

STARS NOTES

SCIENCE TEACHER ACCESS TO RESOURCES AT SOUTHWESTERN

Fall 2014 STARS Events

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

STARS SYMPOSIA consists of a series of lectures given by scientist 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: Bioinformatics:

Making Sense of It All -

September 8, 2014

This month our symposium was based on Bioinformatics. We started with a talk from Kimberly Reynolds, Ph.D., Assistant Professor in Green Center of Systems Biology, on *Understanding Cellular Systems Using Genome Data*. Nick Grishin, Ph.D., Professor in Biophysics, gave a presentation on *Studying Proteins with Computers*. The symposium was closed by Joel Goodman, Ph.D., STARS Director.



Basic Science Symposium: Drugs: The Good, and Breaking Bad - October 11, 2014

Our all-day October Symposium consisted of presentations and break-out sessions. The morning presentation session started with Elliot Ross, Ph.D., Professor of Pharmacology, presenting on the *Introduction to Drugs*. Soon after, John MacMillan, Ph.D., Associate Professor, Biochemistry, discussed *Where are Drugs From?* followed by a presentation on *How do Drugs Act?* by Joseph Albanesi, Ph.D., Professor of Pharmacology. After a break, Elliot Ross, Ph.D. gave the last morning presentation on *How Do Drugs Get Inside and Back Out?* before participants headed to the morning break-out sessions. After lunch, Alfred Gilman, M.D., Ph.D., Professor Emeritus, Pharmacology, presented on *How Are Drugs Regulated?* Eva LaDow, Ph.D., Senior Lecturer, Honors and Neuroscience, University of Texas at Dallas ended our presentations with *Illegal Drugs and Addiction*. The afternoon break-out sessions consisted of tours of the High Throughput Screen Core as well as different imaging topics presented by medical, graduate, and postdoctoral students.

Mini-Symposium: Sugars: Beyond Nutrition –

November 3, 2014

This month our symposium was based on Sugars. Mark Lehrman, Ph.D., Professor of Pharmacology, started our symposium with a presentation on *How Sweet It Is: Rare Diseases Can Give Insight into Common Problems*. Followed by *Sugars in Infectious Disease – Pathogens Like Sweets, Too!* from Jennifer Kohler, Ph.D., Assistant Professor of Biochemistry to end our session.

Teacher In-service: Worm Workshop –

December 13, 2014

Our teacher in-service session was led by Lara Hollingworth, M.Ed., science teacher at Eastlake High School in the Lake Washington ISD and Rueyling Lin, Ph.D., Professor of Molecular Biology. They introduced the teachers on how *C. elegans* can be used as a model system in the classroom by integrating technology and inquiry with students. Pilar Foo, a teacher at Northwest High School in Northwest ISD, and Jessica Medina, Research Associate in Internal Medicine-Cardiology, also assisted Lara and Dr. Lin in the workshop.

STARS Notes

May 2015

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4th Annual
uplift education
SCIENCE FAIR
January 17, 2015

The 4th Annual Uplift Education District Science Fair was a success as UT Southwestern Medical Center STARS program collaborated with Uplift Education and hosted their district science fair here at UT Southwestern Medical Center. There were 205 projects entered in the Primary, Middle and High school divisions and over 700 students, teachers, and family members who attended this Fourth Annual event. As some of the projects were being judged by 67 UTSW judges, different educational programs were provided for the community members. Linda Michalsky, Ph.D., started off with a presentation on *Healthy Eating. At School. At Home*. Breakout sessions were organized for the students to attend while the judges reviewed the projects. The different breakouts consisted of *First Robotics Challenge, Engineering 101, Earthquake, Blast off, Emergency Room and Chemistry Magic Show*. Closing remarks were given by Stuart Ravnik, Ph.D., STARS Associate Director.

STARS Award Winners:

Primary

Elizaveta Frolova – *Is Double Dipping as Gross as it Sounds?* (North Hills Preparatory)

Secondary

Sujal Manohar & Anika Vij – *On Edge* (North Hills Preparatory)



Breakout Session:

The Summit High School Robotics Team proudly presented the robot they had designed for their competition.



Primary Division Stars Award:

Pictured from Left to Right: Lynn Tam (STARS Manager), Elizaveta Frolova (winner), and Stuart Ravnik, Ph.D. (STARS Associate Director)

Project: *Is Double Dipping as Gross as it Sounds?*



Awards Ceremony

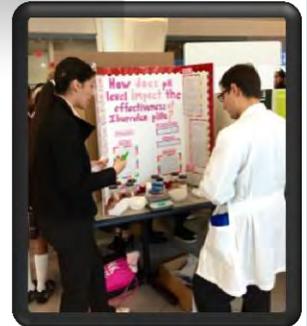


Divisional Science Fair January 17, 2015

The Dallas ISD Divisional Science Fair was held at UT Southwestern Medical Center's Gooch Auditorium. With 110 projects entered in the Primary and Secondary divisions and close to 300 in attendance which included students, teachers, and family members, we could say it was a great 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 Winners:

- ❖ Elementary
 - Brady Gibson: *Crash Test Melons*
- ❖ Junior Division
 - Payton Climer: *Cracking Down on Playground Equipment*
- ❖ Grand Prize
 - Ethan Thomas: *Why So Many Commercials?*



Awards Ceremony

2015 Inaugural Biomedical Sciences Academy Science Fair January 8, 2015



UT Southwestern Medical Center provided graduate school students for some mentoring prior to their science fair. The science fair was held at Irving High School where UT Southwestern provided 20 Science Fair Judges to judge 27 projects. With Dr. Ravnik and Lynn Tam in attendance along with 150+ students, teachers, and family members the inaugural science fair was a success.

STARS Award Winner:

- Mirna Flores: *A Musician's Mind*

STARS Award Winner:

Pictured from Left to Right: Lynn Tam (STARS Manager), Stuart Ravnik, Ph.D. (STARS Associate Director) and Mirna Flores (winner)

Project: A Musician's Mind



STARS Upcoming and Future Events



Summer 2015

Summer Research Program for Teachers and Students

June 8 thru July 31

This summer, STARS will have 10 teachers and 42 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.

STARS Science Camps

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

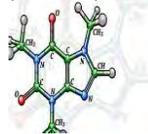
Biology

June 15 - June 26



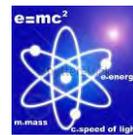
Chemistry

July 6 - July 17



Physics

July 27 - August 7



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!



2015-2016 Exploring Officers:

President: Irma Zamarripa
Admin. VP: Jason Mendoza
Programs VP: Maya Reddi
Secretary: Sasha Thomas

Future Monday Dates:

9/21/15	1/25/16
10/26/15	2/22/16
11/16/15	3/21/16
12/14/15	4/25/16
	5/23/16

2015-2016 Exploring Officers:

Pictured from Left to Right: Jason Mendoza, Irma Zamarripa,
Maya Reddi and Sasha Thomas

STAFF

Joel Goodman, Ph.D.

STARS Director

Professor of Pharmacology

Jan and Bob Bullock Distinguished

Professorship in Biomedical Services

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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

Zebrafish as a Model System – December

Biology Labs Made Easy – February

SCIENCE WORKSHOPS

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