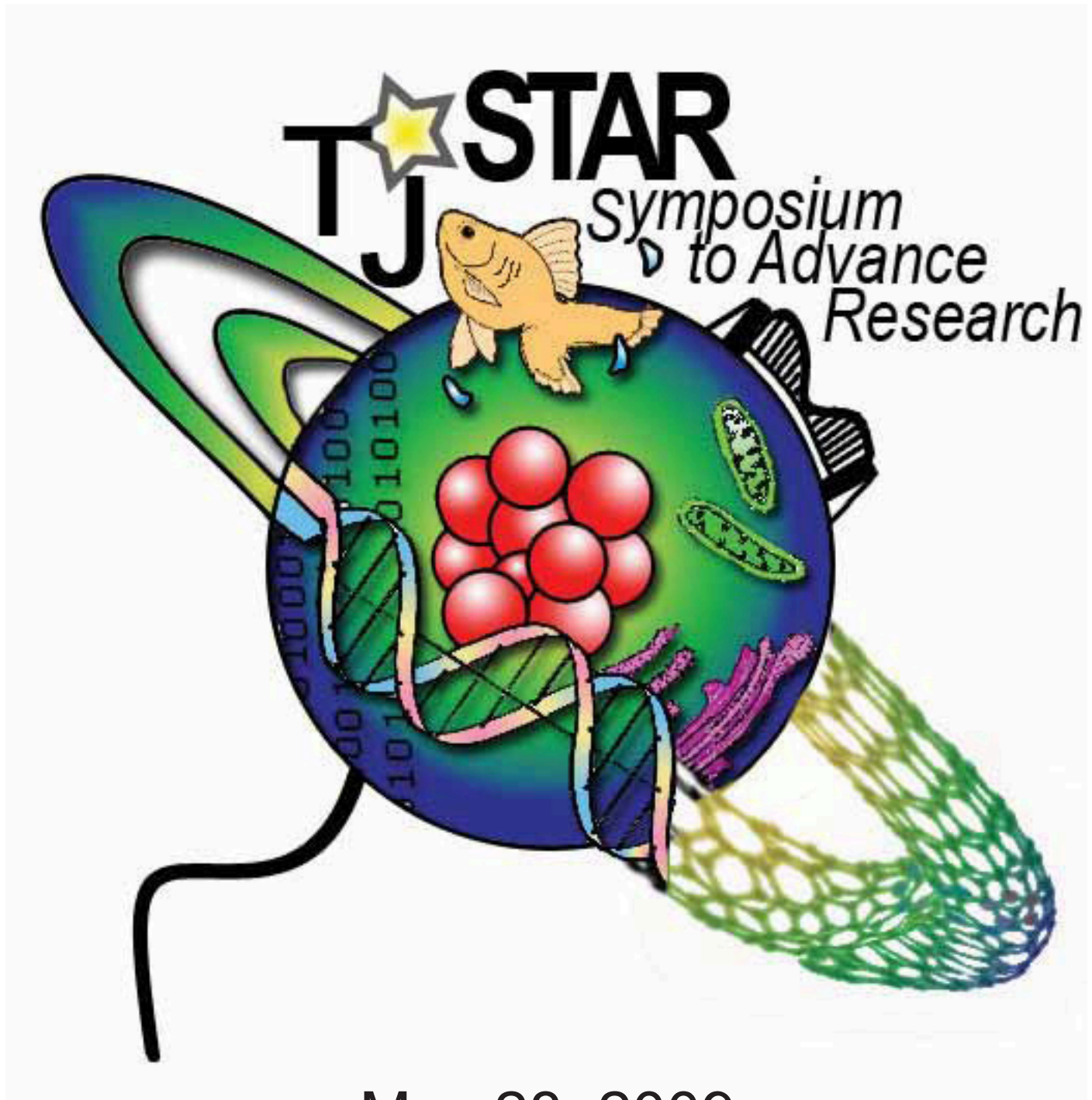


Thomas Jefferson High School for Science and Technology



May 28, 2009

6560 Braddock Road, Alexandria, Virginia 22312



tjSTAR Symposium to Advance Research

A day to celebrate all things research!

