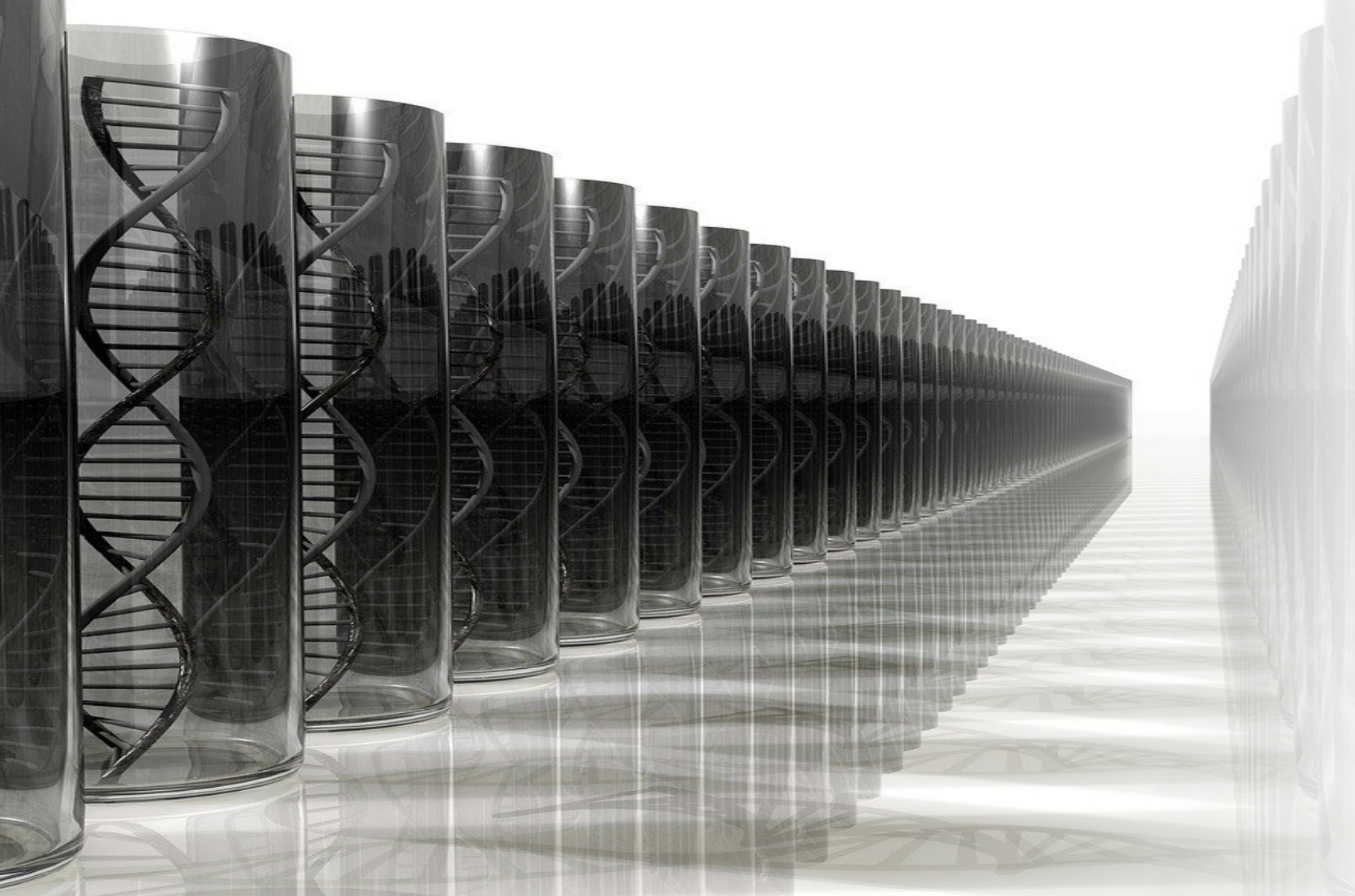


Neomatrix: an innovative, fully-synthetic DNA platform for next generation Cancer Vaccines

