

Pork meat grown in the laboratory

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(PhysOrg.com) -- Scientists from Eindhoven University in The Netherlands have for the first time grown pork meat in the laboratory by extracting cells from a live pig and growing them in a petri dish.

The scientists, led by Professor of Physiology Mark Post, extracted myoblast cells from a living pig and grew them in a solution of nutrients derived from the blood of animal fetuses (although they intend to replace the solution with a synthesized alternative in the future).

Professor Post said artificially cultured [meat](#) could mean the meat of one animal could be increased to a volume equivalent to the meat of a million animals, which would reduce animal suffering and be good for the environment. As long as the final product looks and tastes like meat, Post said he is convinced people will buy it.

At present the product is a sticky, soggy and unappetizing [muscle mass](#), but the team is seeking ways to exercise and stretch the muscles to turn the product into meat of a more familiar consistency. Post described the current in-vitro meat product as resembling wasted muscle, but he is confident they can improve its texture. Nobody has yet tasted the cultured meat because laboratory rules prevent the scientists tasting the product themselves.

The research is partly funded by the Dutch government, but is also backed by the Dutch sausage-making firm Stegeman, which is owned by food giant Sara Lee. The scientists (and presumably, the sausage makers) believe the meat product may be available for use in sausages within five years.

Other groups are also working on trying to produce cultured meat. NASA has funded research in the US on growing fish chunks from cells and meat from turkey cells, with the idea that the technology could have wide application in future space travel, since growing edible muscle would allow future astronauts to avoid a range of problems associated with using live animals in space. In a June 29 paper in the journal [Tissue Engineering](#) another group of scientists proposed new techniques that could lead to industrial production of meat grown in cultures.

The reaction of vegetarian groups has been mixed. A representative of PETA (People for the Ethical Treatment of Animals) said as long as the meat was not the flesh of a dead animal there would be no ethical objection. Last year PETA even offered a prize of \$1 million to the first person or group who could come up with a commercially viable cultured meat product. Other vegetarians have been more guarded, with a representative of The Vegetarian Society saying the main foreseeable problems would be labeling issues, as it would be difficult to label products containing cultured meat in a way that vegetarians would trust.

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