

# NANEMIAR

Nanomedicine Approach to Normalize Erythrocyte Maturation in  
Congenital Anemia by Messenger RNA

## D5.1 NANEMIAR website

### SHORT DESCRIPTION

This Deliverable describes the structure and functionalities of the first version of the NANEMIAR website and outlines the planning of future developments and maintenance.

### DISSEMINATION STATUS

PUBLIC

### DATE

December 27, 2023



## DELIVERABLE INFORMATION

Project number:	101080156
Project acronym:	NANEMIAR
Project name:	<i>Nanomedicine Approach to Normalize Erythrocyte Maturation in Congenital Anemia by Messenger RNA</i>
Deliverable number:	D5.1
Deliverable title:	<i>NANEMIAR website</i>
Deliverable version:	v.1
Work Package number:	WP5
Work Package title:	<i>Dissemination and Exploitation</i>
Due Date of delivery:	<i>M3 (December 31, 2023)</i>
Actual date of delivery:	<i>December 27, 2023</i>
Dissemination level:	<i>Public</i>
Editors:	<i>Hana Hukelová (FFIS-IMIB) Dr. Miriam Pinilla Marquinez (FFIS-IMIB) Ángel Esteban Gil (FFIS-IMIB)</i>
Contributors to NANEMIAR website content:	<i>Dr. Ana Belén Pérez Oliva (FFIS-IMIB) Dr. Jenny van Asbeck-van der Wijst (MERCURNA BV) Dr. Christophe Lachaud (CNRS)</i>
Reviewer:	<i>Dr. Ana Belén Pérez Oliva (FFIS-IMIB)</i>

## ALL RIGHT RESERVED

*The document is proprietary of the NANEMIAR consortium members. No copying or distributing, in any form or by any means, is allowed without the prior written agreement of the owner of the property rights.*

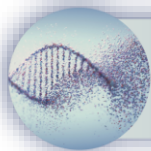
## DISCLAIMER

*"NANEMIAR project is funded by the European Union. Views and opinions expressed in this document are however those of the authors only and do not necessarily reflect those of the European Union or European Health and Digital Executive Agency (HADEA). Neither the European Union nor the granting authority can be held responsible for them."*



Funded by the  
European Union

This project has received funding from the European Union's Horizon Europe Research and Innovation Programme 2021- 2027 under the grant agreement No **101080156**



## HISTORY CHART

<i>Version</i>	<i>Publication date</i>	<i>Change</i>	<i>Page</i>
1	27/12/2023	NANEMIAR website (initial)	

## LIST OF ABBREVIATIONS

<i>Abbrreviation</i>	<i>Description</i>
CMS	Content Management System
D	Deliverable
DEP	Dissemination and Exploitation Plan
GDPR	General Data Protection Regulation of the European Union
NANEMIAR	Nanomedicine Approach to Normalize Erythrocyte Maturation in Congenital Anemia by Messenger RNA



## Executive summary

This deliverable describes the structure, functionalities and the design of the first version of the NANEMIAR website, developed to date at M3 (December 31, 2023) and outlines the planning of future developments and maintenance.

The NANEMIAR website will contribute to fulfil the overall objectives of the strategy for dissemination and exploitation, including communication activities (D5.2 Dissemination and Exploitation Plan - DEP) to be set to date at M6 (March 31, 2024).

The project website plays a central role in the project's dissemination and communication activities, that is why it will be the main digital information point, acting as a constantly changing open space to:

- 1) Ensure that NANEMIAR research activities are made known to society at large in such a way that they can be understood by non-specialists, thereby improving the public's understanding of science.
- 2) Engage with a range of key stakeholders with interests in the NANEMIAR project.
- 3) Communicate project objectives, progress and achievements.
- 4) Provide a regularly updated news content, public deliverables and other project results.
- 5) Act as central reference point for announcing NANEMIAR-relevant scientific and health care events, workshops etc.
- 6) Contribute to the impact of the project branding, press activities and social media.

The website aims to address a broad audience consisting of different stakeholders, including:

- Relevant professional communities in the scientific, pharmaceutical, and clinical area
- Patients
- Carers or other social entities / associations working in the field
- Healthcare students from universities
- General population



## TABLE OF CONTENT

<b>Executive summary .....</b>	<b>3</b>
<b>1. Project website .....</b>	<b>5</b>
1.1. Website structure .....	5
Figure 1. NANEMIAR Content Map (Navigation) .....	5
Table 1. NANEMIAR website content structure .....	6
1.2. Website content .....	7
1.2.1. Homepage.....	7
1.2.2. Consortium .....	11
1.2.3. Project.....	14
1.2.4. Results.....	16
1.2.5. News and events .....	18
1.2.6. Contact .....	21
<b>2. Content creation and monitoring.....</b>	<b>21</b>
<b>3. Website specifications .....</b>	<b>22</b>
3.1. Usability and accessibility .....	22
3.2. General Data Protection Regulation .....	23
3.3. Cookies Policy.....	23
<b>4. Website Evaluation: Impact indicators (KPIs) .....</b>	<b>24</b>
Table 2: NANEMIAR Website specific KPIs .....	24
<b>5. Conclusions.....</b>	<b>25</b>



Funded by the  
European Union

This project has received funding from the European Union's Horizon Europe Research and Innovation Programme 2021- 2027 under the grant agreement No **101080156**

## 1. Project website

A website has been developed for the NANEMIAR project to serve as the main communication platform for providing and publishing current and up-to-date information about project activities and outcomes achieved.

The overall objective is to create a user-friendly website, easy to navigate, dynamic and attractive. Designed using the project's visual identity, to be used as the primary online communication channel and interface towards different target audiences.

Through the NANEMIAR website, general and specialized information will be stored, updated and permanently accessible to interested parties and stakeholders. It will contain information about the project, along with the project's progress, results, and impacts as they are obtained. It will be responsive, being adaptable and easily navigable from any device.

Likewise, effort will be done on web accessibility, applying technology, standards and a design suitable for all.

