

Critical Path Institute’s Translational Therapeutics Accelerator Awards \$150,000 Grant to Support a Novel Drug Approach in Hereditary Spastic Paraplegia

TUCSON, Ariz., August 7, 2025 — Critical Path Institute’s® (C-Path) Translational Therapeutics Accelerator (TRxA) has awarded a \$150,000 grant to Gregory Thatcher, Ph.D., at the University of Arizona to support innovative approaches for treating hereditary spastic paraplegia (HSP). Dr. Thatcher is collaborating with Xuejun June Li, Ph.D., at the University of Illinois Chicago to advance a small molecule drug aimed at causal mechanisms of this debilitating neurological condition.

HSP refers to a group of rare, inherited neurodegenerative diseases characterized by progressive spasticity and weakness in the lower limbs. The disorders are caused by damage to the long nerve fibers that carry movement signals from the brain down the spinal cord, and their global prevalence ranges from 0.1 to 9.6 per 100,000 individuals. More than 80 gene mutations have been linked to HSP, and despite the availability of genetic testing for diagnosis and subtype classification, there are currently no disease-modifying therapies, and treatment remains limited to symptomatic management, such as antispasmodics.



Dr. Gregory Thatcher



Dr. Xuejun June Li

Drs. Thatcher and Li are leveraging a novel drug discovery platform for small molecule Nonlipogenic ABCA1 Inducers (NLAI) to develop therapeutics that can target upstream, disease-relevant mechanisms common across genetically diverse forms of HSP. Their approach modulates cholesterol and lipid homeostasis in neurons — pathways recognized for their role in axonal integrity and neurodegeneration.

“Hereditary spastic paraplegia is a genetically defined yet therapeutically neglected disease,” said Dr. Thatcher, Professor in the R. Ken Coit College of Pharmacy at the University of Arizona. “Our NLAI platform offers a promising strategy to address pathogenic mechanisms across multiple HSP subtypes. Support from TRxA enables us to take this science from concept to therapeutic candidate, and ultimately, closer to the clinic. We are deeply grateful for this opportunity.”

The TRxA program at C-Path is designed to help academic researchers bridge the critical gap between basic discovery and early clinical development. In addition to financial support, awardees receive scientific and regulatory guidance to help de-risk their projects and prepare for future development stages.

“C-Path’s TRxA is proud to support the work of Dr. Thatcher and Dr. Li, whose project exemplifies the innovation and translational potential we want to advance,” said Maaïke Everts, Ph.D., Executive Director of

TRxA. “Their use of a mechanistically grounded, small molecule platform to target HSP holds real promise for developing a first-in-class therapy for patients who currently have no disease-modifying options.”

This award will support further development of lead candidates by advancing target validation and preclinical proof-of-concept studies, setting the stage for a potential therapeutic breakthrough in HSP.

About Critical Path Institute

Founded in 2005, as a public-private partnership in response to the [FDA’s Critical Path Initiative](#), Critical Path Institute® (C-Path) celebrates its 20th anniversary as a vital, independent, nonprofit. C-Path’s mission is to lead collaborations that advance better treatments for people worldwide. Globally recognized as a pioneer in accelerating drug development, C-Path has established numerous international consortia, programs and initiatives that currently include more than 1,600 scientists and representatives from government and regulatory agencies, academia, patient organizations, disease foundations and pharmaceutical and biotech companies. With dedicated team members located throughout the world, C-Path’s global headquarters is located in Tucson, Arizona and C-Path’s Europe subsidiary is headquartered in Amsterdam, Netherlands. For more information, visit c-path.org.

About TRxA

Critical Path Institute’s Translational Therapeutics Accelerator (TRxA) is a global drug accelerator focused on supporting academic scientists in advancing novel therapeutics from university-based labs to drug development pipelines of pharmaceutical companies and, ultimately, the clinic. As a nonprofit neutral convener of patient groups, academia, pharmaceutical companies and regulatory agencies, C-Path brings a breadth of scientific and drug development planning not available in other accelerator programs. TRxA is uniquely situated to leverage the expertise available through C-Path’s >20 disease-based consortia, as well as regulatory expertise and project management, to empower academic investigators to succeed in bringing safe and effective treatments to patients. For more information, visit c-path.org/trxa or email trxa@c-path.org.

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