# Davidson Institute eNews-Update

"Supporting our Nation's Brightest Young People"

# November 2015

What's New in Gifted Education | Davidson News | Legislative & Policy News | On the Web | In the News | In the Spotlight

# **What's New in Gifted Education**

# **2015** Davidson Fellows Award Ceremony in Washington, D.C.

On Sept. 29, 2015, 20 young people were honored at the <u>Davidson Fellows</u> award ceremony for their work in science, technology, engineering, mathematics, literature and music. Davidson Institute for Talent Development co-founder Bob Davidson presented the awards at the 15th annual ceremony held at the Smithsonian National Museum of the American Indian. In recognition of their remarkable achievements, each of the <u>2015 Davidson Fellows</u> received a \$50,000, \$25,000 or \$10,000 scholarship.



# 2016 Davidson Fellows Scholarship

The 2016 <u>Davidson Fellows Scholarship</u> application is now <u>available online</u>. Young people 18 and younger have the opportunity to earn a \$50,000, \$25,000 or \$10,000 scholarship in recognition of a significant piece of work in the categories of science, technology, engineering, mathematics, music, literature and philosophy, or a project that represents outside the box thinking. The application deadline is Wed., Feb. 10, 2016.

# Google Science Fair Tackles Wide Range of Timely, Essential Issues

Recently-announced <u>2015 Google Science Fair</u> award recipients include:

- Olivia Hallisey, who developed a new test for Ebola (<u>CBS News</u>);
- Pranav Sivakumar, who created algorithms to find and study objects theorized to be the cores of old galaxies (*Chicago Tribune*);
- Anurudh Ganesann, who developed an innovative, eco-friendly refrigeration system for last-leg vaccine transportation (<u>Tech Insider</u>); and
- <u>2015 Davidson Fellow</u> Deepika Kurup, who synthesized an advanced oxidation process with filtration to remove multiple classes of toxins from water (*India West*).



#### **Broadcom MASTERS - Recognizing STEM Innovation**



The Broadcom Foundation and <u>Society for Science & the Public (SSP)</u> recently announced the <u>2015 Broadcom MASTERS STEM competition</u> <u>winners</u>. Winners include: Annie Ostojic of Indiana, who was awarded the top prize for her project on microwave design, STEM knowledge and ability as a natural leader; and Sebastian Mellen of San Diego, Calif., for his app design and development while demonstrating superior teamwork skills. Broadcom MASTERS (Math, Applied Science, Technology and Engineering Rising Stars) is one of the top middle school science and engineering fair competitions. View the <u>Press Release</u>. Source: <u>ScienceNews.org</u>



# **Epsilon Camp - A Challenging Summer Math Experience for Young Students**

psilon Camp Application season has begun for <u>Epsilon Camp</u>, a two-week summer residential camp serving promising young mathematicians and their families through an intensive student program and parent workshop.

The mission of Epsilon is to meet the learning needs of students ages 7 through 11 with extreme intelligence and a love of mathematics by exposing them to suitable content, pedagogy, peers and mathematicians. Epsilon Camp 2016 will be held at Washington University in St. Louis, Mo. from July 24 to August 7. Epsilon will offer one full scholarship for a camper and one parent/guardian, and up to four additional financial assistance awards.

# **Davidson News**

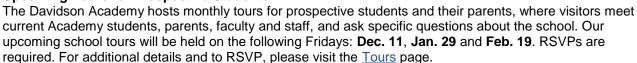
# **Davidson Academy of Nevada**

The <u>Davidson Academy of Nevada</u> is a free public school unlike any other in the country. At the Academy, the abilities, strengths and interests of profoundly gifted middle and high school students are encouraged and supported. If you are interested in applying to the Davidson Academy for the 2016-2017 school year, please review the <u>Qualification</u> Criteria and How to Apply pages for more information.

"People are free to be whoever they want to be here, and that's a great part of what makes the Academy an amazing school."

Davidson Academy Graduate

#### **Upcoming Tours for Prospective Students**



The Academy is featured on <u>CNN's Vital Signs with Dr. Sanjay Gupta</u>! Coverage of the Academy begins at the 5:43 point of this segment, the first of three in a special on genius and creativity.

