

# News Release

## Tenth Annual Dobb Ferry High School Science Symposium to Showcase Student Research

### *Research projects garner regional, state and national recognition*

**Dobbs Ferry, N.Y. May 24, 2016--** Eleven Dobbs Ferry High School seniors will present their individual Science Research projects at the **Tenth Annual Science Research Symposium on Tuesday evening, May 31<sup>st</sup> at 6:30 pm in the High School Commons.** Following the 12<sup>th</sup> graders two-minute summations, all of the students in the Science Research Program will informally display and discuss their research posters. The community is invited to attend and refreshments will be served.

The 2016 Dobbs Ferry High School Science Research Symposium features an array of exciting projects encompassing unique research within such fields as biology, chemistry, physics, psychology, genetics, behavioral and social sciences, earth and space sciences, environmental science, microbiology, computer science, botany and engineering. The program is a three-year course of study designed to provide students with the opportunity to pursue in-depth scientific research at the college level. While they actively engage in their research, juniors and seniors are expected to write a comprehensive research paper and enter key local, regional and national symposia and science competitions to hone their project presentations.

Science Research Symposium 2016 presenters include:

#### 12<sup>th</sup> Graders

**Nathan Barnett-** “The Effect of rHlgM22 on the Rescue of Remyelination by Phagocytic Removal of Myelin” (Awards: WESEF-Excellence in Medical Research Award) Attending Colgate University

**Elena Brown-** “Psychological Effects of Gender Bias on Women in Golf” (Awards: Junior Science and Humanities Symposium - 1st Place) Attending University of California at Los Angeles

**Arjun Chatteraj-** “Quantification of Styrene Migrations from Polystyrene under Real-Life Conditions” (Awards: The Acorda Scientific Excellence Award, Yale Science and Engineering Association Award, Tri-Country Fair - 3rd Place) Attending Cornell University

**Jacob Eisner-** “Effects of Mitochondrial Inner Membrane Complex Organizing System on Fibroblasts from FMR1 Premutation Carriers” Attending Cornell University

**Michael Grant-** “The Development of Superstorm Protective Infrastructures” (Awards: American Meteorological Society Award, WESEF - 1st Place) Attending Case Western Reserve University

**Nikolas Greenwald-** Improving Singing Synthesis: “Prepping a Digital Diva for the World Stage” (Awards: Walter Kass Memorial Award, Intel Science Talent Search Semifinalist, WESEF - 4th Place) Attending Northeastern University

**Nate Perry**- “Biological Rhythms in the Chambered Nautilus: Evidence for Central Pattern Generator” (Awards: Teatown Young Naturalist Award, Junior Science and Humanities Symposium - 3rd Place) Attending Whitman College

**Fred Pollevick**- “A Psychological and Physical Impact of Beverage Consumption of Performance” (Awards: Cornell University Division of Nutritional Science Award, Tri-County Fair - 2nd Place) Attending Hamilton College

**Natalie Quintero**- “Children's Developing Conceptions of Teachers and Mothers” (Awards: WESEF - 2nd Place) Attending University of California, Berkeley

**Celeste Thurn**- “The Effect of Tai Chi on the Cardiovascular System of Advanced and Novice Participants” Attending University of San Francisco

**Josephine Weidner**- “An Assessment of Eutrophication in a Tributary Stream of the Hudson River” (Awards: Certificate of Achievement from the Westchester County Soil and Water Conservation District, WESEF - 2nd Place, Tri-Country Fair - 1st place) Attending Tufts University

### **11<sup>th</sup> Graders**

**Elizabeth Bloom**- “A Study of the Impact of Environmental Effects on the Migration of *Anguilla rostrata* in the Hudson River” (Awards: American Meteorological Society Award, Oceanic Atmospheric Administration Award, Invited to Genius Olympiad)

**Hannah Brown**- “The Structural and Functional Alterations to the Brains of Rat Pups as a Result of Early Life Abuse and Neglect” (Awards: WESEF - 1st Place, Invited to Genius Olympiad, Tri-County Fair - 1st Place/Top 3 Overall, Invited to NY State Science Congress)

**Lauren Fitzgerald**- “Genetics in Congenital Heart Defects and How They are Linked to Trisomy 18”

**Blake Hord**- “Integration of Vertical Stratification into the Model of Rossby Wave Instability in Protoplanetary Disks”

**Michael Kaufmann**- “Unbiased Analysis of Gene Regulation and Glial Analysis in the MCAO Model of Stroke” (Awards: Society for In Vitro Biology Award)

**Alison Richman**- “Examining Social Networks among High School Varsity Athletes: Description and Relation to Stress”

**Dylan Williams**- “An Analysis of the Use of a Silver Nanoparticle Conductive Ink and its Practicality in 3D Printing”

**Lindsay Yue**- “The Effectiveness of Native Grasses on the Removal of Nutrients from Eutrophic Water”

## **10<sup>th</sup> Graders**

**Soo Yun Byeon**- “Neurological Effect of Primary Abuser’s Gender on Patients with PTSD and Childhood Maltreatment”

**Rebecca Cadenhead**- “Environmental versus Genetic Factors’ Impact on H. pylori Transmission”

**Natalie Csak**- “Effect of Apolipoprotein ε4 Allele Status on Regionally Distributed Beta-Amyloid Plaques in Down Syndrome + Alzheimer's Disease Patients”

**Sara FitzPatrick**- “Effectiveness of Early Screening Methods for Detection of HPV”

**Crystal Gao**- “Effect of Dopamine on the Deficitary Cerebellum via TMS”

**Jalen Jeudy**- “Survey Analysis of Diabetic Medications and Cancer Development”

**Jeremy Lavietes**-“The Effect of the Elastic Expansion Modulus on HEMA-oligoHB Hydrogels”

**Nisha Mathur**- “The Effect of IFN on Protein Activation in Toxoplasma Gondii Infection and its Role in Immune Evasion”

**Alisha Pandya**-“Differences in Perception of Aggressiveness by PTSD-Influenced Individuals”

**Sean Prendi**- “Liquid Metal Coolants’ Impact on Computer Performance”

**Elisha Shermet**-“Helminth Effect on IL-24 and ANA-1 in Preventing the Spread of Viruses”

The goal of the **Science Research Program** is to provide students with the opportunity to conduct authentic and original scientific research of their own choosing, as part of their high school experience. Students team up with a mentor in developing a project of interest.

“It is vital to the program that the students be matched with local researchers and scientists at the forefront of their fields,” said Erica Curran, Science Research Program Coordinator. Anyone who would be willing to serve as a mentor to a student in the Dobbs Ferry Science Research Program, should contact Erica Curran in the DFHS science department. She can be reached via email at [currane@dfsd.org](mailto:currane@dfsd.org)

**For more information, please contact:**

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