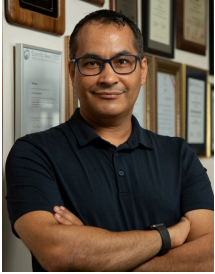


# 3 - Revolutionizing Meat Production - The Journey of O-Meat

Founder: Ali Khademhosseini



Interviewer: Adam Amin

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## Introduction

Ali Khademhosseini, a PhD in tissue engineering, ventured from the world of regenerative medicine into the novel field of cell-based meat production. With a background rooted in advanced scientific research, Ali founded O-Meat, a company dedicated to creating sustainable, ethical meat alternatives using cutting-edge biotechnology.

## Background and Inspiration

Ali's transition into the food industry was driven by an emerging opportunity in cell-based meat. "I've been doing research in regenerative medicine for many years and a few years ago, I thought there were some interesting opportunities in terms of cell-based meat," Ali explained, highlighting how his scientific expertise paved the way for his entry into this innovative field.

O-Meat was established to produce meat without the ethical and environmental downsides of traditional animal farming. The company focuses on cultivating beef cells in bioreactors using a unique process that incorporates ingredients derived from cow plasma—obtained without slaughter—creating a sustainable and humane alternative to conventional meat.

## The Cultivation Process

The process of growing cell-based meat is intricate and involves multiple steps. "We take cells from the cows through biopsies and basically we grow the cells in a medium that has sugar and amino acids as well as some proteins derived from weekly plasma collections from cows," Ali described. This innovative method allows O-Meat to produce beef in a way that significantly reduces the need for resources typically associated with livestock farming.

The decision to focus on beef rather than other meats, such as chicken, was strategic. "We think that the beef has a bigger environmental impact, so it made sense to go there first," Ali noted. This focus aligns with the company's mission to address the environmental challenges posed by traditional meat production.

## Challenges and Strategic Decisions

Despite the promise of cell-based meat, scaling the production process has been a significant challenge. "Growing cells in bioreactors is not very trivial...being able to kind of understand how to do it properly has been a challenge," Ali admitted. The process of scaling up requires constant optimization of bioreactor size and yield, which has been a key focus for O-Meat as they work towards making their product commercially viable.

Additionally, the transition from the biology industry to the food industry comes with its own set of challenges, particularly around consumer acceptance. "People are always concerned about things that are unfamiliar to them," Ali explained, acknowledging that it will take time and education to get people comfortable with the idea of eating cell-based meat. Recent legislative actions, such as Florida's ban on cultivated meat, underscore the need for ongoing efforts to change public perceptions and regulatory landscapes.

## Impact and Future Vision

O-Meat's technology offers significant advantages for both people and the planet. "You would eliminate the need for a lot of the resources to make meat, minimizing that by somewhere over 90%," Ali emphasized. This reduction in resource use—such as land, water, and greenhouse gasses—positions cell-based meat as a crucial solution for sustainable food production in the face of a growing global population.

As O-Meat prepares to enter the market, the company plans to target environmentally conscious consumers who are early adopters of new technologies. "As the scale grows and as people get more comfortable with it, I think that there's going to be more and more mainstream people who will be okay with testing it," Ali predicted, highlighting the potential for broad market acceptance over time.

## Conclusion

Ali Khademhosseini's O-Meat is at the forefront of a revolutionary shift in the food industry, offering a sustainable and ethical alternative to traditional meat production. By leveraging advanced tissue engineering techniques, O-Meat aims to reduce the environmental impact of meat consumption while addressing the ethical concerns associated with animal farming. Although the journey to scale and consumer acceptance presents challenges, the potential benefits of cell-based meat make it a promising innovation for the future of food systems. As Ali

aptly put it, "I think the advantages of the process make it something that is going to happen basically over time."

You can find their products at [omeat.com](https://omeat.com)!

### Adam's Takeaway

Ali's journey from medicine to the food industry really struck me; he wasn't afraid to make a jump from medicine to meat production, and it paid off. His experience in the medical industry ended up providing him with valuable experience and wisdom that a food industry expert may not have, and gave him a competitive advantage over people who strictly worked in the food industry. These 'industry outsiders' are often the ones with the most innovation, and we see this play out in many of the entrepreneurs interviewed.