

# Artificial meat tipped to flood low-end market

April 17 2015, by Rob Payne

---



“They are likely to enter the market in the lower quality burger/sausage sector where the division between real and artificial is already blurred for the consumer,” Dr Bonny says. Credit: Alex Thomson

Steaks and chops could be pushed to the high-end of the meat market in future, with artificial meats supplying the bulk, cheap end, research suggests.

The Murdoch University review examined potential impacts of in vitro meat (cultured meat), plant, fauna and fungal-based meat alternatives, genetically modified animals and cloning.

Dr Sarah Bonny says while artificial meat isn't likely to revolutionise how we eat any time soon, conventional meat production can't meet future demand.

"With estimates of the global population reaching nine billion in 2050, the meat industry would need to increase production by approximately 50 to 73 per cent," Dr Bonny says.

Current projections suggest that without substantial change and innovation the industry will max out feeding eight billion people.

This, along with growing concerns about animal welfare and the environmental impact of animal agriculture, suggests artificial meat will become increasingly accepted by consumers.

New technology and [health risks](#) must be considered. However, Dr Bonny says a number of issues must be overcome, including creating certain technologies and having a better understanding of health risks.

This is the case for in vitro meats, which were cultured in labs from cells and have garnered media attention in recent years.

"The cell culture approach for in vitro meat is in the preliminary stages of development and the technology is at least 10 to 20 years from being commercially available," Dr Bonny says.

"Making it viable will require commitment and investments from both governments and industry.

"As an example, the first in vitro burger made for human consumption cost \$335,000 to produce."

Furthermore, setting up in vitro meat production on a commercial level would create novel technological challenges, including designing sterile environments on a scale never before attempted.

There are also health unknowns, such as potential biological mutations and epigenetic modifications over time.

However, in vitro meat and flora and fauna-based proteins could reduce close human-animal interactions, decreasing the risks of epidemics and emerging diseases.

"The first products which are likely to generate strong competition for conventional [meat](#) are substitutes manufactured from plant or insect proteins, as they have the lowest barriers to commercialisation," Dr Bonny says.

"They are likely to enter the market in the lower quality burger/sausage sector where the division between real and artificial is already blurred for the consumer."

**More information:** "What is artificial meat and what does it mean for the future of the meat industry?" *Journal of Integrative Agriculture*, Volume 14, Issue 2, February 2015, Pages 255-263, ISSN 2095-3119, [DOI: 10.1016/S2095-3119\(14\)60888-1](https://doi.org/10.1016/S2095-3119(14)60888-1)

Provided by Science Network WA

Citation: Artificial meat tipped to flood low-end market (2015, April 17) retrieved 18 April 2024

from <https://medicalxpress.com/news/2015-04-artificial-meat-low-end.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.