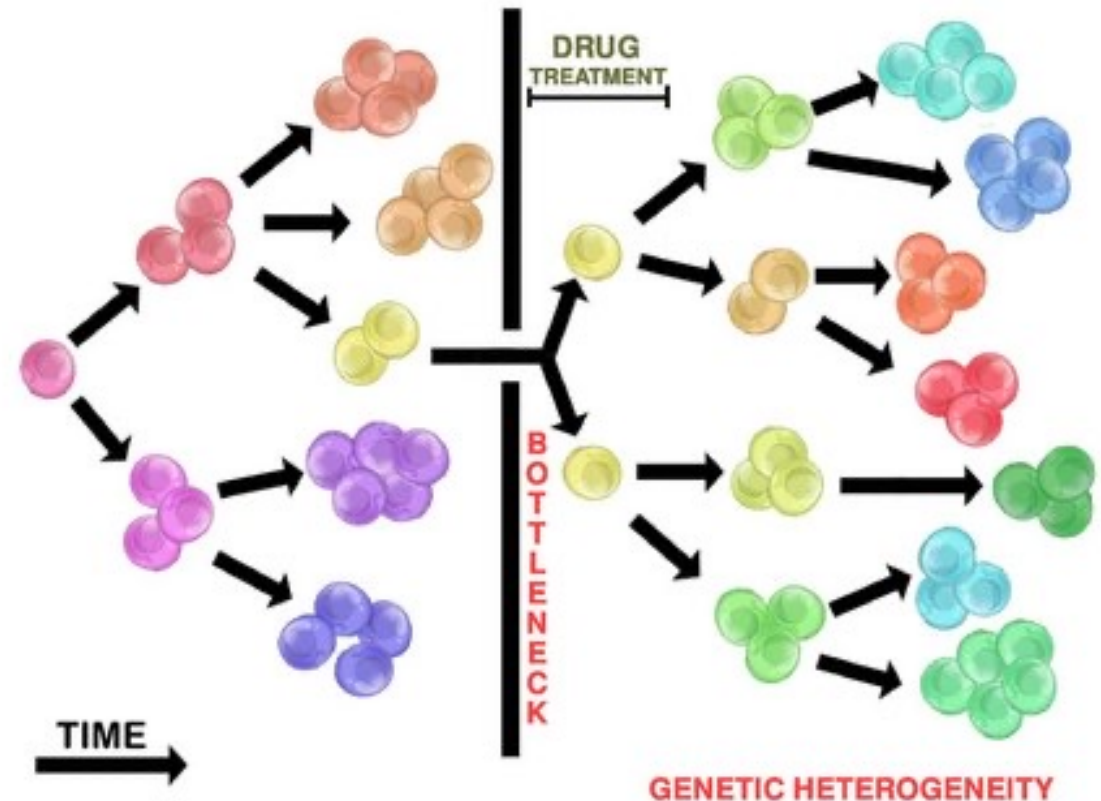


NEOMATRIX

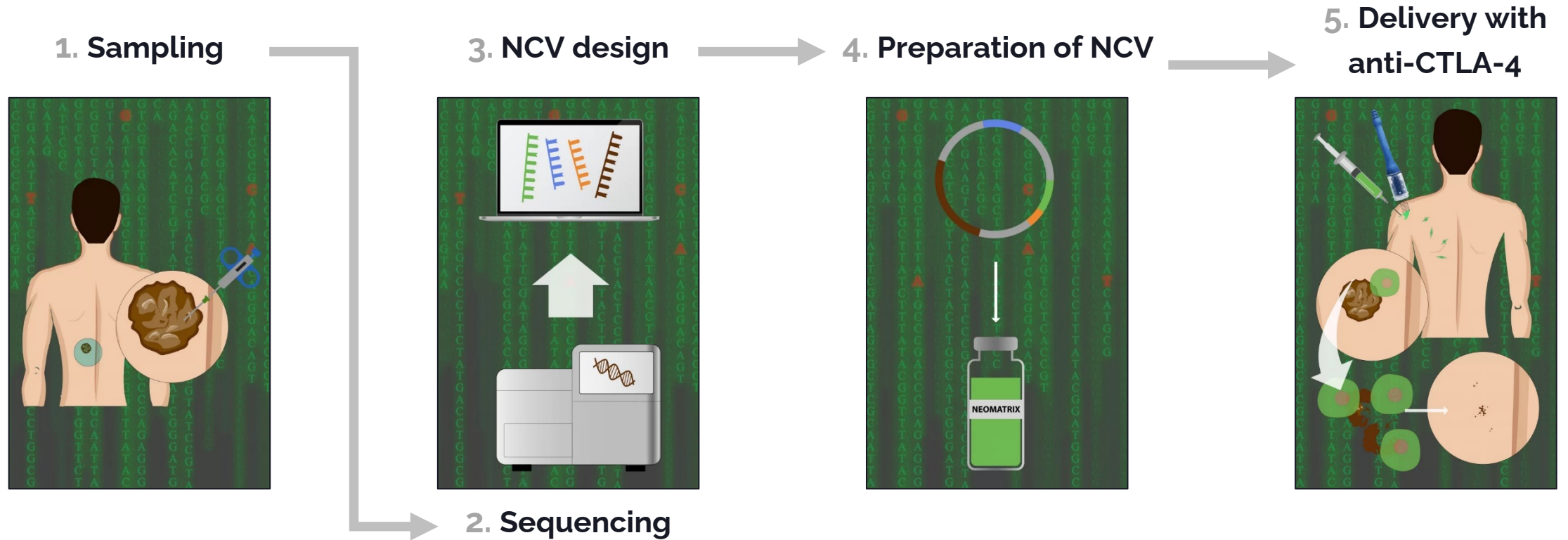
Luigi Aurisicchio
Chief Executive Officer

