SCIENCE & TECHNOLOGY

Japanese Scientists Create Lab-grown Wagyu Beef

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Japan's famous Wagyu beef can cost more than $400 for a kilogram. Now, however, it may become less costly as scientists plan to introduce a lab-grown copy.

Japanese scientists say they have recreated Wagyu in a lab that may taste and look exactly like real meat. Wagyu is famous for its fat content, which spreads throughout the meat. And the fat gives the meat a special taste.

Wagyu beef comes from a kind of black cow raised mostly in the Kobe area of western Japan. Osaka University researchers used 3-D **bioprinters** and stem cells from cows to recreate Wagyu's fat content in a single piece. Earlier attempts tried to recreate the meat by joining many pieces.

The research was led by Michiya Matsusaki.

You will not, however, be eating it anytime soon. Right now, it takes nearly four weeks to create a cubic centimeter of the meat. Matsusaki explained that as techniques and **efficiency** improve, the researchers may be close to making it a real food possibility.

"If we are able to quickly produce a lot of meat from a few cells, there's a chance we can better **respond** to food and protein shortage issues in the future," he told Reuters.

Both environmental concerns and other issues in the meat industry have pushed interest in lab-grown meats. There is also a strong interest in plant-based meat, such as those made by Impossible Foods Inc.

Matsusaki said that bioprinting and lab-growing techniques may have their uses in other areas, such as growing replacements for damaged human **muscles.**

It now costs about $90 to create a small piece of Wagyu. Matsusaki said that price will come down, and the meat may be on dinner tables within five years.

I'm Susan Shand

The Reuters News Agency reported this story. Susan Shand adapted it for Learning English. Hai Do was the editor.

Words in This Story

bioprinter – *n.* the utilization of 3D printing–like techniques to combine cells, growth factors, and/or biomaterials to fabricate biomedical parts

efficiency – *n.* the ability to do something or produce something without wasting materials, time, or energy

respond – *v.* to do something as a reaction to something that has happened or been done

muscle – *n.* a body tissue that can contract and produce movement

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