



# Davidson Institute eNews-Update

"Supporting our Nation's Brightest Young People"

**September 2015**

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## What's New in Gifted Education



### Announcing the 2015 Davidson Fellows

Meet the [2015 Davidson Fellows](#)! Davidson Fellows have completed graduate-level projects or portfolios that have the potential to benefit society. Each will receive a scholarship and be recognized for their achievements at a special awards reception, sponsored by U.S. Senators Harry Reid (NV) and Chuck Grassley (IA), in Washington, D.C.

Positive contributions to society made by the 2015 Davidson Fellows include:

- Development of a low-cost method of converting wastewater to potable water.
- Fabrication of the next generation of supercapacitors that can be used in hybrid electrical vehicles, electric trains, airplanes, smart phones and computers.
- Brain image analysis to better understand brain anatomy, disease progression, monitor treatment regimens and discover genetic influences on brain structure.
- Creation of a cancer therapy that specifically targets only the cancer cells, potentially eliminating the side effects of traditional cancer treatments and increasing drug potency.
- Fostering a closer examination of race, culture and ethnicity through storytelling.

### 2016 Davidson Fellows Scholarship Application

The Davidson Institute offers \$10,000, \$25,000 and \$50,000 scholarships to students whose projects have the potential to benefit society, and are equivalent to college graduate-level with a depth of knowledge in a particular area of study. [Category requirements](#) for the 2016 [Davidson Fellows](#) scholarships are now available.

### Jack Kent Cooke Foundation College Scholarship Program

The [Jack Kent Cooke Foundation](#) is accepting applications for its [College Scholarship Program](#). Recipients will be awarded as much as \$40,000 per year for four years for tuition, books, living expenses and other required fees. Up to 40 spaces are available to high-achieving high school seniors with financial need who seek to attend the nation's best four-year colleges and universities. Applicants must plan to graduate from a U.S. high school in spring 2016 and enroll in an accredited four-year college in fall 2016. [Visit the website](#) for further eligibility requirements.

### Stanford OHS - Serving Intellectually Curious, Highly Motivated Students

Through Stanford University's [Pre-Collegiate Studies](#), academically talented, intellectually curious students have the opportunity to take a number of academic full-year programs, including [Stanford Online High School \(OHS\)](#). Stanford OHS, led by new director [Dr. MaryAnn Janosik](#), is an innovative, independent secondary school that combines the academic rigor of a selective liberal arts college with the intellectual nurturing needed by adolescents. As it embarks on its 10th year, the school offers gifted, highly motivated students in grades 7-12 a challenging curriculum and a vibrant community. All courses are conducted online in real time (synchronously), allowing students from around the world to interact with their teachers and each other in seminar-style classes.

**Stanford**  
PRE-COLLEGIATE STUDIES

Stanford OHS students can enroll as full-time, part-time or single course students. Applications for the 2016-

17 academic year will be available in mid-October. Additionally, the Stanford Pre-Collegiate Studies structure allows its multiple programs to share expertise and resources; many students participate in other pre-collegiate opportunities.

## Davidson News

### Davidson Academy of Nevada

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 who score in the 99.9th percentile on IQ or college entrance tests. If you are interested in applying to the Davidson Academy for the 2016-2017 school year, please review the [Qualification Criteria](#) and [How to Apply](#) pages for more information.



### Upcoming Tours for Prospective Students

Each month during the school year, the Davidson Academy hosts a tour for prospective students and their parents. At these tours, visitors meet current Academy students, parents, faculty and staff, and ask specific questions about the school. Our upcoming school tours will be held on the following Fridays: **Sept. 18, Oct. 23, Nov. 20** and **Dec. 11**. RSVPs are required. For additional details and to RSVP, please visit the [Tours](#) page.

### Davidson Young Scholars

The national [Davidson Young Scholars](#) program provides FREE services designed to nurture the intellectual, social, emotional, and academic development of profoundly intelligent young people between the ages of 5 and 18 (students must be between the ages of 5 and 16 when applying). Benefits of the program include:

- Consulting Services
- An Online Community
- In-person Connections
- Community Service Endeavors
- Summer Programs (fee-based)
- Classes/seminars



View [success stories](#) to see how the Young Scholars program has helped make a difference in the lives of these students. The Young Scholars application deadline is the first of each month.

