IX JORNADAS IMIB

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NEW FLOW CYTOMETRY APPROACH TO ANALYSE BONE MARROW POPULATIONS

Martínez Balsalobre E[1], Braud L[2], Salido Fiérrez E[1,4], Blanquer Blanquer M[1,4], Cabañas Perianes V[1,4], Fernández Morales I[1,4], van Asbeck-van der Wijst J[3], Lachaud C[2], Pérez-Oliva AB[1].

[1] Instituto Murciano de Investigación Biosanitaria (IMIB)-Arrixaca, 30120 Murcia, Spain.
[2] Cancer Research Center of Marseille, Aix-Marseille Univ., Inserm, CNRS, Institut Paoli-Calmettes, CRCM, Marseille, France.
[3] Mercurna BV, Oss, the Netherlands.
[4] Hematology Service, Virgen de la Arrixaca University Hospital, 30120 Murcia, Spain.

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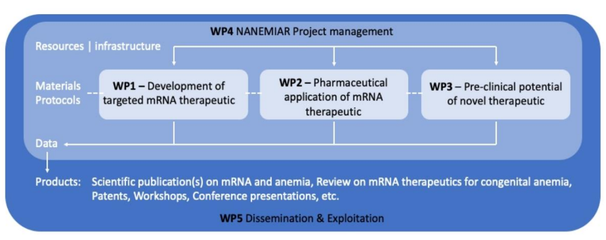
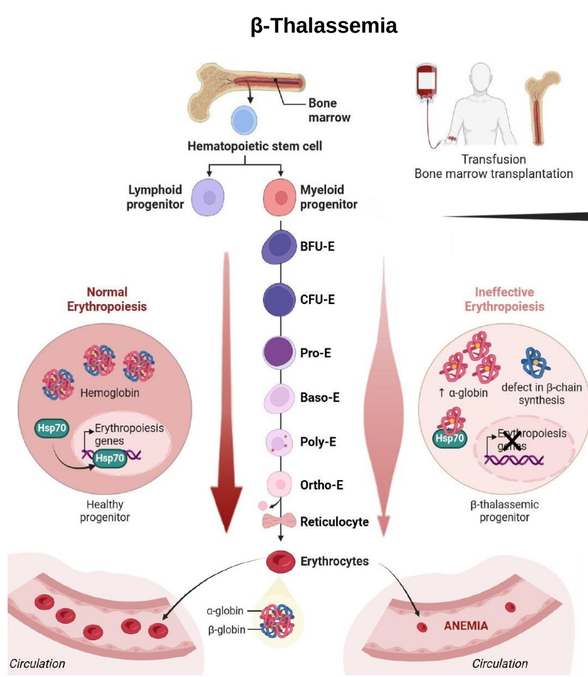
Ambition

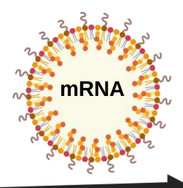
Development of an mRNA-based drug candidate for treatment of congenital anemias

Specific objectives

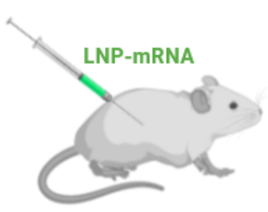
- Development of therapeutic mRNA
- Pharmaceutical application of mRNA
- Pre-clinical potential of mRNA



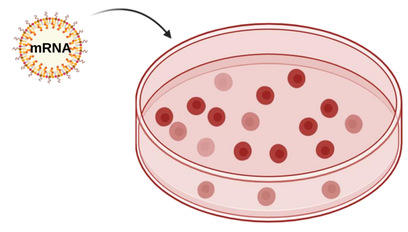




LNP-targeted therapy



β-Thalassemia model



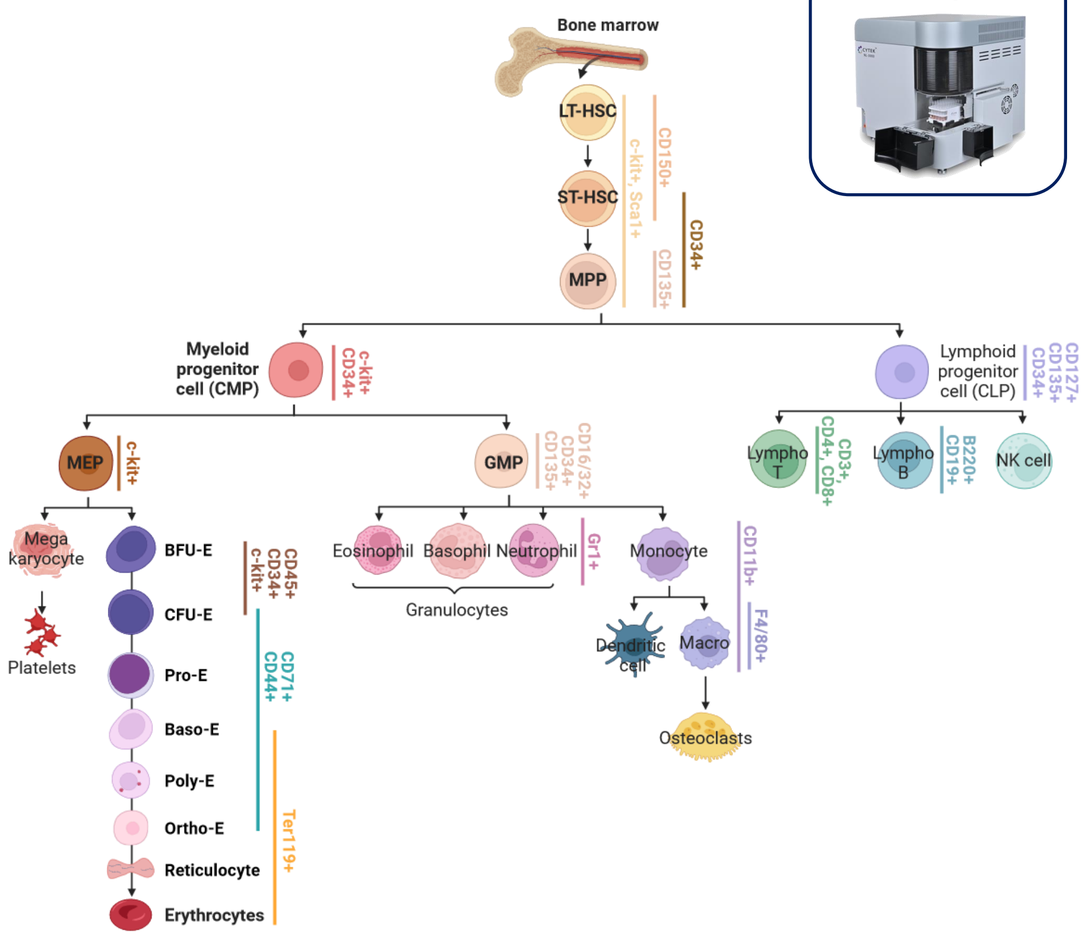
Myeloid progenitor cells from β-thalassemia patients

