



A HUB FOR INNOVATIONS AND TALENTS

Spurring novel solutions to global problems, this hub in Shenzhen has emerged as **A MAGNET FOR GLOBAL SCIENTIFIC TALENTS**.

For any world-class research hub, creating advanced research platforms, gathering top talent, and driving discovery are key to staying at the forefront of science and innovation.

Established in January 2019, a provincial laboratory in Shenzhen has been fulfilling such ambitions, riding on the development of the Greater Bay Area (GBA) as a key economic zone in China.

Promoting innovation on all fronts

Jointly launched by the Shenzhen Science and Technology Innovation Commission, and Peking

University Shenzhen Graduate School, Shenzhen Bay Laboratory (SZBL) has become known for its basic and applied research. SZBL aims to play a vital role in supporting the growth of the biomedical industry in the GBA and China.

"Our goals are consistent with overall strategic plans of the government, including the 14th Five-Year Plan from 2021 to 2025," said the laboratory director, Qimin Zhan. "Thanks to the unwavering support from all levels, we enjoy a rapidly expanding collaboration network with other public institutions and leading businesses."

In less than two years,

the SZBL researchers have applied for five invention patents, including one PCT patent, one US patent, and three Chinese invention patents. They have also published more than 100 papers in *Nature Biomedical Engineering*, *Journal of the American Chemical Society*, *Nature Communications*, *Proceedings of the National Academy of Sciences of the United States of America*, and other leading journals.

In terms of its organizational setup, SZBL is guided by interdisciplinary crossover and collaboration among its 15 research institutes and centres, supporting the basic research and technology

development of major diseases. From cancers, metabolic syndromes, cardiovascular diseases, neurodegenerative disorders, infectious diseases, to rare diseases, specialized teams work on bioinformatics, biomedical engineering, and the discovery of innovative drugs.

As of September 2020, the laboratory has established 61 dedicated teams, with many young scientists, such as computational biologist, Kun Sun, attracted to the opportunities it offers.

Championing talent incubation

Right from the beginning,



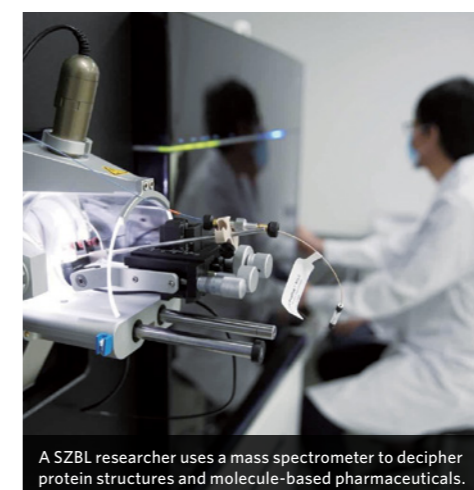
SZBL entered a new stage with its base in Guangming District, Shenzhen, established in June 2020.



Animal model investigation as part of rare disease research.



SZBL has set up a powerful computational facility with more than 1,500 CPU cores, 100 TB memory, and 6 PB storage. Kun Sun is working with his team members on configuring SZBL's supercomputers.



A SZBL researcher uses a mass spectrometer to decipher protein structures and molecule-based pharmaceuticals.

SZBL is now offering faculty positions at all ranks from tenure-track assistant professor, professor to chief scientist. International applicants are welcome, especially those with research interests related to:

- molecular physiology
- chemical biology
- systems and physical biology
- drug discovery
- bioanalytical science
- biomedical engineering
- cancer
- neurological and psychiatric disorders
- cardiovascular and metabolic diseases
- infectious diseases (respiratory and insect-borne)

Applicants should have a doctoral degree in biology, chemistry, pharmacy, medicine, or a related field. Postdoctoral experience is required for a junior position (assistant professor). Applicants for senior positions (professor, and chief scientist) are expected to have an exceptional track record in publication and research funds. Qualified candidates will receive an internationally competitive salary, ample start-up funding, laboratory and office space, and other support.

Application

- Cover letter
- Curriculum vitae (including lists of publications and research funds)
- Research summary and research proposal
- Names, affiliations and contact details of referrers, three referrers for junior position, and five to 10 referees for senior positions

Please send the required documents in a single PDF file, and indicate your primary research interests in your application, to hr_pi@szbl.ac.cn

SZBL has gathered many top scientists, while ensuring academic freedom and an innovative atmosphere, in which Sun has been fulfilling his life dream: integrating DNA technology into routine physical examinations to enable early cancer detection.

Sun was trained in a world-class laboratory in Hong Kong. He had been engaged in bioinformatics and liquid biopsy innovations with more than 10 years experience in biomedical big data analysis. He has published more than 40 papers in renowned international journals, and participated in the application of six

international patents.

However, Sun believes that SZBL could further his career fulfilment. In November 2019, he joined SZBL as one of SZBL's first full-time distinguished researchers.

Apart from the impressive innovation in Shenzhen, with its rapid market transformation, the lure of SZBL also comes from its unrivalled resources. "There are hundreds of companies in Shenzhen that cover all fields of genetics and biomedicine, from chemical reagents to sequencing machines. Whatever material you need, you can get the best in Shenzhen", Sun said.

Since Sun started at SZBL, he has travelled back and forth across Shenzhen and other cities, looking for partnering hospitals, recruiting volunteers, doing experiments, analysing data, and writing papers.

"We aim to accelerate cancer diagnostics through blood testing to enhance benefits for patients," Sun said. "Our hope is to be able to work with just a small tube of blood, to inspect if there are tumours in the body by detecting 'abnormal' signals in DNA in the blood."

While theoretically safer and simpler, his experiments require a large number of samples to prove that its accuracy can meet

clinical requirements. He is confident of success, however, driven by SZBL's commitment to life science informatics, biomedicine, and medical engineering research, along with Peking University's strong medical background.

Qimin Zhan noted, "Young scientists like Sun are integral to our dedication to nurturing talent and strengthening our innovative growth." ■



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