



**16<sup>TH</sup>**  
**ESRI**  
**CONGRESS**

Annual Meeting of the European Society  
for Reproductive Immunology

Du **29 mars**  
Au **01 avril** **2022**



**The early Immune dialogue between the embryo and the mother**  
**Maternofoetal tolerance - recurrent miscarriages and environment**  
**Immunology - preeclampsia and infection personalized reproductive medicine**

**Institut du Cerveau - ICM - hôpital Pitié-Salpêtrière, 47 Bd de l'Hôpital, 75013 Paris**

**International organizing committee :**

**Julia SZEKERES-BARTHO**

**Petra ARCK**

**Udo MARKERT**

**National organizing committee :**

**Nathalie LÉDÉE**

**Thierry FOURNIER**

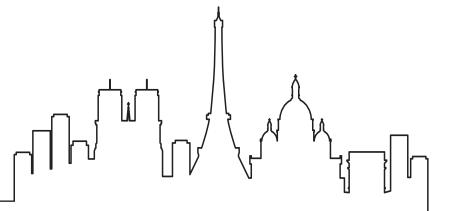
**Olivier SANDRA**



**Information and registration : [www.len-medical.fr/esri](http://www.len-medical.fr/esri)**

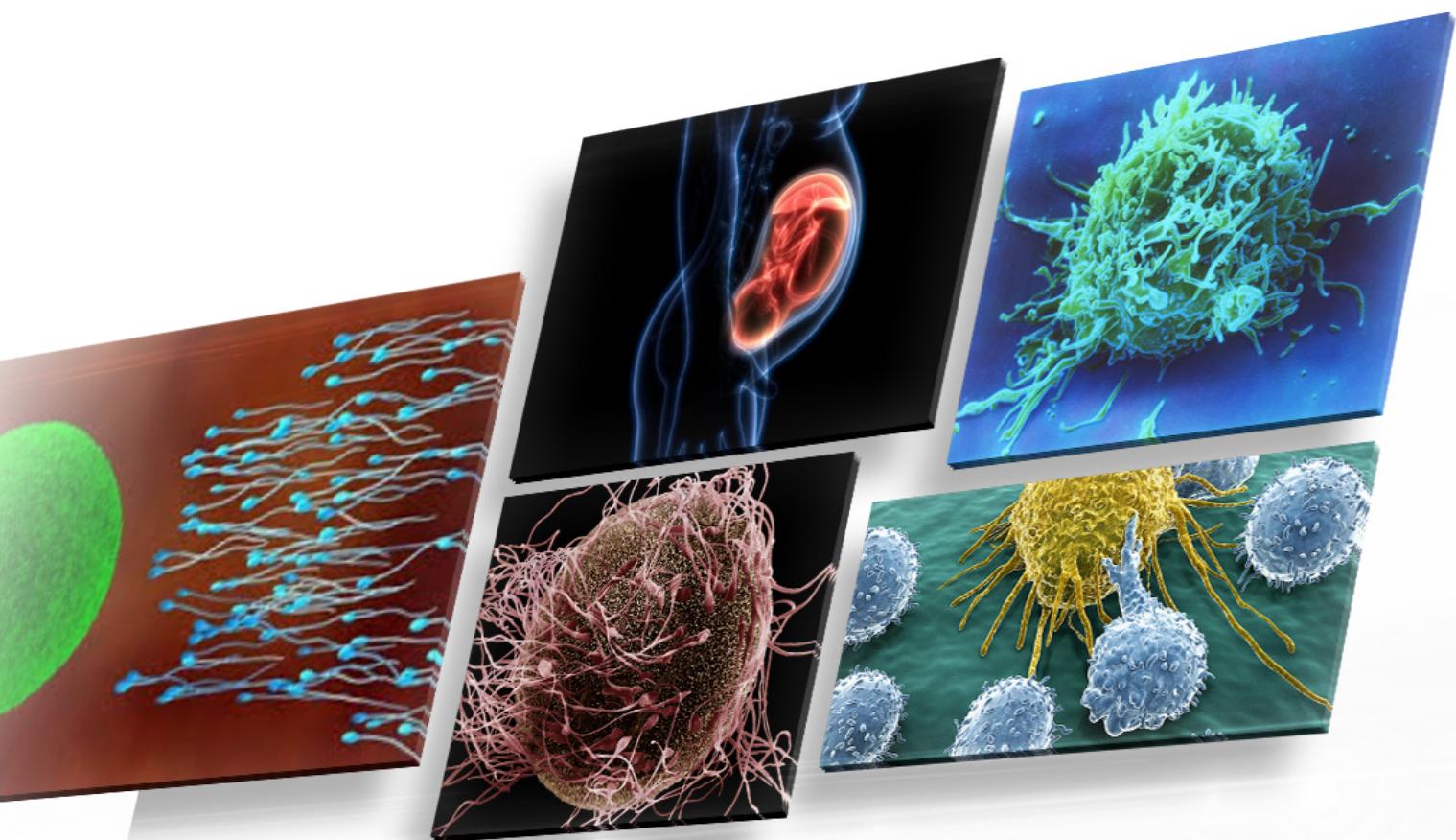
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# EXPERTS

