

Seeking cutting-edge science and assets to sustainably feed growing global populations

Company bio:

Merck KGaA, Darmstadt, Germany, a leading science and technology company, operates across life science, healthcare and electronics. Around 63,000 employees work to make a positive difference to millions of people's lives every day by creating more joyful and sustainable ways to live. From providing products and services that accelerate drug development and manufacturing as well as discovering unique ways to treat the most challenging diseases to enabling the intelligence of devices.



One Innovation Field is called "Cultured Meat". Cell-cultured meat and seafood could provide a healthier, more ethical and sustainable alternative to conventional animal protein. As technology enabler, we aim to accelerate the emerging field of cultured meat, [learn more](#).

Topics of interest are:

- › Fit for purpose cell culture media solutions for cultivated meat producers that leverage scalable supply chains and manufacturing: cost effective, animal-origin free and rec. growth factors
- › Single-use differentiation bioreactor for structured cultivated meat

R&D challenges and priority areas:

- › High performing and scalable cell culture media, adaptable to cell types
- › Animal origin free compounds for cell culture media
- › Recombinant growth factors: scalable, cost effective, animal component free
- › Sterile growth in bioreactor without antibiotics
- › Upscaling to 10.000 l bioreactors
- › Cultured meat cell line generation with genome editing.

Specific opportunities and approaches of interest:

- › Co-culturing with growth factor producing cells
- › Using plant-based cell culture media compounds
- › Use of hydrolysates e.g., from plants or other organisms to complement cell culture media
- › How to guarantee batch-to-batch consistency of plant hydrolysates?
- › Upcycling of waste streams from industries for cell culture media

Out-of-scope:

- › Genome editing (for the time being)

Stage of development preferred:

- › Research and development

Stage of development preferred:

- › Flexible: Academic, startups, cooperates like MNC
- › Scientific research agreements with clearly defined milestones for success