

XXV Encuentro de Cooperación Farma-Biotech

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Onconeovac, a personalized immunotherapy for the treatment of cancer



Olga Rué / Marta Corral



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The Company

- ❑ **NEMA HEALTH** was incorporated in March 2024 as a **spin-off company of Universitat de Lleida and VHIR**
- ❑ Born after going through the venture building program **The Collider** of Mobile World Capital Barcelona
- ❑ **Complementary founding team:**



Olga Rué
CEO & co-founder



Marta Corral, PhD
CSO & co-founder



Joan Verdaguer, MD, PhD
Scientific advisor & co-founder
Universitat de Lleida



Jordi Barquinero, MD, PhD
Scientific advisor & co-founder
Vall d'Hebrón Institut de Recerca

❑ **Key advisors:**



EVA Muñoz
Medical Advisor



Luis Ruíz
Strategy Advisor

A close-up photograph of a person's back with a hand pointing to a mole. The background is dark and semi-transparent, with white text and lines overlaid.

The Product: Target indications

MELANOMA

IS THE MOST MALIGNANT IMMUNOGENIC TUMOR

Stage I - II

Localized to epidermis

Surgery is enough

99% survival

Stage III

Disease spread to lymph nodes or nearby skin

Mainly **targeted therapy** and/or **immunotherapy**

60% survival

Stage IV

Metastasis to other internal organs

Mainly **targeted therapy** and/or **immunotherapy**

25% survival



The Product: Target indications

MELANOMA CHALLENGES:

RESISTANCE, ADVERSE EFFECTS, AND MORTALITY

20-30%

of patients will **advance to late stages** and **die in the next 5 years**

55%

of melanoma patients show **resistance to current treatments**

43%

of melanoma patients show **chronic adverse events**

The Product: Target indications

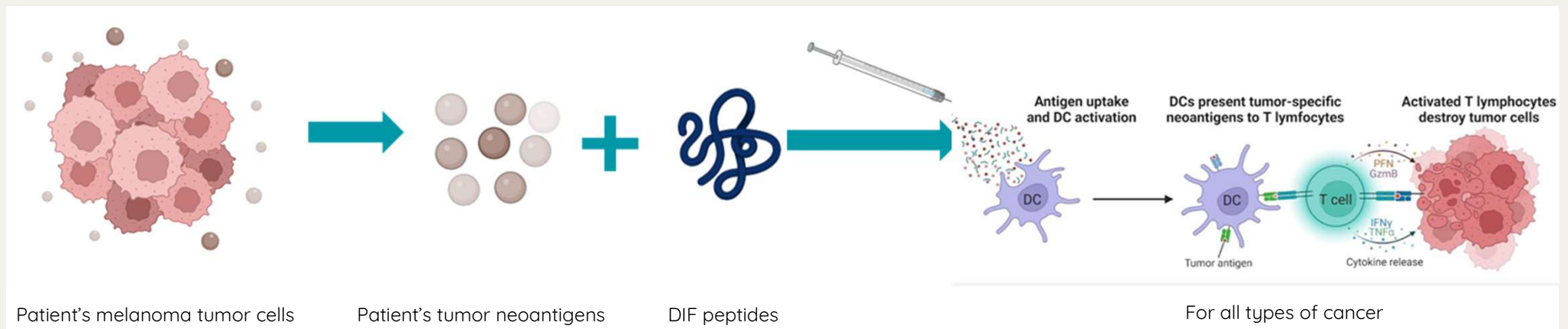


The Product: Innovative mechanism of action

ONCONEOVAC, a neoantigen and DIF Peptides based immunotherapy

Manufacturing process:

1. Obtention of **ALL** the neoantigens by mechanically disrupting a sample of the patient's tumor.
2. Addition of proprietary peptides with immunostimulatory properties.



There is an activation of the innate and adaptive immune system of the patients against any remaining tumor cell in their body.

