“Effects of Caenorhabditis elegans dauer, specific molecules on the Th2-type immune response in mammals”

Christine Cook
Richland High School

Hosted by:
Rueyling Lin, Ph.D.
Molecular Biology

“My participation in the UT Southwestern STARS program has been an invaluable experience, both personally and professionally. Working in the Lin Molecular Biology lab has allowed me the opportunity to be a part of a meaningful scientific research project; but more importantly it has given me the opportunity to get back in touch with myself as a student rather than the teacher. I will walk away from this experience not only with the pride of having contributed to what could potentially be a very significant project, but with a new found understanding, respect and appreciation for my students. As educators, we sometimes forget the fear, apprehension and uncertainty that our students encounter when walking into our classrooms for the first time. I am truly grateful to the STARS program; it has had a profound effect on how I view myself as a facilitator of science learning, my students as science learners, and the entire scientific research community.”

“In vitro protein synthesis of Drosha constructs from seventeen different templates”

Melissa Guerrero
Skyline High School

Hosted by:
Yunsun Nam, Ph.D.
OB/GYN,
Green Center

“When I first found out about the STARS program, I knew right away it was too amazing of an opportunity to overlook, and I was thrilled when I was accepted. I am so grateful for the investments of time, talents and energy that the STARS program personnel, my PI, mentors and colleagues have made on my behalf. Due to my participation in this program, I will carry such a new and powerful perspective into my future years as a science educator. I am immensely humbled, thankful, inspired, and challenged. Thanks again for everything!”
“Analysis of myelin basic protein using top down mass spectrometry”

Christina Krone
Uplift Summit International Preparatory

Hosted by:
Steven Patrie, Ph.D.
Pathology

“The UT Southwestern STARS program has provided me with an invaluable learning experience. My host lab has welcomed and encouraged me to grow my understanding of the field of proteomics. The novel technology and analysis of methodology required me to utilize the critical thinking skills I aim to build in my students. The exposure to the prestigious research setting at UT Southwestern gave me the knowledge of what skills and techniques are required to be successful in a lab so I can begin to introduce similar lab techniques and ways of thinking to my students before they graduate high school. Throughout the STARS program, I was able to relate to my students’ experiences when encountering new scientific vocabulary for the first time, which I hope to translate into my teaching practices in the classroom. I am thankful for the opportunity to learn and grow beside teachers from around the DFW Metroplex as we shared our experiences and best practices from our classrooms. The collaboration with the STARS staff and other STARS teachers as well as the continuous encouragement from the lab provided fantastic support as I learned about the recent advances in the global scientific research community. I look forward to returning the classroom refreshed with new ideas gained from this experience.”

“Effect of AuNP size on cytotoxicity with PC3”

Neil Milburn
Plano West High School

Hosted by:
Orhan K Oz, M.D.
Xiankai Sun, Ph.D.
Radiology

“What an incredible experience! My formal education is as an engineer and my informal background is in business, aerospace, physics and chemistry. As an AP Chemistry teacher at Plano West Senior High school, I also adopted the role of mentor to the LASER Club (Learning about Science & Engineering Research) that promotes and sponsors science fair students. However, the vast majority of my mentees were undertaking sophisticated projects in bioscience with the aid of local major scientific institutions, such as UTSW & UTD, and I felt ill-equipped to support them in a meaningful way. My goal with the STARS program was to gain first-hand experience working in a modern, bioscience lab setting so that I could better understand the processes and rigor involved. My summer internship in Dr. Oz and Dr. Sun’s Pre-Clinical Radiology Lab has been both exhilarating and informative … Goal accomplished! It has been both a pleasure and a truly rewarding experience to work alongside such a talented and dedicated team of professionals. My sincere thanks to the STARS program for affording me the opportunity to participate.”

