Davidson Institute eNews-Update

"Supporting our Nation's Brightest Young People"

March 2015

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What's New in Gifted Education

Intel Science Talent Search – Recognizing America's Brightest Young Scientists

Some of America's brightest students were recently recognized as the Intel Corporation and Society for Science & the Public (SSP) announced the winners of the <u>2015 Intel</u> <u>Science Talent Search (STS)</u>. The Intel STS recognizes 40 high school seniors set to create new technologies and solutions that can change the world through scientific innovation. The following students each received first-place awards of \$150,000:

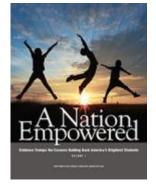


- Noah Golowich (*pictured, left*) won the First Place
 Medal of Distinction for Basic Research. He developed a proof in Ramsey theory, a field of mathematics based on finding types of structure in large and complicated systems.
- Andrew Jin *(center)* won the First Place Medal of Distinction for Global Good. He developed a machine learning algorithm to identify adaptive mutations across the human genome. His system discovered more than 100 adaptive mutations related to immune response, metabolism, brain development and schizophrenia in real DNA sequences, an important first step toward developing gene therapies or vaccines.
- Michael Hofmann Winer *(right)* won the First Place Medal of Distinction for Innovation. He studied how fundamental quasi-particles of sound, called phonons, interact with electrons. His work could potentially be applied to more complex atomic structures.

View the <u>press release</u> and <u>click here</u> for a detailed description of each of the finalists' projects. Sources: <u>CBS News</u>, <u>San Jose Mercury News</u>

A Nation Empowered – Update to A Nation Deceived

The <u>Acceleration Institute</u> has announced the upcoming April release of <u>A Nation</u> <u>Empowered: Evidence Trumps the Excuses Holding Back America's Brightest</u> <u>Students</u>, an update to the watershed work initiated by <u>A Nation Deceived: How</u> <u>Schools Hold Back America's Brightest Students</u>. A Nation Deceived delved into research-based practices for challenging academically talented youth. A Nation Empowered tells the story of how well we have applied what we have learned. The purpose of <u>A Nation Empowered</u> is to inform educators, parents, and policy makers of current research on acceleration, how that information has been applied to educational policy throughout the nation, and how educators can use the findings to make decisions for their brightest students.



Comparing Popular Online Math and Language Arts Programs

As the popularity of online educational programs continues to grow, the Davidson Institute offers the following charts providing side-by-side comparisons of some of the most popular online math and language arts programs used by Davidson Young Scholars:

Online Math Program Comparison

Online Language Arts Program Comparison

Impacts of Common Core State Standards on Gifted Education

While the merit and politics of the Common Core State Standards (CCSS) have been much debated and discussed, one topic has been virtually ignored: How will the standards impact gifted education? Fordham Institute recently hosted a live discussion on this topic.



- Watch: Can Gifted Education Survive the Common Core?
- Download: Common Core and America's High-Achieving Students to learn more.
- Read: Can gifted education survive the Common Core? by Chester E. Finn, Jr. and Amber M. Northern.

Davidson News

The Davidson Academy of Nevada - Upcoming Deadline

A free public school, The Davidson Academy of Nevada encourages and supports the abilities, strengths and interests of profoundly gifted middle and high school students. If you are interested in applying to The Davidson Academy for the 2015-2016 school year, the final application deadline is April 1. Please visit the How to Apply, Qualification Criteria and the Application Review Process pages for more information.



Prospective students interested in receiving email updates about the Academy can subscribe to The Davidson Academy eNewsletter by clicking here.

2015 THINK Summer Institute - Upcoming Deadline

With an application deadline of April 1, the THINK Summer Institute is a threeweek residential summer program on the campus of the University of Nevada, Reno where students can earn college credits by completing two university courses. This year, THINK will run from July 11 through Aug. 1. Tuition is \$3,400 and covers course credits, books and materials, room and board and the cost of planned activities. Need-based scholarships are available. Please visit the How to Apply and Qualification Criteria pages for more information. Homeschooled students are eligible to apply.

Davidson Young Scholars

The Davidson Young Scholars program provides FREE services designed to nurture and support profoundly gifted young people and their families, including talent development and educational advocacy, an online community, annual gettogethers and the Ambassador Program. Applications are due the first of each month. For more information, see the How to Apply and Qualification Criteria pages.

