

A baby born before 37 weeks of gestation (WG) or, in other words, before 8 months of pregnancy, is considered to be “premature.”

But not all cases of prematurity are the same.

An earlier birth means a less mature baby who will have greater difficulty adapting to extrauterine life.

Infants born before 7 months of pregnancy (32 WG) are very premature and those born before 6 months of pregnancy (28 WG) are extremely premature.

Nowadays, infants born at 5 months of pregnancy (24 WG) and weighing 500 g can be cared for in neonatal intensive care units.



“Stimulate relations between hospitals, universities, and Inserm in collaborative projects on cutting-edge topics.”

WHAT IS AN FHU?

Moving forward

Given the highly competitive international context and the emergence of new health challenges, a new impetus is needed in clinical and translational research. **The creation of University Hospital Federations (FHUs) by the AP-HP, Inserm, and universities is intended to strengthen the relations between hospitals, universities, and research units so as to stimulate medical research and to improve the quality of care through faster dissemination of innovations.**

Disruptive innovations

The objective of FHUs is to promote joint projects between hospital groups, universities, research units, and industry, **and to strengthen their collaborations on medical subjects leading to disruptive innovations.**

These new federations contribute to the integration of care, teaching, and research under a specific governance.

Well-defined objectives

To stimulate the relations between hospitals, universities, and Inserm so as to set up collaborative projects on cutting-edge subjects. To raise the visibility and identification of priority research, of teaching, and of care: **Diversify, target, and optimize funding.**

FHU PREMA

Combining skill sets

FHU PREMA (Fighting Prematurity University Hospital Federation) comprises clinical teams (gynecology-obstetrics, neonatal pediatrics, assisted reproductive technology, and hospital laboratories) and research teams, all of which develop research projects related to the causes and/or consequences of prematurity.

University clinical services

This network comprises five university hospital perinatal centers in the Île-de-France region: Cochin-Port Royal, Louis Mourier, Armand Trousseau, and Bichat hospitals of the AP-HP, plus GH Paris Saint-Joseph. The 145 doctors and 220 midwives of these centers deliver 18,500 babies every year, over 2,000 of them preterm.

Renowned research teams

FHU PREMA's 12 internationally recognized research teams (epidemiology, genomics, molecular and cellular biology, pharmacology, microbiology, immunology, physics-chemistry, social sciences) share concepts, technologies, and innovative tools. **They collaborate closely with each other and with clinicians to ensure that patients benefit optimally from the research. This sharing generates tomorrow's innovations. The expertise and size of this consortium enables FHU PREMA to develop ambitious projects on a national and European scale.**

The support structures for clinical research

These are platforms for translational research, in other words the link between basic research, which underpins all progress, and patient-centered clinical research: the Centre d'Investigation Clinique (CIC) Mère-Enfant of the AP-HP and the CIC de Vaccinologie Cochin-Pasteur, the Centre National de Référence Streptocoque de Cochin AP-HP and the Benin Clinical Research Institute.

Spontaneous preterm birth occurs when uterine contractions cannot be stopped by any treatment.

Preterm birth may be medically induced if there is a threat to the wellbeing of the mother or fetus.

Usually, spontaneous and induced preterm births have different causes, but the management of the newborn is essentially the same.



“In 2015, there were 54,000 premature births in France.”

PREMATURITY IN THE WORLD

Leading cause of infantile mortality

Each year, 15 million babies are born prematurely around the world. Prematurity is the main cause of mortality among children under 5 years of age (close to one million deaths a year). **Three-quarters of these deaths could be avoided by routine interventions that are both effective and inexpensive, without any recourse to intensive care.** Among the children who survive, some will have sequelae, notably neurological (motor, intellectual, sensory). The frequency of prematurity varies between countries, from 5% to 18% of newborns.

The fight against prematurity, by reducing its frequency or limiting its complications, is a major public health challenge.

PREMATURITY IN FRANCE

Improvements needed

In France, in 2015, 7.1% of live births were premature, ie, 54,000 births per year. This percentage places France 14th in Europe, far behind the Baltic States (Lithuania 5.4%, Latvia 5.8%, Estonia 5.7%), the Scandinavian countries (Sweden 5.6%, Finland 5.8%, Norway 6.2%), and other countries like Iceland 6.1%, Ireland 6.5%, and the Netherlands 6.9% (Euro-peristat report 2015).

The rate of perinatal mortality is an indicator of health and of the quality of perinatal care (pregnancy, childbirth, and postnatal period). France's results in terms of perinatal mortality are average, and did not improve between 2010 and 2015.

