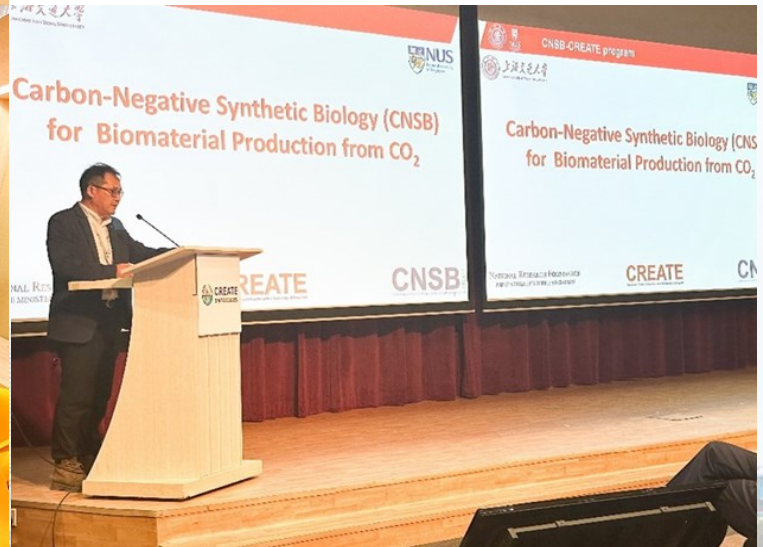
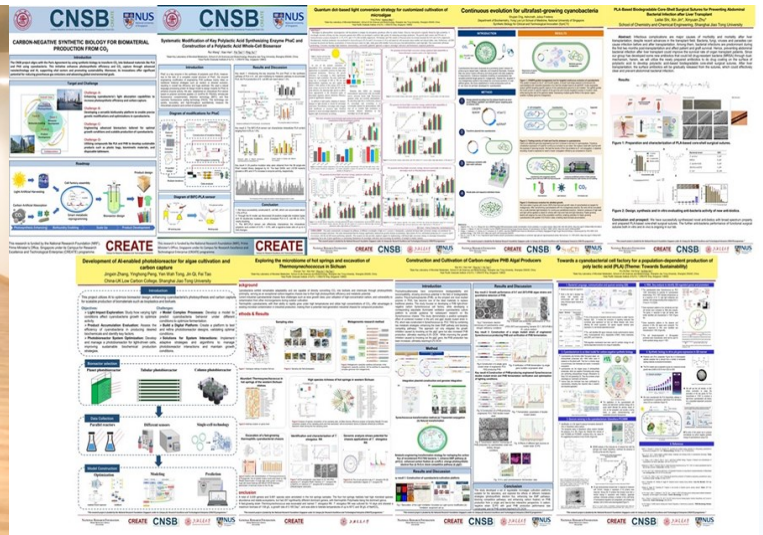


## CNSB participated in CREATE Symposium 2024 on 22 July 2024



## CREATE SYMPOSIUM 2024



CNSB-CREATE programme recently showcased its research at the CREATE Symposium 2024, focusing on "Decarbonisation," held on 22 July at UTown. During the symposium, CNSB team presented poly(lactic acid) material products including children's tableware, tapes, cling films, and eco-friendly food containers. These products are noted for their low carbon footprint, environmental friendliness, biocompatibility, and excellent mechanical properties, making them valuable in the market. Scientific Director Prof. Xu Ping provided an overview presentation of the program, highlighting the progresses and future directions in developing sustainable bioproducts. In addition to these presentations, nine posters were displayed, showcasing the latest progresses made by different sub-projects within the CNSB program.

## SJTU VP Prof Zhang Zhaoguo attended CREATE Symposium 2024 and CREATE Governing Council Meeting during 22-23 July 2024



On 22 July 2024, Vice-President of SJTU Prof Zhang Zhaoguo attended the CREATE symposium, participated in a lunch for CREATE Governing Council members at the Istana hosted by President Tharman Shanmugaratnam, and engaged in a Roundtable Discussion on the “Future of AI”. Following these events, VP Zhang met with CNSB programme Principal Investigators led by Dean of SJTU-APGI and CNSB Programme Director Prof Peng Yinghong and discussed the importance of interdisciplinary research and collaboration with top global universities, emphasizing the potential for deeper cooperation among leading scientists in this field. He assured that SJTU would fully support CNSB team's work in Singapore. On 23 July 2024, VP Zhang Zhaoguo attended the CREATE Governing Council Meeting in CREATE Tower, which facilitates collaboration between leading universities and research institutions to address global challenges. VP Zhang's participation in the meeting highlighted the active role of SJTU in the CREATE initiative and its commitment to fostering interdisciplinary research and international cooperation.

## NUS Enterprise Talk on 23 July 2024



On July 23, 2024, Mr. Wang Donghai, the Venture Development Manager at NUS GRIP, visited the CNSB-CREATE Programme Office. During his visit, Mr. Wang delivered a talk on the various long-term and short-term programmes offered by NUS Enterprise as well as pathways to commercialization. He also engaged in discussions with CNSB Principal Investigators and the research team, sharing insights on technology commercialization and entrepreneurship. The interaction provided valuable knowledge on how to bring research innovations to market, fostering collaboration between the CNSB programme and NUS GRIP.

## CNSB Team Bonding in July-August 2024



# CNSB Joint PhD student

- Wu Tianqi



Wu Tianqi graduated from School of Mechanical Engineering, Shanghai Jiao Tong University, and received his Bachelor degree of Engineering in 2021. Then, he work for his Ph.D. in Shanghai Jiao Tong University, and joined the CNSB project. At present, he is a Joint PhD student of Shanghai Jiao Tong University and National University of Singapore.

His main research field is time series prediction algorithm. In CNSB project, the problem he wants to solve is how to predict the state variables of cyanobacteria bioreactor and optimize the reactor parameters based on the prediction results. So far, the time series prediction algorithm for cyanobacteria has been completed. This prediction algorithm will be based on historical data to predict the future state of cyanobacteria, and the prediction accuracy is higher than the existing prediction algorithms.

At present, his research topic is to improve the growth rate of cyanobacteria and the yield of biofuel based on prediction algorithm. Optimization algorithm is the key step to improve output. At present, the parameters of bio-reactor are controlled manually. Through the research in the field of deep learning and optimization algorithm, we can realize the automatic control of bioreactor, further improve the productivity and reduce the cost. These studies play an important role in resource recovery and environmental protection. And the prediction algorithm and optimization algorithm can also be applied to other bioreactors.

