

'Healthier' grains product of research collaboration

December 17 2010

Four of Australia's leading research institutions will collaborate closely over the next three years to fast-track development of new, 'healthier', strains of three of the world's most widely cultivated cereal grains.

The new 'High Fiber Grains Cluster' will focus on wheat, barley and rice. One of the primary research goals is to boost the amount of beneficial compounds, such as beta glucans and arabinoxylans, which are key contributors to the soluble component of dietary fiber in the various grains.

The collaboration between The University of Melbourne, The University of Adelaide, The University of Queensland and CSIRO will bring together Australia's foremost plant and human nutrition researchers with the aim of boosting the healthy fibre content of common grains.

The cluster will invest more than \$7 million over three years, with the university partners receiving more than \$3.4 million from the CSIRO's Flagship Collaboration Fund. The Fund was established to enable the skills of the wider Australian and global research community to be applied to the major national challenges targeted by CSIRO's Flagship research programs.

Professor Tony Bacic, Director, Bio21 Institute and Director, Plant Cell Biology Research Centre, School of Botany at the University of Melbourne said this program is an outstanding example of collaboration between world-class research groups at Australia's major research

providers.

“The complementarities of research expertise and infrastructure capability have enabled basic research findings to be translated to the 'proof of concept' stage of development with ultimate benefits for the cereal grains industry and Australia.”

The Director of CSIRO’s Food Futures Flagship, Dr. Bruce Lee, said the key to success is collaboration across Australia’s national innovation system.

“By bringing together scientists from CSIRO and leading Australian research institutions, the High Fibre Grains Cluster will produce more significant outcomes far more rapidly than if we each tackled these problems on our own,” Dr. Lee said. “This is world-leading and groundbreaking research in the area of grains and their impact on human health.”

Professor Geoff Fincher from the University of Adelaide, the university partner leading the High Fibre Grains Cluster, said improving the fiber qualities of grains could have major health benefits for the wider population.

“Research has shown that the beta glucans and arabinoxylans found in soluble fiber block the re-absorption of cholesterol from the gut so more of this cholesterol is lost naturally from the body during the digestive process,” Professor Fincher said.

This is believed to contribute to the protective effects of wholegrains in lowering the risk of heart disease and stroke.

“Grains such as barley are good sources of soluble fibre, but levels are low in wheat and rice. The many health benefits that grains can bring

have been proven, so the next step is to boost the amount of beneficial fibre in these [grains](#), and this will be our focus over the next three years,” he said.

Provided by University of Melbourne

Citation: 'Healthier' grains product of research collaboration (2010, December 17) retrieved 20 April 2024 from <https://phys.org/news/2010-12-healthier-grains-product-collaboration.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.