FEBRUARY 2-6
INNOVATION
AND APPLICATION

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SLAS2019 CONFERENCE PREVIEW

SHORT COURSES: FEBRUARY 2-3 | CONFERENCE: FEBRUARY 2-6 | EXHIBITION: FEBRUARY 4-6

REGISTER EARLY:
Advance discounts available through December 17.

#SLAS2019
SLAS provides valuable educational experiences to life sciences professionals working at the intersection of applied and basic scientific research. Helping innovative researchers and engineers pioneer new scientific horizons by leveraging the power of technology has been a hallmark of the Society since its inception.

**STAY AHEAD OF THE CURVE BY ATTENDING SLAS2019!**

**HEAR** lessons learned and best practices from the world’s leading life sciences researchers, including speakers from Genentech, Harvard, MilliporeSigma, NIH, Stanford and leading disease non-profits.

**SEE** the latest tools and technologies from more than 300 providers participating in the SLAS2019 Exhibition.

**CULTIVATE** an expansive peer network that can be consulted year-round to provide insight, answers and feedback to your specific challenges.

**BUILD** your knowledge through an array of peer-selected technical presentations, workshops, Short Courses and scientific posters.

**ENHANCE** your career trajectory with education and mentoring opportunities offered in SLAS Career Connections.

**SLAS2019 Conference Chairs:**
John Doench, Ph.D., *Broad Institute*
Anton Simeonov, Ph.D., *National Center for Advancing Translational Sciences (NCATS)/NIH*
WHAT’S ON TAP AT SLAS2019

SHORT COURSES

Attend our pre-conference Short Courses, designed for in-depth instruction on topics, issues and techniques critical to the laboratory science and technology community. This year’s lineup includes laboratory skills like gene editing and assay development, exploration into data culture with the Internet of Things (IoT) and cloud data management, 3D printing, the always-popular Introduction to Laboratory Automation and practical, “hands-on” demonstrations of lab equipment.

NEW for 2019 is the Discovering Your Value Proposition Workshop: a half-day Short Course designed to help entrepreneurs, project managers and small-business leaders define the tools needed to help validate their start-up and vet their new product ideas while also helping to build and clarify the customer value proposition.

Short Courses require an additional registration fee and include course materials. See the complete list of Short Courses on pages 6-7 and detailed information at SLAS2019.org.

SLAS IGNITE COLLABORATION PRESENTATIONS

SLAS Ignite Collaboration Presentations bring scientific innovation and collaboration together in one shared space. Through this unique opportunity, academic researchers can bring their projects to the attention of their industry counterparts with the mission of fostering and formalizing research partnerships between the two. The result is new research, innovative breakthroughs and commercialization opportunities for all involved.

KEYNOTE PRESENTERS

Teresa K. Woodruff, Ph.D. | Northwestern University | Monday, February 4
As the Dean and Associate Provost for Graduate Education in The Graduate School at Northwestern University, Dr. Woodruff wears many hats. Along with serving as the Vice Chair for Research and the Chief of the Division of Reproductive Science in Medicine in the Department of Obstetrics and Gynecology, Feinberg School of Medicine, she is also a Professor of Obstetrics & Gynecology, Molecular Biosciences and Biomedical Engineering. Join Dr. Woodruff for her opening keynote based on her current exploration of the mystery of fertility, an evaluation of how research is conducted and what it can yield to fulfill urgent and unmet needs.

Eran Segal, Ph.D. | Weizmann Institute of Science | Wednesday, February 6
A professor in the Department of Computer Science and Applied Mathematics at the Weizmann Institute of Science, Dr. Segal heads a lab with a multi-disciplinary team of computational biologists and experimental scientists in computational and systems biology with extensive experience in machine learning, computational biology, probabilistic models and analysis of heterogeneous high-throughput genomic data. Join Dr. Segal for the closing keynote focusing on how his team is developing personalized nutrition and medicine through nutrition, genetics, microbiome and gene regulation.
SCIENTIFIC PROGRAM

