

SIGX1094-World's First Target Therapy for Diffuse Gastric Cancer

Category:

Best Biotechnology Product

Company Name:

Signet Therapeutics

Product/Solution Name:

SIGX1094-World's First Target Therapy for Diffuse Gastric Cancer

Compound/Tech Name:

FAK Inhibitor

Trade Name:

SIGX1094R

Corporate Name:

Signet Therapeutics

Date of Approval:

2024-09-01

Indications:

Diffuse gastric cancer, Ovarian cancer, Triple negative breast cancer, etc

Therapeutic Areas:

Diffuse gastric cancer, Ovarian cancer, Triple negative breast cancer, etc

General Information File Document upload:

[**Signet TherapeuticsCompany Introduction.pptx**](#)

Background information and need for drug / device:

Driven by a vision to tackle unsolved human medical problems through biology

innovation, Signet Therapeutics have found the world's first target for diffuse gastric cancer through an innovative \"organoid and AI\" drug discovery and development platform. We are developing the world's first drug pipeline, SIGX1094, to treat diffuse gastric cancer that has the potential to satisfy huge markets and, most importantly, brings hope to millions of patients and their families. In general, our company is dedicated to the discovery, development, and commercialization of novel first-in-class drugs directed against targets for the treatment of cancer.

The pain points of new drug development include long cycle time, high investment, and high failure rate, but through our cultivated in vitro organoid disease models and AI technology, we can advance the problems that will be encountered in the clinic to pre-clinical solution and effectively accelerate the speed of new drug development. By using this model, the company currently has four drug pipelines. The first and the fastest one is for the treatment of diffuse gastric cancer, SIGX1094, and would be world's first targeted drug to treat diffuse gastric cancer. SIGX1094 is currently undergoing Phase I clinical trial in Beijing Cancer Hospital. The US FDA has also granted SIGX1094 Orphan Drug Designation and Fast Track Designation.

Nearly 780,000 people die from stomach cancer in global scale each year, ranking third in the global cancer death rate. Our team successfully developed target therapy for the first time in the world, filling a gap in targeted therapeutic research in this niche area. The company has received a \$22 million funding and non-diluted funding, attracted investment from top institutions including Tiantu Capital, 5Y Capital, Green Pine Capital and more.

Background File Document upload:

N/A

History of the development of the solution/product:

Signet Therapeutics' founder and CEO, Dr. Haisheng Zhang, conducted his post-doctoral study at Dana-Farber Cancer Institute. There, guided by his mentor Dr. Adam Bass, he found the first target for Diffuse Gastric Cancer and has posted relevant findings on Cancer Discovery. Dr. Haisheng Zhang is deeply involved in first-line research on gastrointestinal tumors. He has published 12 SCI papers, including 6 first author/co-author and co-corresponding articles. In his Cancer Discovery paper, his article has solved long-standing controversies in the industry. Firstly, mutations in high-frequency RHOA in patients elucidated by systematic biochemical experiments are gain-of-function. Secondly, through modeling and comprehensive proteomics, FAK, a new target for diffuse gastric cancer, was discovered for the first time in the world, filling the gap of targeted therapeutic research in this segment. This finding was honorably nominated as Spotlight finding in the same journal. Dr. Haisheng Zhang's articles have been cited 408 times (320 in the last five years) and he serves as a

reviewer for Cancer Letters and eBiomedicine (by Lancet).

Driven to translate this groundbreaking discovery from the lab to patients worldwide, Dr. Haisheng Zhang co-founded Signet Therapeutics with his mentor, Dr. Adam Bass. In under four years, the company has achieved remarkable milestones: securing \$22 million in funding and advancing its lead candidate into Phase I clinical trials with promising early data: with clean safety data and signs of biological activity.

Remarkably, at just 12.5 mg (1/16 target dose), one heavily pretreated metastatic solid tumor patient maintained Stable Disease through 9+ weeks of treatment - suggesting potent target engagement even at minimal exposures.

Development File Document upload:

[Signet Therapeutics Poster.jpg](#)

Why this drug or device is innovative, the broad implications for future research, and/or how it will improve the human condition:

Diffuse Gastric Cancer (DGC) represents a critical unmet medical need. Patients face dismal outcomes with a median survival under 12 months, with no targeted therapies available. Chemotherapy works limit effects on these patients. DGC's aggressive nature and global prevalence demand urgent solutions.

SIGX1094 is revolutionary as the first drug developed via an \"organoid+AI\" platform. This approach reduces \$32 million in preclinical costs, reduces preclinical development time by 40%, and eliminates scientists' ethical concerns of animal testing. Crucially, patient-derived organoids can better mimic human biology, significantly increase the drug success rate.

Beyond be the first target therapy to treat DGC, SIGX1094 validates a transformative R&D paradigm. Its success will inspire widespread adoption of organoid-AI platforms across pharma, accelerating the development of life-saving drugs while reducing costs and failure rates industry-wide.

Innovation File Document upload:

[Signet was reported front page on Fierce Biotech.png](#)

Please provide appropriate references (PubMed, Abstract, Website):

Website: <https://en.signettx.com/>

Dr. Haisheng Zhang's Cancer Discovery article:

<https://pubmed.ncbi.nlm.nih.gov/31771969/>

References File Document upload:

Dr Haisheng Zhang DanaFarber Center Employment Confirmation Letter.pdf

Gain of Function RHOA Mutations Promote Focal Adhesion Kinase Activation and Dependency in Diffuse Gastric Cancer.pdf