Study LNP-mRNA therapy impact on erythropoiesis

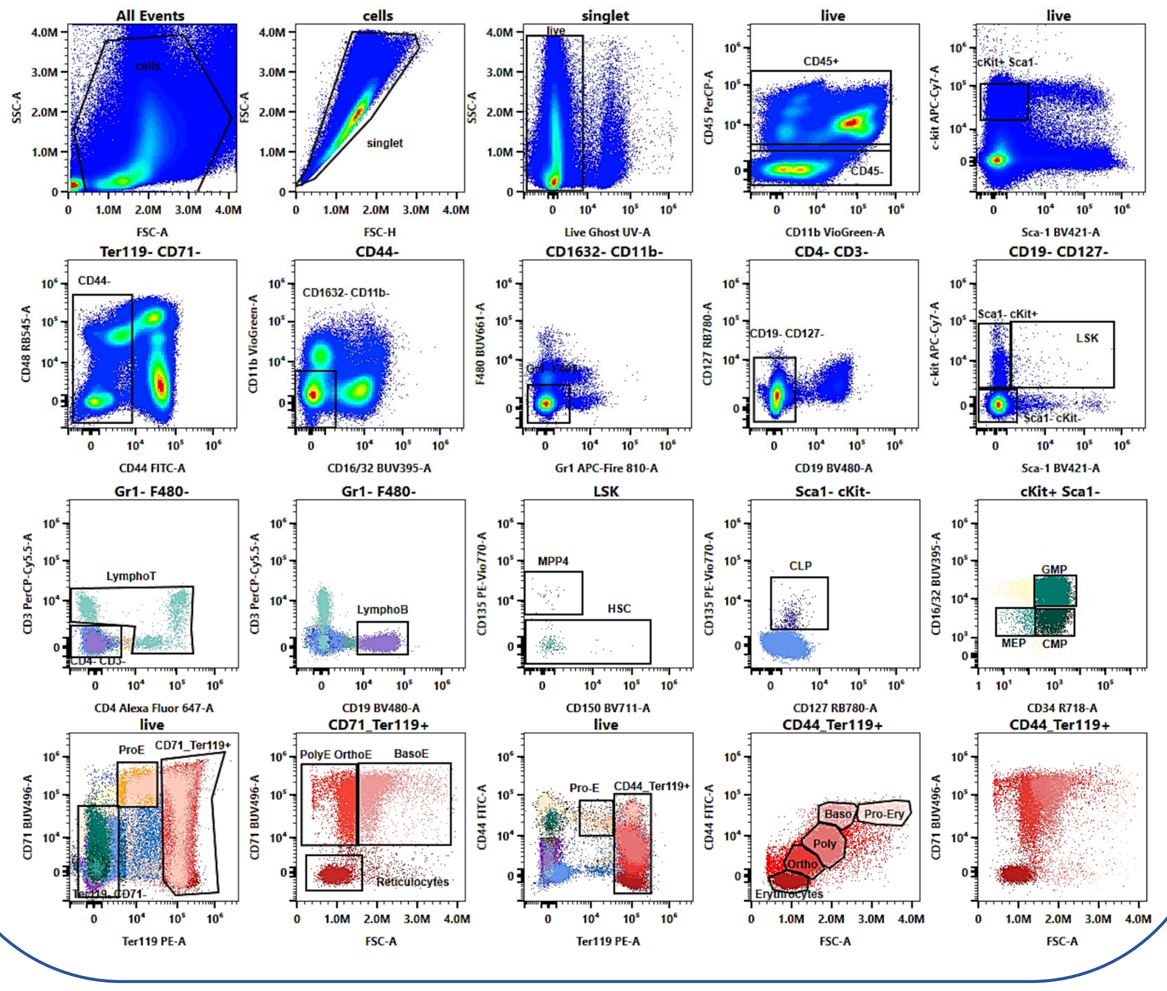
Optimised FACS analysis

Methods

FACS analysis



Results



Conclusions

The combination of the 22 selected hematopoietic markers allows differentiation of all cell populations present in the bone marrow and their degree of maturation. The possibility of combining all these markers in a single sample allows a complete analysis with a minimum amount of sample.

Applications

Flow cytometry is a simple and rapid method for the analysis of cell populations, which allows its use in patients with various congenital anemias to differentiate one pathology from another and to determine the degree of severity.
It could also be used to monitor the efficacy of treatments in different types of patients.

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