The Product: Differential features facing the market

ONCONEOVAC

is focused on achieving

MORE TIME
to the patient

by improving the survival
and reducing recurrences

BETTER TIME
for the patient

by reducing the toxicity
and side effects

A more **ACCESSIBLE &
AFFORDABLE** product

Thanks to its simple
formulation process



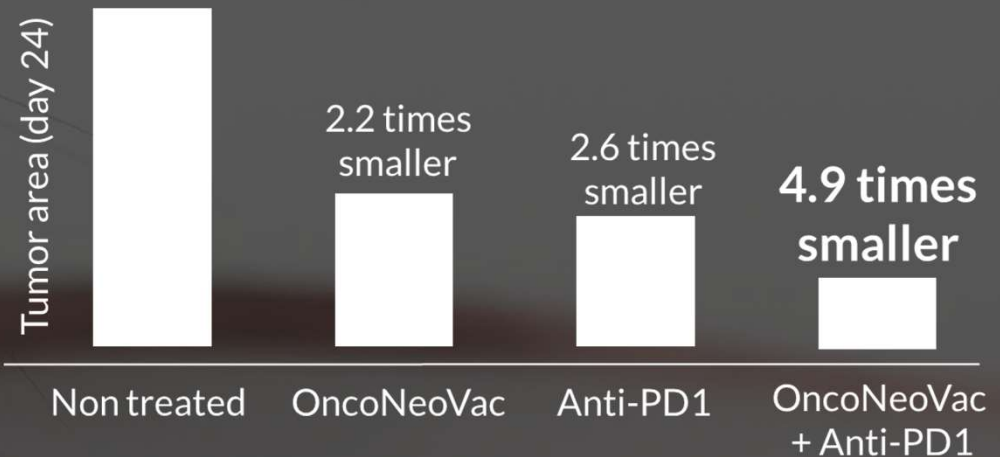
The Product: Differential features facing the market

Preventive
effect:

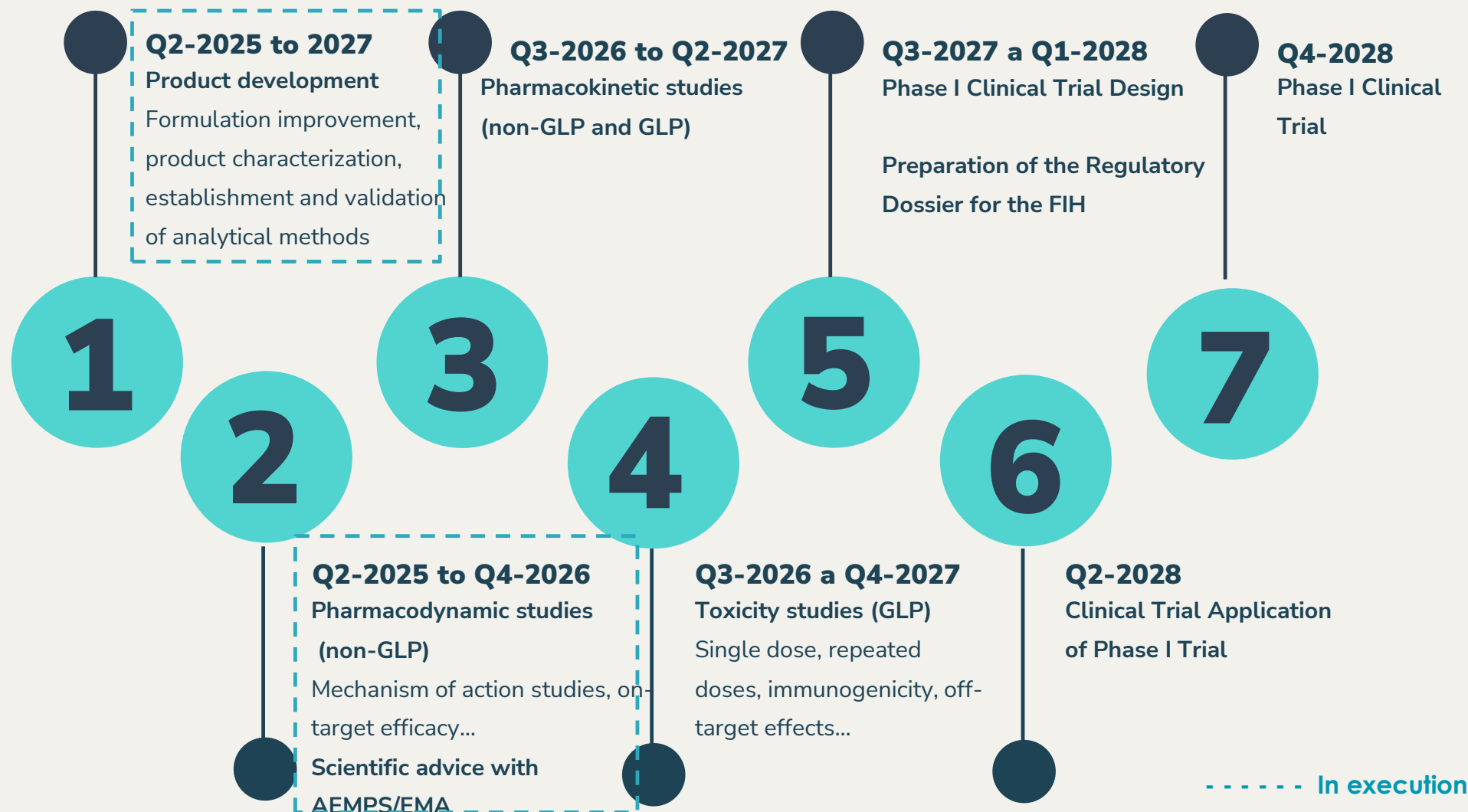
50% of mice show **protection**
against tumor growth

