

SFA AWARDS OVER \$23 MILLION TO GRANT CALL FOR R&D IN SUSTAINABLE URBAN FOOD PRODUCTION

The Singapore Food Agency (SFA) has awarded over \$23 million in funding to 12 projects under the grant call for research and development (R&D) in 'Sustainable Urban Food Production'. The grant call is under the Singapore Food Story (SFS) R&D Programme which aims to develop the local agri-tech R&D ecosystem and sustainable urban food solutions to support Singapore's "30 by 30" goal¹ for food security. The grant call will provide funding support for innovative research projects that address challenges facing the tropical aquaculture and urban agriculture industries.

2 The grant call was launched on 18 December 2019 and closed on 31 March 2020. More than 80 proposals were submitted by academia, research institutes and companies, with some having international partners as collaborators such as those from Asia Pacific, Europe and the United States. The proposals were assessed on the following factors:

- a) Contribution to grant objectives
- b) Scientific excellence and innovation
- c) Application and deployment in Singapore and commercialisation
- d) Execution strength and technical competency of research team

3 Among the 12 awarded proposals, eight are in the domain of aquaculture and four in urban agriculture. They span key research areas of genetics, disease & health management, systems & conditions optimisation as well as nutrition. The list of proposals can be found at [Annex A](#).

4 These proposals incorporated innovative ideas and solutions that are aligned with the grant objectives to increase the productivity of local food producers, taking into consideration factors such as cost-effectiveness, resource use efficiency, sustainability and climate resilience. The proposals also demonstrated good potential to be scaled up and applied in

¹ In March 2019, to support Singapore's "30 by 30" goal (to produce 30 per cent of Singapore's nutritional needs locally by 2030), [funding of up to \\$144 million was allocated from within the Research, Innovation and Enterprise 2020 Plan](#) to carry out R&D in Sustainable Urban Food Production, Future Foods and Food Safety Science & Innovation.

Singapore and other countries based on their track record, industry experience and research team.

5 Mr Lim Kok Thai, Chief Executive Officer of SFA said, “With challenges that impact global food security such as climate change, rising population and decreasing land for agricultural use, R&D holds the key to the future of food. The awarded proposals have shown both innovation and practicality for application and I have every confidence that the outcomes of their research will bring us closer towards a more resilient, sustainable and vibrant agri-tech sector in Singapore.”

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Annex A
Details of projects awarded under grant call for R&D in ‘Sustainable Urban Food Production’

S/N	Proposal title	Team
Aquaculture		
1	Achieving a sustainable aquaculture environment by specialized microbes	National University of Singapore (NUS); E and ST Environmental Pte Ltd
2	Combinatorial Supplementation of Fish Feeds through Encapsulation for Enhanced Growth Rates in Aquaculture	Nanyang Technological University (NTU); Tropical Futures Institute - James Cook University Singapore; Opal Resources Pte Ltd
3	Developing Genetic Resources for Red Snapper, an Important Marine Food Fish for Singapore	Republic Polytechnic (RP), Tropical Futures Institute - James Cook University Singapore; Singapore Food Agency (SFA); Singapore Aquaculture Technologies (SAT); Blue Ocean Harvest; Aquaculture Centre for Excellence (ACE)
4	Development of innovative strategies for disease management in aquaculture to increase production and ensure food safety	A*STAR - Institute of Bioengineering and Nanotechnology (IBN); Temasek Polytechnic (TP)
5	Multipronged approach toward vaccine development against Scale Drop Disease Virus (SDDV) in Asian Seabass	A*STAR - Infectious Diseases (ID) Labs; A*STAR -Singapore Immunology Network (SIgN); A*STAR - Bioprocessing Technology Institute (BTI); Uvaxx Pte Ltd
6	Optimizing Feeds for Singaporean Red Snapper Aquaculture	Tropical Futures Institute - James Cook University Singapore; Republic Polytechnic (RP); Singapore Food Agency (SFA); Singapore Aquaculture Technologies (SAT)
7	Oral and Immersion Vaccines against Viruses in Asian Seabass	National University of Singapore (NUS), Temasek Life Sciences Laboratory (TLL)
8	Supercharging barramundi production through advanced selective breeding for improved disease resistance, growth and fillet traits	Tropical Futures Institute - James Cook University Singapore; Republic Polytechnic (RP); Wageningen University; Barramundi Asia; Uvaxx Pte Ltd
Urban agriculture		
9	Genetic Improvement of Indoor Farming Crops	National University of Singapore (NUS); Temasek Life Sciences Laboratory (TLL)

10	Improving yield, cultivating efficiency and nutrient quality of hydroponically-grown crops with rapid testing of growth conditions and gene expression analysis	Nanyang Technological University (NTU); ComCrop; Artisan Green
11	Real-time crop health monitoring and nutrient analysis system for waste reduction and productivity improvement in hydroponic cultivation	Nanyang Technological University (NTU); Panasonic Factory Solutions
12	Urban-metabolic Farming-module (UmFm): a novel farming module towards eco-resilient megacity farmscape in 2030	Singapore Institute of Technology (SIT); Tohoku University; Netatech; Tampines Town Council