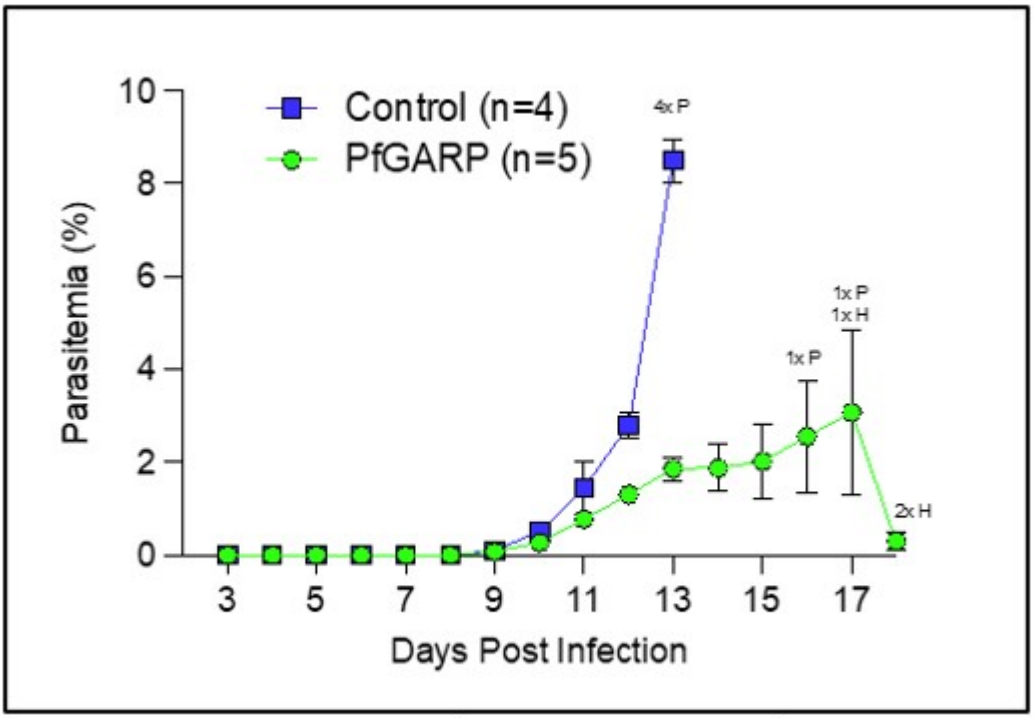
Ocean Biomedical (NASDAQ: OCEA) Details Novel Malaria Therapeutic Discoveries at the NIH Laboratory of Malaria Vaccinology and Immunology on PfGARP's Potential as a Highly Effective Vaccine Target and Therapeutic Candidate to Treat Malaria

March 21, 2023

Providence, RI, March 21, 2023 (GLOBE NEWSWIRE) -- Ocean Biomedical, Inc., a biopharma company working to accelerate the development and commercialization of scientifically compelling assets from research universities and medical centers, announced today that its Scientific Co-founder, Jonathan Kurtis, MD, PhD, presented details of the Company's novel malaria treatment approach to scientists at the National Institute of Health's (NIH) Laboratory of Malaria Vaccinology and Immunology in Bethesda, MD during a meeting held last month. Building on his groundbreaking discovery that the parasite protein PfGARP is potentially a highly effective vaccine target to treat malaria, Dr. Kurtis presented data demonstrating that engagement of PfGARP is critical for regulating parasite density within the human host as it triggers the malaria parasite to kill itself. Developments shared at the meeting detail how Dr. Kurtis' team used a novel approach to capitalize on PfGARPs ability to kill parasites, targeting it for potential drug development.

This follows Ocean Biomedical's prior announcement that Dr. Jack A. Elias in a recent talk shared details of his team's discoveries of the role that glycoprotein CHI3L1 has in regulating primary and metastatic lung cancer, glioblastoma multiforme, and broader oncogenic pathways. Dr. Elias is Ocean Biomedical's other Scientific Co-founder and Dean Emeritus of Medicine and Biological Sciences at Brown University.