FHU PREMA'S OBJECTIVES

The FHU PREMA network has two main objectives

To improve understanding of prematurity and to improve the care of pregnant women and of premature babies. **First, to improve understanding,** we are developing projects on the mechanisms and causes of premature birth, and on its short- and long-term consequences.

Second, we are seeking to improve care through innovation, and the development of diagnostic tools and new therapeutic approaches, which will be evaluated in everyday practice. The dissemination of effective and relevant practices in France and elsewhere is an objective in improving the health of premature newborns.

Lastly, FHU PREMA's cross-departmental projects are designed to develop training programs for healthcare professionals and educational tools for the general public.

FHU PREMA's teams are developing innovative approaches with high-fidelity simulation programs and massive online open courses (MOOCs). The aim also is to develop new ways of using information and communication technologies to disseminate knowledge among professionals and the general public.

The aim over the next 5 years is to position FHU PREMA as one of the world's leading centers for prematurity treatment and research.

Through privileged partnerships with three patient groups.

The points of view and expectations of parents, couples, and pregnant women are indispensable to the relevance of the work done, so as to respond to the immediate and long-term needs of the population of premature children and their parents.

Also, through ambitious projects launched each year and funded thanks to the generosity of donors committed to the cause of understanding and reducing prematurity.

Donations are of vital importance in advancing our various projects.



“The more ambitious the project, the more it follows new paths, the more hopeful and promising it will be.”

FHU PREMA IS FIGHTING PREMATUREITY

Through ambitious projects

Improving understanding of prematurity (Coordination: C. Poyart)

- Social inequalities in perinatal health (Coordination: E. Azria & P. Sauvegrain)
- Determinants and consequences of placental dysfunction in the context of malaria (Coordination: André Garcia)
- Gut microbiota and necrotizing enterocolitis (Coordination: F. Barbut & J. Aires)
- Outcome at 10 years of age of extremely premature children (EPIPAGE 10Y) (Coordination: P.Y. Ancel)

Improving care of pregnant women and premature children (Coordination: F. Goffinet)

- Promotion of single embryo transfer after in vitro fertilization (Coordination: C. Patrat & P. Santulli)
- Bedside test for pre-eclampsia (Coordination: V. Tsatsaris & J. Guibourdenche)
- Vaccines for the prevention and treatment of maternal-fetal infections (Coordination: D. Skurnik & O. Launay)
- The PREMEX trial (Coordination: F. Goffinet & P.H. Jarreau)

Cross-departmental projects

- The Digital Medical Hub-PREG (Coordination: D. Luton & M.P. d'Ortho)
- Big data and perinatal care (Coordination: D. Skurnik)
- New approaches to teaching (Coordination: P.F. Ceccaldi)
- Harmonization of clinical practices at FHU PREMA
- Development of research in midwifery (Coordination: A. Chantry)
- Collaborations with parent and user groups (Coordination: C. Le Ray)

BY GIVING YOU CAN SAVE LIVES

When you make a donation, we make progress

First, there is the idea. Then the project, the emulation, the perspective, the probable or certain benefit for the patient. The more ambitious the project, the more it follows new paths, the more hopeful and promising it will be. The projects listed above will be possible thanks to your donations, to your desire to help, to make progress.

Donations are managed by the Foundation of AP-HP, in coordination with the Sponsorship Department of the APHP.Centre - University of Paris Hospital Group.

If you would like to support the FHU PREMA, please visit the FHU PREMA website:

www.fhu-prema.org or directly on our secure online donation form:

<https://soutenir.fondationaphp.fr/prema/>

Donations are tax-deductible. A tax receipt will be sent to you after receiving your donation.

AN INTERNATIONAL DIMENSION

Sharing of knowledge to boost progress

The consortium has opened up to teams in Europe and Africa, by integrating international teams or by participating in themed research networks.

On the subject of social inequalities, researchers at the Department of Psychology of the University of Milan-Bocconi are partnering FHU by sharing their expertise in social psychology.

FHU PREMA's aim is to develop a strategy for research and development specific to developing countries. The MERIT team of the IRD operates in Benin and Ghana and has long worked with the member teams of FHU PREMA. To heighten the impact for pregnant women in Africa in terms of research and health interventions, the Benin Clinical Research Institute has joined FHU PREMA.

FHU PREMA's research teams have for many years worked in national (perinatal epidemiology), European (EPICE, RECAP, iplacenta), and international (vulnerabilities) research networks.

Thanks to your donations, we are making progress.

FHU PREMA is reducing prematurity in France



Aurore, 12 years old,
who was an extremely premature baby.

How to help FHU PREMA

With the AP-HP Foundation:

<https://soutenir.fondationaphp.fr/prema/>



or visit our website:

www.fhu-prema.org



FHU PREMA
Fighting Prematurity

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