BCN Biosciences

Developing therapies for Oncogenic Kras epithelial cancers

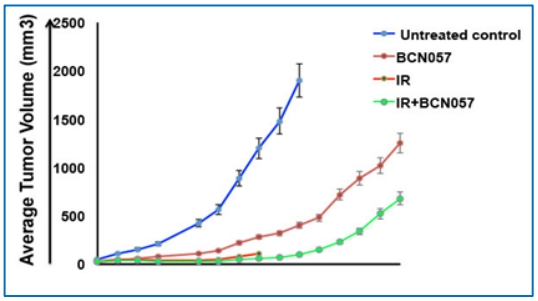
KRAS mutant Cancers

KRAS+ cancers represent almost one-quarter of all Cancers and a significant % of epithelial cancers. They are hard to treat, as the specific mutations make it easier for the cancer cells to evade chemotherapeutic drugs as well as cancer immunotherapies. This is most prominent in the specific KRAS mutations of G12C, G12D, G12V and G13D. Such mutations cover a significant population for epithelial cancers such as Colorectal (~40%), Pancreatic (~80%), Head & Neck (~50%), as well as Lung (~35%) and Breast cancer.

BCN therapeutic approach

BCN Biosciences is developing two distinct novel classes of small molecules developed through our proprietary platform of phenotypic screening and AI based mechanism identification. The primary molecules have demonstrated significant efficacy against KRAS mutant cancers and secondary molecules are effective in protection of normal tissues against radiation and chemo toxicity.

BCN000 class of molecules: **BCN077** molecule represents a class of drugs which inhibit GSK-3β with consequent potent inhibition of KRAS mutant cancers. The MOA is achieved by restoration of PTEN expression (through c-Jun mediated axis) resulting in rapid induction of apoptotic pathways in Oncogenic KRAS cells. In addition, we have demonstrated that this class of drug can induce durable inhibition of PD-1 expression on Tumor Infiltrating Lymphocytes.



C57BL/6 mice having MC38 colon tumor in the flank at day 30 post-abdominal irradiation (AIR). . Mice showing significant reduction in tumor size after being treated with BCN057

HIGHLIGHTS

ASSET PLATFORM

BCN000 family of molecules
KRAS+ cancers, colorectal, pancreatic, endometrial, uterine

BCN500 family of molecules
Oral Mucositis, Epithelial Fibrosis, Proctitis

DEVELOPMENT STAGE

BCN077 lead molecule – ready for clinic, Pre IND stage. Seeking funding to get into Human Clinical trials

BCN512 molecules – Preclinical

FUNDING HISTORY

$10M+ all non dilutable. Clean cap table. Founders hold most of the equity

INTELLECTUAL PROPERTY

Composition of matter for 2 classes of molecules
Indications – Cancer, Supportive Care, Fibrosis

LOCATION

Pasadena Biosciences Collaborative Incubator

ACTIVE COLLABORATIONS

Kansas University Medical Center

University of California, Los Angeles

National Caner Institute

KEY ADVISORS & OPINION LEADERS

Dr William McBride, UCLA

Roger Ulrich PhD, Gilead, Acerta, AstraZeneca

Anup Kasi, MD, University of Kansas Medical Center

COMPETITORS

Amgen
LUMAKRAS (sotorasib – KRAs G12C small molecule)
FDA Approval – May 2021
Advanced or met NSCLC
Projected2030 sales - $5B+

Mirati Therapeutics
MRTX849 (adagrasib – G12C small molecule)
FDA – Phase 2 Trial
NSCLC, Colorectal, Pancreatic
Market Cap - $8B
VC funding - $200M+

Actuate Therapeutics
9-ING-41 (GSK-3β inhibitor small molecule)
FDA – Phase 1/2
Refractory, Pancreatic cancer
VC funding - $45M

MORE INFORMATION

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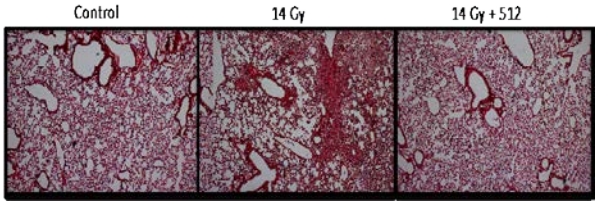
BCN500 class of molecules: This class of drugs agonize the Fzd5 receptor and are exceptional protector of normal epithelial tissues against radiation and chemo induced mucositis, epithelial fibrosis, enteritis and proctitis.



Left: Histology of the lungs from control, irradiated (14 Gy), and irradiated with BCN512 treatment in mice 160 days after lung radiation exposure

BCN different than competitors

Although BCN can demonstrate strong antineoplastic activity, we are well aware that little to no attention has been given to chemo and radiation toxicity leading to reduction in MTD and its consequent lowering of overall survival (OS) and progression free survival (PFS) for standard of care therapy. BCN drugs have a unique quality in that it also preserves normal tissue from off target effects from radiation and chemotherapy. Thus when used in addition to standard of care they not only enhance therapeutic tumor ablation, but reduce the toxicity with the aim to positively impact OS and PFS.

TEAM - **Founders**

Andrew Norris PhD – Dr Norris has been an Adjunct Faculty at University of California, Los Angeles and has served as a consultant to many life sciences and healthcare companies. He founded BCN to dramatically reduce the development timeline for oncology and supportive care therapeutics. Currently he oversees all research at BCN Biosciences and holds a research faculty position at UCLA Department of Radiation Oncology. Andrew received his PhD from UCLA.

Sudip Chakrabortty – Deep is a 20 year veteran of healthcare and life sciences industry both as a management consultant and investment analyst. He has been a founder and mentor for multiple startups before. Deep overseas all business operations at BCN including operations, biz dev, licensing and intellectual property. He has a MS in engineering and MBA from UCLA

DEVELOMENT PATH

BCN057 molecules KRAS+ Colorectal Cancer