### Free Guidebooks for Gifted Learners

The Davidson Institute offers FREE, online access to educational planning [guidebooks](#) focused on various topics such as advocacy, early college and mentorships, gap year, homeschooling and giving back. With a wide variety of articles and tools, these comprehensive guidebooks help direct parents and students through the process of searching for an appropriately challenging educational setting.

### Gifted Issues Discussion Forum

The [Gifted Issues Discussion Forum](#) is a meeting place for all things gifted. Register and become a part of one of the most active gifted education forums on the web! With nearly 9,000 registered members, it's a great place to share and interact with others about a wealth of gifted topics.



## Legislative & Policy News

**CALIFORNIA** – Davis school district trustees recently voted to stop accepting private test results for entry into the gifted education program and to develop a plan for teachers to provide differentiated instruction.

Source: [Sacramento Bee](#)

**FLORIDA** – The Seminole County school district has received a five-year, \$2.4 million Jacob K. Javits Gifted and Talented Student Education grant to increase the number of gifted and talented students from underrepresented groups, particularly English language learners. Source: [Orlando Sentinel](#)

**LOUISIANA** – A \$21,000 grant from the Virginia Martin Howard Foundation will be provided to eligible gifted students in grades 7-9 to participate in the Online Academy offered through the Louisiana School for Math, Science, and the Arts. Source: [NOLA.com](#)

**NEW JERSEY** – Mercer County Community College has received a \$600,000 grant from the National Science Foundation to fund students majoring in STEM fields over the next five years. The grant will provide 116 full-time scholarships to academically talented students in need of financial assistance. Source: [NJ.com](#)

**NORTH CAROLINA** – The recently-opened Wake Academy in Cary is designed to meet the needs of higher level or academically gifted students in grades K-4. The school features small classes, strong emphasis on STEM, enrichment opportunities and individualized learning. Source: [CaryCitizen](#)



**OHIO** – The recently-opened Gifted Academy in the Columbus school district requires students in grades 3-8 to test as gifted for entrance, either in general intelligence or specifically in both math and reading. Source: [Columbus Dispatch](#)

**PENNSYLVANIA** – The Saucon Valley School District is attempting to create a task force to study its programming for gifted students. The task force, comprised of parents of gifted students, teachers, administrators and more, will completely review Saucon's gifted student program and decide if an overhaul or update is needed. Source: [Lehigh Valley Live](#)

**SOUTH DAKOTA** – More than 100 South Dakota school districts have phased out gifted education programs since 1995, the year state lawmakers eliminated dedicated funding for the programs. At a recent gifted education summit, advocates addressed a number of related concerns. Source: [Sioux Falls Argus Leader](#)



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 [Communications Team](#).

## Gifted Exchange Blog

Read Laura Vanderkam's take on all things gifted. One of her recent posts is, "*The skill of performance.*" Join the [discussion](#) today!

## Institute of Meaningful Instruction

The [Institute of Meaningful Instruction](#) is designed to expand human potential through instructional material. They are currently offering these courses:

- [Exploring Tomorrow](#) - A four-week online course that teaches goal selection and achievement relative to each parent-student dyad's unique situation, interests and values. Topics include: college/gap year readiness; parent and student advocacy; social skill development; and, full-grade or single subject acceleration.
- [Measured Music](#) - During four weeks of live online instruction, students will learn how to set goals and measure performance in order to personalize a practice routine and schedule that has direct links to future musical aspirations. Topics include: practice session mapping; how to have mindful practice away from an instrument; create short-term daily goals within pitch and temporal skill development; and, identifying and actively reducing environmental effects on performance.



## Gifted Education Webinars

### National Association for Gifted Children (NAGC) - Webinars On Wednesdays

NAGC offers [Webinars On Wednesdays \(WOW\)](#) to directly provide gifted experts to classroom teachers, counselors, graduate students, parents, GT coordinators and administrators, sharing practical advice and updates on the latest issues in gifted education. Upcoming webinars include: Acceleration: Making Informed Decisions; and Creative Underachievers and the Fashion of Passion. Experience the live WOW sessions to listen, view slides, access handouts, and pose questions to presenters, as well as interact with other participants. All prior WOW sessions are also available.



