Newsletter

Gopala Krishna, PhD, MBA
PAREXEL International

- PAREXEL Global Leader: Community of Interest-Nonclinical (Col-N): Responsible for leading the harmonization of nonclinical expertise across PAREXEL global organization so that quality product is delivered to the clients and to the health authorities
- Invited speaker - 107th Indian Science Congress in Bangalore, India
- Given two talks related to drug development and toxicology and healthcare. Written book chapters related to Alternative models and biomarkers in toxicology
- Presented posters on regulatory considerations and issue resolution in drug development at scientific meetings.

Smita Salian-Mehta, PhD, DABT
AbbVie

- Awarded the 2019 International Consortium for Innovation and Quality in Pharmaceutical Development (IQ) recognition Award in the 3Rs Translational and Predictive Sciences category.

Nivedita Banerjee, PhD
University of Texas Medical Branch Galveston

- Acceptance of her first author manuscript as Nivedita Banerjee et. al., in Toxicological Sciences.

Udayan Apte, PhD, DABT
University of Kansas Medical Center

- Dr. Apte's NIH grant (R01DK98414) titled 'Mechanisms of Liver Regeneration After Acetaminophen-induced Acute Liver Failure" was renewed for another cycle.
- Dr. Apte has started a collaboration with Dr. Satyajeet Khare, Assistant Professor at the Symbiosis School of Biological Sciences (SSBS) in Pune India. Dr. Khare is a bioinformatician and transcription factor researcher. Dr. Apte visited SSBS in December 2019 and gave a talk on the collaborative research on polycystic liver disease.

“Who you are tomorrow begins with what you do today. “ ~ Tim Fargo
“To speak gratitude is courteous and pleasant, to enact gratitude is generous and noble, but to live gratitude is to touch heaven.“ ~Johannes Gaertner

# ASIO Thanks All the Volunteers!!!

## Feb 2020 Newsletter

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<td>Jaya Chilakapati</td>
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ASIO is deeply grateful to generous donors!

Priyanka Trivedi, PhD
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Sr. Toxicologist
L Brands

Sharmilee P. Sawant, PhD
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