Legislative & Policy News

NATIONAL – Jack Andraka, a 15-year-old gifted student, created a petition and is now seeking signatures in support of the federal TALENT Act. Source: Change.org

ALABAMA – The state legislature is seeking a grant program to provide additional resources for statewide gifted programs. Sources: WAAY, Shelby County Reporter



Summer Institute

<u>CALIFORNIA</u> – The Fairfield-Suisun Unified School District has proposed a reduction of a magnet site at the middle school level and an increase in "cluster" sites at current schools in the district. Source: <u>Fairfield Daily Republic</u>

FLORIDA – The Escambia School District has proposed closing the Program for Academically Talented Students (PATS) Center and moving the services offered there into every school. Source: Pensacola Today – 2/13, 1/28



ILLINOIS – The Moline-Coal Valley School District is altering its Program for Academically Talented Students (PATS). Currently, PATS groups academically gifted elementary students. The new program would mix high-performing students into regular classrooms with students of varying abilities at their neighborhood schools. Source: <u>Quad-Cities Online</u>

Kenwood Academy High School in Chicago will add an early high school program for nearby elementary school students and a summer enrichment program for students citywide. Source: <u>Hyde Park Herald</u>

KENTUCKY – Opening this fall, the new Craft Academy for Excellence in Science and Mathematics at Morehead State University will allow gifted students to complete high school with up to 60 hours of college credit. Source: <u>The Independent</u>

LOUISIANA – The St. Charles Parish school district is providing extra support to "high potential" minority students to assist with IQ tests. Source: <u>Hechinger Report</u>

MISSISSIPPI – An anonymous donor has agreed to match all new gifts up to \$250,000 for the Frances A. Karnes Endowed Chair in Gifted Education at the University of Southern Mississippi. Source: <u>Hattiesburg American</u>



OHIO – Following a task force review, there will be a number of changes to the Dublin City School District's gifted program

starting in the 2015-2016 school year. For grades K-3, enrichment with a gifted intervention specialist in the classroom was recommended for all students. For grades four and five, differentiated teaching in the classroom would be utilized. Source: <u>ThisWeekNews</u>

SOUTH CAROLINA – A former elementary school in the Charleston County School District is set to reopen next year as a magnet school offering a gifted and talented curriculum. The new C.C. Blaney Center for Advanced Learning aims to engage students in critical thinking and problem solving. Source: <u>Charleston Post Courier</u>

TEXAS – To ensure that less affluent, minority students have access to the most challenging classes, the Houston Independent School District (HISD) has formed a panel of administrators to revamp the way gifted students are identified. Source: <u>Houston Chronicle</u>

The Highland Park Independent School District will now offer Talented and Gifted testing every year. Previously, the district tested students every two years. Source: <u>Dallas Morning News</u>

WYOMING – The Natrona County School District is considering a number of changes to improve its gifted and talented program, including possibly implementing a specialized kindergarten program for advanced students. Sources: <u>Casper Journal</u>, <u>Casper Star-Tribune Online</u>



How gifted-friendly is your state? Find out on the <u>Davidson Gifted Database State Policy Map</u>. If you know of new legislation, please contact the <u>Communications Team</u>.

On the Web

Gifted Exchange Blog

Read Laura Vanderkam's take on all things gifted. One of her recent posts is, "*The Common Core and gifted ed.*" Join the <u>discussion</u> today!

Science Competition Opportunity

The fifth annual <u>Google Science Fair</u> challenges students ages 13 to 18 to submit science projects that explore unanswered questions or tackle scientific hurdles that have yet to be overcome. After all submissions are in, the 20 selected finalists will go to Google's headquarters in hopes of walking away with one of many awards or the grand prize. Students have until May 18 to submit their projects. Read more here.



Featured Articles and Resources

The Davidson Gifted Database at <u>www.DavidsonGifted.org/DB</u> is a gateway to resources for and about gifted students. <u>See what's new!</u>

Articles

The article, <u>Building Connections: Developing 21st Century Self-Management Skills for Gifted Students</u>, highlights a number of self-management skills essential for success in the 21st century.

The article, <u>Tips for Parents: Positive Boundaries - Where to Draw the Lines</u>, is from a Davidson Young Scholars parent seminar.

Step-by-step critical and creative thinking strategies are discussed in the article, <u>Critical and Creative</u> <u>Thinking: The Joy of Learning!</u>

The article, <u>Exploring and Encouraging Creativity</u>, provides advice on encouraging creativity in gifted students.

Resources

The <u>Boston Leadership Institute</u> selects outstanding high school students for three-week programs each summer. Students develop high-level research skills and subject matter expertise that strengthen credentials valuable for college admission.

<u>Brain Chase</u> is a five-week online summer learning challenge is disguised as a massive global treasure hunt for students in grades two through eight.

<u>FlashToPass</u> is an app that provides free math flash cards. It allows students to practice adding, subtracting, multiplication and more.