### Supporting Emotional Needs of the Gifted Webinars (SENGinars)

[SENGinars](#) are 90-minute webinars on issues related to the social and emotional needs of the gifted. Supporting Emotional Needs of the Gifted (SENG) provides access to experts in the field of gifted education in these webinars, designed expressly for parents, educators and mental health professionals who work with gifted children. The webinars are \$40 per person and include a link to the recording and slides one week after the presentation. Upcoming webinars include such topics as "Motivation and Underachievement."



### Other Webinars

- [University of California, Irvine Extension program](#) - Periodically offers parents, teachers and administrators free, gifted webinars on the website.
- [Center for Talented Youth](#) - Offers webinars that explain both their program offerings as well as a variety of topics related to gifted education; an archive of free webinars is available [here](#).
- [Arizona State University's Mary Lou Fulton Teachers College](#) - Administers the *Gifted Education Matters* webinar series; an archive of free webinars is available [here](#).
- [Summit Center Webinar Series](#) - Features a different Summit Center professional to talk about a number of gifted issues every month.

## Featured Articles and Resources

The Davidson Gifted Database at [www.DavidsonGifted.org/DB](http://www.DavidsonGifted.org/DB) is a gateway to resources for and about gifted students. [See what's new!](#)

### Articles

[Difficult passage: Gifted girls in middle school](#) describes reasons why young gifted girls can lose their passion for school throughout their educational development. It also provides strategies on what parents can do to help.

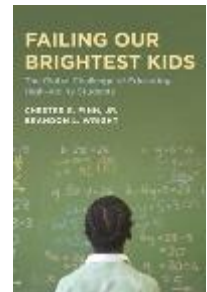


[Self-advocacy for gifted teens and tweens: How to help gifted teens take control of their classroom experience](#) focuses on how adolescent and pre-teen students can advocate for themselves.

## Resources

The [2e: Twice-Exceptional Newsletter](#) provides the latest news and articles on twice-exceptional children.

In the book [Failing Our Brightest Kids: The Global Challenge of Educating High-Ability Students](#), the argument is made that the United States has done too little to focus on educating students to achieve at high levels. The authors identify two core problems: First, compared to other countries, the United States does not produce enough high achievers. Second, students from disadvantaged backgrounds are severely underrepresented among those high achievers.



[Suggest a Resource](#)

[Suggest an Article](#)

## In the News

September 11 - *Time*, [How Much Does It Cost to Raise a Child Prodigy?](#) (Chris Taylor)  
September 4 - *Education Week*, [Perfectionism in School Helps and Hurts Students](#) (Sarah D. Sparks)  
September 4 - *Conversation*, [How do academic prodigies spend time; why does that matter?](#) (J. Wai & M. Makel)  
August 28 - *Plano Star Courier*, [Plano West grad recognized for dementia research](#) (Conner Hammett)  
August 27 - *Gifted Parenting Support*, [An Accelerated Journey](#) (Lisa Conrad)  
August 24 - *The Press-Enterprise*, [New test detects major disease of citrus trees](#) (Mark Muckenfuss)  
August 24 - *Education Week*, [Gifted Students Deserve Greater Support](#) (Walt Gardner)  
August 24 - *NPR.org*, [How The U.S. Is Neglecting Its Smartest Kids](#) (Anya Kamenetz)  
August 24 - *CBS Baltimore*, [JKCF Executive Director Discusses Excellence Gap](#) (Amber Styles)  
August 24 - *Business Insider*, [7 surprising downsides of being extremely intelligent](#) (Shana Lebowitz)  
August 19 - *Wall Street Journal*, [The Bright Students Left Behind](#) (Chester E. Finn & Brandon L. Wright)  
August 2015 - *Examiner*, Celebrity moms on raising gifted children: Alicia Coppola - [Part 1](#) [Part 2](#) (Alina Adams)  
July 26 - *National Geographic*, [Why This 14-Year-Old Kid Built a Nuclear Reactor](#) (Simon Worrall)  
July 19 - *Christian Science Monitor*, [US wins Math Olympiad for first time in 21 years](#) (Meredith Hamilton)  
July 17 - *New York Times*, [N.S.A. Summer Camp: More Hacking Than Hiking](#) (Nicholas Fandos)  
July 14 - *Edutopia*, [Serving Gifted Students in General Ed Classrooms](#) (Elissa F. Brown)

