

Georgina Lynch receives \$95,147 grant from Washington Research Foundation for development of autism screening tool

Washington State University assistant professor developing technology that could lead to earlier interventions for patients with autism spectrum disorder



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/EINPresswire.com/ -- <u>Washington Research Foundation</u> (WRF) has awarded a \$95,147 phase 2 technology commercialization grant to <u>Georgina Lynch</u>, Ph.D., to progress the development of a pupillary light reflex (PLR) tool to improve screening for autism spectrum disorder (ASD). Lynch, an assistant professor in the speech and hearing sciences department of the Elson S. Floyd

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Dr. Lynch's work has the potential to get kids with ASD the help that they need at a much earlier age than is currently the standard." *Meher Antia, Ph.D.* College of Medicine at Washington State University, used an earlier grant from WRF to demonstrate that the technology can generate objective data that could be especially beneficial when screening young children.

According to <u>Centers for Disease Control and Prevention</u> (CDC), approximately one in 44 children have ASD in the United States. ASD, a neurodevelopmental disorder characterized by difficulties with communication and social

interactions, alongside restricted, repetitive behavior patterns, is currently diagnosed through subjective evaluations that are particularly challenging to carry out on young children. The present lack of a biological test for ASD screening may mean that the condition is underdiagnosed, and evaluation of children typically takes place in response to concerns reported by parents to their clinicians. Early interventions for patients with ASD are critical for minimizing the educational and social impacts of the condition. However, most children are not diagnosed until at least four years of age, with some diagnoses coming considerably later.

The PLR tool that Lynch has developed measures the pupil's response to light and records quantitative data that can be correlated with the risk of a clinical diagnosis of ASD. With the assistance of a \$50,000 phase 1 grant from WRF in 2020, Lynch was able to test the use of pupillary technology in clinicians' offices to assess ease of use and gather preliminary data on its effectiveness at screening for ASD in children as young as two. Early results show that PLR

measurements can reliably indicate the risk of a patient having ASD and provide an objective, biological-based data set to augment existing screening practices.

Lynch's key goals are to reduce ASD screening's dependency on subjective evaluations and enable earlier interventions for children with the condition. She envisions a future where her technology is routinely used during pediatric wellness checks.

"Support from the Washington Research Foundation provided the resources needed to take this science and technology out of the lab and get it into the hands of health care providers for rigorous evaluation in clinical practice," said Lynch. "Focusing on innovative technology for ASD screening within routine health care offers additional support to increase objectivity in the decision-making process."

"Dr. Lynch's work has the potential to get kids with ASD the help that they need at a much earlier age than is currently the standard," said Meher Antia, Ph.D., WRF's director of grant programs. "We believe our funding will solidify the scientific underpinnings of this technology so that it can eventually be widely deployed and have the intended impact on kids' lives."

Local partnerships with Seattle Children's Research Institute and Northwest Autism Center, in addition to a new collaboration with Geisinger in Pennsylvania, are enabling Lynch to expand her testing and generate further clinical data to accelerate the technology's development. Over the next year, she will complete a major step in validity testing by comparing results recorded in patients with ASD with those of patients with typical neurodevelopment. This will help to demonstrate how the tool can improve the speed and accuracy of diagnoses when used in conjunction with existing screening practices.

Lynch co-founded Appiture Biotechnologies in 2020 to support commercialization of the technology when it is ready for widespread use in pediatric clinics.

About Washington Research Foundation:

Washington Research Foundation (WRF) supports research and scholarship in Washington state, with a focus on life sciences and enabling technologies.

WRF was founded in 1981 to assist universities and other nonprofit research institutions in Washington with the commercialization and licensing of their technologies. WRF is one of the foremost technology transfer and grant-making organizations in the nation, having earned more than \$445 million in licensing revenue for the University of Washington and providing over \$131 million in grants to the state's research institutions to date.

WRF Capital, a reserve pool of funds for investing in early-stage Washington state companies, has backed 117 local startups since 1996. Returns from these investments support the

Foundation's mission.

For additional information, please visit <u>https://www.wrfseattle.org/</u>.

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