This section presents the structure, design and content of the NANEMIAR Website, launched in December 2023 at the URL <https://www.nanemiar.eu/>.

### 1.1. Website structure

The following initial Content Map (Navigation) is prepared:

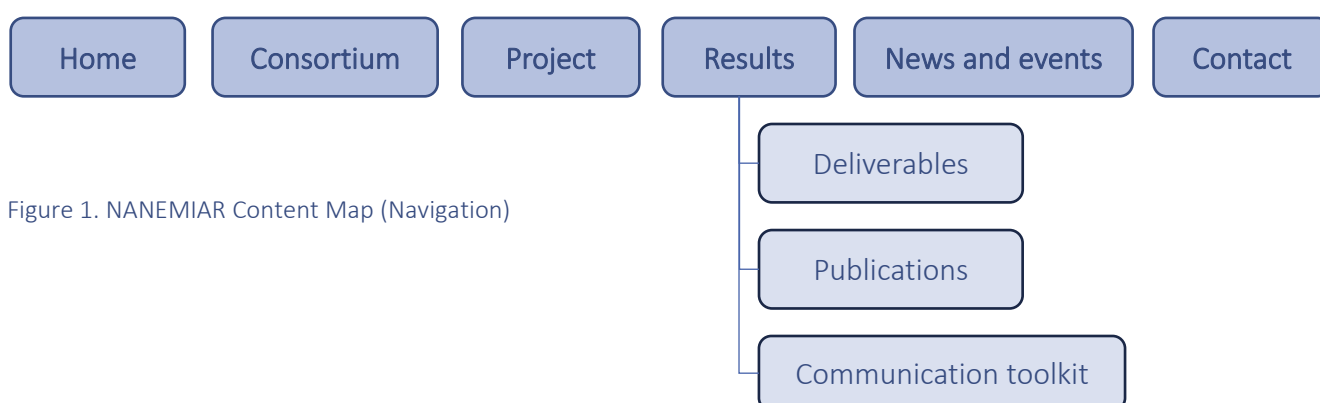
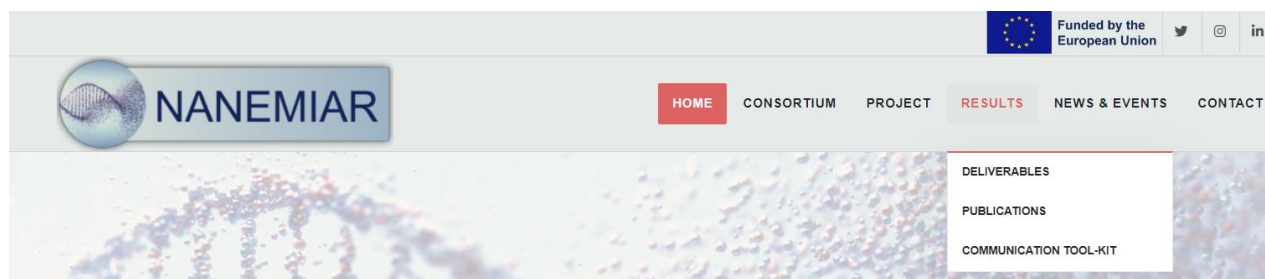


Figure 1. NANEMIAR Content Map (Navigation)



Based on this architecture, the following sections of the project website have been developed:

<i>Top Navigation</i>	<i>Dropdown / Subentry</i>	<i>Section and subsection (planned) content</i>
<b>Homepage</b>	Home Consortium Project Results News and events Contact	<ul style="list-style-type: none"> <li>• Top navigation (listed subentries)</li> <li>• NANEMIAR Logo and social media buttons</li> <li>• The most recent and notable news of the project (dynamic banner)</li> <li>• NANEMIAR contribution to EU priorities, added value and expected impact</li> <li>• Research team</li> <li>• Footer: funding, partners logos, social media buttons and cookies policy</li> </ul>
<b>Consortium</b>	List of partners	<ul style="list-style-type: none"> <li>• Description of partners with URLs to partner homepages</li> </ul>
<b>Project</b>	Key contents of the project	<ul style="list-style-type: none"> <li>• Short presentation of the key contents of the project, its objectives, ambition, workplan</li> </ul>
<b>Results</b>	NANEMIAR results	<ul style="list-style-type: none"> <li>• Public Deliverables</li> <li>• Publications</li> <li>• Communication toolkit</li> </ul>
<b>News and events</b>	List of relevant news and upcoming events	<ul style="list-style-type: none"> <li>• News, press releases - latest information about the NANEMIAR progress and achievements</li> <li>• NANEMIAR events and other related events of relevance (internal and external ones); structured event announcements with URLs and contact data.</li> </ul>
<b>Contact</b>	List of contacts	<ul style="list-style-type: none"> <li>• Contact details for NANEMIAR project</li> </ul>

Table 1. NANEMIAR website content structure



Funded by the  
European Union

This project has received funding from the European Union's Horizon Europe Research and Innovation Programme 2021- 2027 under the grant agreement No **101080156**



