

# WELCOME TO THE FUTURE

*Mentoring students in their research*



## STUDENTS CAN EXPLORE THESE ACT-SO CATEGORIES AT ARGONNE:

- Architecture
- Biology/Microbiology
- Chemistry/Biochemistry
- Computer Science
- Earth/Space Sciences
- Engineering
- Mathematics
- Medicine and Health
- Physics



### THE ARGONNE ACT-SO HIGH SCHOOL RESEARCH PROGRAM'S MISSION

The Argonne ACTSO High School Research Program's (ARP) mission is to increase the African-American STEM pipeline by involving highly motivated, bright and inquisitive African-American students in imaginative high-rigor research. To accomplish this, we create a one-on-one mentoring partnership between each student and either a Ph.D. scientist or graduate student. We also provide several other captivating STEM based enrichment activities.

### ABOUT THE ARGONNE ACT-SO PARTNERSHIP

Argonne has a collaboration with DuPage County ACT-SO (Afro-Academic, Cultural, Technological & Scientific Olympics), a 9th–12th grade high school enrichment program hosted by the NAACP (National Association for the Advancement

of Colored People). There are nine categories in the area of STEM, in which the students can compete on a local and national level.

Started in 2013, this nine-month Argonne STEM enrichment volunteer-based program was designed to provide real world research experiences that capture the imagination of these inquisitive African-American high school students in hopes of inspiring them to pursue careers in STEM.

### HOW POSTDOCS AND OTHER SCIENTISTS CAN HELP

As a mentor you can work with students to guide the planning, design and implementation of research projects, which lead to the completion of a competitive paper, poster and presentation.

You can also **be a leader** by serving as a co-chair. The co-chairs recruit and train mentors, facilitate student-mentor pairing, organize the monthly

workshops, recruit career speakers, ensure that students have all the supplies needed for research projects and serve as a point of contact for parents, mentors, students and the local ACT-SO chapter committee.

### HOW NON-SCIENTISTS AND OTHER ORGANIZATIONS CAN PARTICIPATE

You can join the Argonne African-American ERG (Employee Resource Group), the program's host organization and serve in a program support role (you do not have to be African-American to join).

If you are an external organization, you might want to start your own partnership with ACT-SO or join Argonne's program. Yes, we welcome volunteers from other institutions and are more than happy to share our very successful model with those who want to start their own program.



### HOW WE MEASURE SUCCESS

Medals are a small measure of the program’s success, and as shown in our Program Evolution below, we have received more than our fair share of medals at the local and national ACT-SO Competitions.

Primarily, we know the program has been successful when we see kids who were painfully shy and unsure of themselves transition to confident innovators with their own point of view, who are determined to pursue a challenging STEM discipline in college.

The ARP meets for a monthly Saturday session during the academic year from October through March. In addition, each mentor meets with their student on a periodic basis from January to March. Mentors lead and engage their mentees in independent research projects using the scientific method and monitor student progress while inspiring scientific and personal discovery.

### EVOLUTION OF THE PROGRAM’S SUCCESS

2013–2014		
PARTICIPATION	LOCAL AWARDEES	NATIONAL AWARDEES
15 students	3 Gold 1 Silver 1 Bronze	1 Gold
2014–2015		
PARTICIPATION	LOCAL AWARDEES	NATIONAL AWARDEES
17 students	5 Gold 3 Silver 5 Bronze 1 Honorable Mention	1 Gold 1 Silver
2015–2016		
PARTICIPATION	LOCAL AWARDEES	NATIONAL AWARDEES
20 students	2 Gold 1 Silver 1 Bronze	1 Gold 2 Silver 1 Bronze
2016–2017		
PARTICIPATION	LOCAL AWARDEES	NATIONAL AWARDEES
30 students	7 Gold 7 Silver 6 Bronze	3 Gold 1 Silver 1 Bronze
2017–2018		
PARTICIPATION	LOCAL AWARDEES	NATIONAL AWARDEES
29 students	8 Gold 5 Silver 6 Bronze 4 Honorable Mentions	4 Gold 2 Silver 1 Bronze

### CONTACTS

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