



Profile:

Industry: Biotech

Funding Raised: \$745,000

Funding Sources: Founders, Angels, Health Wildcatters, Springhood Ventures, GPG Ventures

Founded: July 2016

Employees: 1 fulltime, 6 part time

Financing:

Seeking: \$2,000,000 at \$4.5 MM pre-money

Purpose: Preclinical work to start clinical studies

Targets:

Q3 19: in vivo studies

Q4 19: 10Kg clinical bulk

Q1 20: GLP toxicology, clinical formulation

Q4 20: IND filing

Management:

Jon Northrup: CoFounder, CEO, 2 previous successful clinical biotechs
Eli Lilly SVP, 28 years

Sunil Sharma, MD FACP: Co-Founder, Board, Chief Medical Advisor, Deputy Director, Translational Genomics Institute, City of Hope

Scott Jordan: Chief Investment Officer, same biotechs, I-banker

Uma Bhatt, CPA: Chief Accounting Officer

Contact Info:

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Summary: Stingray Therapeutics has the next generation cutting edge cancer treatment technology in immune oncology.

Technology: Treating cancer with immunotherapy rather than chemotherapy is the new revolution in oncology. The first generation of immune oncology drugs, specifically “checkpoint inhibitors”, use adaptive immunity to counter cancer’s immunosuppressive “checkpoints.” But patients still develop resistance and succumb to their disease 80% of the time, and many cancers are not responsive to these immunotherapies at all. Our second-generation immune oncology drugs use innate immunity to reveal hidden cancer cells for adaptive immunity to attack. Combining the 1st generation checkpoint inhibitors with 2nd generation Stingray’s innate immune drugs is designed to stimulate immunity to fight the resistance and attack far more cancers.

Science: In response to “Ectonucleotide Pyrophosphatase / Phosphodiesterase 1” (“ENPP1”) that cancers dramatically increase to block innate immunity, Stingray has already developed oral drugs that inhibit/block ENPP1. Adding this innate immune technology to the first generation of adaptive immunity’s checkpoint inhibitors, is like having both arms in the fight against cancer, taking immune oncology to the next level in fighting resistance and treating many new cancers.

Because ENPP1 has additional functions in supporting tumor invasiveness and cancer’s ability to resist treatment by transport of DNA repair machinery, Stingray’s drugs that inhibit ENPP1 can thwart cancer’s growth, in addition to freeing innate immunity to respond and help adaptive immunity.

Market: Our ENPP1 inhibitors should be used alongside of checkpoint inhibitors. There are six checkpoint inhibitors marketed today and over 60 in development. Analysts are projecting these therapies will hit a market size of \$56 Billion worldwide within the next decade. Our inhibitor would be used alongside checkpoint inhibitors at a similar price point (\$150-175,000 per patient per year of therapy) and should allow checkpoint inhibitors to at least double in size because of longer treatment times (resistance causes most patients to succumb to their disease) and because of the extension to many more solid tumors which will become viable candidates for therapy. This is one of the largest market opportunities in oncology today. This is the cutting edge for cancer treatment.

Revenue Model: Our biotech business model operates on founder funding from start through clinical candidate nomination (Founders), then preclinical funding for an Investigational New Drug (“IND”) Application acceptance (Investor Seed funding). Usually two phase 1-2 clinical trials totaling about 50 patients (Investor Series A) with a positive outcome will incent strategic large pharmaceutical partners to buy the asset and complete the clinical program and do the worldwide marketing. Financing points are usually founding money, Series Seed funding to achieve IND (around a \$5 MM pre), and Series A funding for clinical trials (around a \$15 MM pre). Sale at this point, following early clinical proof of concept is the usual exit. Exits in immune oncology - very similar to this program - have

averaged almost \$250 Million upfronts, almost \$1 Billion milestone packages and then double-digit royalties on sales. This represents one of the most lucrative pieces of the pharmaceutical value chain where there is a ready market, and which can be accomplished with minimal infrastructure and a seasoned team of professionals.

Business Strategy: We had previous success in obtaining \$50 MM government & foundation grants across two prior startups, which substantially reduced equity required and thus equity dilution. Instead of usual 10-year exit for most drugs, we plan to exit in 4 years at 20X price/share for the seed round, by sale to a large pharmaceutical company after a phase 1-2 clinical study. A successful sale to pharma usually allows an exit over \$200MM upfront with a larger contingent milestone and royalty package. We would anticipate 2022 as a likely exit time for Stingray.

We have run this business model twice before with notable success. Both previous companies are in the clinic and positioning clinical studies for final exit to large pharmaceutical companies. One has been taken by a venture capital group and the second has pushed phenomenal grant funding due to its pediatric cancer indication – to a pending Nasdaq listing.

In pharmaceuticals, the average success for target to phase 1 is about 1 in 9 programs, so far we are 3 for 3. Each company has targeted a major issue in oncology with a very novel approach and represents a union of very pragmatic drug development and cutting-edge science.

Competition: One company in mid-2018 announced a similar program as the one Stingray started in mid-2016, at a similar stage to Stingray's program (Mavupharma – Seattle, WA). The immune oncology market is so large it can accommodate several players.

Use of Funds: The raise will be used for the preclinical work required for filing and receiving acceptance to study in the clinic from FDA – an Investigational New Drug Application acceptance. We would then raise a Series A to fund the clinical trial effort, and plan for an exit after the A raise, about four years from Seed funding.

Founder's Experience: Jon Northrup, CEO, is a seasoned biopharma executive, having been CEO of several previous successful biotechs, currently serving on 4 biotech boards, was a venture capital executive, and had a career at Lilly in sales, marketing and corporate business development, achieving SVP. Jon is a Wharton MBA in finance and contributing author to "The Business of Healthcare Innovation", Cambridge University Press, 2005 and 2012.

Sunil Sharma, MD, FACP, MBA, has done over 150 clinical phase 1-2 oncology trials for all the major pharmaceutical and biotech companies in oncology. Sunil is Deputy Director, Clinical Sciences; Professor and Division Director, Applied Cancer Research and Drug Discovery, Translational Genomics Research Institute (TGen); Chief, Translational Oncology Research & Drug Discovery; HonorHealth Research Institute; City of Hope. Sunil previously was Deputy Director and Presidential Professor of the Huntsman Cancer Institute, University of Utah.

Monil Shah, PharmD, VP Development, has strong preclinical and clinical development experience with Novartis, Celgene, and Assembly Biosciences.

Scott Jordan, Chief Investment Officer, has strong business development and fund raising experience from Abbott Labs, Neopharm, and Healthios banking

Mohan Kaardige, PhD is an experienced lab biologist running the biology aspects of the program and Hari Vankayalapati, PhD, PharmD, is an experienced chemist with more than two dozen pharmaceutical drugs he discovered having entered clinical studies.

Uma Bhatt, CPA is an experienced international public and private company accounting CFO.