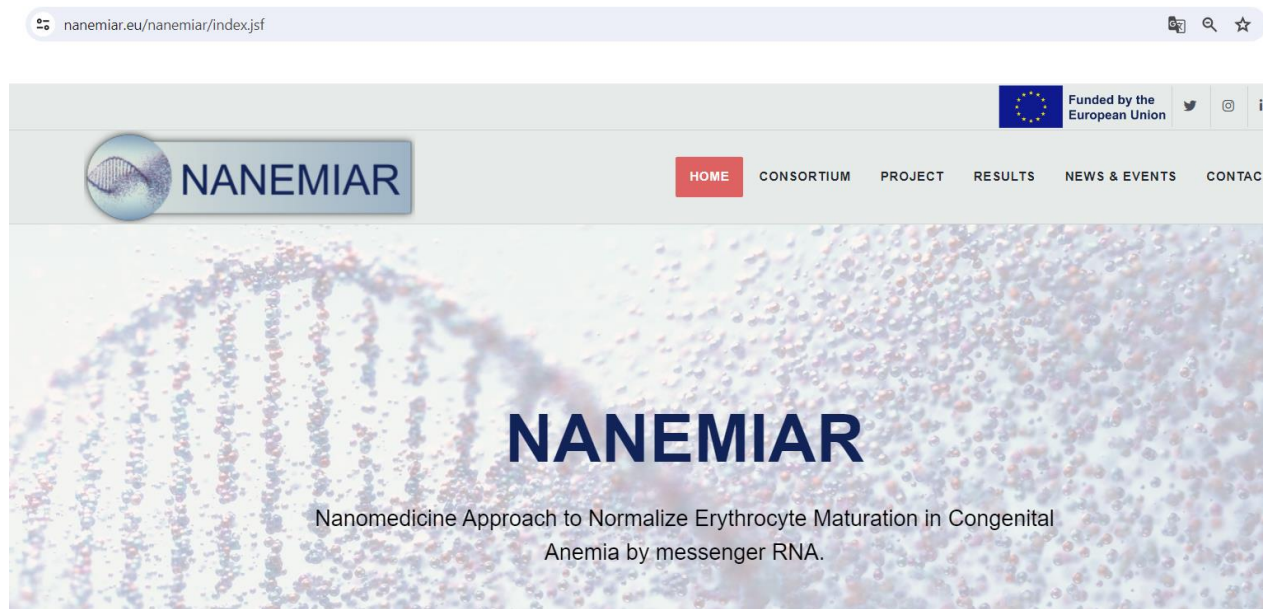


## 1.2. Website content

### 1.2.1. Homepage

The NANEMIAR homepage serves a few primary purposes:

- Provide a site-wide consistent navigation to enable visitors to benefit from all project related content of the site. The navigation is also transitioned across all pages of the website.
- Highlight NANEMIAR contribution and added value, describing:
  - Societal need our project is addressing
  - Added value of NANEMIAR
  - NANEMIAR contribution to EU priorities
  - Expected impacts of our project
- Indicate to the audience in an attractive way, through interactive maps, where the research teams are located. By clicking on the name of each partner in their country of origin, the full name of each partner is displayed and visitors are directly redirected to their official website (opening in a new browser tab) by clicking on the partners' names on map. Links to the research groups also appear below the maps of Spain, France and Holland.







## Societal need our project is addressing

Anemia is a condition characterized by insufficient healthy red blood cells (RBCs or erythrocytes), that affects around every fourth person worldwide. It constitutes a significant economic and societal issue as it is associated with increased morbidity and mortality, poor development in children, and by decreased work productivity. While most studies focus on iron-deficiency anemia, which is especially prevalent in low- and middle-income countries, around 40-50% of anemia is not due to iron deficiency. This anemia can be the main symptom of rare congenital diseases such as Diamond-Blackfan Anemia (DBA),  $\beta$ -thalassemia or Fanconi Anemia (FA). Congenital anemia constitutes a group of inherited diseases affecting the bone marrow leading to disturbed production of blood cells.

Despite the high societal and economic impact of these rare diseases, there is no curative treatment available. Generally, treatments range from small molecules that boost RBC production to blood transfusions, depending on the severity of the anemia. These treatments are both limited in efficacy (duration) and/or associated with (severe) side-effects. Thus, there is a significant unmet medical need for effective intervention that reduces the need for blood transfusion in these patients and improve their quality of life.

## Added value of NANEMIAR

In the past decades, gene therapy has shown promising results in the treatment of human diseases. Yet, the hurdles to clinical implementation are high. Therapy development is costly and time-consuming, and long-term safety and efficacy have yet to be established.

With the recent market approval of the COVID-19 mRNA vaccines, we witnessed the emergence of a nanotechnology that can overcome these limitations and has the potential to revolutionize the field. NANEMIAR sets out to develop a ground-breaking bone marrow-targeted mRNA formulation applicable to most non-iron anemias and provide proof of concept in  $\beta$ -thalassemia.

## NANEMIAR contribution to EU priorities

Our approach and vision are completely aligned with the priorities of the Horizon Europe Strategic Plan with expected impacts in Cluster 1 Health, by delivering a technological breakthrough with future potential for destination 3 tackling diseases and reducing disease burden. Through the development of innovative therapeutic approaches, the project will specifically contribute to more effective, cost-efficient and affordable treatment for patients with a rare disease.

## Expected impact of our project



### Scientific Impact

New breakthrough scientific knowledge on mRNA therapies

Strengthening R&I on congenital anemia

Promoting knowledge transfer and Open Science



### Societal Impact

Addressing needs for new therapeutic options that ultimately increase patients' ability to work/participate in society

Strengthening awareness and uptake of mRNA approaches in society



### Economic Impact

Promoting innovation-based growth in academia and industry

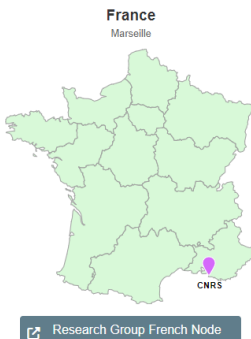
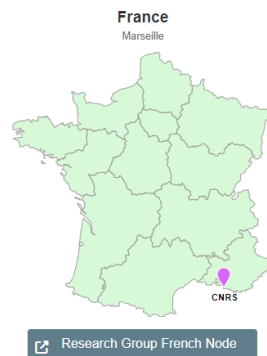
Leveraging R&I investment with potential for reduced development and healthcare costs



Funded by the  
European Union

This project has received funding from the European Union's Horizon Europe Research and Innovation Programme 2021- 2027 under the grant agreement No **101080156**

## Research Centres



The site-wide elements are mostly grouped in the header and the footer section like this:

### Site-wide Header:

For the time being there is one uniform header section, which is visible on all page elements of the website. It consists of:

- NANEMIAR logo
- Main navigation, a top navigation horizontal menu, which will be a direct entrance to website main sections as well as a horizontal list. The subsections are indicated through additional



