



## ARDF ANNOUNCES FIRST **ALTERNATIVES IN RESEARCH (AiR) CHALLENGE GRANTS**

The Alternatives Research & Development Foundation (ARDF) is pleased to announce the winners of the first grants under its new Alternatives in Research (AiR) Challenge program, which funds innovative projects that use non-animal methods in biomedical research. The AiR Challenge showcases the power of these methods to both advance biomedical science and reduce the number of animals used. Such non-animal methods include a variety of cell culture-based approaches, such as three-dimensional constructs, including “organs on a chip”, using high throughput/high content screening technologies, as well as, or in conjunction with, computer-driven modeling.

***The four winners of the \$20,000 Challenge grants are using new non-animal models to address cancer, Alzheimer’s disease, and autism. The recipients are:***

- Erika Darrah and Eleni Tiniakou (Johns Hopkins University School of Medicine, Baltimore, MD), [\*Harnessing the Human Immune System to Identify Candidate Epitopes for Cancer Vaccine Development.\*](#)
- Melissa Herbst-Kralovetz and Pawel Laniewski (University of Arizona, Phoenix, AZ), [\*Vaginal Bacteria as Oncogenic Drivers: Using a Human 3-D Endocervical Epithelial Cell Model to Investigate Bacterial Influence on Hallmarks of Cancer.\*](#)
- Lena Smirnova (Johns Hopkins Bloomberg School of Public Health, Baltimore, MD), [\*Testing for Autism Toxicants by Gene Environment Interaction.\*](#)
- Xianmin Zeng (Xcell Science, Novato, CA), [\*Effect of ApoE Isoforms on Alzheimer’s Disease.\*](#)

In making these awards, Sue Leary, ARDF president, said “We are delighted to promote the use of non-animal methods in biomedical research, where efforts to limit animal use through the application of alternative methods have lagged behind those within safety testing and biomedical education. Fresh approaches will bring new knowledge; we’re investing in the future.”

The winners were selected with the aid of a Scientific Advisory Committee (SAC), whose members have themselves made important contributions to advancing alternative methods, also known as the “Three Rs” (methods that have the potential to replace, reduce, or refine the use of animals in research).

SAC Chair Dr. Raymond Tice, who has earned recognition for implementing visionary approaches, commented, “The SAC was impressed with the breadth and ingenuity of the projects described in the applications. It is clear that there is tremendous potential for the expanded use of alternative methods in biomedical research.”

The Committee members include Drs. Raymond Tice (National Institutes of Health, retired), Rebecca Bascom (Pennsylvania State University), Kim Boekelheide (Brown University), Larry Carbone (University of California at San Francisco), Suzanne Fitzpatrick (Food and Drug Administration), Thomas Hartung and Jeffrey Kahn (Johns Hopkins University), Karin Gabrielson Morton (Swedish Fund for Research Without Animal Experiments), and Maurice Whelan (European Union Reference Laboratory for Alternatives to Animal Testing).\*

\*Affiliations are for identification purposes only.



*Established in 1993, the ARDF has been a mainstay of support for developing alternatives to animal-based methods in science. Through grant programs, achievement awards, and sponsorship of scientific conferences, ARDF advances high quality scientific research that aims to replace and reduce the use of animals.*

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