



New HRD Publication Sets the Stage for Unique Collaboration

Washington, DC – January 27, 2022 – Friends of Cancer Research (*Friends*) is excited to announce its latest publication “Homologous Recombination Deficiency: Concepts, Definitions, and Assays.” Findings from this manuscript set the foundation for the ongoing Homologous Recombination Deficiency (HRD) Harmonization Project, a unique research partnership focused on developing strategies to assess assay performance and align on methods for measuring and using HRD, a biomarker used in clinical care.

HRD is a biomarker with promise in identifying patients with certain cancers who are more likely to benefit from PARP inhibitors and other DNA repair targeting drugs. It is critical that tests that determine homologous recombination (HR) status provide consistent results for providers and patients to make optimal treatment decisions.

The HRD Harmonization Project is built on deep collaboration across multiple sectors aiming to rapidly advance research and improve patient care in ways that could not be achieved by any single organization. Among our partners is Dr. Rebecca Arend, Assistant Professor and an Associate Scientist at The University of Alabama Birmingham (UAB).

“The landscape regarding biomarker driven treatment decisions in cancer care continues to rapidly change. It is of paramount importance that there is a harmonization around these biomarkers, especially ones that are not black and white such as homologous recombination deficiency. This project represents a true collaboration between industry, academia, the NCI, and non-profit foundations,” said Dr. Rebecca Arend, UAB.

The manuscript highlights that there is no standardized way to define, measure, and report HR status (the classification of a tumor as HRD or HR proficient (HRP)). As a result, Friends has convened a working group of stakeholders from industry, academia, and government to develop an analysis plan that will compare different assays used to measure HR status to understand the level of concordance among assays and describe sources of potential discordance.

The working group will use two approaches to compare assays: 1) *in silico* data from previously sequenced ovarian tumor samples from The NCI’s Cancer Genome Atlas (TCGA) and 2) analysis of tumor samples from patients treated for ovarian cancer. Project partners will use their analysis pipelines to determine the HR status of the samples and statisticians from the NCI will compare the outputs. The group will work together to report findings in late 2022.

“While HRD is an excellent predictive biomarker for PARP inhibitors, it remains unclear how the different approaches used to assess it in clinical laboratories today align with one another,” said Dr.

Christopher Karlovich, Associate Director, Molecular Characterization Laboratory, FNLCR. “Tackling this important, unmet need is critical to standardizing HRD measurement and use.”

[Click here to read the publication](#)

Partners participating in this project include:

ACT Genomics, Ambry Genetics, AmoyDx, AstraZeneca, Bayer, Bionano Genomics, Bristol Myers Squibb, DNAnexus, EMD Serono, European Organization for Research and Treatment of Cancer (EORTC), U.S. Food and Drug Administration, Foundation Medicine, Frederick National Laboratory for Cancer Research, GlaxoSmithKline, Guardant Health, Illumina Inc, Invitae, Janssen, MD Anderson Cancer Center, Merck, Myriad Genetics, National Cancer Institute, Neogenomics, Novartis, OmniSeq, Pfizer, Personal Genome Diagnostics (PGDx), PrecisionFDA, Qiagen, SOPHiA GENETICS, Tempus, Thermo Fisher Scientific, University of Alabama at Birmingham, University of Heidelberg.

For updates on this three-phase project visit: www.friendsofcancerresearch.org/hrd

About Friends of Cancer Research

Friends of Cancer Research (*Friends*) is working to accelerate policy change, support groundbreaking science, and deliver new therapies to patients quickly and safely. We unite scientists, pharmaceutical companies, and policy makers with shared trust and guide them toward meaningful cooperation. This collaboration among partners from every healthcare sector ultimately drives advances in science, policy, and regulation that speed life-saving treatments to patients. For more information, please visit <https://friendsofcancerresearch.org/>.