

## **Regen Biopharma Inc. Initiates Small Molecule Hit Validation Study on Cancer Stem Cell Target Gene**

Company is seeking to validate high throughput screen results using orthogonal assay

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Regen BioPharma Inc. (OTCBB: RGBP) and (OTC PINK: RGBP) announced today that it has initiated studies for its small molecule drug discovery platform on its cancer stem cell target gene. These studies are expected to be completed within the next two months.

These studies are anticipated to produce purified recombinant protein and conduct an orthogonal assay to validate the results of High Throughput Screening of 170 compounds previously curated by the Company.

The Company is testing a list of 170 hit compounds out of 300,000 compounds that had been initially tested. A hit is a compound that gives a positive signal in a screening assay that is used to indicate binding of a compound to the region of the protein that regulates the protein's function. The desired outcome is to find a "hit" that will bind to and turn off the cancer stem cell target gene that the Company is working on, and hence allow the transformation of a cancer stem cell into a normal cell. The 170 compound short list was generated by ranking the top hits in order of priority based on medicinal chemistry desirability and on exclusion of Pan Assay Interference (PAINS) compounds.

An orthogonal assay uses a different methodology than methodology used in the initial screen to test the compounds ability to bind to the target. While the luciferase reporter assay methodology was used to carry out the high-throughput screen, to eliminate the biases that are introduced by the testing method, the Company will carry out validation of the hits using thermodynamic drug discovery methods.

Validation of the hits will allow the Company to identify the most viable candidates for hit to lead discovery. Hit to lead is a stage in early drug discovery where small molecule hits from a

high throughput screen are evaluated and undergo limited optimization to identify promising lead compounds

"We wish to develop the best possible small molecule drug to act as a synthetic agonist to our cancer stem cell nuclear receptor target, so while we did have initial results showing that some nuclear receptors ligands could also act as a small molecular ligand for our cancer stem cell gene target we wanted to develop the best product possible so we made a strategic decision to survey a much broader chemical space and pursue hits from a high throughput screening approach. High throughput screening allows the survey of a very broad array of chemical structures, giving us an unbiased look at what could bind best to our target," said Dr. Christine Ichim, Director of Molecular Therapeutics.

**ABOUT REGEN BIOPHARMA INC.:** Regen BioPharma Inc. is a publicly traded biotechnology company (OTCBB: RGBP) and (OTC PINK: RGBP). The Company seeks to identify undervalued regenerative medicine applications in the immunotherapy and stem cell space. The Company is focused on rapidly advancing these technologies through pre-clinical and Phase I/ II clinical trials. Currently the Company is centering on gene silencing therapy for treating cancer, telomeres and small molecule therapies, along with developing stem cell treatments for aplastic anemia.

Disclaimer: This news release may contain forward-looking statements. Forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified. Future events and actual results could differ materially from those set forth in, contemplated by, or underlying the forward-looking statements. The risks and uncertainties to which forward looking statements are subject include, but are not limited to, the effect of government regulation, competition and other material risks.

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