

Healthcare industry BW

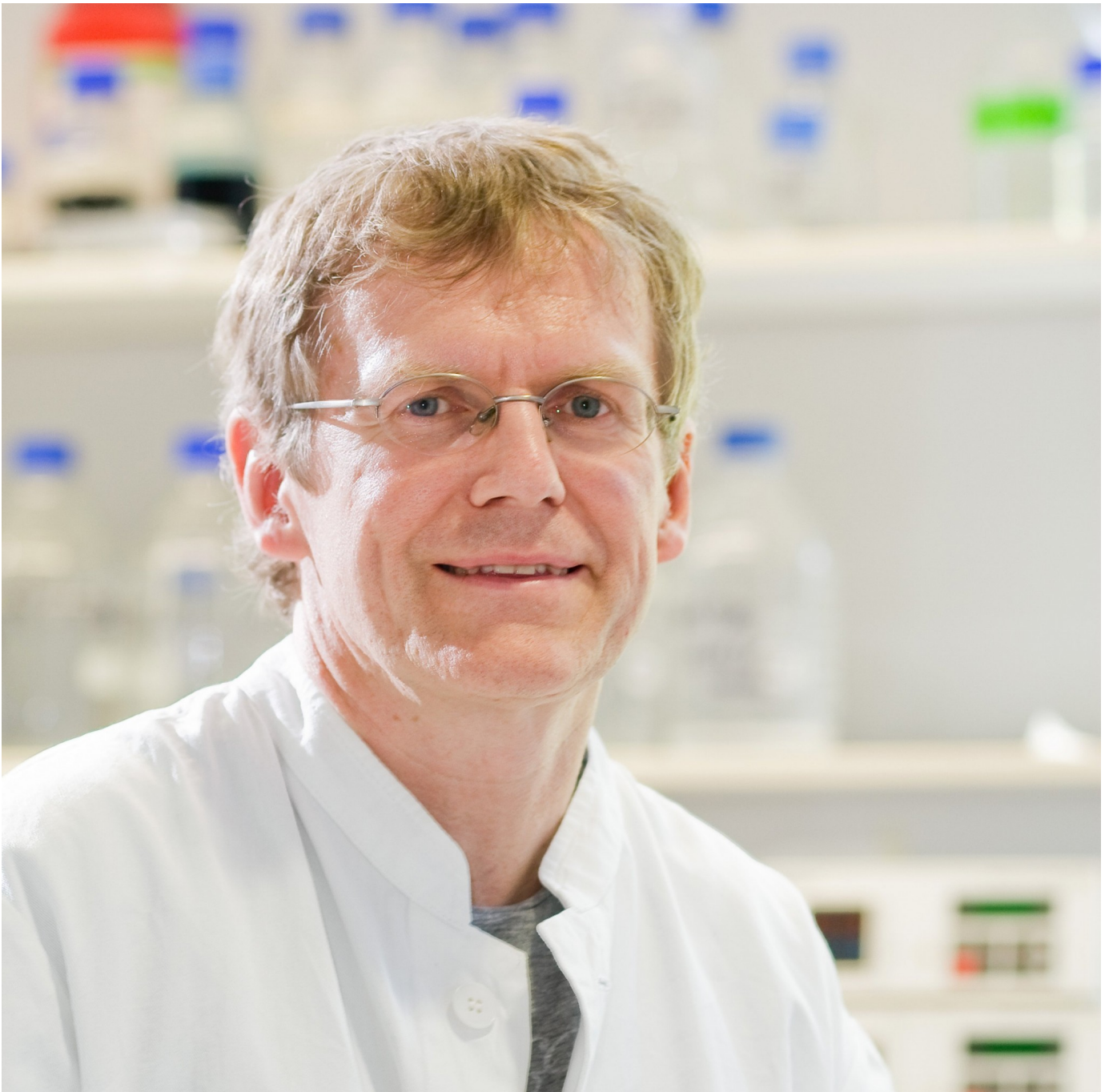
VivaCell Biotechnology GmbH investigates the health-promoting effect of food

VivaCell Biotechnology GmbH offers in vivo and in vitro demonstration of the efficacy of pharmaceutical and phytopharmaceutical compounds and nutraceuticals. Using its specific in vitro and in vivo models, the company has been able to prove the health-enhancing effect of numerous foods, and is thus an excellent partner in the Bioactive Plant Foods Network.

Scientific evidence that shows that a specific food actually contains the nutrients and has the health-enhancing effects its producer claims is important information for consumers. VivaCell Biotechnology GmbH has different in vitro and in vivo model systems available to solve a broad range of client issues. "We are specifically focused on providing evidence to support the health-enhancing efficacy of all kinds of compounds," said Dr. Bernd Fiebich, CEO of the company. "We chose parameters according to the needs of our customers and the indication of the phytodrug or nutraceutical they want to use. We chose models that are suitable for testing the effects of a particular phytodrug or nutraceutical in vitro and in vivo," Fiebich said.

VivaCell Biotechnology GmbH specialises in the analysis of herbal extracts and natural products. A study carried out by the company found that coffee is gentle on the intestines; it has an anti-inflammatory, protective effect. The company also carries out tests to find out whether a combination of compounds has a better effect than individual compounds on their own. Aspirin is one such example: VivaCell has shown that Aspirin is more efficient when taken in conjunction with vitamin C.

Individual test systems



Bernd Fiebich, CEO of VivaCell Biotechnology GmbH © VivaCell

The company was spun out from the Freiburg University Medical Centre in 1999 and carries out research on behalf of companies producing foods and nutraceuticals as well as companies producing phytodrugs and classical drugs. The test systems are always adapted to the specific needs of the company's clients. VivaCell uses different kinds of in vitro models, including cultures of human immune cells and tumour cells. As far as in vivo models are concerned, VivaCell, which is headquartered in Denzlingen, works with its Spanish subsidiary VivaCell Biotechnology España. "VivaCell Biotechnology España specialises in in vivo animal models, while our German branch is mainly focused on cell cultures," Bernd Fiebich explained.

Amaranth has an anti-inflammatory effect



Gel electrophoresis is one of many test methods used. © VivaCell

The standardised analysis of herbal extracts is very demanding as herbal extracts usually have a variable composition or because their active components and mechanism of action are unknown. In order to overcome this, VivaCell Biotechnology GmbH offers functional studies to test the efficacy of the herbal extracts on the gene expression level.

The company has been a member of the Bioactive Plant Foods Network right from its inception. “I think it’s true to say that we are a founding member of the network,” says Fiebich. VivaCell is currently developing a bioactivity test system on the basis of amaranth, which is the lead plant of the Bioactive Plant Foods Network. “We are specifically interested in the anti-inflammatory effect of amaranth.”

In future, the company has plans to develop new models for use in the fields of cosmetics and hair growth. VivaCell’s test portfolio already involves human keratinocyte and fibroblast test systems and a reconstruction of the human epidermis, which enable the company to test the influence of sunlight on a compound when applied to the skin. VivaCell has also developed models to test whether a substance is able to promote the hair growth.

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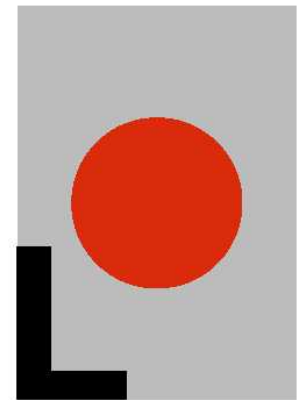


Bioactive plant foods – more than just filling



Biotechnology as a tool for the production of food

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