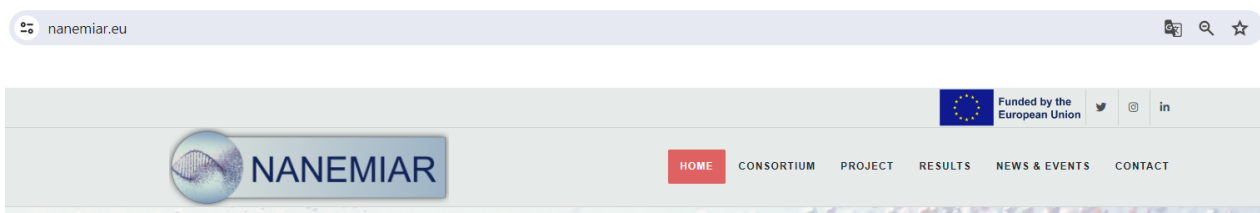
Funded by the  
European Union

This project has received funding from the European Union's Horizon Europe Research and Innovation Programme 2021- 2027 under the grant agreement No **101080156**



drop-down menus.

- Logo Funded by the European Union
- Social media buttons for sharing the project website and its contents in social media accounts and with its followers:
  - Twitter account of NANEMIAR: <https://x.com/Nanemiאר>
  - Instagram account of NANEMIAR: [www.instagram.com/nanemiאר/](http://www.instagram.com/nanemiאר/)
  - LinkedIn account of NANEMIAR: <https://www.linkedin.com/showcase/nanemiאר/>



### Site-wide Footer:

The site-wide footer consists of:

- EU logo and visibility of EU funding
- Partners logo with a link to each partner web site
- Disclaimer
- Social media buttons for sharing the project website and its contents in social media accounts and with its followers:
  - Twitter account of NANEMIAR: <https://x.com/Nanemiאר>
  - Instagram account of NANEMIAR: [www.instagram.com/nanemiאר/](http://www.instagram.com/nanemiאר/)
  - LinkedIn account of NANEMIAR: <https://www.linkedin.com/showcase/nanemiאר/>
- Cookies Policy





Funded by the  
European Union

This project has received funding from the European Union's Horizon Europe research and innovation programme 2021- 2027 under the Grant Agreement No 101080156

#### Partners



*"NANEMIAR project is funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Health and Digital Executive Agency (HADEA). Neither the European Union nor the granting authority can be held responsible for them."*

Follow us on social media: [Twitter](#) [Instagram](#) [LinkedIn](#)

[Cookies Policy](#)

### 1.2.2. Consortium

This section provides a list of the partners with logos, short descriptions of each organization and their contribution to NANEMIAR project. Principal investigators within the main 3 partners are identified, with their name and link to SCORPUS profile (opening in a new browser tab). A photo of the institution's significant building is available so that visitors can have a closer view of the facilities where the project is carried out.

All partner websites are available by clicking on the partners' names, i.e. visitors are directly redirected to their official website (opening in a new browser tab) by one click.

Moreover, all partner organisations will be invited to "link back" to the NANEMIAR website (i.e. to establish a project brief supported by the project URL in their own websites) from their sites. These reciprocal links will at the same time improve the ranking of the project website in search engines such as Google and thus make the project more easily findable via search engines and better positioned.



Funded by the  
European Union

This project has received funding from the European Union's Horizon Europe Research and Innovation Programme 2021- 2027 under the grant agreement No **101080156**



Our consortium is formed by three partners and one affiliated entity with complementary expertise:

#### FUNDACION PARA LA FORMACION E INVESTIGACION SANITARIAS DE LA REGION DE MURCIA

The Foundation for Health Training and Research of Murcia Region (FFIS) is a foundation of the non-profit public sector, which depends on the Ministry of Health of the Region of Murcia, Spain. Its main goal is "the management of knowledge, research and innovation projects in the bio-health field". FFIS is also a management body of the Biomedical Research Institute of Murcia Pascual Parilla (IMB), which aims to foster excellent research in bio-health and brings together the best clinical research groups in the Region of Murcia. FFIS offers a necessary technical support in the economic-administrative and human resources areas, as well as the management of administrative services and act when required as an office for transfer of research results. ([www.ffis.es](http://www.ffis.es))

In the NANEMIAR project, the FFIS is the Coordinator partner, that we are monitoring the Project implementation in administrative and financial terms. They are also contributing to effective dissemination and communication of project knowledge and results to relevant stakeholders and the general public during the project duration.



Funded by the  
European Union

This project has received funding from the European Union's Horizon Europe Research and Innovation Programme 2021- 2027 under the grant agreement No **101080156**





## INSTITUTO MURCIANO DE INVESTIGACIÓN BIOSANITARIA

The Biomedical Research Institute of Murcia Pascual Parrila (IMIB) is accredited at the national level by the ISCIII as a Health Research Institute of excellence ([www.imib.es](http://www.imib.es)).

The Institute is mainly located in the HCUVA, the core hospital of IMIB and in the Health Sciences Campus of the University of Murcia (UMU), Spain. Furthermore, the IMIB integrates different cross-cutting Central Core Units to support biomedical research, provided by the three associated institutions: Servicio Murciano de Salud SMS, FFIS and University of Murcia. For this project, the laboratory facilities of IMIB are used including tissue culture, fluorescence-activated cell sorting (FACS) and GMP Cell Production Center available at Hematology service at HCUVA.

