



Faculty of Health Sciences, Hokkaido University  
The 4th Health Sciences Seminar 2023

保健科学セミナー  
Health Sciences Seminar

# Nutritional properties and innovative food applications of sorghum grain

## Prof. Thomas Roberts

Associate Professor  
in Food Chemistry and Biotechnology  
School of Life and Environmental Sciences,  
University of Sydney



### Abstract

Sorghum (*Sorghum bicolor*) is a globally important cereal crop, partly because it is resistant to heat and drought, resulting in reliable grain yields under these abiotic stresses. Wholegrain sorghum is foundational for the diets of hundreds of millions of people in developing countries, partly reflecting its excellent nutritional status. However, sorghum grain is used as an ingredient in only a small proportion of cereal-based foods in most Western countries. In Australia, sorghum is the most important summer crop but almost all the grain is used as feed for pigs, poultry and cattle. I will present a structural and nutritional overview of sorghum grain and discuss processing options for food production, including malting. I will review the food applications of sorghum worldwide and describe some of the sorghum-based foods we have developed at the University of Sydney. I will also present our results of an audit of sorghum applications in supermarket products in southern China and compare these results with a similar study in Australia.

**Oct. 3** Tue.  
2023  
**14:00–15:00**

**6F Main Conference Room**  
Faculty of Health Sciences,  
Hokkaido University

Organized by Public Lectures Committee, Faculty of Health Sciences, Hokkaido University

Contact // **Dr. Siddabasave Gowda B.** (Laboratory for Advanced Lipid Analysis, Faculty of Health Sciences, HU)  
▶ Email: [gowda@gfr.hokudai.ac.jp](mailto:gowda@gfr.hokudai.ac.jp)