Vertical Future expands its international R&D programme with space exploration collaboration

Vertical Future has partnered with the Australian Research Council (ARC) Centre for Excellence in Plants for Space (P4S) research centre.

LONDON , ENGLAND , November 10, 2022 /EINPresswire.com/ -- Vertical Future - the fastest-growing UK-based vertical farming technology business - has partnered with the Australian Research Council (ARC) Centre for Excellence in Plants for Space (P4S) research centre.

The University of Adelaide is leading the P4S research centre, which is working towards providing nutritious foods, and a supply of on-demand materials and medicines for future space explorers. This major global collaboration between 15 academic institutions, five space agencies and enablers, six education providers, seven government and technology providers, and five controlled environment agriculture (CEA) companies including Vertical Future.

The P4S research centre has been provided with AUD35 million in funding from the Australian government, along with additional support from the 38 P4S partners, coming to an approximate value of AUD90 million, with the goal of pursuing a long-term human presence in space. P4S is contributing towards NASA's Artemis accords, a space exploration mission which aims to develop the technologies required for humans to travel to Mars and return to Earth in the 2040s.

Vertical Future will be providing their expertise in the growth and development of properties associated with the popular Asian green, water spinach. The fast-growing plant has a high nutritional content, but it can grow to over 3 metres tall – too large for typical vertical farms. The project aims to reduce the size of water spinach and finely control its nutritional parameters through the investigation of environmental conditions, growth regulator treatments and classic genetics. Alongside this, the project will work towards reducing the lifecycle time of water spinach to allow seed production in a shortened amount of time, with the use of gene editing technologies.

The learnings from this project will assist in tackling the challenges currently facing the vertical farming sector including accelerating the growth of certain crops and making vertical farming more accessible for general use. The use of Artificial Intelligence (AI) and Machine Learning to automate systems within vertical farming will help to introduce more efficient farming techniques here on Earth and elsewhere. The P4S project will also help in boosting the UK and

global economies by providing local food production and high-value careers in agriculture, engineering and technology.

Jamie Burrows, CEO & Founder of Vertical Future, said: “Vertical Future is excited to collaborate and contribute our expertise to the Centre of Excellence’s Plants for Space research centre. We are delighted to see our vertical farming technology playing such a key role in NASA’s Artemis accords, expanding Vertical Future’s efforts in our R&D programme and tackling the challenges faced by the vertical farming sector and the economy more broadly. Although focused on space exploration, many of the learnings from this project will be applicable here on Earth and will help contribute to global food security and nutrition. Research and Innovation are at the heart of our mission at Vertical Future and we look forward to working with partners on this project to drive agriculture forward. ”

Matthew Gilliham, Professor at the University of Adelaide & Director of the new Centre of Excellence, said: “The mission of P4S is to re-imagine plant design and bioresource production, through the lens of space, to enable off-Earth habitation and provide transformative solutions to improve on-Earth sustainability. P4S research will create the flexible, plant-based solutions needed to support human physical and psychological well-being during deep space travel and settlement. Work undertaken by experts from the Centre will also deliver a step change in plant efficiency, productivity, and processing technologies here on Earth.”

-ENDS-
Notes to editors

About Vertical Future

Founded in 2016, Vertical Future is a London-based vertical farming technology and R&D company, with global reach. The Vertical Future team design, manufacture, and build a range of proprietary hardware and software technologies, including an integrated vertical farming system – fully-automated from seed through to harvest. Powered by its proprietary “DIANA” SaaS system that tracks, analyses, and improves the entirety of the growing process and underlying crop science, Vertical Future is building a global network of data-enriched, smart farms.

Vertical Future’s partners, customers, and farms can be found across the UK and as far as Singapore. Growing in a Vertical Future farm means greater efficiency, higher quality crops, less land use, and enhanced water and fertiliser conservation compared to broadacre and glasshouse production methods.

Vertical Future – Pioneering technology, inspiring smarter crop production.

https://verticalfuture.com/

About Plants For Space

ARC Centre of Excellence in Plants for Space aims to create on-demand, zero-waste, high-efficiency plants and plant products to address grand challenges in sustainability for Space and on Earth. Significant advances in plant, food, and sensory science; process and systems engineering; law and policy; and psychology are expected to deliver transformative solutions for Space habitation – and create enhanced plant-derived food and bioresources to capitalise upon emergent and rapidly expanding domestic and global markets. Anticipated outcomes include industry uptake of innovative plant forms, foods, technologies, and commodities; and an ambitious education and international co-ordination agenda to position Australia as a global leader in research supporting Space habitation.

https://plants4space.com/

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