



Vectiopep delivers mRNA precisely into immune cells

Vectiopep is a privately held biotechnology company, founded in 2022, located in Estonia

www.vectiopep.ee
info@vectiopep.ee



Stage: Seed

Industry: Biotech

Investment opportunity: \$5M

Use of funds: First-in-man, Phase I clinical trial: the safety of Vectiopep in melanoma patients

Management team

The founders of the company and inventors of the technology have more than 10y of experience in the field of drug delivery technologies



Kaido Kurrikoff, PhD
Co-Founder, CEO

Background and PhD in neurosciences. Extensive experience with preclinical models of nucleic acid based therapeutic delivery and applications in oncology and immunology.



Piret Arukuusk, PhD
Co-Founder, CTO

Background in chemistry, PhD in biomedical technology. For the past 10 years, the design of delivery technologies for nucleic acids. Before that, 10 years of experience in leading sales and marketing teams of large production companies.



Toomas Silla, PhD, MBA,
CBO

Background in molecular biology. Experience in biotech business development.

mRNA vaccines are a new type of therapy

mRNA reached people's mind due to Covid pandemic, when a new type of vaccine was implemented into clinical practice at unprecedented scale: BioNTech and Moderna undertook clinical trials and brought to the market novel mRNA vaccines.

There is potential for more (market disruption)

mRNA therapeutics can be also used to treat cancer in a new type of approach called cancer immunotherapy where the patient's own immune system is activated to fight cancer (and metastases) without the need for injecting chemically synthesized toxins. At their current stage, however, the mRNA vaccines face technical challenges that limit their use only for the prevention of infections.

A crucial component in mRNA vaccines is the technology for delivering mRNA into the patients' tissues. Currently available vaccines use a technology called the LNP, which aims to transport the precious mRNA cargo into the immune cells. However, LNP is able to deliver only insignificant amount into the desired destination and piles the majority of material into the patients' liver cells. Hence, there is a need for improvement in precision delivery of mRNA.

mRNA delivery to immune cells with Vectiopep

Vectiopep is a technology that transports mRNA selectively into the patients' immune cells. It is based on unique and patented peptides that has the key advantage in its mRNA delivery efficacy: it is particularly effective in transporting mRNA into immune tissues and thus can be applied in treating cancer through cancer-specific immune activation.

Milestones

We have currently validated the efficacy of Vectiopep in delivering mRNA into the immune cells in preclinical models. In addition, we have demonstrated that Vectiopep treats cancer with tumor antigen encoding mRNA, clearly outperforming the competitor technology LNP. Our immediate aim is to reach clinical validation and prove therapeutic efficacy in cancer patients and we are seeking seed investment of \$5M.

Revenue model

We will out-license our mRNA delivery technology to the pharma companies who will use it as a key component in clinical formulation of cancer immunotherapeutics.

Our larger aim is to become a platform technology provider for the clinical use of nucleic acid therapeutics, providing new solutions for cancer, as well as for other disease domains.