#### **2016 THINK Summer Institute**

THINK participants earn six college credits while living on campus at the University of Nevada, Reno. All courses are taught by University faculty at the <u>Davidson Academy</u>, located adjacent to the THINK residence hall. Participants choose two courses, one in the morning and the other in the afternoon. While the focus of THINK is to provide a challenging academic experience, having fun and social time are also key components.

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Why choose THINK?

• Earn six college credits in three weeks



- Experience college life while living on campus
- Build friendships with like-minded peers from all over the country
- Work closely with University faculty in small classes
- Lower cost compared to other credit programs (financial assistance also available)

# **Davidson Young Scholars**

The <u>Davidson Young Scholars</u> 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, visit the <u>How to Apply</u> and <u>Qualification Criteria</u> pages.



# Free Guidebooks for Gifted Learners

The Davidson Institute offers FREE, online access to educational planning <u>guidebooks</u> focused on various topics such as advocacy, early college, mentorships, gap year, homeschooling and giving back.

# **Legislative & Policy News**

**NATIONAL** – The U.S. Department of Education will provide more than \$4 million to multiple states, a university system, and a school district through the Jacob Javits Gifted and Talented Education Grant (Javits) program. Source: Education Week

**ARKANSAS** – A separation of school districts in Jacksonville will restrict numerous gifted students from taking part in the popular Scholars Program, causing concern among parents. Source: <u>KATV</u>

**CALIFORNIA** – The Milpitas school district's Board of Education will officially dissolve the already-defunct Gifted and Talented Education program by spring 2016. Source: <u>Daily Democrat</u>

The Davis school board recently adopted several changes to the Alternative Instructional Model program (AIM), including: maintaining universal testing of all third-



graders across the district; approving a pilot program to aid in the identification of gifted students; and, approving a two-year transition from the current standard for AIM eligibility (a score in the 96th percentile) to a higher threshold (98th percentile). Source: <u>Davis Enterprise</u>

A number of advocates recently attended a San Francisco school board meeting to demand the district restore programs and courses for gifted and high-achieving students. Source: <u>SFGATE</u>

**<u>COLORADO</u>** – The RE-1 Valley School District's gifted program will undergo a number of changes, including new guidelines for identifying gifted students. Source: <u>Journal Advocate</u>

**FLORIDA** – A number of school districts in Florida have taken steps to increase diversity among their gifted programs. Sources: <u>Sun-Sentinel</u>, <u>Florida Times-Union</u>

**KANSAS** – The Tri-County school district is upgrading its gifted program by partnering with a local organization that provides personalized instruction using new technologies, has connections with colleges, and teaches classes with industry instructors. Source: <u>KOAM-TV</u>

**LOUISIANA** – The recent remodel and expansion of Lee High in Baton Rouge, a magnet school with selective admission requirements, is likely to attract numerous gifted students. Source: <u>The Advocate</u>

NEVADA – Washoe County public schools will receive a \$3.75 million state grant for its gifted and talented

program. The funding is part of a \$10 million package for gifted students recently approved by the state legislature, marking a dramatic increase in funding for Nevada's gifted programs which previously received \$200,000 a year. Source: <u>Reno Gazette Journal</u>

**NEW YORK** – A number of New York City school districts do not offer classes for gifted elementary children, resulting in many advocates seeking changes. Sources: <u>Wall Street Journal</u>, <u>The Brooklyn Paper</u>

A disparity between low-income versus upscale neighborhoods among the students who attempt to test into gifted programs, and those who become enrolled, is prompting critics to seek changes. Sources: <u>New York</u> Daily News, DNAinfo, New York Post

The Parents' Alliance for Citywide Education, composed of parents with children in New York City's gifted programs, is petitioning to open a citywide gifted school in the Bronx. Source: <u>DNAinfo</u>

**NORTH CAROLINA** – The Asheville school district recently shifted resources to focus on gifted students in



grades 3-5 rather than those in grades K-2, prompting concern among some parents. Source: <u>Asheville</u> <u>Citizen-Times</u>

**<u>OHIO</u>** – Ohio is considering an update to gifted education standards in the state, concerning a number of advocates. One possible change is the removal of a requirement for gifted instructors to be specially licensed. Also missing are clear parameters of the minimum a district must do to serve gifted students. Source: <u>Columbus Dispatch</u>

