Ocean Biomedical Announces Newly Published Findings Demonstrating Ability to Restore Treatment Sensitivity to AstraZeneca's Leading Lung Cancer Drug After Resistance Has Formed, and Enhanced Tumor Suppression in EGFR-Mutation Lung Cancers

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Company to Host Cancer R&D Update on October 19, 2023 to Share Latest Details of Multipronged Cancer Program Based on Pioneering Anti-CHI3L1 Discoveries

Providence, RI, Oct. 03, 2023 (GLOBE NEWSWIRE) -- Ocean Biomedical, Inc. (NASDAQ: OCEA) announced today that its cancer-targeting immunotherapy antibody candidate has demonstrated effective tumor reduction against an aggressive subset of Non-Small Cell Lung Cancer (NSCLC) with Epidermal Growth Factor Receptor (EGFR) mutations. These research findings, which may be the most important Ocean Biomedical has announced to date, generated by Ocean's Scientific Co-founder Dr. Jack A. Elias and colleagues from Yale University and Brown University, and first published as a preprint last week in *bioRxiv*, are the first to uncover the role of Chitinase 3-like-1 (CHI3L1) in the pathogenesis of EGFR-mutant cancers, with potential applications not just in NSCLC, but in **all EGFR-mutant cancers, including glioblastoma and colon cancer**.

The studies demonstrate the ability of Ocean Biomedical's cancer-targeting immunotherapeutic antibody to **control the growth of human tumor cells with EGFR mutations** by suppressing CHI3L1 activity. Additionally, the findings demonstrate a stunning ability to **restore therapeutic sensitivity to current tyrosine kinase inhibitor (TKI) therapies** after resistance sets in, including the third-generation TKI, **Osimertinib (marketed as Tagrisso by AstraZeneca)**. In mouse model testing in combination with Osimertinib (and also earlier TKI Gefitinib), Ocean's antibody was shown to **stop human tumor progression by inducing tumor cell death and stimulating tumor suppressor genes**. In 2022, AstraZeneca's top pharmaceutical product by revenue was Tagrisso, a medication used in the treatment of non-small-cell lung carcinomas. During that year, Tagrisso generated 5.44 billion U.S. dollars in revenue for the company.

EGFR-Mutant Lung Cancer. Non-Small Cell Lung Cancer (NSCLC) is a leading cause of cancer deaths globally, accounting for 85% of all lung cancers. The EGFR-mutant lung cancer is found in 30%-50% of NSCLC patients with Asian heritage and 10%-20% of patients with Caucasian backgrounds. This lung cancer can be effectively treated with current third-generation tyrosine kinase inhibitor (TKI) therapies for about 9-18 months, but virtually all patients eventually develop therapeutic resistance.

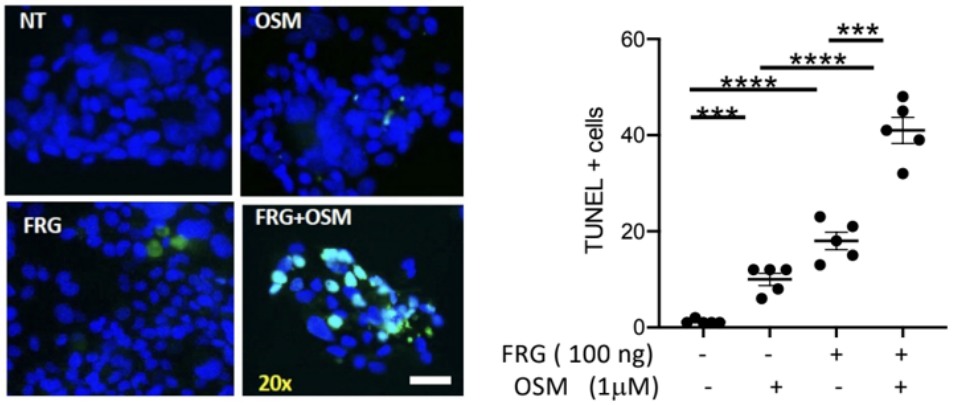
In these findings, the role of CHI3L1 in EGFR-mutant lung cancer is described for the first time. Ocean Biomedical's cancer immunotherapy candidate demonstrates potential use in EGFR-mutant cancer immunotherapy in multiple ways:

1) as a stand-alone therapy

2) as a combination therapy with current TKI inhibitors, and

3) as a "salvage therapy" in combination with TKI inhibitors like Osimertinib—potentially extending their therapeutic life.

