



## TOP STORY

# Chandra Kothapalli Wins NSF Grant for Spinal Cord Injury Study



Dr. Chandra [Kothapalli](#), an associate professor in the Department of Chemical and Biomedical Engineering ([CBE](#)), has been awarded \$299,991 by the National Science Foundation ([NSF](#)) for research to better understand spinal cord injuries and the effect of scar formation on the physical, chemical, and biological changes occurring over time in the injured tissues. The project, titled "Glial scar morphology informed tunable biomimetic platforms for spinal

cord injury repair," is a collaborative research effort in partnership with Dr. Nic Leipzig from the University of Akron.

Injury to the central nervous system (CNS) has profound, long-term physiological consequences due to the tissue's low innate regenerative ability and formation of a glial scar around the injury site. This research study will focus on (1) understanding spinal cord tissue-scale mechanical properties, architecture, and mechanochemical signaling at key phases following CNS injury, and (2) identifying the mechanochemical response of CNS cells to scar-like physical properties.

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## GRHD Faculty Pair Receive Awards from Cooley's Anemia Foundation

Dr. Merlin Nithya [Gnanapragasam](#), an assistant professor in the Department of Biological, Geological and Environmental Sciences ([BGES](#)) and member of the Center for Gene Regulation in Health and Disease ([GRHD](#)), and Dr. Mahesh Ramamoorthy, an assistant research professor in GRHD, have both received awards from the [Cooley's Anemia Foundation](#). Dr. Ramamoorthy received a 2021-2022 Research Fellowship in the amount of \$50,000 for his research on erythroid biology in normal development and in disease. Dr. Gnanapragasam received a \$50,000 renewal for her research on post-transcriptional regulation of human fetal hemoglobin.



Drs. Gnanapragasam and Ramamoorthy

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## MEET CSU'S FACULTY

# Douglas Wajda, Health and Human Performance

Dr. Douglas [Wajda](#) is an assistant professor in the Department of Health and Human Performance ([HHP](#)). He is the new director of the Human Performance Laboratory and a member of the CSU Center for Human Machine Systems ([CHMS](#)). Dr. Wajda received his PhD in kinesiology from the University of Illinois

Urbana-Champaign in 2016. His research is focused on the study of human motor control and biomechanics in health and disability. He utilizes technology to quantify gait and balance to characterize impairment due to neurological disease and to assess exercise rehabilitation effectiveness.

Dr. Wajda works closely with industry and clinical partners in the Cleveland area to develop and validate technologies to improve the lives of individuals with movement dysfunction. He has previously performed funded research for the National MS Society examining fall risk reduction in individuals with multiple sclerosis, and has [authored](#) or coauthored 20 peer reviewed journal articles. Dr. Wajda is passionate about facilitating student led research in the Human Performance Lab and collaborating with individuals from multiple disciplines across CSU, including collaborators in the fields of engineering and nursing.



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#### FEATURED RESEARCH RESOURCE

### NSF Graduate Research Fellowship Workshop



The Office of Research will sponsor a Workshop Series on the National Science Foundation Graduate Research Fellowship Program ([GRFP](#)) hosted by Dr. Shawn [Ryan](#), an associate professor in the Department of [Mathematics and Statistics](#) and a past NSF GRFP reviewer.

The workshops will be held August 31, September 7, and September 21 from 11:30-12:15pm in PH 103. This schedule will allow enough time for the development of applications and a round of internal review at CSU before submission. Two CSU students from a previous workshop received NSF fellowships, which include a \$34,000 annual stipend for three years of graduate school.

If you know a graduate student who would benefit from the workshop, please forward this [registration link](#).

#### RESEARCH FUNDING AGENCY NEWS

### NSF Issues Revised PAPPG

The National Science Foundation ([NSF](#)) has updated the Proposal & Award Policies & Procedures Guide ([PAPPG](#)). The new NSF guidelines and forms are required for new proposals submitted or due on or after October 4, 2021.