“Comparison of light emitting reagents for BLI of 4T1-luc mouse tumors”

Richard Sulstede
The Colony High School

Hosted by:
Ralph Mason, Ph.D.
Radiology

“My decision to participate in the STARS summer program ranks as one of the best decisions I’ve made regarding my professional development as a science teacher. Reprising my role as a student reminded me that research science is full of wonder, frustration, incertitude and joy. Every day I learned something new that I could transform into a useful part of my curriculum. The Mason Lab staff was friendly, helpful and quickly accepted me as part of their group. Just like any other member of the group, they expected me to pursue results that were meaningful, insightful and relevant. In the future when I look back on this summer, I’ll remember the challenge, the excitement, and, most of all, the people that made this summer a fun and exhilarating experience.”
“Effects of MEF2c deletion on neocortical neuron morphology”

Carolyn Hess
School of Health Professions at Yvonne A Ewell Townview Center

Hosted by:
Kimberly Huber, Ph.D.
Neuroscience

“The opportunity to experience life as a biomedical researcher firsthand has been enlightening. It has been invaluable in providing me with a thorough understanding about the rewards, challenges, and day-to-day experiences that exist in the research laboratory. I can now return to the classroom prepared to answer my students' questions about careers in research, and am better equipped to guide them toward the career path that they will find most fulfilling.”

“Role of klotho in thiazide treatment of rats”

Brandy Roye
Summer Creek Middle School

Hosted by:
Ming Chang Hu, M.D., Ph.D.
Internal Medicine,
Mineral Metabolism

“Be the change that you wish to see,” is the motto embraced in my classroom. By constantly learning and adapting to the necessities of our ever-changing world and environment, students are empowered to take their skills and adjust them to their needs at any given moment. STARS has enabled me to do just this, by giving me the opportunity to learn real-world applications of science and applying it to their learning, and thus changing my preconceived ideals of what research science is all about. I am so thankful for this opportunity, not only for myself, but for the benefit of my students. I cannot wait to share with them what I have learned!”

“The role of Trim-28 / Kap I in HIV expression and reactivation”