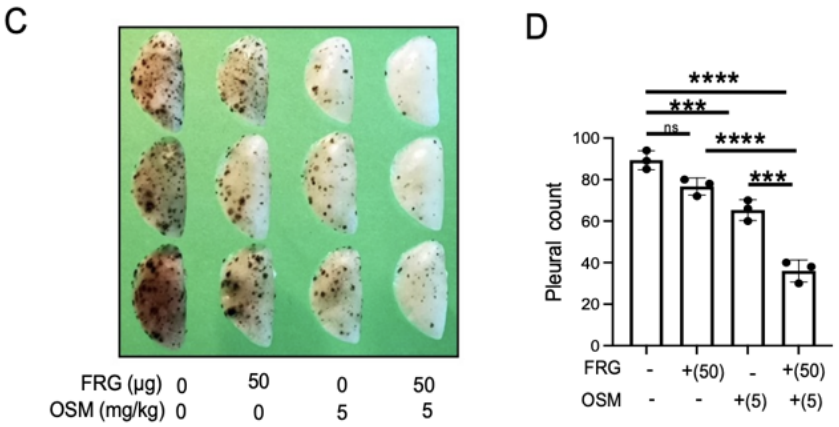
"We are very excited to see the effectiveness of our anti-CHI3L1 antibody in suppressing and reversing tumor growth in studies of EGFR-mutant lung cancer cells," commented Dr. Elias. He also said, "We are even more amazed to see how it works in combination with current treatments like Osimertinib, especially its ability to restore therapeutic effectiveness in cells that have developed Osimertinib resistance."



TUNEL Assay shows Ocean Biomedical's FRG + Osimertinib inducing tumor cell apoptosis

In multiple testing combinations, Ocean Biomedical's patented anti-CHI3L1 antibody demonstrated effective tumor reduction. A TUNEL assay revealed roughly 20% tumor cell death via the folate receptor gamma (FRG) protein on its own, and roughly 40% tumor cell death via FRG in combination with Osimertinib.

In mouse lung model testing with TKI inhibitors Gefitinib and Osimertinib, Ocean's antibody demonstrated reduction of lung tumor metastasis by more than 50%.



FRG + TKI Inhibitor Osimertinib in Mouse Lung Model

CHI3L1 and Cancer. Advancing efforts to understand the underlying pathways driving tumor activation via CHI3L1, Ocean Biomedical's scientific co-founder Dr. Jack A. Elias has revealed a series of novel discoveries around the roles of CHI3L1. These discoveries have shown CHI3L1 operating in multiple oncogenic pathways, some operating simultaneously. This current paper expands Dr. Elias' team's understanding of the role of CHI3L1 in NSCLC and in conjunction with genetic mutations that are often key drivers of tumor creation in some of the most aggressive cancers. With these novel discoveries, Dr. Elias' team is broadening their understanding of the ways in which CHI3L1 interacts with EGFR mutations to drive the cancer.

"We are excited to expand our understanding of the role of CHI3L1 in driving tumor formation, and to discover this potential role for application in combination with current state-of-the-art therapies, especially in EGFR-mutant NSCLC, which is devastating for so many families and disproportionally affects Asian heritage populations," said Elizabeth Ng, Chief Executive Officer of Ocean Biomedical.

R&D Update: Cancer Program. **Ocean Biomedical will host an R&D Update to discuss details of its cancer program, including these findings, and to answer investor questions on Thursday, October 19, 2023, with Dr. Jack A. Elias.**

"This new data that demonstrates tumor suppression and potential salvage therapy application in EGFR-mutation lung cancers could save thousands of lives," commented Ocean's Executive Chairman and founder, Dr. Chirinjeev Kathuria. "We are proud of this pioneering work by Dr. Elias and his colleagues at Yale and Brown."

"The range of potential therapeutic applications in our cancer platform continues to grow, and we look forward to growing the benefits for all of Ocean's stakeholders," commented one of Ocean's directors, Suren Ajjarapu.

About Dr. Jack A. Elias

Dr. Jack A. Elias is a leader in pulmonary research and care. He is the former Chair of Yale's Department of Internal Medicine, Dean Emeritus of Medicine and Biological Sciences at Brown University, and current Professor of Translational Science in the Departments of Medicine and Molecular Microbiology and Immunology at The Warren Alpert Medical School of Brown University. He is a leading pulmonary care specialist and research pioneer. In 2019, Dr. Elias co-founded Ocean Biomedical with several Brown University colleagues, alums, and experienced pharma business leaders to help address major unmet medical needs by accelerating more discovery science into needed therapeutics.

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 on behalf of Ocean Biomedical, Inc. (the "Company") or otherwise 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, statements regarding estimates and forecasts of financial and performance metrics and expectations; 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. The Company 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 that any clinical benefits 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. 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, 2022 and in the Company's subsequent Quarterly Reports on Form 10-Q 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. 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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