

Media Release

Chiefs of Staff, News Directors

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Designer rice could help beat diabetes, cancer and obesity, latest research says

Scientists have discovered a way to increase the production of resistant starch in rice, which could have beneficial health consequences for more than half of the world's population.

University of Tasmania School of Biological Sciences Professor Steven Smith is an expert on starch production in plants, and author of a paper released this week in the American journal *Proceedings of the National Academy of Sciences*.

Professor Smith is working on improving the nutritional quality of rice by changing the digestibility of the starch that makes up most of the rice grain, after discovering the two genes which influence the amount of resistant starch produced by the rice.

Rice is the staple diet of more than half the world's population.

As Asian countries are seeing an increase in the incidence of diabetes and obesity, increasing the resistant starch content of rice could provide a way to help limit such health problems, Professor Smith said.

"We have discovered that we can increase the amount of resistant starch in cooked rice, which could provide health benefits for a large number of people in Asia and beyond," he said.

"The same approach can be adapted for use in other cereals, including wheat.

"Not only can it have benefits for diabetes and obesity, but also for disorders of the bowel including cancer."

Most of the calories in the human diet are obtained from the starch in cereals, such as rice, pasta, bread and porridge.

Starch is a complex carbohydrate, but is made up only of glucose, so if starch is rapidly digested in the intestines it can provide a 'sugar hit'.

“Not only does resistant starch reduce the likelihood of a ‘sugar hit’ but it also reduces the appetite and promotes the growth of the healthy microbes,” Professor Smith said.

Professor Smith is a foreign expert for the Chinese Government, and has been appointed by the Chinese Academy of Sciences to work alongside Chinese scientists in their crop improvement programs.

- [View the full research article online](#)
- [Read more about Professor Steven Smith and his work](#)

MEDIA OPPORTUNITY

Professor Steven Smith is available for interview by phoning 0402 516 179.

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