



Davidson Institute
Fellows Scholarship

For Immediate Release
August 21, 2024

Contact: Megan Bedera
775-997-5690
Megan@AmplifyRelations.com

**PORTLAND TEEN AWARDED \$25,000 SCHOLARSHIP FOR
NONINVASIVE AND LOW-COST GASTROPARESIS TREATMENT
Akash Pai Named A 2024 Davidson Fellows Scholarship Winner**

Portland, Ore. – The Davidson Fellows Scholarship Program has announced the 2024 scholarship winners. Among the honorees is 16-year-old Akash Pai of Portland. Pai won a \$25,000 scholarship for his project, *Personalized Bioelectric Neuromodulation to Alleviate Gastroparesis*. He is one of only 20 scholarship winners in the 2024 Fellows class.

“Being named a Davidson Fellow is an incredible honor and a recognition of the hard work and passion I have put into my project,” said Akash Pai. “For me, as a young scientist and inventor, this recognition affirms that my ideas and efforts have the potential to make a positive impact on society. The Davidson Institute has provided me with a platform to showcase my work and contribute to the scientific community. I hope that it will also connect me with like-minded individuals who share a commitment to innovation and discovery.”

For his project, Pai addressed the challenges of diagnosing and treating gastroparesis, a condition that affects up to 268 per 100,000 adults globally and is characterized by slowed or absent stomach muscle contractions. Traditional diagnostics and treatments are often invasive, costly, and prone to side effects. To offer a better solution, Pai modified electrogastrogram technology to be more affordable and patient-friendly by equipping a commercial biosensing board with advanced signal filtering and processing capabilities. On the therapeutic side, he developed a computational model that optimizes transcutaneous electrical nerve stimulation, tailoring it to each patient's specific body composition. These innovations provide a low-cost, convenient, side-effect-free, and noninvasive approach to diagnosing and treating gastroparesis, with the potential to revolutionize disease management.

Pai is a rising high school senior in Portland. He is passionate about entrepreneurship, science, and patient interaction, aspiring to become a physician-scientist, working as a surgeon and researcher. He enjoys watching basketball, soccer, Formula One, and mixed martial arts, as well as spending time with friends, hiking, swimming, biking, and engaging in adrenaline-pumping sports.

Cont.

"This year's class of Davidson Fellows Scholarship recipients exemplifies the power of innovation and perseverance," said Bob Davidson, founder of the Davidson Institute. "Our Fellows continue to push the boundaries of their educational and research pursuits, striving to solve some of the world's most challenging problems by leveraging creative, outside-the-box thinking and cutting-edge technology to expand their networks, access new sources of information, and deliver an impressive array of diverse projects."

The 2024 Davidson Fellows will be honored during a reception at the Smithsonian National Museum of the American Indian in Washington, D.C. and with a virtual project presentation ceremony in September 2024.

The Davidson Fellows Scholarship program offers \$50,000, \$25,000 and \$10,000 college scholarships to students 18 or younger, who have completed significant projects that have the potential to benefit society in the fields of science, technology, engineering, mathematics, literature and music. The Davidson Fellows Scholarship has provided more than \$9.9 million in scholarship funds to 448 students since its inception in 2001, and has been named one of the most prestigious undergraduate scholarships by [U.S. News & World Report](#). It is a program of the Davidson Institute, a national nonprofit organization headquartered in Reno, Nev. that supports profoundly gifted youth.

About the Davidson Institute

Founded by Bob Davidson in 1999, the Davidson Institute recognizes, nurtures and supports profoundly intelligent young people, and provides opportunities for them to develop their talents to make a positive difference. The Institute offers support through a number of programs and services, including the Davidson Fellows Scholarship and the [Davidson Academy of Nevada](#). For more information about the 2024 Davidson Fellows, please visit: [DavidsonFellows.org](#).

###