2 keynotes | 10 educational tracks | 22 short courses | Hundreds of posters

1. ADVANCES IN BIOANALYTICS AND BIOMARKERS
Track Chairs: Shaun McLoughlin, Ph.D., AbbVie (USA), and Andreas Luippold, Ph.D., Boehringer Ingelheim (Germany)
   - Label-Free Bioanalytical Techniques In Drug Discovery
     Session Chair: Daniel Bischoff, Ph.D., Boehringer Ingelheim (Germany)
   - Biomarker Discovery in Disease Relevant in vitro and Related in vivo Models
     Session Chair: Martin Giera, Ph.D., Leiden University Medical Center (Netherlands)
   - Target and Mechanism Identification After Phenotypic Screens
     Session Chair: Jonathan Lee, PDD4Patients LLC (USA)

2. ASSAY DEVELOPMENT AND SCREENING
Track Chairs: Ralph Garippa, Ph.D., Memorial Sloan Kettering Cancer Center (USA) and Deb Nguyen, Ph.D., Cellular Approaches, Inc. (USA)
   - Advanced Imaging-based Assays and Phenotypic Profiling
     Session Chair: Shannon Mumenthaler, Ph.D., University of Southern California (USA)
   - Biochemical, Biophysical, and Label-Free Technologies
     Session Chair: Bruce Koch, Ph.D., Stanford University (USA)
   - Advanced in vitro Culture Systems Including Stem Cell-based Screening Technologies
     Session Chair: Cassiano Carromeu, Ph.D., Stemonix (USA)
   - Higher Dimension 4D, 3D, and Complex Multicellular Cell-to-Cell Formats
     Session Chair: Jason Ekert, MBA, Ph.D., GlaxoSmithKline (USA)
   - Utilizing the Power of NGS and Functional Genomics in Modern Screening
     Session Chair: Bryan Davies, Ph.D., The University of Texas at Austin (USA)
   - Enhanced Lead Finding Prioritization and Hit Optimization
     Session Chair: Bridget Wagner, Ph.D., Broad Institute (USA)

3. AUTOMATION AND HIGH-THROUGHPUT TECHNOLOGIES
Track Chairs: Louis Scampavia, Ph.D., Scripps Research and Sam Michael, National Institutes of Health (USA)
   - Automating Screens Using Physiologically-Relevant Models
     Session Chair: Kristin Fabre, Ph.D., AstraZeneca Micro Physiological System (USA)
   - Advanced Imaging Technologies to Bridge the Gap between High-Content and High-Throughput
     Session Chair: Louis Scampavia, Ph.D., Scripps Research, Florida Campus
   - Automating Target-Based and Complex Phenotypic Drug Discovery
     Session Chair: Beth Cimini, Ph.D., Broad Institute of Harvard and MIT (USA)
   - Screening Automation: Modular vs. Highly Integrated Systems
     Session Chair: Carleen Klumpp-Thomas, M.S., NCATS (USA)
   - Emerging Strategies and Technologies for High-Throughput Automation
     Session Chair: Caroline Shamu, Ph.D., ICCB-Longwood Screening Facility, Harvard University (USA)
   - In-house and Open Source Automation: Noncommercial Products, Devices and Software Used to Support Laboratory Automation
     Session Chair: Sam Michael, NIH/NCATS (USA)

4. BIOLOGICS DISCOVERY
Track Chairs: Wade Blair, Ph.D., Viiv Healthcare (USA) and Jonah Rainey, Ph.D., MabVax Therapeutics (USA)
   - Specialized Approaches to Develop Biologic Therapeutics for Complex Targets
     Session Chair: Jonah Rainey, Ph.D., MabVax Therapeutics (USA)
   - Next-Generation Technologies: High-Throughput Miniaturized Screening Platforms for Rapid Discovery and Development of Lead Biologics
     Session Chair: Veronique Lecault, Abcellera (Canada)
   - Phenotypic Selections and Novel Assays to Enable Biologics Discovery
     Session Chair: Steve Rust, Ph.D., MedImmune (UK)
User the Event Scheduler at [SLAS2019.org](https://www.slas2019.org) for complete details on the scientific program, including presentation abstracts, presenter bios and to build your agenda.