Relevant changes include:

- Updates to the current and pending support section to require that information on objectives and overlap with other projects is provided
- Adding planning proposals and Career-Life Balance supplemental funding requests as new proposal types
- Travel proposals will require certification that prior to participation in a meeting, the proposer will assure that the meeting organizer has a written policy or code-of-conduct addressing harassment

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#### INSPIRED CREATIVITY

### CSU Students honored by American Institute of Graphic Arts

CSU students Davis Cameron Chu and Emily Williams were recently



Book cover design by  
Emily Williams for *The Odyssey*

recognized in the biennial American Institute of Graphic Arts (AIGA) Cleveland [Design 730](#) competition, which recognizes the best design work in Northeast Ohio and is independently judged by notable professionals in the field. Mr. Chu, a senior film major and design minor and Jack, Joseph & Morton Mandel [Honors College](#) student, was chosen as a Judge's Choice selection for his abstract animation "[Stand Out](#)" about the challenge of fitting in. The short was created in ART 448, Motion Graphics and Effects, taught by Qian [Li](#), a professor in the Department of [Art & Design](#). Mr. Chu is the incoming President of the AIGA CSU student group.

Emily Williams, a design major and 2021 graduate, was honored in the Student Work category for her book cover design for *The Odyssey*. Ms. Williams' cover includes a photo illustration constructed from cut paper and washi tape for the gold detail and quarters underneath the waves to create depth and shadows. Her book cover was created in ART 342, Advanced Typography, which is taught by Jenn [Visocky O'Grady](#), a professor in the Department of Art & Design.

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#### NEWS FROM THE TECHNOLOGY TRANSFER OFFICE

## European Patent Allowance



The European Patent Office has issued a [patent](#) for application No. 18725035.2 titled *Actuating Device for Powered*

*Orthosis* that names Dr. Jerzy [Sawicki](#), the Bently and Muszynska Endowed Chair and Professor in the Department of Mechanical Engineering ([MCE](#)), and Curt Laubscher, Ryan Farris and Steven Etheridge from [Parker Hannifin](#) Corporation. The invention is a result of an ongoing collaboration between CSU and Parker Hannifin.

The technology provides the motor and internal actuating device that will power an orthosis or external body suit for disabled users. In particular, the invention provides the powering mechanism for a pediatric exoskeleton that allows disabled children to move again.

Contact Jack [Kraszewski](#) for assistance with a [disclosure](#) to begin the process of protecting your invention or intellectual property.

## Commercialization Support

### JumpStart Launches \$50M NEXT II Fund

Cleveland-based [JumpStart Inc.](#) has launched its \$50 million JumpStart Next II Fund, which targets software applications for businesses, as well as health care and medical tech ventures. The minimum investment accepted in this fund is \$100,000.



Jumpstart, a venture development organization that combines the principles of private venture capital and non-profit economic development to help entrepreneurs start and grow companies, [was awarded \\$10 million in March](#) from the Ohio Third Frontier Commission, money that will be used for this fund. Its Evergreen Fund III and Healthcare Collaboration Fund also received \$5 million and \$4 million, respectively. Click [here](#) to read the full article.

Contact Jack [Kraszewski](#) for assistance with approaching JumpStart.

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# CSU Hosts Action Research Virtual Symposium



Cleveland State University's College of Education and Human Services ([CEHS](#)), in collaboration with K-12 school districts, hosted the 7<sup>th</sup> annual CSU Action Research Symposium in a virtual format on Thursday, April 29. The symposium featured 20 action research projects and hosted about 80 participants, who self-navigated through three different presentation formats: Paper Sessions, Roundtable Sessions, and Jamboard Sessions (see example Jamboard at left).

Launched in 2013 and sponsored by the Martha Holden Jennings Foundation ([MHJF](#)), the CSU Action Research [Program](#) supports K-12 practitioners in conducting action research projects in partnership with university faculty. Through the program, teachers identify a topic and a research question that is authentic to their own practices, plan and implement an intervention, collect and analyze data, and identify a strategy to resolve the problem. Contact Diane [Corrigan](#), a clinical assistant professor in the Department of [Curriculum and Foundations](#) or Dr. Grace [Huang](#), an associate professor in the Department of [Teacher Education](#), with questions.

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Please share with us important news or updates on your research, scholarly, or creative activities. Updates may be related to a paper that has been accepted for publication in a high-impact journal, a book you've just published, your work that will be exhibited at a prominent institution, or other updates you wish to share with our office. Send details to [j.yard@csuohio.edu](mailto:j.yard@csuohio.edu) and [b.j.ward@csuohio.edu](mailto:b.j.ward@csuohio.edu).

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