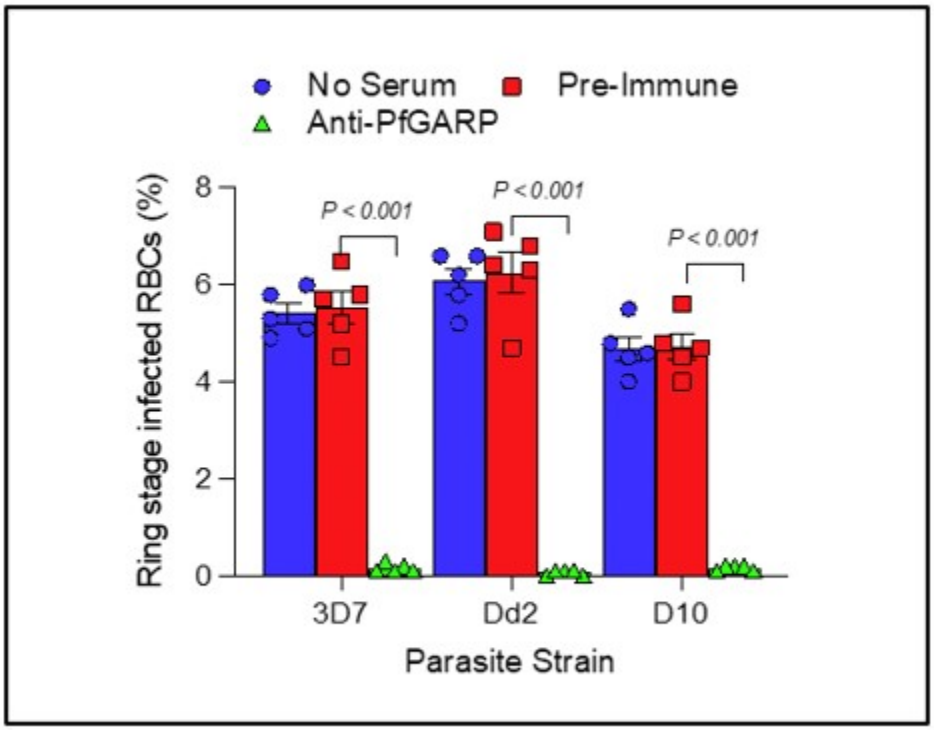
In his talk, Dr. Kurtis detailed his unique Whole Proteome Differential Screening technique used to contrast the antibody repertoires of malaria-resistant children versus malaria-susceptible children. This differential screening technique has led to the discovery of three key targets that are being formulated into a highly effective malaria vaccine candidate being advanced by Dr. Kurtis and Ocean Biomedical. Dr. Kurtis also detailed how his team identified small molecule candidates that bind to and activate PfGARP, leading to parasite death.



Vaccine Impact on Malaria Parasitemia in Monkeys

The data generated by Dr. Kurtis' lab has demonstrated that the family of small molecule candidates in development by Dr. Kurtis' team are highly specific for PfGARP binding, are non-toxic in multiple *in vitro* and *in vivo* systems, have excellent pharmacokinetic

properties, and rapidly clear parasitemia in animal models. **This discovery has allowed Ocean Biomedical to begin simultaneously pursuing the development of a novel malaria vaccine, and novel malaria therapeutics.**



Anti-PfGARP Efficacy in vitro (green triangles show effect of anti-PfGARP)

Global Need

Malaria is still the greatest single-agent killer of children on the planet, killing approximately 627,000 individuals in 2022. Artemisinin-based drug therapy remains the mainstay of treatment, but the spread of parasites resistant to this family of compounds threatens recent progress achieved by antimalarial campaigns and underscores the urgent need to identify new anti-malarial drugs. In a 2022 report, the World Health Organization warned of a surge in mosquito-borne diseases due to global warming, which is increasing vector survival and biting rates.