### 5 Cellular Technologies
**Track Chairs:** Gregory Davis, Ph.D., MilliporeSigma (USA) and Luke Gilbert, Ph.D., University of California San Francisco (USA)

- **Advances in Genome Editing Technologies**
  **Session Chair:** Gregory Davis, Ph.D., MilliporeSigma (USA)

- **Genetic Screens for Target Discovery and Validation**
  **Session Chair:** Luke Gilbert, Ph.D., University of California San Francisco (USA)

- **Development of Cellular Models for Phenotypic Screening**
  **Session Chair:** Xiaoxia Cui, Ph.D., Washington University (USA)

### 6 Data Analysis and Informatics
**Track Chairs:** Amy Kallmerten, Ph.D., Merck (USA) and Yohann Potier, Ph.D., Novartis (USA)

- **The Lab of the Future: Automation in the Digital Age**
  **Session Chair:** Nicola Richmond, Ph.D., GlaxoSmithKline (UK)

- **The Data Repurposing Challenge: Research Data Sharing and Reuse Strategies**
  **Session Chair:** Tudor Oprea, M.D., Ph.D., University of New Mexico School of Medicine (USA)

- **Creating and Maintaining a Data Culture Across Laboratories and Disciplines**
  **Session Chair:** Paul Clemons, Ph.D., Broad Institute (USA)

### 7 Drug Target Strategies
**Track Chairs:** Peter Hodder, Ph.D., Amgen (USA) and Margaret Porter Scott, Ph.D., Genentech (USA)

- **Inducing Protein Degradation**
  **Session Chair:** Mei-Chu Lo, Ph.D., Amgen (USA)

- **Multidimensional Approaches to Determining Mechanism-of-Action (MOA)**
  **Session Chair:** Margaret Scott, Ph.D., Genentech (USA)

- **Applying Genomic and Proteomic Technologies to Drug Target Validation and Mechanism-of-Action (MOA) Studies**
  **Session Chair:** Bill Hahn, M.D., Ph.D., Dana-Farber Cancer Institute (USA)

### 8 High-Definition Biotechnology
**Track Chairs:** Tony Dickherber, Ph.D., National Cancer Institute/NIH (USA) and Kristen Brennand, Ph.D., Mount Sinai Icahn School of Medicine (USA)

- **Emerging Technology Platforms for Single Cell Analysis**
  **Session Chair:** Peter Smibert, Ph.D., New York Genome Institute (USA)

- **Systemic Approaches for Precision Medicine**
  **Session Chair:** Nancy Cox, Ph.D., Vanderbilt University (USA)

- **High Definition Tools to Overcome Disease Complexity**
  **Session Chair:** Amy Brock, UT Austin (USA)

### 9 Micro- and Nanotechnologies
**Track Chairs:** Sammy Datwani, Ph.D., Labcyte (USA) and Amar Basu, Ph.D., Wayne State University (USA)

- **Commercialization of Micro and Nanofluidic Technologies**
  **Session Chair:** Sumita Pennathur, Ph.D., University of California Santa Barbara (USA)

- **Organ-on-a-Chip**
  **Session Chair:** Daniel Levner, Ph.D., Emulate Inc. (USA)

- **Micro- and Nano-Technologies for Digital, High-Throughput, and Single-Cell Assays**
  **Session Chair:** Valérie Taly, Ph.D., L’Université Paris Descartes (France)

### 10 Molecular Libraries
**Track Chairs:** Jonathan O’Connell, Ph.D., FORMA Therapeutics (USA) and Andrew Alt, Ph.D., University of Michigan (USA)

- **Small Molecule Libraries**
  **Session Chair:** J. Guy Breitenbucher, Ph.D., Dart Neurosciences (USA)

- **DNA-Encoded Libraries**
  **Session Chair:** Chris Kollmann, M.A., FORMA Therapeutics (USA)

- **Specialty Libraries**
  **Session Chair:** Ashootosh (“Ashu”) Tripathi, University of Michigan (USA)
Short Courses allow attendees to maximize their SLAS2019 experience with deep-dive educational offerings led by practicing scientists and subject matter experts. Many Short Courses include hands-on learning using the tools, technology and applications used in your lab and on your computer. Short Course attendance is limited and requires an additional registration fee.