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Thank you to all of our attendees!



Introducing tjSTAR,

Dr. Evan Glazer, Principal

Welcome to the inaugural Symposium to Advance Research for Thomas Jefferson High School for Science and Technology (tjSTAR). This is a great opportunity to view hundreds of creative and innovative science and technology projects designed by our students as part of their coursework throughout the school year. During this special school day, we celebrate our students' research spanning from freshman IBET (Integrated Biology English and Technology), sophomore CHUM (Chemistry and Humanities), to our senior science and technology research labs and mentorships. Older students can learn about their peers' work, and younger students can witness the many possibilities they can pursue while they are at TJ.

In addition to the research sessions, students can attend interactive workshops, listen to expert speakers on panels, participate in design competitions, and explore innovative technologies through demonstration sessions. Students have opportunities to meet professionals who are connecting research to real world problems.

In addition to our own stars, this day would not be possible without the leadership and support from our community partners. They have contributed exponentially to this program, not only through monetary donations and research equipment for our labs, but through their time and scientific expertise as well.

Use this day as an opportunity to not only learn about what can be done at TJ, but what you can do, both individually and collaboratively, to contribute to a field of research in the future. Have a remarkable day!

A handwritten signature in black ink, likely belonging to Dr. Evan Glazer, Principal.



Keynote Speaker

Secretary of Education,

Mr. Arne Duncan

Arne Duncan was nominated to be secretary of education by President-elect Barack Obama and was confirmed by the U.S. Senate on Inauguration Day, Jan. 20, 2009.

In his confirmation hearings, Duncan called education “the most pressing issue facing America,” adding that “preparing young people for success in life is not just a moral obligation of society” but also an “economic imperative.” “Education is also the civil rights issue of our generation,” he said, “the only sure path out of poverty and the only way to achieve a more equal and just society.” Duncan expressed his commitment to work under the leadership of President Obama and with all those involved in education “to enhance education in America, to lift our children and families out of poverty, to help our students learn to contribute to the civility of our great American democracy, and to strengthen our economy by producing a workforce that can make us as competitive as possible.”

Prior to his appointment as secretary of education, Duncan served as the chief executive officer of the Chicago Public Schools, a position to which he was appointed by Mayor Richard M. Daley, from June 2001 through December 2008, becoming the longest-serving big-city education superintendent in the country. In seven and a half years, he united education reformers, teachers, principals and business stakeholders behind an aggressive education reform agenda that included opening over 100 new schools, expanding after-school and summer learning programs, closing down underperforming schools, increasing early childhood and college access, dramatically boosting the caliber of teachers, and building public-private partnerships around a variety of education initiatives.

Duncan graduated magna cum laude from Harvard University in 1987, majoring in sociology. He was co-captain of Harvard’s basketball team and was named a first team Academic All-American. He credits basketball with his team-oriented and highly disciplined work ethic.

For Secretary of Education Arne Duncan’s extended biography, please visit:
<http://www.ed.gov/news/staff/bios/duncan.html>

TJHSST One Question

What if we all asked the same question?

What if we all answered it together?

How could a question change our life at TJ?

How could our answers affect the world beyond our building?

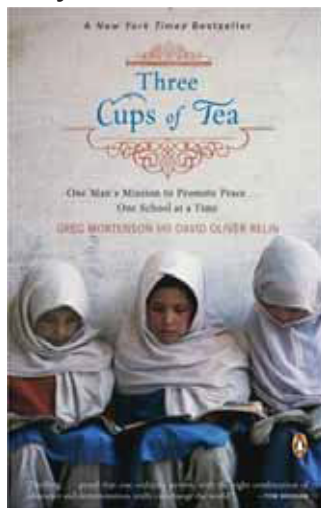
In the 2009-2010 academic year TJ will inaugurate a new initiative, in which the whole school community will be invited to focus on One Question. Students had the opportunity in February of 2009 to propose an open-ended and challenging question that would connect science, math, or technology to the needs of our world. Five top questions were selected from all student proposals, and the school community then chose the final question through online voting.

That question will serve as inspiration for the TJ community during the coming school year. It will be addressed through various avenues, according to student and faculty interest: a semester course, subject classes, 8th period activities, speaker series, research projects, etc. Students and teachers may also apply for grants to pursue the One Question.

