



Loudoun County Public Schools Media Release

FOR IMMEDIATE RELEASE

March 22, 2024

ASHBURN, Va. - More than 300 Loudoun County Public Schools (LCPS) high school students participated in the 42nd Annual Loudoun County Public Schools Regional Science and Engineering Fair (RSEF) on March 20, 2024, at John Champe High School. Five student finalists were selected to participate in the Regeneron International Science and Engineering Fair (ISEF) 2024, the world's largest pre-college STEM competition, May 12-18, 2024, in Los Angeles, California, at the Los Angeles Convention Center:

- Reyhan Haider, a Junior from Freedom High School, examined a genetic risk factor for Alzheimer's to gain better insights into the molecular impact over time.
- Diya Ghosh, a Senior from Riverside High School and the Academies of Loudoun, studied the effects of a chemotherapy drug used for ovarian cancer on ocular melanoma, a cancer of the eye, to reduce the likelihood of vision loss.
- Abhigya Goel, a Senior from Riverside High School and the Academies of Loudoun, examined drone technology to expedite the search and mapping process of natural disasters, providing crucial 3D data while significantly reducing manual labor and improving disaster response efficiency.
- Chetana Gunawardhana, a Senior from Broad Run High School, created a design for a craft that can transit in three ways: airborne, surface sea and undersea.
- Jagadeepam Maddipatla, a Senior from Rock Ridge High School, utilized a silicon photonics chip to process Fast Fourier Transform (FFT) algorithms, allowing for increased scalability and efficiency.

In addition to the five finalists, Prescott Noll received the annual Willowcroft Science Scholarship. The \$7000 scholarship, sponsored by Willowcroft Farm Vineyards since 1991, was awarded to Noll, a Senior from Woodgrove High School, who tested a room-temperature alternative method of dehydrogenation by using a catalyst enhanced by an electromagnetic field.

Willowcroft Farm Vineyards also recognized Matthew Young, a science teacher at Woodgrove High School, with a \$7,000 award for his work in science with students.

More information, including all category and special award winners, can be found on the [RSEF website](#).

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