In the News

March 6 - *Huffington Post*, <u>The Care and Nurturing of the Gifted Child</u> (George Heymont)
March 5 - *Business Insider*, <u>This woman dropped out of Princeton at 19 to start a global nonprofit</u> (Peter Jacobs)
February 26 - *ABC Action News*, <u>How to Know if Your Child is Gifted</u> (Angela Ardolino)
February 24 - *Tech Times*, <u>10-Year-Old Math Prodigy To Attend Open University</u> (Kevin L. Clark)
February 24 - *KOB.com*, <u>What it's like to raise son with IQ in 99.9th percentile of population</u> (Nicole Brady)
February 23 - *T.H.E. Journal*, <u>Will Gifted Education Weather the Common Core?</u> (Dian Schaffhauser)
February 21 - *The American Bazaar*, <u>Child genius wants to be the President of the United States</u> (Raif Karerat)
February 20 - *Ed Tech Magazine*, <u>Students Line Up for Google Science Fair 2015</u> (D. Frank Smith)
February 19 - *Harvard Crimson*, <u>The Dropouts</u> (Maia R. Silber)
February 3 - *TES News*, <u>We must expect magic from every student</u> (Alex Quigley)
February 9 - *Chronicle of Higher Education*, <u>The Rich Man's Dropout Club</u> (Beth McMurtrie)
January 30 - *Calgary Herald*, <u>For gifted children</u>, being intelligent can have dark implications (Marcello Di Cintio)
January 29 - *The Attantic*, <u>Can All Children Become Calculus Whizzes?</u> (Sophie Quinton)

Discuss these stories and more on the Gifted Issues Discussion Forum.

In the Spotlight

Misha Raffiee - Davidson Academy Alumna

What have you been doing since graduating from the Davidson Academy of Nevada in 2010?

After graduating from the <u>Davidson Academy</u> at age 15, I enrolled at the California Institute of Technology (Caltech) as a double major in bioengineering, and business economics and management. I've had the opportunity to collaborate with world-class faculty on research projects in biofuel development as an Undergraduate Research Fellow at Caltech; in HIV antibody therapy as an Amgen Scholar; and in earthquake engineering as a National Science Foundation (NSF) Network for Earthquake Engineering Stimulation (NEES) Undergraduate Research Fellow at the University of Nevada, Reno. In addition, since July 2014, I have been pursuing an independent research project into jellyfish propulsion and healing mechanisms as a research scientist at Caltech.



During my undergraduate years, I was elected a member of the national engineering honor society Tau Beta Pi; awarded Caltech's prestigious Deans' Cup; competed as an NCAA athlete in swimming and water polo; and continued to pursue my passion for violin performance as concertmaster of the Caltech-Occidental Symphony Orchestra, two-time winner of the orchestra's concerto competition, and professional violinist with the Santa Monica Symphony. I was also honored as the sole recipient of Caltech's Beckman Political Internship in 2012 to pursue a policy internship in Senate Majority Leader Harry Reid's office in Washington, D.C. Through this internship, I provided support on a number of scientific issues and consulted on the Senator-sponsored STEM Smart Conference geared towards strengthening K-12 education in STEM fields.

I also co-founded Caltech InnoWorks in 2011, a for-student by-student initiative to provide underserved middle school students with outstanding and free hands-on educational opportunities in science, technology, engineering and mathematics. As InnoWorks Director this past year, I successfully managed and coordinated a weeklong day camp for 60 students, passing on my love for teaching and research in science and engineering to future generations of InnoWorkers.

What are your plans for the future?

In the fall, I will attend a Ph.D. program in bioengineering at either Stanford University or Massachusetts Institute of Technology (MIT), where I plan to pursue research projects with strong roots in medicine. Eventually, I aspire to either lead my own lab as a research professor or to be a pioneering leader in the biotech industry, conducting research that will lead to groundbreaking developments in disease therapy.

You recently gave a TEDx talk at the University of Nevada, Reno, called 'Engage and Embrace Your Natural Curiosity by Asking "Why?" How did you come up with this

topic?

From a young age, developing and using my natural curiosity has always been something very near and dear to me, and as I've gotten older, I continued to cultivate an appreciation for digging deeper and asking more 'why?' questions. I also became interested in whether there are known scientific bases for the positive effects of curiosity on the brain, and I felt that the TEDx stage was a perfect venue for me to share these exciting scientific discoveries and my own experiences and successes with developing and using natural curiosity. Through my TEDx talk, I hope to encourage people from all over the world to challenge themselves to become confident in asking questions and let that confidence feed into a desire to ask deeper questions and develop new ideas. Watch Misha's TEDx talk.

Closing Thought

"A solid foundation in science, technology, engineering and math creates the critical talent corporations and startups need to drive their business and contribute to economic development. We hope this program will encourage other young people to become the next generation of scientists, inventors and engineers."

~ Renee James, President, Intel Corporation

If you have information to include in future eNews-Updates, please email our <u>Communications Team</u>. If you have been forwarded this eNews-Update, and wish to receive future editions, <u>sign-up here</u>.

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