Current Cancer Immune Therapies are **poorly effective** in Lung Cancer and many other tumor types

NeoMatrix targets **Tumour Heterogeneity** and **Mutational Load (ML)** and works in synergy with Immune checkpoint inhibitors



The Neoantigen Cancer Vaccine (NCV) Process



6-week cycle from sampling to vaccine delivery



Patent pending

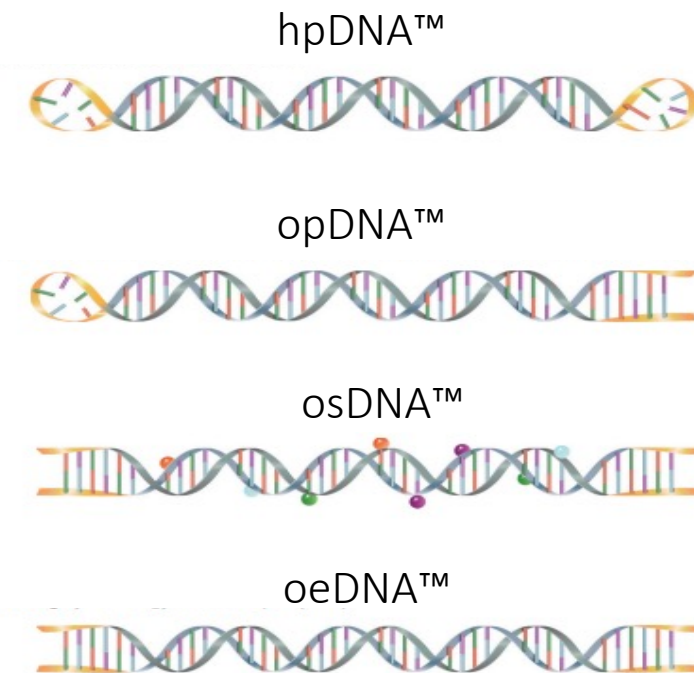
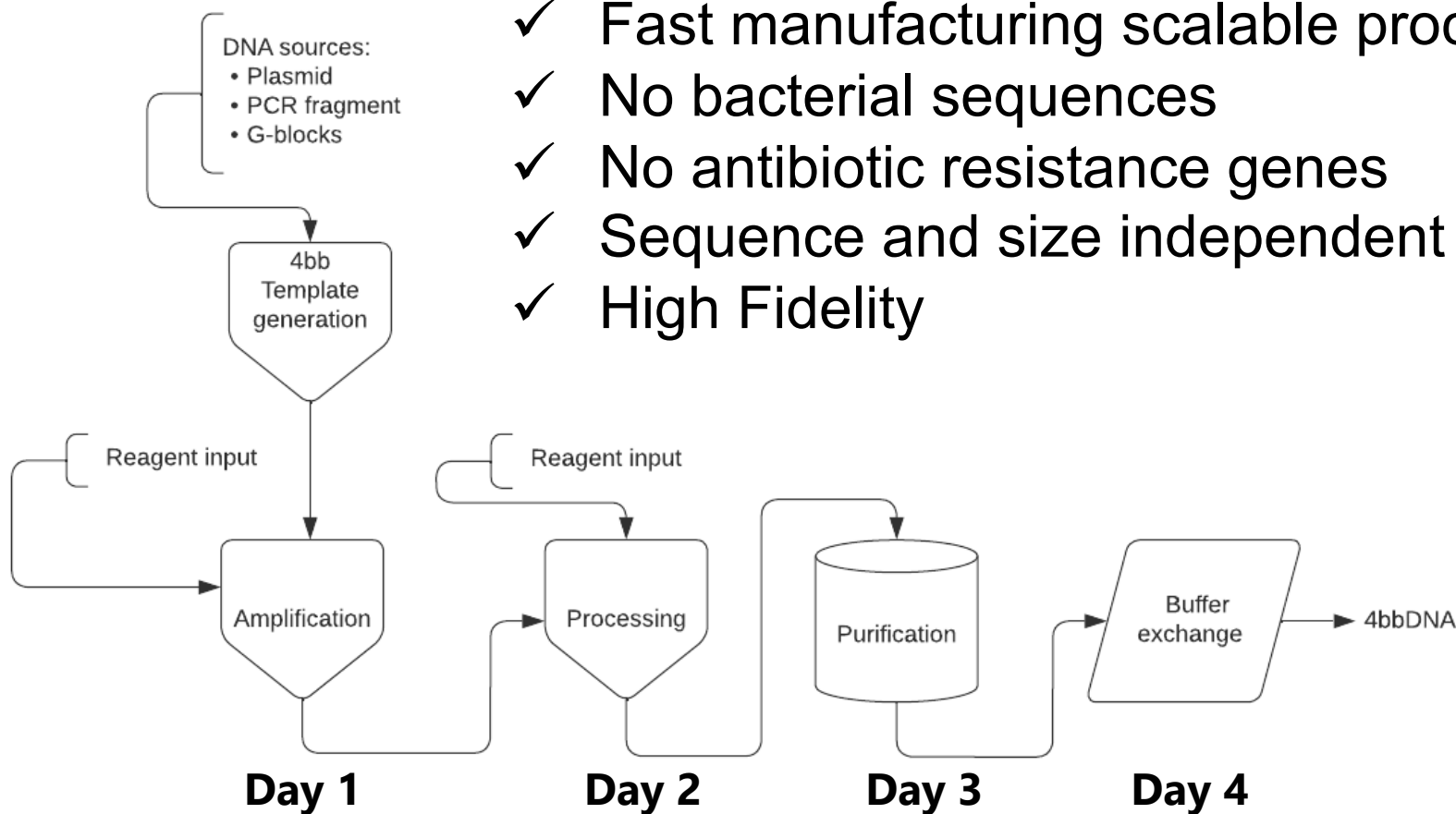
Horizon Euro