The 2009-2010 One Question is

“What are the social responsibilities of educated people?”

submitted by Ian Ladner, class of 2012.



During the summer of 2009 Thomas Jefferson will continue its “One Book” tradition, in which the entire TJ community reads the same book during the summer. This summer’s book selection, ***Three Cups of Tea***, by Greg Mortenson and David Oliver Relin, will serve as a spring board for discussions on the social responsibilities of educated people.

<http://academics.tjhsst.edu/oneq/index.php>

Thanks to our Sponsors

The generosity of our sponsor partners in their strong demonstration of support for tjStar is much more than a simple agreement to fund an event. It is an affirmation of the great expectations of business and civic leaders and individuals that TJHSST will deliver on its promise of advancing educational excellence and producing future leaders of our community and nation.

We are deeply grateful for the responsiveness of our many partners in supporting the May 28th research symposium and for their confidence in our school, its leadership and faculty, and our terrific students.



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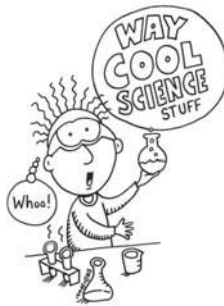
SAIC
From Science to Solutions

Battelle

The Business of Innovation

Acknowledgements

The first annual tjSTAR is a day to celebrate all things research at TJ, and it could not have happened without the assistance of so many from throughout the TJ community. Hard-working students, staff, parents, business partners and friends of TJ have come across the metropolitan area, and several from across the county, to dialogue, debate and challenge each other to seek scientific solutions to the problems of today. We are a community of learners, each with a responsibility to share our knowledge and experiences in the name of research. Senior Tech Lab Directors, IBET teams, mentors and individual teachers who have worked with students pursuing independent research opportunities outside of the classroom are to be commended for the fine job that they have done with our students. Other staff and community members have generously offered their time to lead workshops, organize panels, invite speakers, sponsor student clubs, and lend a hand to the countless tasks and committees that make a day like this possible. TJ's stars really shine!



In addition to the assistance indicated above, the contributions of the following individuals, teams and organizations warrant additional thanks:

tjSTAR webpage creators and curators: Angela Tran, Jennifer Lee, Daniel Kang.

Xiaoxiao Lin

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US Department of Education

FCPS Cluster III Office

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8th Period Office

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TJ PTSA

TJ Tech Team

Pete Morasca

TJ Security Team

TJ One Question Committee

tjSTAR Steering Committee

Jennifer Hertzberg

TJ STAR Overview of Schedule May 28, 2009

Activities	IBET Presentations	Senior Research and Mentorship Presentations	CHUM	Workshops	Design Challenges	Speakers	Panels	Demonstrations and Hands-on Activities
Description	All TJ Freshmen will be presenting their year-long IBET research projects	All TJ Seniors will be presenting their year-long senior Tech Lab and/or Mentorship projects.	The Chemistry-Humanities students will be presenting their projects on molecules that changed the world.	Topical, interactive presentations on original research by TJ students, TJ faculty or invited guests	Teams of TJ students will be in competition to solve fun, real-world engineering problems.	Experts from mathematics, science and technology organizations will lead discussions about current innovations.	Researchers come together to share divergent perspectives on current issues in math, science and technology.	An opportunity for TJ students and faculty to experience the latest research projects or products.

8:30 - 8:50

A Block: All students report to TA; attendance taken, TJSTAR student schedules distributed.

9:00 - 10:10

B Block : Session B All students will sign up via Intranet for one activity during this session.

10:10 - 10:20

Change Classes

10:20 - 11:30

C Block : Session C All students will sign up via Intranet for one activity during this session.

11:30 - 12:15

Lunch

12:15 - 1:25

D Block : Session D All students will sign up via Intranet for one activity during this session..

1:25 - 1:35

Change Classes

1:35 - 2:45

E Block : Session E All students will sign up via Intranet for one activity during this session.

3:00 - 3:50

F Block: One Question, One Book Presentation and Keynote Speaker: U. S. Secretary of Education Arne Duncan