Leadership Comments

"We desperately need new drugs for severe malaria," said Dr. Kurtis, who is also a member of Ocean Biomedical's board of directors and Chair of Pathology and Laboratory Medicine at the Warren Alpert Medical School at Brown University. "We're hopeful that this might lead to a whole new class of anti-malarial drugs. It was a privilege to have the opportunity to share this work with colleagues at NIH, especially Drs. Patrick Duffy and Michal Fried who have helped advance our work at every stage."

"This malaria vaccine discovery, along with the prior discovery of bispecific antibodies and immune checkpoint inhibitors that kill Glioblastoma cells and melanoma cells, will save thousands of lives and lead to long-term shareholder value growth," commented Dr. Chirinjeev Kathuria, Chairman and co-founder of Ocean Biomedical. "We look forward to bringing these malaria vaccine candidates to the people of Asia and Africa and to the possibility of preventing the leading cause of childhood deaths globally."

"With the rising resistance to artemisinin-based drugs in sub-Saharan Africa, it is imperative that we get new malaria therapeutics into the drug development pipeline," said Elizabeth Ng, Ocean Biomedical's Chief Executive Officer. "We are pleased to be working on multiple solutions to this ongoing global health crisis, and to have the opportunity to share it with some of the nation's top malaria researchers."

Suren Ajjarapu, a director of Ocean Biomedical, commented, "We're proud to be collaborating with our nation's top scientists to move these important programs forward."

About Ocean Biomedical

Ocean Biomedical, Inc. is a Providence, Rhode Island-based biopharma company with an innovative business model that accelerates the development and commercialization of scientifically compelling assets from research universities and medical centers. Ocean Biomedical deploys the funding and expertise to move new therapeutic candidates efficiently from the laboratory to the clinic, to the world. Ocean Biomedical is currently developing five promising discoveries that have the potential to achieve life-changing outcomes in lung cancer, brain cancer, pulmonary fibrosis, and the prevention and treatment of malaria. The Ocean Biomedical team is working on solving some of the world's toughest problems, for the people who need it most.

To learn more, visit www.oceanbiomedical.com.

Forward-Looking Statements

The information included herein and in any oral statements made in connection herewith include "forward-looking statements" within the meaning of the "safe harbor" provisions of the United States Private Securities Litigation Reform Act of 1995. Forward-looking statements may be identified by the use of words such as "estimate," "plan," "project," "forecast," "intend," "will," "expect," "anticipate," "believe," "seek," "target," or other similar expressions that predict or indicate future events or trends or that are not statements of historical matters, although not all forward-looking statements contain such identifying words. These forward-looking statements include but are not limited to: the expected timing and success of investigational new drug ("IND") filings for our initial product candidates; statements regarding the expected timing of our IND-enabling studies; the frequency and timing of filing additional INDs; expectations regarding the availability and addition of future assets to our pipeline; the advantages of any of our pipeline assets and platforms; the potential benefits of our product candidates; potential commercial opportunities; the timing of key milestones for our programs; the future financial condition, results of operations, business strategy and plans, and objectives of management for future strategy and operations; and statements about industry trends and other companies in the industry. These forward-looking statements are based on various assumptions, whether or not identified herein, and on the current expectations of the Company's management, and they are not predictions of actual performance. These forward-looking statements are provided for illustrative purposes only and are not intended to serve as, and must not be relied on by any investor as, a guarantee, an assurance, a prediction, or a definitive statement of fact or probability. Actual events and circumstances are difficult or impossible to predict and will differ from assumptions.

Any discoveries announced by the Company are based solely on laboratory and animal studies. Ocean Biomedical has not conducted any studies that show similar efficacy or safety in humans. There can be no assurances that any treatment tested by the Company will prove safe or effective in humans, and any clinical benefit of any such treatment is subject to clinical trials and ultimate approval of its use in patients by the FDA. Such approval, if granted, could be years away.