Vaccine Manufacturing: Fully Synthetic DNA Technology

The DNA vaccine manufactured enzymatically

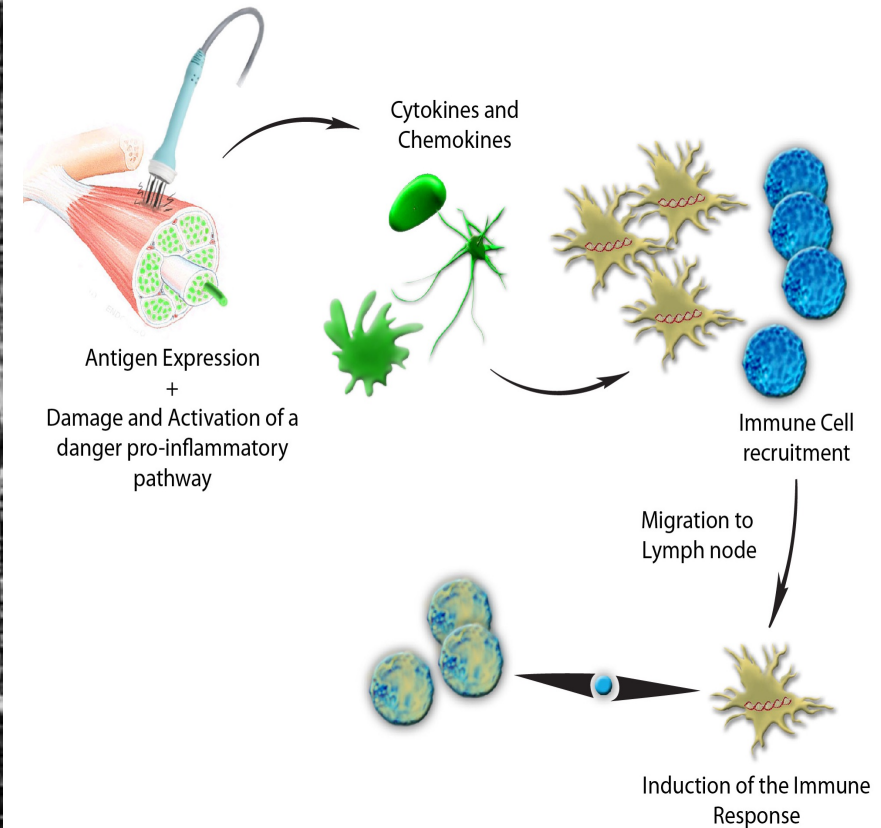
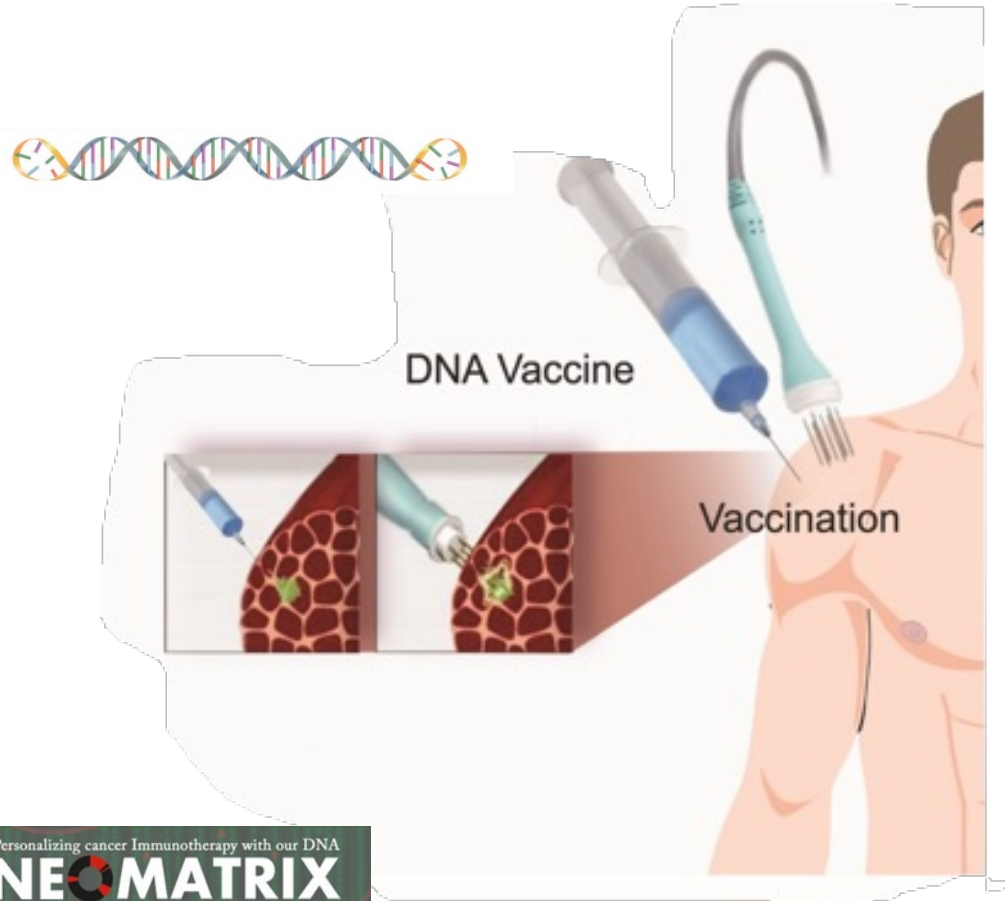
- ✓ Fast manufacturing scalable process
- ✓ No bacterial sequences
- ✓ No antibiotic resistance genes
- ✓ Sequence and size independent
- ✓ High Fidelity



