Become a STAR and join the galaxy of past participants who went on to attend these institutions:

Amherst College  Barnard College  Beloit College  Boston University  Bryn Mawr College  Butler University  Carnegie-Mellon University  College of New Jersey  Columbia University  Cornell University  Cuyahoga Community College  Dartmouth College  Dayton University  DePaul University  Dominican University  Drake University  Duke University  Embry-Riddle Aeronautical University  Enry University  Florida A&M University  Fairfield University  George Washington University  Georgetown University  Grinnell College  Hampton University  Harris-Stowe State College  Harvard University  Harvey Mudd College  Ithaca College  Israel Institute of Technology  Johns Hopkins University  Kenyon College  Kutztown University  Loyola University Maryland  University of Missouri – St. Louis

STARS is sponsored by

Solutia Inc.  Pfizer Inc.  LMI Aerospace Inc./D3 Technologies  The Solar Company  Allen P. and Josephine B. Green Foundation’s George C. Wilson, III Achievement Award

in partnership with

The St. Louis Academy of Science  Donald Danforth Plant Science Center  Saint Louis University  Southern Illinois University Edwardsville  Washington University  University of Missouri-St. Louis

The STARS Program gratefully acknowledges the past support from the National Science Foundation.
The Program

**STARS** offers academically-talented students who are entering their junior or senior years of high school and teachers a rare opportunity to work within a laboratory research setting with top scientists at Saint Louis University, Southern Illinois University–Edwardsville, Washington University, and the host institution, University of Missouri-St. Louis.

For six weeks during the summer, participants join a community of investigators working under the supervision of a practicing research scientist. More than 60 scientists who work in fields such as biology, chemistry, computer science, earth science, engineering, environmental science, mathematics, medicine, optometry, physics, and psychology will share their experiences as they and their research teams direct students and teachers in research projects.

Applicants are limited to rising junior or senior high school students residing in the Greater St. Louis or Metro East area. The program does not provide housing to participants.

Participants may choose a research project from a variety of suggested topics. Examples of recent research projects are:

- **Structure-Function Studies of Inward Rectifying Potassium Channels**
- **The Effects of Electric Fields on Paddlefish Behavior**
- **Confirming the Presence and Release of Cathecolamines and Neuropeptide Y in the Sympathetic Neurons of Embryonic Chickls**
- **The Influence of Maternal Milk on the Neonatal Immune Response to Respiratory Viral Infection**
- **The Effect of Levees on Hydrologic Systems**

**STARS** participants spend an average of 30 hours each week for six weeks in a professional research environment – at the research bench, in the lab, in the field, at an observatory, or in a computer facility.

Another ten hours are devoted to activities that include:

- Stimulating presentations by leading researchers
- Career discussions with practitioners
- Presentation by the participating universities
- Instruction on how to prepare a research paper

**Students** selected to participate will join a distinguished group of rising high school juniors and seniors interested in careers in mathematics and science for a summer experience that will provide:

- Real-world laboratory experience with senior researchers and scientists
- Preparation of a 15-20 page research paper
- An opportunity to explore career options
- An expanded peer group network with like-minded interests

**Teachers** selected to participate will join a group of professional educators for a summer devoted to:

- Developing curriculum and inquiry experiences that will share the knowledge and experiences gained with their students and other teachers
- Real-world laboratory experience with senior researchers and scientists

**For Application and Cost Information Contact:**

**Director, STARS Program**

239 Research Complex

University of Missouri-St. Louis

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St. Louis, MO 63121-4409

(314) 516-8228

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www.umsl.edu/~sep/programs/stars.html

Alumni Profiles and Comments

**Dr. Chris Gordon, 1992**

Assistant Professor, Department of Construction

Southern Illinois University–Edwardsville

Education: University City High School

B.S., M.S. Civil & Environmental Engineering, Stanford University

Ph.D. Civil & Environmental Engineering, Carnegie Mellon University

**Varsha Keelara, 2001**

Class of '01, M.D. – Harvard Medical School

Education: Mary Institute and Country Day School

B.S. Biology – MIT

“This was my first exposure to the world of science and research. I felt at home feeling like science was integrated into everything and that has guided many of my choices since STARS. I also gained a lot from STARS relationships. I’m still in contact with my mentor and go to her for guidance and still talk to STARS friends. STARS made such a difference in my career science. I could have done research on my own but the experience of having a project, paper and presentation, as well as a community to work within, made my experience much richer. This is what caused me to truly enjoy myself doing research and be involved in science. It has kept me coming back over and over again to science and basic research.”

**Dr. Swetha Sridhar, 1997**

Resident Physician / University of Missouri-Kansas City

Education: Clayton High School

B.S., M.D. Biology, Medicine, University of Missouri-Columbia

**Dr. Christina Taylor, 1993, 1994**

NFSA NIH Post-Doctoral Fellow

Washington University School of Medicine

Education: McCluer North High School

Summer Cum Laude BS, Chemistry; Missouri University of Science & Technology, Ph.D Biology, MIT

“STARS enabled me to begin doing research my second semester in college. Because I had research experience, I was able to start on a research project right away. I also believe it helped me get into an undergraduate research program the summer after my freshman year. I really enjoyed meeting people who had similar interests. I believe that STARS helped plant the seeds for my scientific career. It was nice to see what scientific research involved before actually going to college. It was an invaluable experience for me.”

**Dr. Philip Weyman, 1992**

Postdoctoral Fellow, J. Craig Venter Institute, Rockville, MD

Education: Kirkwood High School

B.A. Williams College, Ph.D. Plant Pathology, University of California-Davis

Postdoctoral – University of Missouri-St. Louis

“It helped me to be exposed to the real world of science as something more than a high school science class. It helped me to find larger goals and set my sights higher. Having been exposed to some advanced materials and research methods certainly helped me as an undergraduate. More than anything, it stimulated and motivated me to continue a path in science, especially as an undergraduate.”