Fall 2016 STARS Events

All STARS activities and events are offered free of charge to teachers and students in the state of Texas.

**STARS Symposia** consist of a series of lectures given by scientists and physicians currently doing research at UT Southwestern Medical Center and affiliated institutions. The science symposia and in-service sessions are excellent resources for teachers to learn about cutting-edge research in the biomedical sciences, to discover new classroom activities, and to obtain professional development credit at the same time. If you wish to attend any event, please pre-register by visiting our online registration page at www.utsouthwestern.edu/STARS/register

**Mini-Symposium: The Sequencing Revolution - September 12, 2016**

This month our symposium was based on DNA sequencing. We started with a presentation from Ralf Kittler, Ph.D., Assistant Professor in Pharmacology, titled, DNA Sequencing: The Past, the Present and the Future. Theo Ross, M.D., Ph.D., Professor, Internal Medicine, Cancer Biology, gave a presentation titled, A Cancer in the Family: Truthiness, Consent and Meaning in our Genes. The symposium was closed by Joel Goodman, Ph.D., STARS Director.

**Basic Science Symposium: Sport Health and Medicine - October 8, 2016**

Our all-day October Symposium consisted of presentations and break-out sessions revolving around sports health and medicine. The morning presentation session started with Bill Robertson, M.D., head team physician for the Dallas Stars NHL Hockey Club, and the Dallas Defenders semi-professional football Team, presenting on sports injuries. Soon after, Matt Cramer, Ph.D., post-doctoral research fellow, Internal Medicine, presented Body Temperature Regulation during Exercise: Getting Hot & Keeping Cool, followed by a presentation titled, Sudden Cardiac Death in Athletes by Mark Link, M.D. Professor, Internal Medicine. Chris Hearon, Ph.D. postdoctoral research fellow, gave the last morning presentation titled, Introduction to Exercise Physiology: Athletes, Aging and the Cardiovascular System. Participants then headed to the afternoon break-out sessions that consisted of hands on activities on cardiac arrest management, physical therapy and sports neuroscience.

**Mini-Symposium: Stem Cells and Regenerative Medicine - November 7, 2016**

This month our symposium was based on stem cells and regenerative medicine. Michael Buszczak, Ph.D., Associate Professor, Molecular Biology, started our symposium with a presentation titled, Immortality Realized: Germ Cells and the Biology of Sexual Reproduction. It was followed by a presentation titled, Understanding and Enhancing Mammalian Organ Regeneration, from Hao Zhu, M.D., Associate Professor, at the Children’s Medical Center Research Institute at UT Southwestern.

**Teacher In-service: Drosophila as a Model System - December 10, 2016**

Our teacher in-service session was led by researchers in the Department of Neuroscience at UT Southwestern, Christopher Spaeth, Ph.D., graduate student Elizabeth Päser, Helmut Kramer, Ph.D., and Laura Alto, Ph.D. They let the teachers observe drosophila behavior and taught them how to differentiate between male and female drosophila. The teachers also learned how to set up mating and harvesting environments to learn about genetic mutations in crossed drosophila.
The 6th Annual Uplift Education District Science Fair was a success. The STARS program collaborated with Uplift Education and hosted their district science fair here at UT Southwestern Medical Center. There were 196 projects entered in the Primary, Middle and High school divisions and over 700 students, teachers, volunteers, and family members attended this sixth annual event. Break-out sessions were organized for the students to attend while the judges reviewed the projects. The different break-out sessions included, battle bots, and airplane engineering.

**STARS Award Winners:**

**Primary**

“Power Me Up, Scotty” and “Quickest Cooler”

**Secondary**

“Are Chemicals Really the Only Option?”

**High School**

“Go With Your Gut”

*High school division STARS award winner pictured with Lynn Tam, M.Ed. (STARS Manager), and Stuart Ravnik, Ph.D. (Associate Dean, UT Southwestern Graduate School)*
The Dallas ISD Divisional Science Fair was held at the Kay Bailey Hutchison Convention Center, with 135 projects entered in the Primary and Secondary divisions. Close to 600 were in attendance which included students, teachers, and family members, making this year’s science fair a huge success. Parents attended a UT Southwestern STARS sponsored parent education program, while the students nervously waited for the conclusion of the judging and the announcement of the top winning projects. Students then gathered to see who were identified as top winners, as the top winners returned to their projects for pictures. All students were encouraged to attend a UT Southwestern STARS sponsored Student Education Program. To conclude the event, Joel Goodman, Ph.D., STARS Director, began the awards ceremony by giving the opening address to all of the students, teachers, and family members.

**STARS Award Winner:**
- Akshay Jaitly, pictured right with STARS Program Director, Joel Goodman, Ph.D.

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The science fair was held at Irving High School. UT Southwestern Medical Center graduate students volunteered to mentor Irving ISD students before the science fair. UT Southwestern also provided 20 science fair judges to judge 117 projects. Stuart Ravnik, Ph.D., (Associate Dean, UT Southwestern Graduate School) and Lynn Tam, M.Ed. (STARS Manager) were in attendance along with 450+ students, teachers, volunteers and family members.

**STARS Award Winners pictured right:**
- Lizzet Perez and Miriam Trigo
  “Effect of Antioxidants on Hearing Damage and Recovery”
This summer, STARS will have 4 teachers and 52 students participate in the Summer Research Program. This eight-week program is designed to give teachers and students an opportunity to work side by side with a faculty host in a research laboratory. An important purpose of this program is to help teachers rekindle their love of science and encourage students in North Texas to pursue science-related fields. Teachers give poster presentations and develop classroom activities related to their research experience. Students give poster presentations and act as emissaries at their home school the following year by giving presentations outlining their research experiences. The summer experience will take place in biomedical research laboratories only and will not include any clinical or shadowing opportunities. Participation is limited by funding resources.

**2017 STARS Science Camps**

These are 2-week, non-residential summer camps where students learn concepts through hands-on labs, health careers information, project based challenges, and science lab tours.

- **Biology**
  - June 12 - June 23

- **Chemistry**
  - June 30 - July 14

- **Physics**
  - July 24 - August 4

**Science & Health Careers Exploring Post at UT Southwestern**

The explorers meet monthly at UT Southwestern Medical center in Rm D1.502 from 6pm to 7:30pm. Interested students may attend for free and yearly membership is $20. Parents are always welcome!

**2017-2018 Exploring Officers:**

- **President:** Varshini Suresh
- **Admin. VP:** Dharshini Suresh
- **Programs VP:** Shruti Bindingnavile
- **Secretary:** Brooke Aly

**Future Monday Dates:**

- 9/25/17
- 10/23/17
- 11/13/17
- 12/11/17
- 1/29/18
- 2/26/18
- 3/26/18
- 4/23/18
- 5/21/18
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PROGRAMS

SYMPOSIA
Basic Science Symposia
Mini-Symposia

OUTREACH
Bureau of Science Fair Judges
Research Assistance
Science Ambassadors
Student Mentoring

SUMMER RESEARCH
Summer Research Program for Teachers
Summer Research Program for Students

TOURS
UT Southwestern School of Health Professions
UT Southwestern Medical Center
Parkland Health & Hospital System of Dallas
Children’s Medical Center Dallas

IN-SERVICE SESSIONS
Teaching Biotechnology– December
Using Arduino to Teach Physics and Coding – February

SUMMER SCIENCE CAMPS
Biology
Chemistry
Physics

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UT Southwestern is an equal opportunity institution.
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Visit our web site at www.utsouthwestern.edu/stars