Vaccine Delivery: Electro-Gene-Transfer

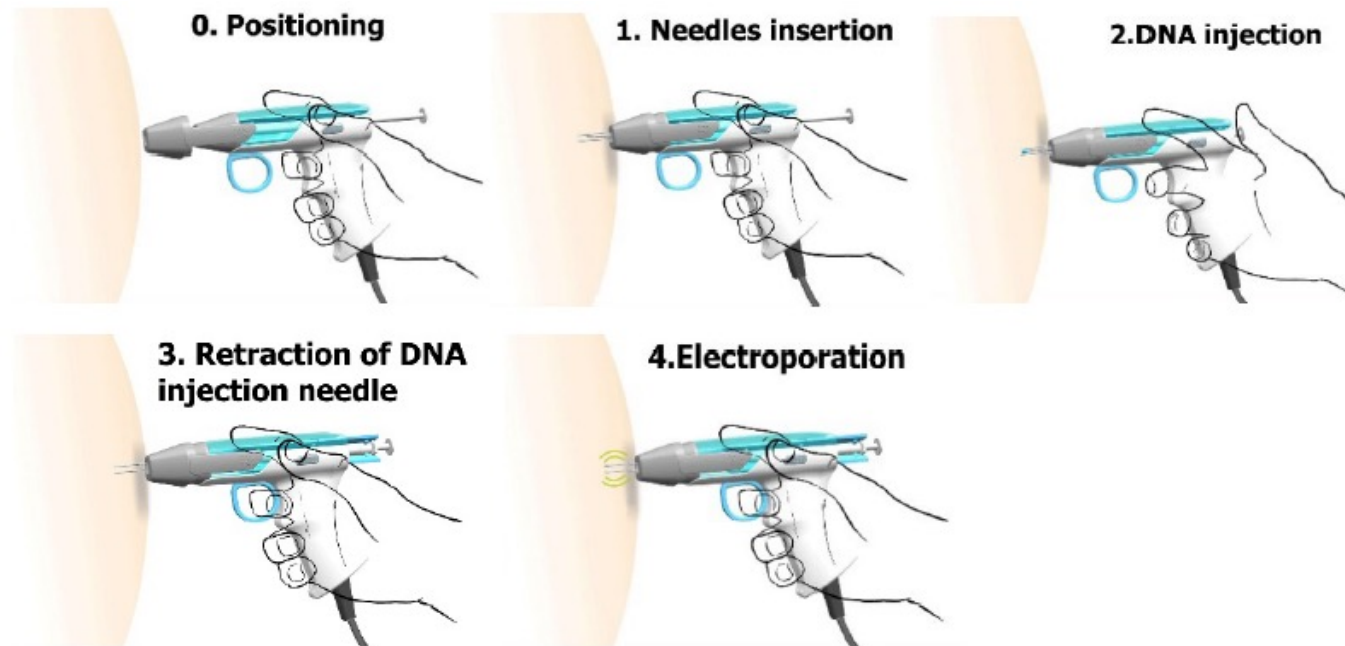
Transient Cell Membrane Permeabilization