Alicia Sams
Gaston Middle School

Hosted by:
Ivan D’Orso, Ph.D.
Internal Medicine

“It has been exciting to discover the degree to which our bodies interact with the environment at a cellular level. Exposure to cutting edge research has reignited my passion for science and my students will definitely benefit from my summer research experience. My lab experience was very challenging but the D’Orso lab was exceptionally supportive. I have learned a lot about the challenges of medical research and the passion and dedication that drive scientists to new knowledge. It was said in the lab that a negative result was still an important result. The comment and its context in the lab exemplified inquiry based learning and the value it has in science education.”
<table>
<thead>
<tr>
<th>Name</th>
<th>School</th>
<th>Host</th>
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<tbody>
<tr>
<td>Lydia Ademuwagun</td>
<td>South Grand Prairie High School</td>
<td>Hasan Zaki, Ph.D.</td>
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<tr>
<td>Irvin Akinseye</td>
<td>Frisco High School</td>
<td>Dominika Borek, Ph.D.</td>
</tr>
<tr>
<td>Madalyn Barnett</td>
<td>Richardson High School</td>
<td>Helmut Kramer, Ph.D.</td>
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<tr>
<td>Zach Bishkin</td>
<td>Jesuit College Preparatory School of Dallas</td>
<td>Qinghua Liu, Ph.D.</td>
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<tr>
<td>Gregory Blazek</td>
<td>Cappell High School</td>
<td>Nicolai van Ders, Ph.D.</td>
</tr>
<tr>
<td>Harris Chowdhary</td>
<td>Greenhill School</td>
<td>Matthew Lewis, Ph.D.</td>
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<tr>
<td>Yentil Dinsay</td>
<td>Uplift Summit International Preparatory</td>
<td>Jer-Tsong Hsieh, Ph.D.</td>
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<tr>
<td>Stejara Dinulescu</td>
<td>The Hockaday School</td>
<td>Tony Michael, Ph.D.</td>
</tr>
<tr>
<td>Sophie Druffner</td>
<td>John Paul II High School</td>
<td>Zhi-ping Liu, Ph.D.</td>
</tr>
<tr>
<td>Alan Estrada</td>
<td>School of Science and Engineering Magnet</td>
<td>Jee Hyun Hwang, Ph.D.</td>
</tr>
<tr>
<td>Sonia Gonzales</td>
<td>Irma Rangel Young Women's Leadership School</td>
<td>Jonathan Graff, M.D., Ph.D.</td>
</tr>
<tr>
<td>Andrew Kavas</td>
<td>Woodrow Wilson High School</td>
<td>Matt Petroll, Ph.D.</td>
</tr>
<tr>
<td>Mah-ro Khan</td>
<td>School for Health Professions at Yvonne A. Ewell Townview Center</td>
<td>Michael Buszczak, Ph.D.</td>
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<tr>
<td>Courtney Le</td>
<td>The Hockaday School</td>
<td>Jennifer Kohler, Ph.D.</td>
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<tr>
<td>Ashwin Leo</td>
<td>Texas Academy of Math and Science</td>
<td>Qing Zhong, M.D., Ph.D.</td>
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<tr>
<td>Jim Liu</td>
<td>Grapevine High School</td>
<td>Shawn Burgess, Ph.D.</td>
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<tr>
<td>Evan Loriot</td>
<td>Jesuit College Preparatory School of Dallas</td>
<td>Saikat Mukhopadhyay, M.D., Ph.D.</td>
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<tr>
<td>Jayant Madugula</td>
<td>Greenhill School</td>
<td>Genevieve Kanopka, Ph.D.</td>
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<tr>
<td>Vidur Malhotra</td>
<td>Marcus High School</td>
<td>Avesh Chhabra, M.D.</td>
</tr>
<tr>
<td>Claudia Mendoza</td>
<td>School of Health Professionals at Yvonne A Ewell Townview Center</td>
<td>Dwight German, Ph.D.</td>
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<tr>
<td>Abigail Mills</td>
<td>Amae Classical Home School</td>
<td>Benjamin PC Chen, Ph.D.</td>
</tr>
<tr>
<td>Sam Moon</td>
<td>Booker T Washington High School for the Performing and Visual Arts</td>
<td>Gomika Udugamasooriya, Ph.D.</td>
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<tr>
<td>Bilal Mukadam</td>
<td>Brighter Horizons Academy</td>
<td>Carla Green, Ph.D.</td>
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<tr>
<td>Marvin Paz</td>
<td>Richland High School</td>
<td>Xin Liu, Ph.D.</td>
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<tr>
<td>Christine Ramjee</td>
<td>Highland Park High School</td>
<td>James Amatruda, M.D., Ph.D.</td>
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<tr>
<td>Alexander Ravnik</td>
<td>School for the Talented and Gifted at Yvonne A Ewell Townview Center</td>
<td>Youxing Jiang, Ph.D.</td>
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<tr>
<td>Yarressy Raymundo</td>
<td>The Hockaday School</td>
<td>Kim Urth, Ph.D.</td>
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<td>Dylan Roberts</td>
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<td>Julian Meeks, Ph.D.</td>
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<tr>
<td>Melanie Shi</td>
<td>Flower Mound High School</td>
<td>Diana Tomchick, Ph.D.</td>
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<tr>
<td>Lauren Thornton</td>
<td>Timberview High School</td>
<td>Joel Goodman, Ph.D.</td>
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<tr>
<td>Quinn Torres</td>
<td>School of Science and Engineering Magnet</td>
<td>Rajiv Chopra, Ph.D.</td>
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<tr>
<td>Megan Vernino</td>
<td>Ursuline Academy</td>
<td>Deepak Nijhawan, M.D., Ph.D.</td>
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<tr>
<td>Jesse Zhang</td>
<td>Allen High School</td>
<td>Jenny Hsieh, Ph.D.</td>
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</table>
STARS was able to hold 3 Summer Workshops in Biology, Chemistry, and Physics. These workshops gave teachers an opportunity to fine-tune their teaching skills. Teachers were coached by two "Master Teachers" as they presented biology, chemistry, and physics lessons and laboratory exercises to 25-30 rising 9th, 10th, and 11th grade students. The students learned concepts in biology, chemistry, or physics through presentations and various laboratory exercises. Students also received information about careers in science and medicine, and had an opportunity to tour our science labs.