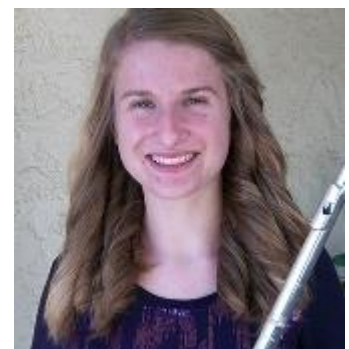
Discuss these stories and more on the [Gifted Issues Discussion Forum](#).

## In the Spotlight

### Sara Kornfeld Simpson A 2014 Davidson Fellow Laureate Making a Difference

#### What is the significance of your Davidson Fellows project, "Neuronal Nonlinear Dynamics: From an Optical Illusion to Parkinson's Disease"? What inspired this work?

The goal of my project was to create a model of neural activity that could explain perception of the Continuous Wagon Wheel Optical Illusion. After multidisciplinary research on neurons and nonlinear dynamics, I created two coupled nonlinear differential equations to describe a single visual cortex neuron, and then coupled 20 neurons together in a network. Neural synchronization patterns in computer simulations demonstrated my model's ability to explain perception of the optical illusion. Most significantly, because of the versatility of nonlinear dynamics, my model can extend to other biological phenomena. For example, I found that when I greatly lowered the level of dopamine (a neurotransmitter) in my neural system and removed all external stimulation, the neurons behaved in a way characteristic of dopamine-deficient neurons during muscle tremors of patients with Parkinson's disease.



When I was in seventh grade, I participated in an honor band, and my conductor had Parkinson's Disease. Watching him battle stiffness and tremor as he tried to make precise conducting patterns inspired me tremendously. Two years later, when I heard he had passed away, I resolved to do everything I could to help people with this neurological disorder. This urge was reinforced when I presented my research to my public school classmates and on public viewing day at the Intel Capitol Showcase in Sacramento, Cali. Many people would come up to me and share their personal experiences of living with family with the disease. Even at the [Davidson Fellows ceremony](#), a retired Juilliard director with Parkinson's spoke with me about his struggle with the disease. All of these experiences have reinforced my determination to examine the neurological basis of the disease, and perhaps help medical researchers develop a cure.

**Given that your musical pursuits helped inspire your Davidson project, how do music and science currently fit into your life?**

Both remain a huge part of my life. As I enter into my second year at Boston University (BU), I look forward to continuing to triple major in neuroscience, flute performance and oboe performance. Last year, my days were packed with music classes, lessons, ensembles, and neuroscience lectures and labs. In one of my labs, I investigated proteins involved in Alzheimer's Disease. I attended Boston Symphony Orchestra concerts on Thursday nights. Over the weekends I participated in the Boston Philharmonic Youth Orchestra; this summer I toured the Czech Republic, Germany and Switzerland with this orchestra for two and a half weeks! Before I left for Europe, I attended the Scotia Festival of Music in Nova Scotia and participated as an experimental subject in a study in BU's Hearing Research Center related to developing a visually-guided hearing aid. I also learned that a paper I wrote about the brain's right hemisphere and Melodic Intonation Therapy (a type of speech therapy for patients with Broca's Aphasia) will be published in the upcoming edition of *The Nerve*, BU's neuroscience journal.

## Closing Thought

*"What lessons can the U.S. take from this research on how to raise the academic ceiling, while also lifting the floor? States could screen all their students and offer top scorers extra challenges. They could encourage smart kids to accelerate through school or—more disruptive—allow every child to move through the curriculum at his own pace . . . liberating fast learners to surge forward academically would do them—and society—a world of good."*

~ Chester E. Finn, Jr. and Brandon L. Wright, in the Wall Street Journal op-ed,  
[The Bright Students Left Behind](#)

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