



**For Immediate Release  
July 8, 2021**

### **Sunshine Biopharma Employs mRNA Vaccine Technology to Expand Its Fight Against Multidrug Resistant Cancer**

Montreal, Quebec, Canada – (GLOBE NEWSWIRE) – Sunshine Biopharma Inc. (OTC PINK: “SBFM”), a pharmaceutical company focused on the research, development and commercialization of oncology and antiviral drugs, today announced that it has succeeded in inhibiting the activity of Nrf2 using mRNA vaccine technology. Nrf2 is a transcription factor responsible for activation of oxidative stress genes as well as the cancer multidrug resistance genes, MDR1 (p-Glycoprotein), MRP1 and BCRP. By temporarily inhibiting Nrf2 activity with an mRNA injection immediately before or during chemotherapy, the Company hopes to achieve enhanced performance of anticancer drugs and consequently better overall therapeutic outcomes for cancer patients. In separate studies using a small molecule inhibitor of Nrf2, the Company results showed that the activity of a test anticancer drug (Etoposide) was enhanced approximately 4-fold. These studies were performed in MCF-7/MDR, a multidrug resistant breast cancer cell line.

“The implications of these results for cancer therapy are enormous,” said Dr. Steve Sllaty, CEO of Sunshine Biopharma. “We are excited about the prospects of making this discovery a future reality for cancer patients,” he added.

#### **About Sunshine Biopharma**

Severe Acute Respiratory Syndrome-Coronavirus-2 (SARS-CoV-2) is the causative agent of the ongoing COVID-19 pandemic that has claimed the lives of over 4 million people worldwide since it first appeared in December 2019. There are currently no drugs that can effectively arrest replication of the virus in people who have contracted the illness. Sunshine Biopharma has completed the synthesis of four potential inhibitors of PLpro and subsequently identified a lead compound, SBFM-PL4. On February 1, 2021, Sunshine Biopharma entered into an exclusive license agreement with the University of Georgia for two Anti-Coronavirus compounds which the University of Georgia had previously developed and patented. The Company is currently advancing the development of these two compounds in parallel with its own SBFM-PL4 by conducting a transgenic mice study in collaboration with the University of Georgia, College of Pharmacy. The mice being used in the study have been genetically engineered to express the human angiotensin-converting enzyme 2 (hACE2) transmembrane protein in their lungs making them susceptible to lethal infection by SARS-CoV-2. The SARS-CoV-2 virus uses the hACE2 receptor to gain entry into human cells to replicate. The goal of the study is to determine if these protease inhibitors will protect the hACE2-transgenic mice from disease progression and death

following infection with SARS-CoV-2. Should these mice studies prove successful, Sunshine Biopharma plans to submit the results to the FDA for authorization to conduct testing on actual COVID-19 patient volunteers in a Phase I clinical trial setting.

In addition, to working on the development of a treatment for COVID-19, Sunshine Biopharma is engaged in the development Adva-27a, a unique anticancer compound. Tests conducted to date have demonstrated the effectiveness of Adva-27a at destroying Multidrug Resistant Cancer Cells, including Pancreatic Cancer cells, Small-Cell Lung Cancer cells, Breast Cancer cells, and Uterine Sarcoma cells. Clinical trials for Pancreatic Cancer indication are planned to be conducted at McGill University's Jewish General Hospital in Montreal, Canada. Sunshine Biopharma is owner of all patents and intellectual property pertaining to Adva-27a.

### **Safe Harbor Forward-Looking Statements**

*This press release may contain forward looking statements which are based on current expectations, forecasts, and assumptions that involve risks as well as uncertainties that could cause actual outcomes and results to differ materially from those anticipated or expected, including statements related to the amount and timing of expected revenues statements related to our financial performance, expected income, distributions, and future growth for upcoming quarterly and annual periods. These risks and uncertainties are further defined in filings and reports by the Company with the U.S. Securities and Exchange Commission (SEC). Actual results and the timing of certain events could differ materially from those projected in or contemplated by the forward-looking statements due to a number of factors detailed from time to time in our filings with the SEC. Among other matters, the Company may not be able to sustain growth or achieve profitability based upon many factors including but not limited to general stock market conditions. Reference is hereby made to cautionary statements set forth in the Company's most recent SEC filings. We have incurred and will continue to incur significant expenses in our expansion of our existing as well as new service lines noting there is no assurance that we will generate enough revenues to offset those costs in both the near and long term. Additional service offerings may expose us to additional legal and regulatory costs and unknown exposure(s) based upon the various geopolitical locations we will be providing services in, the impact of which cannot be predicted at this time.*

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