Within NANEMIAR, IMIB participates together with FFIS as Coordinator, with the research group of Dr. Perez-Oliva's (Principal Investigator of NANEMIAR project) focused on the regulation of hematopoiesis by inflammation, with an emphasis on anemia. They are coordinating all scientific work of the project and leading Work package 3 (WP3) dedicated to establishing the culture and colony forming cell (CFC) assays of the hematopoietic stem and progenitor cells (HSPCs) from thalassemic patients. ([ccallab.imib.es](mailto:ccallab.imib.es))

Principal Investigator: Dr. Ana Belén Pérez Oliva ([SCOPUS Profile](#))



## SERVICIO MURCIANO DE SALUD

The SMS (Servicio Murciano de Salud) is the responsible entity for health care in the Region of Murcia, Spain, integrating a total of 11 hospitals, with 3.651 beds and 508 outpatient appointments of primary care, and providing healthcare to 1.47 million inhabitants (about 3,09% of the whole Spanish population). In the exercise of its functions, the SMS provide services and develop the following actions:

- Health Promotion
- Prevention of the disease
- Comprehensive primary care health
- Specialized Healthcare
- Rehabilitation;
- Provision of therapeutic products necessary for the promotion, preservation and restoration of health and prevention of disease;
- any other service or activity that is related to health

Virgen de la Arrixaca University Clinical Hospital (HCUVA) is the largest hospital of SMS and the core hospital of IMIB. It covers the most important reference specialties in the Region. In the project, SMS participates as Affiliated Entity of FFIS through the Hematology and Transplantation department. SMS researchers are also part of IMIB (hematopoietic transplantation / cell therapy group). The hospital has all the patient samples and all necessary infrastructure to get the samples available.



Funded by the  
European Union

This project has received funding from the European Union's Horizon Europe Research and Innovation Programme 2021- 2027 under the grant agreement No **101080156**



### MERCURNA

Mercurna BV is a biotech start-up, established in 2017 with the goal to develop life-changing medicines based on messenger RNA (mRNA). They exploit a technology platform that consists of the integrated development of 3 complementary modalities: (i) de-immunized mRNA, (ii) lipid nanoparticles (LNP) for delivery, and (iii) targeting moieties for specific cell targeting, together forming a nanoparticle to be used as nanomedicine. They are located at the Pivot Park in Oss, The Netherlands, a large biopharmaceutical campus with world-class R&D infrastructure that hosts around 60 start-ups, scale-ups, SME's.

Within NANEMIAR, Mercurna will be exploiting their platform to develop a novel targeted mRNA therapeutic for congenital anemia, with beta-thalassemia as proof of concept. Mercurna will be responsible for the development of the therapeutic mRNA and aims to establish novel targeted LNPs that allow for delivery to hematopoietic stem cells residing in the bone marrow.

Principal Investigator: Dr. Jenny van Asbeck-van der Wijst ([SCOPUS Profile](#))

### CNRS

The Centre national de la recherche scientifique (CNRS) stands as a beacon of scientific excellence, driving innovation and discovery on a global scale. Their commitment to advancing knowledge, fostering collaborations, and upholding ethical standards is at the core of everything they do. The CNRS biology is one of the institutes of the CNRS. It supports a wide array of research projects, spanning from fundamental research aimed at understanding the fundamental mechanisms of life to more applied studies seeking solutions to pressing societal challenges. The institute fosters interdisciplinary collaborations, encouraging scientists from diverse backgrounds to work together and tackle complex biological questions.

Furthermore, the Institut des sciences biologiques (INSB) provides resources, funding, and infrastructure to support researchers in their investigations, promoting innovation and the development of cutting-edge technologies within the biological sciences. Its commitment to excellence in research and its contributions to the advancement of biological knowledge make INSB an integral part of the CNRS and the broader scientific community. The research group of Dr. Lachaud (Principal Investigator of NANEMIAR project) is coordinating all scientific work of the project and leading Work package 2 (WP2) dedicated to preclinical testing of the novel mRNA therapeutic.

Principal Investigator: Dr. Christophe Lachaud ([SCOPUS Profile](#))

## 1.2.3. Project

This section intends to give an overview of the NANEMIAR to the audiences through a page describing the project, and showing users in-depth information, through graphics, about:

- Main objectives and specific objectives
- Keywords
- NANEMIAR ambition
- Workplan

Moreover, a link to NANEMIAR information on CORDIS is provided, so in this way visitors are directly redirected to the official EU research results website (opening in a new browser tab) by one click.

In this part a NANEMIAR brochure as a project factsheet will be available for downloading ones finished.



Funded by the  
European Union

This project has received funding from the European Union's Horizon Europe Research and Innovation Programme 2021- 2027 under the grant agreement No **101080156**





nanemiar.eu/nanemiar/project.jsf



HOME CONSORTIUM **PROJECT** RESULTS NEWS & EVENTS CONTACT

## Project

### Main objectives

NANEMIAR aims to develop a first-of-its-kind nanomedicine for  $\beta$ -thalassaemia.

### Specific objectives

NANEMIAR is divided into 3 specific objectives:

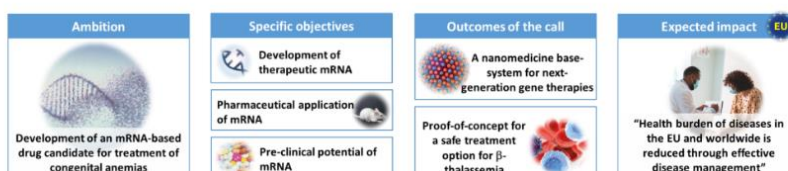
1. Work package 1 (WP1) is focused on establishing the activity and safety of the proposed therapeutic in cell models and animal models.
2. Work package 2 (WP2) is aimed at establishing a proof-of-concept for efficacy of the therapeutic in a thalassemic mouse model.
3. Work package 3 (WP3) will be dedicated to delivering the first safety and efficacy data on hematopoietic stem cells from  $\beta$ -thalassaemia patients.

