

《韩媒称韩国研究团队开发出粉红色“牛肉大米”，味道香气与牛肉相似》

《朝鲜日报》报道称，韩国延世大学化工生命工学系的洪镇基(音译)教授领导的研究团队15日宣布了上述研究成果。据介绍，他们在大米上粘贴牛的肌肉及脂肪干细胞进行培养，并将其命名为“牛肉大米”。这一成果已经在国际学术期刊《Meta》上发表。



Image credit: Yonsei University

Photo:

Yonsei University

Scientists at South Korea ' s Yonsei University have created a new type of hybrid rice that not only has a meaty pink color but is also packed with beef protein and fat cells.

韩国延世大学的科学家研发出了一种新型杂交大米，这种大米呈现出肉粉色，而且富含牛肉蛋白质和脂肪细胞。

Rice is already one of the most nutritious foods available in nature, but thanks to some scientific ‘ magic ’ , it could soon become a viable, sustainable alternative to meat. A team of researchers at the Yonsei University in Seoul, South Korea, managed to create a rice hybrid laced with beef protein and fat cells. The new pink rice has 8 percent more protein and 7 percent more fat than regular rice, and while it doesn ’ t yet taste like beef, it does carry a “ unique blend of aromas, including a slight nuttiness and umami which are characteristic of meat ” . Thanks to the integrated animal cells, this new pink rice

could one day become a complete meal by itself, ensuring a sufficient, sustainable food supply for the whole world.

大米已经是自然界中最有营养的食物之一，但由于一些科学“魔力”，它可能很快成为肉类的可行、可持续的替代品。韩国首尔延世大学的一个研究小组成功地创造了一种掺有牛肉蛋白和脂肪细胞的水稻杂交种。这种新的粉红色大米比普通大米多8%的蛋白质和7%的脂肪，虽然它的味道还不像牛肉，但它确实具有“独特的混合香气，包括轻微的坚果味和鲜味，这是肉的特征”。多亏了整合的动物细胞，这种新的粉米有一天可以自己成为一顿完整的饭，确保全世界有充足、可持续的食物供应。

"Imagine obtaining all the nutrients we need from cell-cultured protein rice," said Park So-hyeon, co-author of the study published in the *Matter* scientific journal. "Rice already has a high nutrient level, but adding cells from livestock can further boost it."

该研究报告的合著者朴尚贤表示：“想象一下，从细胞培养蛋白质大米中获取我们需要的所有营养物质。大米本就很有营养，但是加入家畜的细胞将能进一步提升其营养价值。”该研究发表在科学期刊《物质》上。

So how does one go about infusing rice with beef? Well, knowing that lab-grown cells need artificial scaffolds to create tissue, researchers at Yonsei University decided that the porous nature of rice would make ideal scaffolding. To help the beef cells latch onto the rice grains, the latter were coated in fish gelatin and left to culture in a petri dish for up to 11 days.

那么他们是怎么想到将大米和牛肉结合在一起的呢？延世大学的研究人员知道，实验室培养的细胞需要人工基质才能生成组织，于是他们决定用大米，因为大米的多孔结构使其成为理想的培养基质。为了帮助牛肉细胞附着到米粒上，米粒上涂满了鱼明胶并放在培养皿中培养了长达11天。



Photo: Yonsei University

The hybrid grains are **more firm and brittle** than natural grains, and when cooked they retain their traditional appearance. While the rice doesn't really taste like beef yet, it "offers a pleasant **and novel flavor** experience," and pairs well with a variety of dishes.

这种杂交大米的米粒比天然米粒质地更硬更脆，在烹煮时会保留传统的外观。尽管这种大米没有牛肉味，但是拥有“令人愉悦的新口感”，适合搭配多种菜肴食用。

For their first experiments, scientists used cells from hanwoo cattle slaughtered at the local abattoir, but in the future, they plan to use sustainable supplies of cells that can be maintained in the lab. They are also exploring the possibility of lacing the rice with other types of meat or fish, in order to cater to different tastes.

在初期实验中，科学家采用了当地屠宰场宰杀的韩牛肉的细胞，但是在未来，他们计划用实验室培育出的可持续供应的牛肉细胞。科学家还将探索将大米和其他肉类或鱼杂交的可能性，从而满足不同的口味。

For now, the percentage of protein in the hybrid rice is still relatively low. To actually replace meat, researchers would need to increase protein content significantly.

目前，这种杂交大米的蛋白质含量还相对较低。为了能替代肉食，研究人员将需要大幅提升这种大米的蛋白质含量。

重点词汇

South Korea 韩国；南韩；位于东亚的国家

new type 新型；新型号；新人类

hybrid rice 杂交水稻；杂交稻

one of ...之一

in nature 在自然界中；性质上；实际上

thanks to 幸亏；归因于

laced 给掺；给穿鞋带；由带子系紧；把...用带子系牢；
有带子的；结带子的；镶着花边的；有彩色条纹的；lace的过去分词和过去式

new pink 焰红染料P；四溴二氯荧光素钾

aromas 香味；芳香；aroma的复数

nuttiness 坚果；疯狂；潇洒

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