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## **Research Foundation Awards Grants to Develop Non-animal Research Methods Projects will study cancer, osteoarthritis, and more**

Jenkintown, Pa.—The Alternatives Research & Development Foundation (ARDF) is proud to announce the 2022 awardees of its Annual Open Grant program, which funds innovative alternative methods that reduce or replace animal use in research and testing. This year’s awards total nearly \$240,000 for six projects that span a broad range of scientific areas.

“This year’s awards point to the trend of applying new approach methods to biomedical research, which is exciting to see,” said Sue Leary, President of ARDF. “Thanks to an impressive and varied group of expert reviewers, we are confident that the selected projects will contribute to important fields of research.”

Three of this year’s projects will study cancer, which is a promising area for the development of non-animal methods because animal models are often poor predictors of successful clinical therapies. Drs. Meenakshi Upreti and Peter Chiarelli at the Children’s Hospital of Los Angeles will develop a 3D *in vitro* model to study diffuse intrinsic pontine glioma (DIPG), a pediatric brainstem tumor with a tragically high lethality. Dr. Eugen Dhimolea of Albert Einstein College of Medicine will use 3D organoid models to study the species-specific effects of anti-cancer drugs in order to understand why some drugs developed using animal models do not succeed in human studies. These projects are both exciting advances in the field of drug development using human-specific models. Finally, Dr. Cristina Scielzo at the Università Vita-Salute San Raffaele in Milan, Italy will use 3D bioprinting and dynamic growth in bioreactors to study the dissemination of cells in Chronic Lymphocytic Leukemia (CLL). The novel 3D culture model will allow researchers to study in real time the CLL cell movement between tissues during treatment with anti-cancer therapies.

Other projects focus on a broad range of biomedical and toxicological research areas. Dr. Hang Lin at the University of Pittsburgh will develop a microphysiological system to study the progression of osteoarthritis. His lab’s transgenic “miniJoint” on a chip will help replace the use of animals in painful osteoarthritis research and lead to more human-relevant studies for developing treatments. Dr. Nigel Yarlett at Pace University will develop an *in vitro* culture system for *Cryptosporidium hominis*, which is the second-leading cause of death in children under three in economically challenged countries. Current methods require growing *C. hominis* in animals, which limits its study. An *in vitro* system would provide a deeper understanding of the parasite’s life cycle for drug development, as well as reduce the use of animals in research. Finally, Dr. Eugene Muratov at the University of North Carolina at Chapel Hill will work with collaborators to develop a computational model that will help predict the sensitivity of different species to environmental contaminants when performing ecological risk assessments.

These awards expand ARDF’s already diverse funding portfolio of research focused on replacing and reducing the use of animals in research, testing, and education. By supporting the development of alternative, animal-free models, ARDF continues to advance both animal welfare and human health. Learn more about the Annual Open Grant program and this year’s awards at <https://www.ardf-online.org/ardf-grants.html>.

July 25, 2022