

STARS NOTES

SCIENCE TEACHER ACCESS TO RESOURCES AT SOUTHWESTERN

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.



Teacher Heather Lentz with STARS Director, Joel Goodman, Ph.D., study *drosophila* at the STARS teacher in-service on December 10, 2016

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 Pelsler, Helmut Krämer, 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*.


STARS Notes
May 2017
Volume XIV, Number 3

Core funding for the STARS Program is provided by the State of Texas.

Other funding is provided by the TWC.

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 **6th Annual**
uplift education
SCIENCE FAIR
January 21, 2017

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)



Primary students gather and wait for their projects to be judged.



Awards Ceremony

STARS Upcoming and Future Events

Summer 2017



Summer Research Program for Teachers and Students

June 5th thru July 28th

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.

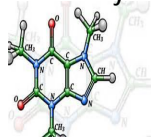
Biology

June 12 - June 23



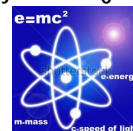
Chemistry

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

2017-2018 Exploring Officers:

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

Future Monday Dates:

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

5/21/18

STAFF

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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. Core funding for the STARS program is provided by the state of Texas and other funding is provided by the TWC.

Visit our web site at www.utsouthwestern.edu/stars