Gene Expression and Activation of the Immune System

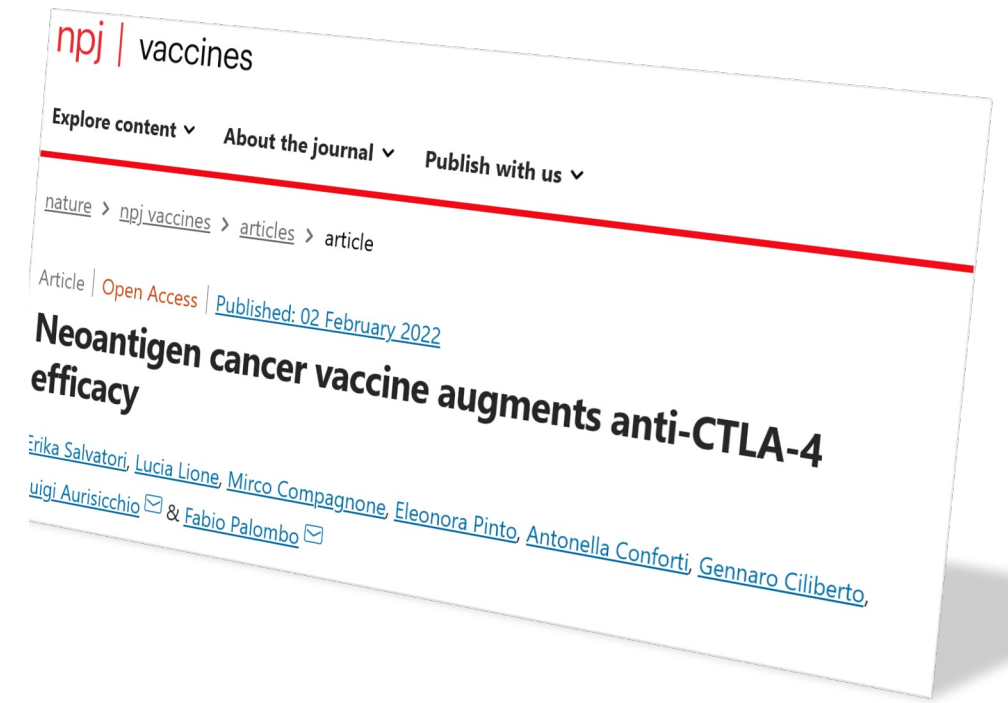
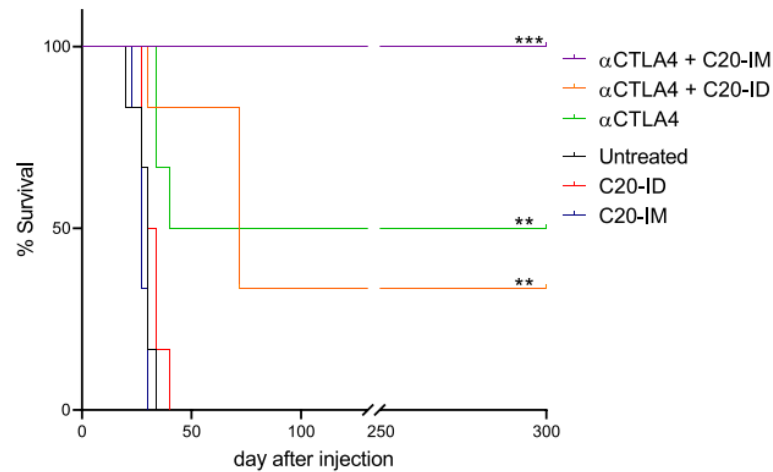
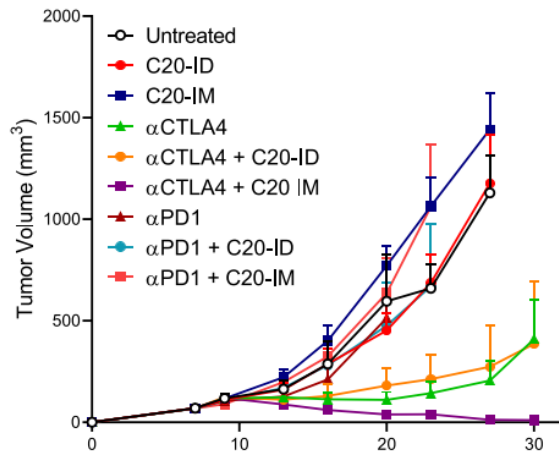
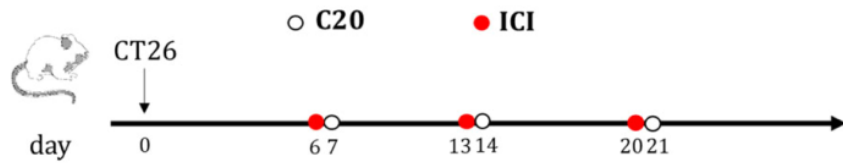


Vaccine Delivery: Electro-Gene-Transfer

- Used for Electro-Chemo-Therapy (ECT)
- Cliniporators™ available in **whole Europe**
- **Successfully developed and tested for COVID-eVax** (Takis Biotech)
 - Strong T cell and antibody response





Preclinical results and PoC



<https://doi.org/10.1038/s41541-022-00433-9>

PoC design feasibility carried out in lab on **6 melanoma patients**

Neomatrix Advantages

- **Double** the rate of responders vs anti-CTLA-4 alone
- Act against **specific tumour/metastasis** mutations
- **High efficacy** in tumours with high mutational burden, such as melanoma and lung cancer.
- Linear Synthetic DNA uses no bacteria -> **faster and cheaper production for personalized treatments** 
- Electroporation **increases the delivery efficacy** 
- Increase the **market potential** of ICIs



Development Plan



Out-license to Pharma



Public Funding

Internal/Grants
€1m

Private investment
€3m

Private investment
€15M

Private Funding

Now looking for Investors and Pharma Collaborations

Horizon Euro





NEOMATRIX

Personalizing cancer
immunotherapy with patient DNA

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