Therapeutic
effect:

combination therapy of ONCONEOVAC
+ anti-PD1 showed an interesting
synergetic effect



The Product: Current status of development



The Product: Competitive advantages

	Monoclonal Antibodies	Checkpoint Inhibitors	CAR-T cells	mRNA Vaccines	ONCONEOVAC
Efficacy	+	++	+++	++	++
Safety Profile	+	+/-	+/-	+	+
Easy & Fast formulation	+	+	-	-	+++
Therapeutic Window	+	+	+	++	+++
Tumor specificity	++	-	+	+	+
Personalized treatment	-	-	+	+	++
Natural immune response	-	-	+	+	+++

Bristol Myers Squibb®

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ONCOLOGY

GENESEQ
BIO SCIENCES

EVAXION

NEMA
Health

MERCK

BIONTECH

ENZON
PHARMACEUTICALS

MERCK
moderna
messenger therapeutics

AMGEN

Lytix
Biopharma

Apexigen

NOVARTIS

OBSIDIAN
THERAPEUTICS

The Product: IPR protection

- The international application PCT/EP2020/068052 claims priority from the European patent application EP19382537.9.
- The priority application was filed on 26 June 2019 in the name of UNIVERSITAT DE LLEIDA, INSTITUT DE RECERCA BIOMÈDICA DE LLEIDA FUNDACIÓ DR PIFARRÉ, FUNDACIÓ INSTITUT D'INVESTIGACIÓ EN CIÈNCIES DE LA SALUT GERMANS TRIAS I PUJOL and FUNDACIÓ HOSPITAL UNIVERSITARI VALL D'HEBRON - INSTITUT DE RECERCA.
- The European application was published on 30 December 2020 with number EP3756680.
- Granted in Japan
- In process of review in USA and Europe
- Worldwide development and commercialization rights granted to NEMA HEALTH in virtue of a License Agreement of 2024
- Lawyers firm: ABG Intellectual property

The product: Pitfalls & Risks to be considered

Lack of funding

No relevant data of preclinical studies

Impactful clinical data of competitors

No authorization for phase I clinical trial

Patent not granted in the US or Europe

Changes in regulatory applicable guidelines

Scalability barriers due to the personalization
of ONCONEOVAC

Partnering opportunities

We are partnering for:

- a. New methods of delivery
- b. Test of ONCONEOVAC for other indications with new animal models
- c. Other potential uses of DIF-Peptides
- d. Veterinary use of ONCONEOVAC for the treatment of dogs cancer



Collaborations

01 Peptides manufacturing



02 Laboratory facilities



03 Grant applications



04 Regulatory advice



05 Veterinary use



Hospital Clínic Veterinari UAB

06 Medical advice



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THANK YOU

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