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CWRU receives third-straight \$500,000 technology startup fund award from Ohio Third Frontier Commission

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Only Ohio institution to receive funding all three years

The <u>Ohio Third Frontier Commission (https://development.ohio.gov/bs_thirdfrontier/)</u> has awarded Case Western Reserve University its third \$500,000 grant since 2016 for the CWRU Technology Validation and Start-Up Fund Program (CTP), a campus-based translational research fund to help faculty researchers advance and commercialize their innovations.

The next round of funding for CTP will be offered this spring. (<u>See more information about the fund.</u> (<u>https://case.edu/research/faculty-staff/technology-transfer/technology-validation-and-start-up-fund</u>)) In the CTP's first two years, 70 letters of intent were submitted, 49 full proposals were reviewed and 19 projects were funded. Each proposal was vetted by an external selection committee, with 19 projects ultimately selected for funding. To date, more than \$12 million in "follow-on" funding has been attracted to these funded projects, with two funded projects already licensed to university startups.

"Investigators at CWRU have brought a number of projects to the cusp of commercial readiness, and this program, in combination with our experienced team of internal and external advisors, is designed specifically to take these projects to the next level," said Michael Haag, the <u>Technology Transfer Office (https://case.edu/research/faculty-staff/technology-transfer</u>)'s executive director for technology management and principal investigator for the state grant for the university's Technology Transfer Office (TTO). "The quality of our research and our commercialization team stands out on a state and national level."

"We are grateful that the state has recognized the unique capabilities of CWRU to commercialize its technologies and make CWRU the only Ohio institution to receive this start-up fund award each of the last three years," said Stephanie Weidenbecher, a TTO senior licensing manager who directs the CTP program.

Ohio Third Frontier was created in 2002 to build a statewide system that moves technology and innovation from the laboratory to the marketplace. This program, created in 2012, awards money to support technologies developed at Ohio research institutions and spin-off companies that license the technologies.

The fund focuses especially on driving development in:

- Biomedical/life sciences;
- Advanced materials;
- Sensors;
- Energy;
- Advanced Manufacturing; and
- Software/information technology.

Since the program's inception in 2012, the Ohio Third Frontier Commission has funded a total of 32 Case Western Reserve projects. These projects have attracted more than \$30 million in follow-on funding; five of which have been licensed to university startups.

CTP recently announced the recipients of its third and final funding round of 2018:

Principal investigator: Kiju Lee

(http://engineering.case.edu/emae/Faculty/Kiju_Lee), assistant professor in the Department of Mechanical & Aerospace Engineering at the Case School of Engineering Project: Interactive block games for routine cognitive assessment of older adults at high risk of Alzheimer's disease

Lee received the award for an automated, cube game-based diagnostic for mild cognitive impairment (MCI) and early Alzheimer's disease (AD) in older adults. Current diagnostic techniques for MCI and AD require administration and analysis by specialized health care professionals. Lee's technology reduces costs and eliminates subjectivity of these current techniques.

Principal investigator: Mei Zhang (http://engineering.case.edu/profiles/mxz128), assistant professor in the Department of Biomedical Engineering at the Case School of Engineering

Project: BG34-200: A potent immunotherapeutic for melanoma, osteosarcoma and other solid tumor cancers

Zhang received the award for an immunotherapeutic that has demonstrated efficacy in vivo in a number of aggressive solid tumor cancers with unmet clinical needs. Zhang's immunotherapeutic stimulates the immune system through a novel mechanism of action to traverse the normally immunosuppressive tumor microenvironment and attack tumor cancer cells.

Principal investigator: James Basilion (https://case.edu/medicine/ccir/faculty/james-p-basilion), professor in the Department of Radiology at the School of Medicine

Project: Targeted microtubule disruption agents for prostate cancer

Basilion received the award for a chemotherapeutic that binds a known prostate cancer biomarker and has demonstrated proof-of-concept in prostate cancer animal models. As this biomarker is expressed in prostate cancers that are refractory for all currently approved therapeutics, this novel chemotherapeutic may meet a significant unmet clinical need.

Principal investigator: Ronald Triolo (http://engineering.case.edu/profiles/rxt24), professor in the Department of Biomedical Engineering at CSE

Project: Clinical evaluation of a self-leveling walker

Triolo received the award for a four-legged walker suitable for uneven surfaces like ramps or stairs. Walker-dependent geriatric and orthopedic patients often confront curbs, steps and ramps that they are unable to negotiate using currently available assistive devices. Often, the inability to safely negotiate stairs is the single limiting factor to delay discharge to home, which extends stays in rehabilitation settings or require expensive architectural changes to the home environment.