**FULL-DAY COURSES: SATURDAY | FEBRUARY 2 | 8:00 AM – 4:30 PM**

- Assay Guidance Workshop for High-Throughput Screening and Lead Discovery *(8:30 a.m. – 5:00 p.m.)*
- 3D Cell-Based Assays for Drug De-Risking
- Lab-on-a-Chip: From Technology to Bioanalysis on Chip
- Introduction to Laboratory Automation
- Next Generation Sequencing Technology Fundamentals and Applications

**FULL-DAY COURSES: SUNDAY | FEBRUARY 3 | 8:00 AM – 4:30 PM**

- 3D Printing for Scientific Applications (Live Demo)
- Applications of Biophysical Methods in Small-Molecule Drug Discovery
- Data Management in the Age of Big Data, Mobile, and the Cloud
- Establishing Cell-Based Assays for Screening
- High-Content Screening: An Introduction to Instrumentation, Assay Development, Screening, Image and Data Analysis
- Liquid Handling Essentials (Interactive Course)
- Microcontrollers, the Internet of Things (IoT) and our Laboratories (Hands On, Laptop Required)
- Pharmacology in Drug Discovery and Development: New Lives for Receptors as Drug Targets Through Allostery and Biased Signaling
- Phenotypic Screening: Why, When and How
- Sample Management: Best Practice, Trends and Challenges
HALF-DAY COURSES: SUNDAY | FEBRUARY 3 | 8:30 AM – 12:00 PM

> Set-up and Validation of 3D Primary, Stem Cell and Immortalized Cultures for Downstream Microplate Reader and Imaging Applications
> Gene Editing for Drug Discovery
> Introduction to Flow Cytometry

HALF-DAY COURSES: SUNDAY | FEBRUARY 3 | 1:00 PM – 4:30 PM

> Advanced Flow Cytometry
> An Introduction to Mass Spectrometry and its Applications within Drug Discovery
> Innovation Initiative Workshop: Discovering Your Value Proposition (NEW!)

TWO-DAY COURSE: SAT-SUN | FEBRUARY 2-3 | 8:00 AM – 4:30 PM

> Getting Started with Excel and Virtual Basic for Applications (VBA) in the Laboratory (Laptop Required)
THE EXHIBITION

The SLAS2019 Exhibition is the bustling intersection where technology meets discovery. Make room in your schedule to peruse the exhibition, meet with product developers, meet with the start-ups in Innovation AveNEW, take in a Solutions Spotlight presentation, interact with poster presenters, visit the SLAS Booth and enjoy a host of educational and community program offerings.

HIGHLIGHTS OF THIS YEAR’S EXHIBITION INCLUDE:

> A showcase of new life sciences discovery and technology products and services.

> The SLAS2019 Poster Gallery and the opportunity to interact directly with poster authors.

> The SLAS New Product Award (NPA) that recognizes up to three new and especially innovative products and services being showcased in the Exhibition.

> Innovation AveNEW, where emerging and start-up companies showcase promising new laboratory technologies. We’ll also announce the first SLAS Ignite Award!

> The SLAS Booth, where you can relax and recharge, meet SLAS leaders and representatives of SLAS peer-reviewed journals, and investigate SLAS Career Connections.

> The SLAS Exhibition Theater, home to Spotlight Solutions presentations, SLAS Ignite Collaboration Presentations and other high-profile activities throughout the Conference and Exhibition.

EXHIBITION HOURS

MONDAY | FEBRUARY 4 | 10:00 AM – 6:00 PM
TUESDAY | FEBRUARY 5 | 9:30 AM – 6:00 PM
WEDNESDAY | FEBRUARY 6 | 9:00 AM – 1:00 PM
NETWORKING

SLAS is a thriving community of life sciences professionals from across the globe who freely share information, connections and insights to help one another both personally and professionally. Nowhere is that community spirit more evident than at the Society’s flagship international conference. Attending SLAS2019 grants you access to an impressive portfolio of events and opportunities sure to broaden your professional network.