**TEXAS** – The Houston school district is considering changes to its policy on gifted testing. Under proposed changes meant to increase equity, all gifted students in the district would receive personalized education plans and no longer face losing the gifted label in middle school. Source: <u>Houston Chronicle</u>

**UTAH** – The recently created Utah Center for the Advancement of Reading Excellence (UCARE) will attempt to improve services for gifted and talented readers in low-income schools throughout the state, funded in part by a \$352,715 Javits grant. The 60 schools involved in the UCARE program will receive assistance in identifying gifted and talented readers, and professional development on how to best serve these students. Source: <u>Utah Policy</u>

**WASHINGTON** – The Snoqualmie Valley School District recently launched a new science, technology, reading, engineering, arts and math (STREAM) program for gifted students. This magnet program serves the top elementary-age students in the school district within their own classroom. Source: <u>Snoqualmie Valley</u> <u>Record</u>



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



# Gifted Exchange Blog

Read Laura Vanderkam's take on all things gifted. One of her recent posts is, "When to skip a grade, when not to." Join the <u>discussion</u> today!

# **New Web Publication Hones in on Gifted Education**

*Medium* is a new web page offering a different place to read and write on the Internet. Their education section, called *Bright*, is funded by the New Venture Fund and The Bill & Melinda Gates Foundation. *Bright* recently published a series of op-eds detailing how we might better support, or reform, gifted education. Articles include:

- Is America Failing its Brightest Stars? (featuring Davidson Academy graduate Taylor Wilson, pictured right)
- Why are We Supporting Everyone Except Our Most Talented
  Students?
- Five Ways to a More Politically Palatable Gifted Education
- <u>Two Lessons on How to Support Gifted Kids</u>
- <u>My Gifted Program Pulled Me out of the Pits</u>

# **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 recently updated article, <u>Tips for Parents: Gift Ideas for Eager Young Minds</u>, provides suggestions of books, magazines, toys and games appropriate for gifted young people compiled from families in our Davidson Young Scholars program.

<u>Tips for Parents: Beyond Overexcitabilities: A Crash Course in Dabrowski's Theory of Positive Disintegration</u> highlights aspects of psychologist Kazimierz Dabrowski's Theory of Positive Disintegration, the role of overexcitabilities in the theory, Dabrowski's suggestions for supporting young people with what he termed "developmental potential," and a list of resources for further reading and study.

<u>Tips for Parents: Why SMART Goals Don't Work...and what to do about it</u> provides advice on goal setting and setting obtainable objectives.

In <u>Caught in the middle: How to help gifted children</u> <u>survive the middle school years</u>, Gail Post describes challenges that gifted children in middle school face and what parents can do to help them.

#### Resources

#### In Reflections on Gifted Education: Critical Works by

Joseph S. Renzulli and Colleagues, more than 40 years of research and development are highlighted in a collection of articles published by Dr. Renzulli and his colleagues at the University of Connecticut's Neag School of Education.



XQ: The Super School Project is composed of parents and pioneers, entrepreneurs and teachers, business leaders and administrators, youth and education experts who are joining a movement to rethink America's schools.

<u>Massachusetts Institute of Technology (MIT) THINK Scholars</u> is a student-run educational outreach program that makes STEM research and development accessible to high school students who reside in the United States. Using the existing MIT THINK competition as a framework, this group has developed an application process for admission into this new program.

In the book <u>Writing Your Own Script: A Parent's Role in the Gifted Child's Social Development</u>, Corin Barsily Goodwin and Mika Gustavson, explore a parent's role in their child's social development. The book aims to show parents how to help their child discover the joy of true friendships based on common interests, shared



values and mutual understanding.