More information about NANEMIAR available on [CORDIS](#) – [EU research results](#)

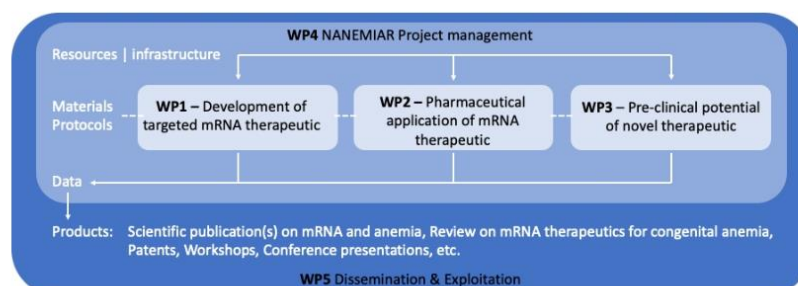
### Keywords

mRNA, erythropoiesis, lipid nanoparticles, targeting, health, congenital anemia

### NANEMIAR ambition



### Work plan



Funded by the  
European Union

This project has received funding from the European Union's Horizon Europe Research and Innovation Programme 2021- 2027 under the grant agreement No **101080156**



#### 1.2.4. Results

The NANEMIAR website “Results” section is a “one-stop shop” reference point for sharing various media produced by the project. Given that NANEMIAR is in its starting phase, most of the sections have yet to receive appropriate material. In this space the audience will be able find under the corresponding subsection:

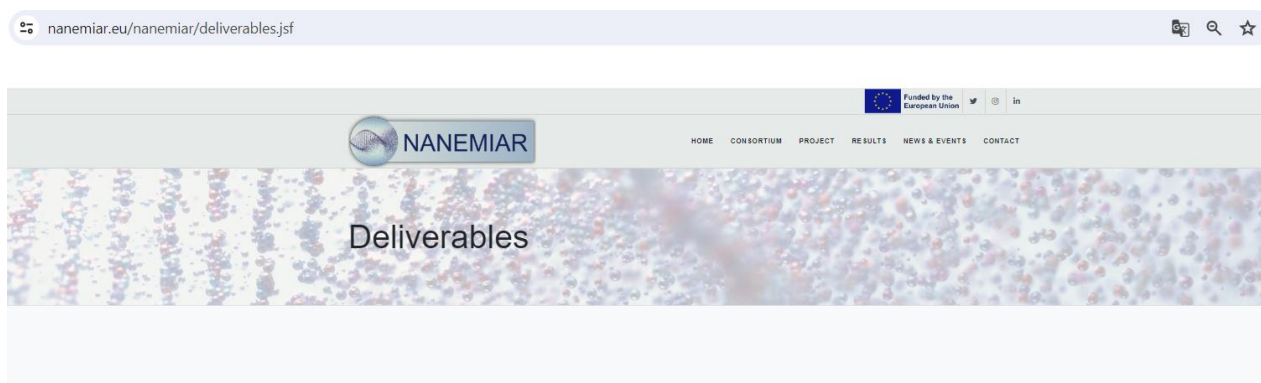
- Deliverables
- Publications
- Communication toolkit

##### Deliverables

In this subsection all public NANEMIAR deliverables ones accepted by EC will be published. These documents will be available in PDF format for downloading.

Information related each deliverable that will be displayed:

- Publishing date
- Title
- Deliverable reference number
- Option for downloading



##### Publications

In this subsection all relevant NANEMIAR publications will be published. These documents will be



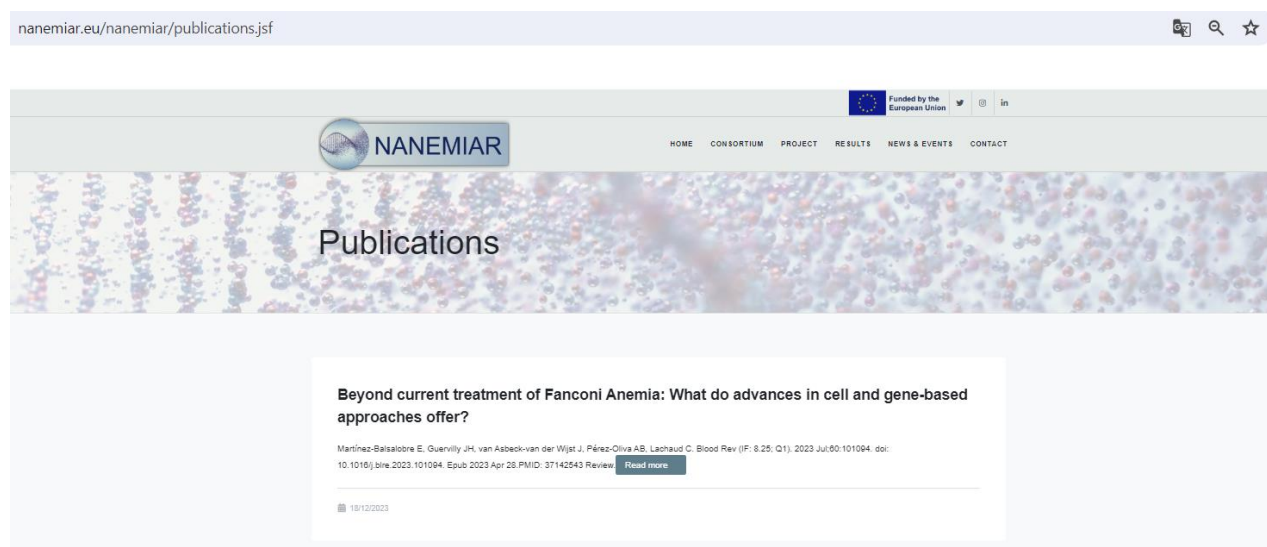


available in PDF format for downloading. In order to identified correctly if the publications arise from the project or not, each publication will be categorized as:

- Publications of the NANEMIAR Project or
- Other related scientific publications from the consortium partners

Information related each publication that will be displayed:

- Date of publication
- Title
- Autors
- Category of publication
- Option form opening the publication in a new browser tab (Read more)



### Communication toolkit

In this subsection all promotion material of NANEMIAR will be published with the aim of reinforcing the corporate identity of the project. These resources will be available in PDF format for downloading. The interested audience will be able to find here:

- Project flyer(s)
- Roll-up

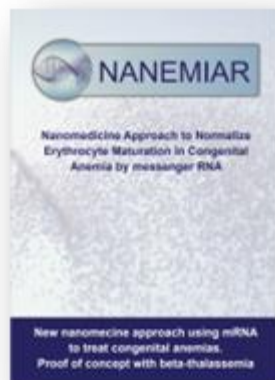


Funded by the  
European Union

This project has received funding from the European Union's Horizon Europe Research and Innovation Programme 2021- 2027 under the grant agreement No **101080156**



- Poster(s)
- Presentation(s)



### 1.2.5. News and events

In order to keep the audience up to date regarding the project, this section will regularly contain the latest information about the NANEMIAR progress and achievements. For this purpose, all news will be published in the following formats:

- News aggregator page (this will appear when clicking on the top navigation “News” element).
- Single news page with “featured image” and full story.