SLAS2019 networking activities and venues include:

> Daily lunches in the SLAS2019 Exhibition
> Morning and afternoon coffee breaks in the SLAS2019 Exhibition
> Evening receptions in the SLAS2019 Exhibition
> Tuesday morning fun run benefiting the SLAS Educational Fund
> Special Interest Group (SIG) meetings
> Special programs for students and early career professionals
> SLAS2019 Tuesday Evening Celebration at the Smithsonian National Museum of Natural History
> SLAS Booth in the Exhibition Hall
> Student Mixer in the SLAS Booth

TUESDAY EVENING CELEBRATION

SMITHSONIAN NATIONAL MUSEUM OF NATURAL HISTORY
FEB. 5 | 6:30-9:30 PM

It’s only natural that this year’s annual networking event will take attendees on a journey of evolutionary discovery—human and otherwise. Join us for refreshments and heavy hors d’oeuvres at the Smithsonian National Museum of Natural History, the world’s largest natural history museum, which boasts over 140 million natural science specimens and cultural artifacts, for a night of history, networking, relaxation and fun.

Sponsored by:
SLAS SIGs allow you to connect directly with peers who share similar interests and expertise in specific scientific technology disciplines. SIGs are a great way to discuss leading-edge trends, meet recognized experts and find new collaborators.

For descriptions and an onsite meeting schedule visit [SLAS2019.org](http://SLAS2019.org). Participate with SIGs on LinkedIn 24/7/365.

- Academic Drug Discovery
- ADMET
- Automated Sample Preparation of Pharmaceutical Dosage Forms
- Automation Quality Control
- Drug Repurposing
- HCS/HCA Data and Informatics
- Informatics
- Labware Leachables
- Phenotypic Drug Discovery
- Sample Management
- Screen Design and Assay Technology
- Standards Initiatives
- Stem Cells and 3D Microtissues
- Technology Transfer and CRO/CMO Project Management
- Ultra-High-Throughput Screening
- Women Professionals in Technology
Looking to accelerate your career? Would you like to meet with established researchers to hear their stories and benefit from their experience? Want to learn how to distinguish yourself in a competitive job market? SLAS2019 offers a host of resources to drive your career advancement.

**CAREER SERVICES**

Review job postings in the Career Connections area of the SLAS Booth. Discreetly share your résumé with prospective employers. Participate in an individual career coaching session, or have your CV reviewed by a scientific career expert.

**WORKSHOPS**

Multiple expert-led workshops are offered to help you hone your job search skills and to highlight your personal qualifications. Watch [SLAS2019.org](https://www.slas2019.org) for workshop themes and for advance sign-up.

**MENTORING**

Take advantage of a mentoring session with an established professional scientist or researcher. Experienced scientists are on hand to provide professional advice for individuals at any stage of their career in life sciences discovery and technology. Advance sign-up is offered through [SLAS2019.org](https://www.slas2019.org).
REGISTRATION

> Become an SLAS member to take advantage of these significant discounts, plus receive year-round member benefits through the end of 2019.
> Advance registration discounts available through December 17, 2018.
> Significant registration discounts available for student participants and for groups of five (5) from the same organization.
> **NEW:** Starting November 1, Exhibition-Only registration will be $25 in advance, $50 onsite. Register early!

For complete rates and deadlines, visit [SLAS2019.org/registration](http://SLAS2019.org/registration).

HOTEL & TRAVEL
SLAS has negotiated discounted housing rates at two convenient and premier convention hotels: Marriott Marquis Washington, DC, and the Renaissance Washington, DC Downtown. Both hotels are located within walking distance of the Walter E. Washington Convention Center, where most conference activities will take place. Booking a room at one of these properties using official SLAS reservation methods will ensure you receive the exclusive SLAS attendee discount rate, plus other benefits and safeguards, including complimentary guest room internet access. See complete information and access the unique SLAS attendee reservation link on SLAS2019.org. Information on discounted air travel, car rental, airport transportation and convention center parking for SLAS2019 attendees can also be found on SLAS2019.org.

**HOST HOTELS:**
- **MARQUIS:** $281.65 plus tax
- **RENAISSANCE:** $275.50 plus tax

Must reserve by January 3!