

Boosting the human immune system to fight diseases

About eTheRNA immunotherapies

Founded in January 2013 as a spin-off of the VUB Laboratory for Molecular and Cellular Therapy (LMCT) headed by Prof K. Thielemans, eTheRNA immunotherapies (Belgium) is a ground-breaking global pioneer in the development of mRNA-based immunotherapies for different cancers and certain infectious diseases.

eTheRNA is focusing on therapies that prepare and activate the immune system by programming dendritic cells (DC) with synthetic mRNA. For this purpose, eTheRNA continues to develop its proprietary TriMix platform comprising three mRNA molecules that jointly have a boost effect on the activation and maturation of dendritic cells, leading to potent population of both helper T-cells and cytotoxic T-cells.

Encouraged by the impressive complete response rate (>20%) of the combination therapy including TriMix-DC (the ex-vivo autologous version) and ipilimumab in patients with pretreated advanced melanoma (Neyns et al, 2016 - Journal Clinical Oncology), the company is committed to establish its TriMix technology as the gold standard in the wider area of onco-immunotherapy - both as a monotherapy product in adjuvant settings and in combination with checkpoint inhibitors or other targeted therapies.

eTheRNA has made significant preclinical progress in developing TriMix not merely as an ex vivo product, but also as an in vivo formulation that can be made available 'off the shelve'. eTheRNA is initiating 4 phase I/II clinical studies with an in vivo injectable TriMix product in melanoma and triple negative breast cancer. Similar studies in elected infectious diseases are scheduled at a later stage.

The company's management team consists of many ex-JNJ employees and has a successful track record of completing clinical trials ranging from phase I to IV, concluding several business deals, raising more than EUR 200 million including an IPO and an M&A transaction. It has an outstanding know-how in mRNA science as demonstrated in over 150 peer reviewed publications by its team members. Its experience in mRNA design and manufacturing is also commercially available for third parties.

As of 2017, eTheRNA immunotherapies will operate a state-of-the-art GMP-approved manufacturing unit which is amongst the top 3 in Europe in Niel and is also located in the JLINX incubator as part of its plans to investigate the role of microbiome on response rates in immune oncology.