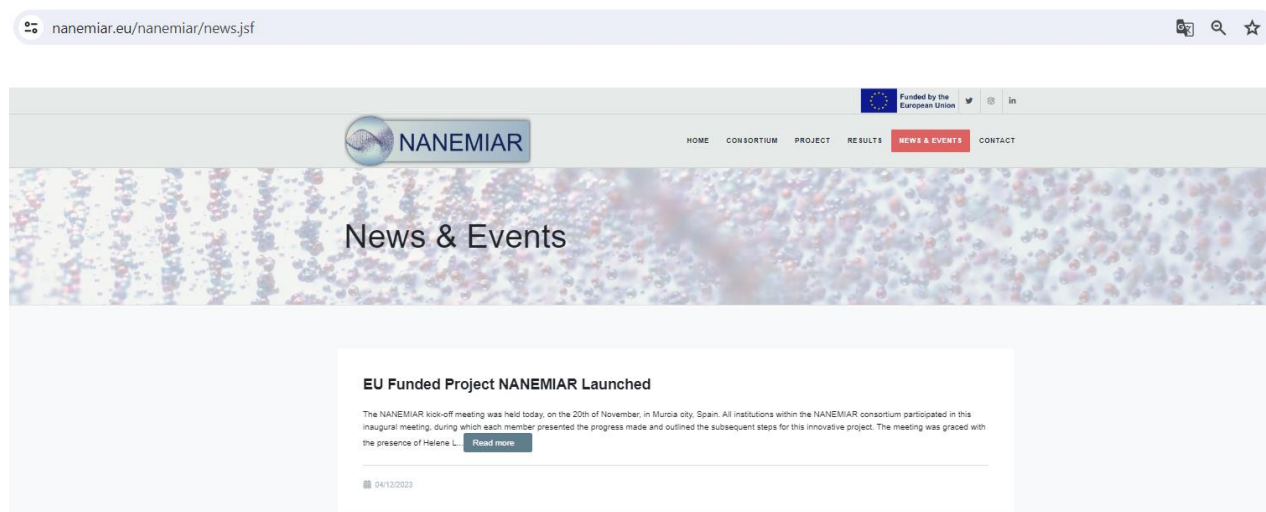
Information related each news or event that will be displayed:

- Title
- Category for publication
- Short description
- READ MORE (option for expand the information once by clicking)





- Date of publication



By clicking on READ MORE all news will appear with this information:

- Title
- Date of publication
- Category for publication
- Full story description
- Option to share the notice through social media channels
- Disclaimer message (when the source of the news is NANEMIAR Project)



Funded by the  
European Union

This project has received funding from the European Union's Horizon Europe Research and Innovation Programme 2021- 2027 under the grant agreement No **101080156**

## EU Funded Project NANEMIAR Launched

04/12/2023

The NANEMIAR kick-off meeting was held today, on the 20th of November, in Murcia city, Spain. All institutions within the NANEMIAR consortium participated in this inaugural meeting, during which each member presented the progress made and outlined the subsequent steps for this innovative project.

The meeting was graced with the presence of Helene Le Boigne and Christina Kyriakopoulou from European Commission (EC Policy Officers from DG Research and Innovation).

The NANEMIAR project aims to develop a new therapy for patients suffering from congenital anemia, with the goal of improving their quality of life. Congenital anemias encompass a myriad of birth defects, which are highly complex disorders whose causes are largely unknown, and current treatments are often inadequate.



The consortium for this project, financed by the European Union and endowed with almost €2.7 million, consists of a promising Dutch SME (Mercurna BV) headed by Dr. van Asbeck - van der Wijst, and two partners from academia and research: Dr. Lachaud at CNRS in France, and Dr. Pérez-Oliva from IMIB-FFIS in Spain, who coordinates the action. The teams are supported by the hematology service of the Virgen de la Arrixaca University Clinical Hospital of Murcian Health Service, where hematologists Drs. Salido and Blanquer are part of this initiative.

Collectively, they aim to exploit Mercurna's mRNA technology platform to develop a novel targeted nanomedicine that enables the correct production of red blood cells in congenital anemia patients by expressing deficient proteins. Mercurna will concentrate on the targeted delivery of therapeutic mRNA to these cells, the CNRS team will test the safety and efficacy of the nanomedicine in anemia mouse models, and the Spanish team will conduct ex vivo testing on patient samples, commencing with a proof-of-concept for beta-thalassemia.



*"NANEMIAR project is funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Health and Digital Executive Agency (HADEA). Neither the European Union nor the granting authority can be held responsible for them."*

In order to identified correctly if the news or event arise from the project or not, each one will be categorized as:

- NANEMIAR communication
- NANEMIAR dissemination
- NEANEMIAR event (Kick-off meeting, events organized with patients, ...)
- Other related event (meetings organized by other scientific societies,..)



Funded by the  
European Union

This project has received funding from the European Union's Horizon Europe Research and Innovation Programme 2021- 2027 under the grant agreement No **101080156**





### 1.2.6. Contact

This section provides contact information of the partners at each participant country.



Stay in touch with NANEMIAR

#### IMIB Address

Edificio LAIB, 4ª Planta, Oficina 4.2 – Laboratorios 4.35-4.36 Campus de Ciencias de la Salud  
Carretera Buenavista s/n, 30120 El Palmar  
Murcia (Spain)  
Web page: <https://ocailab.imib.es>

#### Mercuria Address

Business address: Geurdeland 17G, 6673DR Andelst, the Netherlands  
Visiting address: Pivot Park, RE0207, Kloosterstraat 9, 5349AB Oss, the Netherlands  
Web page: <https://mercuria.com>

#### CNRS Address

Marseille Cancer Research Center  
27 Bd Lei Roure, CS 30059  
13273 Marseille Cedex 09  
Web page: <https://www.crcm-marseille.fr/en/teams/research-teams/christophe-lachaud/>

## 2. Content creation and monitoring

The website is a tool dedicated to the communication purposes of the project for its full lifespan (plus a sustainability phase). To fulfil this task properly, the content of the website will be continuously update reflecting the achievements of NANEMIAR and main activities carried out.