Suggest a Resource Suggest an Article

# In the News

November 18 - *Fox News*, <u>16-year-old prodigy 'sees' music</u> (Video) November 10 - *Noodle.com*, <u>Does Gifted Education Exacerbate Social Inequities in US Schools?</u> (Tedra Osell) November 4 - *Chicago Tribune*, <u>Disruptive students hurt high achievers most</u> (Michael Petrilli) November 3 - *Mashable*, <u>Why I pulled my son out of a school for 'gifted' kids</u> (Lina Paly) October 27 - *Education Week*, <u>Schools Seek to Diversify Gifted</u>, <u>Honors Classes</u> (Sarah D. Sparks) October 26 - *U.S. News & World Report*, <u>Gifted Yet Disadvantaged Kids May Be Getting Short Shrift</u> (L. Camera) October 21 - *EdExcellence*, <u>America's abandoned smart kids</u> (Chester E. Finn & Brandon L. Wright) October 18 - *Washington Post*, <u>Why I shouldn't give up on gifted education</u> (Jay Mathews) October 77 - *New York Times*, <u>An Admissions Surprise From the Ivy League</u> (Frank Bruni) October 8 - *Newsweek*, <u>We Are Failing Our Brightest Kids</u> (Chester E. Finn & Brandon L. Wright) October 2 - *India West*, <u>Seven Indian American Teens Among Davidson Fellows</u> (Staff) October 1 - *Indianapolis Star*, <u>High School senior wins prestigious prize for work in math</u>, <u>science</u> (Kris Turner) September 30 - *Slate Magazine*, <u>How Do You Select the Worthiest Kids for Gifted Programs?</u> (Laura Moser) September 28 - *NPR.org*, <u>Who Are The 'Gifted And Talented' And What Do They Need?</u> (Anya Kamenetz) September 22 - *Scientific American*, <u>What Makes a Prodigy?</u> (David Z. Hambrick)

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

# In the Spotlight

# Natalie Ng A 2013 Davidson Fellow Making a Difference

# What kind of impact can your Fellows project, "MicroRNA Prognostic Signatures and Prediction Models for Distant Metastasis-Free Survival (DMFS) in Breast Cancer" have on society?

My Davidson Fellows project involved developing a diagnostic tool for breast cancer. The main problem with breast cancer treatment is that the vast majority of patients are given chemotherapy to prevent metastasis, when few patients would have developed metastasis in the first place. This means that many patients undergo the severe side effects of chemotherapy without getting any real benefit. The objective of my project is to predict which patients will develop metastasis and therefore be good candidates for chemotherapy.



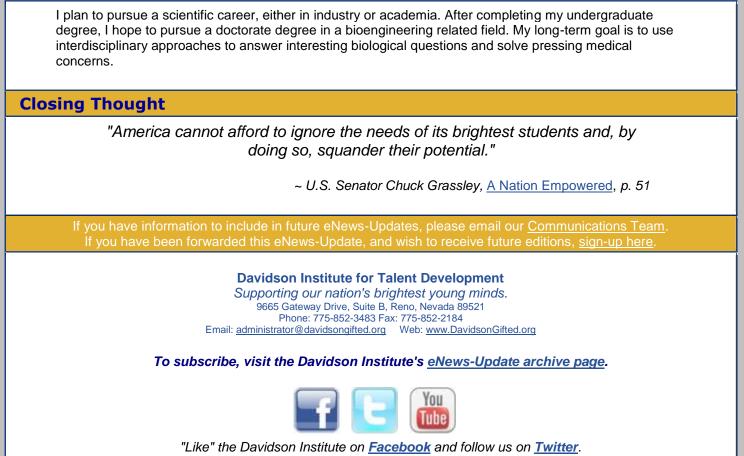
I began my project by taking a computational approach. I utilized pre-existing datasets from the Gene Expression Omnibus and processed the data using statistical regression models to identify two prognostic signatures capable of predicting metastasis. I then validated the signatures experimentally in breast cancer cell lines.

The direct impact of the project would be in tailoring an appropriate long-term treatment plan for breast cancer patients. This project also highlights the power of interdisciplinary approaches; by combining computational statistical methods with biological principles, we can develop tools that have a real-world impact on people's lives.

#### What are some of your short-term and long-term plans?

I will be a sophomore at Stanford University next fall. I love the environment at Stanford because of how it encourages innovative thinking and interdisciplinary approaches. My current plan is to major in Engineering Physics with a concentration in biophysics.

I am currently participating in undergraduate research in Kerwyn Huang's group in Stanford's bioengineering department. I am working on a biophysics project that uses molecular dynamics simulations to understand how proteins interact and impact cell morphology.



The Davidson Institute also has a number of YouTube videos!