How do you provide healthy, sustainable food for world of the future?

New partnership with global agriculture research giant to focus on tackling challenge of health, environmental and social sustainability in food

Farmers around the world can be helped to grow the best food that is fit for future generations with help from a new development in the partnership between the University of Reading and International Crop Research Institute for the Semi-Arid Tropics, (ICRISAT).

A Memorandum of Understanding (MoU) was signed today (14 November 2019) and will see nutrition/health and crop scientists from the two internationally-renowned research centres commit to working closer together. Their research will focus on tackling how crops will provide a healthy and sustainable diet for future generations that face multiple challenges including climate change and growing worldwide obesity.

Researchers from both institutions will be working together to develop scientific understanding and training resources to address key questions on the value of food crops. Through ICRISAT’s expertise working in the toughest and driest zones across the world, the work will look to address key food system questions in places that are worst hit by water shortages, degraded soils and poverty and also those hardest hit by climate change.

Professor Ian Givens, Director of the Institute of Food, Nutrition and Health at the University of Reading said: “We are excited about this new partnership that will provide opportunities to tackle the biggest questions in global food production and are delighted that ICRISAT have chosen to work with us on this challenge. “For many years now the University of Reading has pioneered new and important research on the relationship between diet and chronic disorders such as cardiovascular disease. More recently this has extended into the relationship between diet and more detailed predictors of disease risk including effects on brain function, a complex story also involving the gut microbiota.

“An important aspect of modern nutrition is obtaining a clear understanding of the nutritional characteristics of foods, both in terms of traditional nutrients but also their impact on our physiology e.g. cognition. “This approach to modern nutrition is one of the key areas that we will be working with ICRISAT on in their fight to provide food fit for future generations.” The role of the gut microbiome in human nutrition, the effect of diet on human health, and the implications for plant breeding are among a series of topics that the partnership will begin to focus on. Research will concentrate on crops called ‘Smart Foods’, such as the millets, sorghum, chickpea, pigeonpea and groundnuts. The development of research into these crops already growing in drylands of Asia and Sub-Saharan Africa could see breakthroughs that support new, more resilient crops grown alongside traditional staples to feed the more than 2bn people who live in these areas. The new work will also ensure that research into these crops will address the fact that more than 650 million who live in such areas are at the highest risk of malnutrition and food scarcity, while also meeting a growing consumer demand around the world for more nutritious foods.