### Biology Teachers
- Paige Baker
- Molina High School
- Pricilla Green
- Greenville High School
- Samuel Hernandez
- Molina High School
- Alexandria Hogy
- South Oak Cliff High School
- Sheel Jagani
- Sunset High School
- Juanell Parker
- South Oak Cliff High School
- Leslie Terronez
- Little Elm High School
- Michelle Thomas
- Holmes Middle School
- Nancy Williams-Freeman
- Lake Highlands Freshman Center

### Chemistry Teachers
- Marisela Aguileria
- Williams Preparatory
- Aliza Aponte
- Pinkston High School
- Christi Collins
- South Oak Cliff High School
- Christopher Cuadra
- Lakeview Centennial
- Adriane Davis
- Kennedy-Curry Middle School
- Dolores Echevarria
- Alternative Education Center
- David Edwards
- Singley Academy
- Erik Martinez
- Alternative Learning Center
- Eloisa Pena
- North Dallas High School
- James Villela
- Thomas Jefferson High School

### Physics Teachers
- Jamie Avalos
- South Hills High School
- Katrina Barry
- Madison High School
- Ebun DeBase
- Seagoville High School
- Steven Franklin
- Haltom High School
- Nancy Jane Hall
- Red Oak High School
- Bernard Jenkins
- Hebron High School
- Bob Soehnge
- Cedar Hill High School
- Therese Stockard
- Lewisville High School
- Patti Turk
- Holland High School
STARS Upcoming Events
Science Symposia

All events are held on the UT Southwestern Medical Center Campus.
For directions and to register, visit the STARS Web page.
www.utsouthwestern.edu/stars

Exploring Post @ UT Southwestern

Calendar of Events 2014 - 2015

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<thead>
<tr>
<th>September</th>
<th>October</th>
<th>November</th>
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<tbody>
<tr>
<td>Mini-Symposium:</td>
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<td>Transformation</td>
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<td>of Life</td>
<td>Medicine</td>
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<td>Science</td>
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<td>Development</td>
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<tr>
<td>Education</td>
<td>Medicine</td>
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<tr>
<td>Monday, Dec. 2,</td>
<td>Monday, Jan. 3</td>
<td>Saturday,</td>
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<td>2015</td>
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<tr>
<th>March</th>
<th>April</th>
<th>May</th>
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<tr>
<td>Teacher</td>
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<tr>
<td>Event Development</td>
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<td>STARS teachers or to change in Texas teachers.</td>
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<tr>
<td>Education</td>
<td>Development</td>
<td>Please register for an event at least two weeks in advance on our website.</td>
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<td>Monday, Mar. 2,</td>
<td>Sunday, Apr. 1</td>
<td><a href="http://www.utsouthwestern.edu/STARS/page">www.utsouthwestern.edu/STARS/page</a></td>
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<td>Other Important</td>
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<td>Dates</td>
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<td>Friday, Dec. 11,</td>
<td>Friday, Jan.</td>
<td>Friday, July 27,</td>
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Exploring Post @ UT Southwestern

Upcoming Meetings:
6pm to 7:30pm

Monday-Sept. 22nd
Monday-Oct. 20th
Monday-Nov. 17th
Monday-Dec. 15th
Monday-Jan. 26th
Monday-Feb. 23rd
Monday-Mar. 23rd
Monday-April 27th
Monday-May 18th

2014-2015 Exploring Post Leaders

@Imari Parham, President
@Christine Ramjee, Admin. VP
@Anika Reddy, Programs VP
@Kelsey Shipman, Secretary

Register For Exploring Post @
explorer@UTSouthwestern.edu
STAFF

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STARS Director
Professor of Pharmacology
Jan and Bob Bullock Distinguished Professorship in Biomedical Services
joel.goodman@utsouthwestern.edu

Stuart Ravnik, Ph.D.
STARS Associate Director
Associate Dean, Graduate School
stuart.ravnik@utsouthwestern.edu

Lynn Tam
STARS Manager
lynn.tam@utsouthwestern.edu

Kristie Conner
Education Coordinator
kristie.conner@utsouthwestern.edu

Pearlie Crawford
Education Assistant
pearlie.crawford@utsouthwestern.edu

Maria Miranda
Education Assistant
maria.miranda@utsouthwestern.edu

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
Proteins & Enzymes
Protein Crystal Growth
Genetics
PCR & Gel Electrophoresis
Suturing Techniques

SCIENCE WORKSHOPS
Biology
Chemistry
Physics

5323 Harry Hines Blvd
Dallas, Texas 75390-9137
(214) 648-9505
(800) BI-STARS
FAX: (214) 648-9508

UT Southwestern is an equal opportunity institution.
Core funding for the STARS program is provided by the state of Texas.

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