Forward-looking statements are predictions, projections, and other statements about future events that are based on current expectations and assumptions and, as a result, are subject to risks and uncertainties. These forward-looking statements are not guarantees of future performance, conditions, or results, and involve a number of known and unknown risks, uncertainties, assumptions, and other important factors, many of which are outside the control of the Company that could cause actual results or outcomes to differ materially from those discussed in the forward-looking statements. Important factors, among others, that may affect actual results or outcomes include but are not limited to: recently transitioning to operating as a NASDAQ-listed public company with a limited operating history; our ability to successfully complete our pre-clinical trials and for those trials to produce positive results; our ability to timely file and obtain approval of INDs from the FDA in the future; the timing of the initiation, progress and potential results of our planned pre-clinical studies and clinical trials and our research programs; our ability to access additional product candidates from research universities and medical centers; the timing or likelihood of regulatory filings and approvals; the commercializing of our product candidates, if approved; our product development and marketing strategy; our ability and the potential to successfully manufacture and supply our product candidates for clinical trials and for commercial use, if approved; future strategic arrangements and/or collaborations and partnerships, and the potential benefits of such arrangements; our assessment that the early observations from our pre-clinical studies are encouraging; the potential for IND-enabling studies and future clinical trial results to differ from initial results or from our pre-clinical studies; regulatory developments in the United States and other countries; difficulties in managing our growth; our estimates regarding expenses, future revenue, capital requirements and needs for financing and our ability to obtain capital; the sufficiency of our existing and anticipated capital to fund our planned operating expenses; our ability to retain the continued service of our key personnel and to identify, hire and retain additional qualified professionals; the implementation of our business model and strategic plans for our business and product candidates; the scope of protection we are able to establish and maintain for intellectual property rights, product candidates and our pipeline; our ability to contract with third-party suppliers and manufacturers and their ability to perform adequately; the pricing, coverage and reimbursement of our product candidates, if approved; developments relating to our competitors and our industry, including competing product candidates and therapies; changes in the markets in which the Company competes, including with respect to its competitive landscape, technology evolution, or regulatory changes; changes in domestic and global general economic and market conditions; risks related to the ongoing COVID-19 pandemic and response, including supply chain disruptions; the risk that the Company may fail to keep pace with rapid technological developments to provide new and innovative products and services or make substantial investments in unsuccessful new products and services; the outcome of any legal proceedings that may be instituted against the Company; the risk of product liability or regulatory lawsuits or proceedings relating to the Company's business; the risk of cyber security or foreign exchange losses; the risk that the Company is unable to secure or protect its intellectual property; the risk that the Company may not be able to develop and maintain effective internal controls; the ability to develop, license, or acquire new therapeutics; the risk that the Company will need to raise additional capital to execute its business plan, which may not be available on acceptable terms or at all; and those factors discussed in the Company's filings with the SEC.

The foregoing list of factors is not exhaustive. You should carefully consider the foregoing factors and the other risks and uncertainties that are described in the Company's Annual Report on Form 10-K for the year ended December 31, 2021 and its Quarterly Report on Form 10-Q for the quarter ended September 30, 2022, and which are described in the "Risk Factors" section of the Company's definitive proxy statement filed by the Company on January 12, 2023, and other documents to be filed by the Company from time to time with the SEC and which are and will be available at www.sec.gov. These filings identify and address other important risks and uncertainties that could cause actual events and results to differ materially from those contained in the forward-looking statements. Forward-looking statements speak only as of the date they are made. We do not undertake any

obligation to update any forward-looking statements made by us. Readers are cautioned not to put undue reliance on forward-looking statements. These forward-looking statements should not be relied upon as representing the Company's assessments as of any date subsequent to the date of this filing. Accordingly, undue reliance should not be placed upon the forward-looking statements.

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