IDEAYA Announces Partnership With The Broad Institute And Advancement Of Synthetic Lethality Programs And Platform

- The partnership with the Sellers Laboratory at the Broad Institute of MIT and Harvard will utilize the Broad CRISPR paralog screening platform for Synthetic Lethality target and biomarker discovery, including for IDEAYA's PARG program
- IDEAYA's PARG Synthetic Lethality program targeting Development Candidate in 2021
- DECIPHER™, a Dual CRISPR Synthetic Lethality library for target and biomarker discovery of approximately 50,000 independent gene knockout combinations has been constructed in collaboration with UCSD

SOUTH SAN FRANCISCO, Calif., Oct. 22, 2020 /PRNewswire/ -- IDEAYA Biosciences, Inc. (NASDAQ: IDYA), an oncology-focused precision medicine company committed to the discovery and development of targeted therapeutics to treat cancer, announced today that it has entered into a target and biomarker discovery partnership with the Sellers Laboratory at the Broad Institute of MIT and Harvard.

The IDEAYA partnership with the laboratory of William R. Sellers, M.D., *Core Institute Member, Broad Institute,* will utilize the CRISPR paralog screening platform developed at the Broad Institute *to evaluate functionally redundant paralogous genes* across ovarian cancer subtypes and to generate novel Synthetic Lethality (SL) based target and biomarker discoveries. In addition, the IDEAYA and Broad collaboration will evaluate paralog CRISPR knockdown in selected cell lines in conjunction with pharmacological inhibition of PARG to inform patient selection and combination strategies in both ovarian and breast cancer. IDEAYA has also become a member of the DepMap (Cancer Dependency Map) consortium led by Broad Institute to further enhance IDEAYA's efforts in bioinformatics and cell-based screening for SL target and biomarker discovery and validation.

"Our lab has developed large-scale screening approaches to identify and validate novel Synthetic Lethal interactions, and we look forward to collaborating with IDEAYA to translate this research for the discovery of potential patient-selection biomarkers and cancer therapeutics," said Sellers, who also serves on the IDEAYA scientific advisory board. "We are delighted to collaborate with the Sellers Lab at the Broad Institute and leverage their molecular biology expertise and paralog CRISPR screening approach to enhance our Synthetic Lethality target and biomarker discovery efforts," said Michael P. Dillon, Ph.D., Chief Scientific Officer, IDEAYA Biosciences.

Update on IDEAYA SL Platform and Programs:

IDEAYA has constructed its DECIPHER Dual CRISPR Synthetic Lethality platform for SL target and biomarker discovery in collaboration with the University of California, San Diego, and bioinformatics analysis and preclinical validation are ongoing. The DECIPHER 1.0 library is focused on DNA Damage Repair targets across various tumor suppressor genes and oncogenes of interest that were selected based on their known prevalence and role in solid tumors, enabling evaluation of approximately 50,000 independent gene knockout combinations of DDR pathway related drug targets across known tumor suppressor genes.

In addition to its three GSK-partnered Synthetic Lethality programs in MAT2A, Pol Theta and Werner Helicase, IDEAYA has several wholly owned SL and DNA Damage Target (DDT) programs, including PARG and multiple additional SL / DDT preclinical programs.

The PARG program is targeting Development Candidate nomination in 2021. Patient selection biomarker validation is ongoing for PARG, including a panel of PDX models in select tumor types and in defined genetic settings. IDEAYA is also advancing additional preclinical SL / DDT programs that are potential first-in-class programs.

"We are executing on our strategy to build the industry leading Synthetic Lethality focused biotechnology

company, including through strategic partnerships. The Broad and earlier announced GSK partnership advances our efforts to extend our research leadership in Synthetic Lethality and to build a diverse pipeline of potential first-in-class Synthetic Lethality programs," said Yujiro S. Hata, President and CEO, IDEAYA Biosciences.

About IDEAYA Biosciences

IDEAYA is an oncology-focused precision medicine company committed to the discovery and development of targeted therapeutics for patient populations selected using molecular diagnostics. IDEAYA's approach integrates capabilities in identifying and validating translational biomarkers with small molecule drug discovery to select patient populations most likely to benefit from the targeted therapies IDEAYA is developing. IDEAYA is applying these capabilities across multiple classes of precision medicine, including direct targeting of oncogenic pathways and synthetic lethality – which represents an emerging class of precision medicine targets.

Forward-Looking Statements

This press release contains forward-looking statements, including, but not limited to, statements related to (i) the generation of novel SL based target and biomarker discoveries and (ii) the timing of nomination of a PARG development candidate. Such forward-looking statements involve substantial risks and uncertainties that could cause IDEAYA's preclinical and clinical development programs, future results, performance or achievements to differ significantly from those expressed or implied by the forward-looking statements. Such risks and uncertainties include, among others, the uncertainties inherent in the drug development process, including IDEAYA's programs' early stage of development, the process of designing and conducting preclinical and clinical trials, the regulatory approval processes, the timing of regulatory filings, the challenges associated with manufacturing drug products, IDEAYA's ability to successfully establish, protect and defend its intellectual property and other matters that could affect the sufficiency of existing cash to fund operations. IDEAYA undertakes no obligation to update or revise any forward-looking statements. For a further description of the risks and uncertainties that could cause actual results to differ from those expressed in these forward-looking statements, as well as risks relating to the business of IDEAYA in general, see IDEAYA's recent Quarterly Report on Form 10-Q filed on August 12, 2020 and any current and periodic reports filed with the U.S. Securities and Exchange Commission.

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