The website has been developed using the internal Content Management System (CMS) of FFIS-IMIB. The main language will be English and the most relevant content will be translated into the languages of the members of the consortium. All partners will contribute to the content generation under the coordination of FFIS-IMIB as WP leader. The main objective is to identify and collect high



Funded by the  
European Union

This project has received funding from the European Union's Horizon Europe Research and Innovation Programme 2021- 2027 under the grant agreement No **101080156**



quality information that may be of interest to web visitors, to prepare and approve among all partners the publication of such information on the website. All these feeds will also be aligned with the project DEP.

Moreover, if the consortium identifies the need to create a new section or subsection on the website, it will be created in order to support the implementation of the previously mentioned DEP.

Statistics will be permanently monitored through FFIS-IMIB's own systems (goaccess).

### 3. Website specifications

The web portal is developed using a JAVA based CMS developed by FFIS-IMIB. This CMS is deployed in a professional data processing centre. The portal has all the backup, accessibility and availability policies of any of the FFIS-IMIB applications.

#### 3.1. Usability and accessibility

NANEMIAR.eu is a website developed using the main web development and design standards. This website complies with most of the accessibility requirements of various international standards. The design of the website has been oriented towards simplicity and cleanliness when offering the different contents. The following characteristics of the project website are considered:

- Simple and clean design.
- All contents are in accessible formats (HTML, JPG, PDF, etc).
- Content categorised to aid classification by target audience.
- Social media buttons.
- Responsive website (adaptable to mobile and other devices)

The main search engine optimisation techniques in this website are:

- Always use the alt label in image content.
- Use a complete and permanent list of keywords.



- Create links to nanemiar.eu from the corporative websites of the different centres implied in this project.
- Facilitate the sharing of published content through the most widely used social networks on the Internet.
- All pages are indexable, facilitating the indexing of the different contents.

### 3.2. General Data Protection Regulation

The privacy policy of this website is governed on the basis of compliance with the provisions of the General Data Protection Regulation of the European Union (GDPR) and the Organic Law 3/2018 of 5 December on the Protection of Personal Data and guarantee of digital rights. No personal data other than the user's browser or IP address is recorded on this website. The recording of such data is only done with the prior consent of the website's cookie policy (placed on footer part of the website).

The security measures necessary to ensure the effective use and processing of the data (which do not identify the person) are made using the necessary technical means to prevent their alteration or unauthorised access. This website access data is never passed on to any third party.

NANEMIAR may modify the content of its privacy policy according to changes in legislation, jurisprudence or interpretation of the Spanish Data Protection Agency that may occur.

### 3.3. Cookies Policy

Through the Cookies Policy found in the footer of the website, FFIS-IMIB informs visitors that nanemiar.eu website uses its own cookies to customise and analyse NANEMIAR users' browsing experience.

Cookies are files that are installed on the device from which visitors access nanemiar.eu website for the following purposes:

- Cookies do not store any personal information, nor can they be associated with any identified or identifiable person.
- The cookies on NANEMIAR website are only managed by FFIS-IMIB, without the participation of any third party.





- They are primarily used to enhance the browsing experience of this website.
- They are also used to maintain user sessions.

Visitors must control the cookies installed on their device by configuring the options of the browser they use:

- Chrome
- Firefox
- Edge
- Opera

#### 4. Website Evaluation: Impact indicators (KPIs)

For the NANEMIAR consortium it is important to monitor user's behavior to see which are the most visited/read content types or website sections for them and know when to offer special actions and develop new contents.

That is why different impact indicators will be taken into account for making the measures. These internal project measurements are going to be defined in the project DEP. The following website specific KPIs will be considered to assess the impact and interest generated by NANEMIAR website and measured in every project year:

<i>Dissemination tool</i>	<i>KPI</i>	<i>Measure</i>
<b>Website</b>	Number of visitors (per project year)	<b>500</b>
	Pages visited	<b>1000</b>
	Average time spent on the website (min)	<b>2</b>

Table 2: NANEMIAR Website specific KPIs



Funded by the  
European Union

This project has received funding from the European Union's Horizon Europe Research and Innovation Programme 2021- 2027 under the grant agreement No **101080156**

## 5. Conclusions

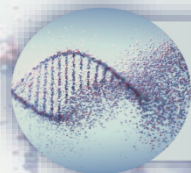
All partners are fully committed to disseminate, communicate and exploit (according to the Open Science policy of the EU) the project outcomes obtained through NANEMIAR joint research during and after completion of the project.

Raising awareness of the project on the web is an important part of the communication and dissemination activities, which is why the presence of website with friendly appearance plays an important role.

This deliverable is a working document, highlighting the communication strategy for the website and its implementation. It will be evaluated on a yearly basis according to specific success criteria (yearly dissemination reports). Due to the continuous development of the project, the strategy for the website will be revised and adapted, if necessary, to better suit the project's needs and the latest opportunities offered in the future.

Likewise, latest news and progress in the project is going to be continuously displayed, the website is going to be maintained and regularly updated according to the achievements and phases of NANEMIAR throughout the project duration.





# NANEMIAR

## Nanomedicine Approach to Normalize Erythrocyte Maturation in Congenital Anemia by Messenger RNA

This project has received funding from the European Union's Horizon Europe Research and Innovation Programme 2021-2027 under the Grant Agreement No 101080156.



Funded by the  
European Union



Fundación para la Formación  
e Investigación Sanitarias  
de la Región de Murcia



IMIB  
Instituto Murciano de  
Investigación Biosanitaria  
Pascual Parrilla



Servicio  
Murciano  
de Salud



Mercurna