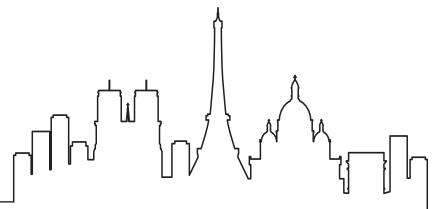


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Guy Nino **CASSUTO**, Paris  
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Michael **EIKMANS**, Leiden  
Frida **ENTEZAMI**, Paris  
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# EDITORIAL



Pour la première fois de son histoire, le prochain Congrès européen d'Immunologie de la Reproduction se tiendra en France à Paris du 29 mars au 1<sup>er</sup> avril à L'ICM. Le programme est très clairement translationnel, orienté pour favoriser la rencontre entre cliniciens et chercheurs afin de mieux construire ensemble l'innovation de demain. Les meilleurs immunologues internationaux se succèderont pour nous parler du dialogue immunologique essentiel entre l'embryon et sa mère, et des conséquences. Des pathologies comme l'échecs d'implantation, les fausses couches à répétition, l'accouchement prématûr ou la prééclampsie de même que l'impact de l'environnement seront disséqués sous un jour immunologique. Des avancées fantastiques permettent d'envisager des changements conceptuels majeurs qui auront des conséquences dans la médecine de demain tant en médecine de la reproduction qu'en obstétrique ou en santé publique.

Ce congrès couvrira ces champs nouveaux pour ouvrir l'horizon de nos pratiques médicales.

Le comité national et international de L'ESRI (*European Society of Reproductive Immunology*) vous invitent donc très chaleureusement au XVI<sup>e</sup> Congrès d'Immunologie de la Reproduction. Venez nombreux !

For the first time in its history, the next European Congress of Reproductive Immunology will be held in Paris, France, from March 29 to April 1 at the ICM. The program is very clearly translational, oriented to promote the meeting between clinicians and researchers to better build together the innovation of tomorrow.

The best international immunologists will talk with us about the essential immunological dialogue between the embryo and its mother. Pathologies such as implantation failures, recurrent miscarriages, premature delivery or preeclampsia as well as the impact of environment will be dissected in an immunological light. Fantastic advances allow us to envisage major conceptual changes that will have consequences for tomorrow's medicine in reproductive medicine, obstetrics and public health. This congress will cover these new fields to open the horizon of our medical practices.

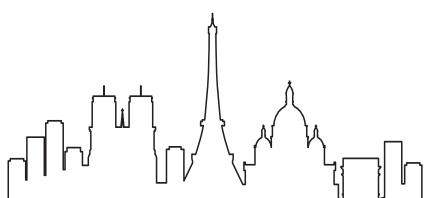
The national and international committee of the ESRI (European Society of Reproductive Immunology) warmly invite you to the XVI<sup>th</sup> Congress of Reproductive Immunology. Please come in great numbers !

AUDITORIUM

29<sup>TH</sup> TUESDAY  
MARCH 2022

DAY 0

MATEROFETAL TOLERANCE - RECURRENT MISCARRIAGES AND ENVIRONMENT



16:00  
16:30

WELCOME OF PARTICIPANTS

16:30  
17:30

Welcome speech - Nathalie Lédée

Opening session : Reproductive immunology: a historical perspective on the “greffe admirable” - Anne-Marie Moulin - Directeur de recherche émérite CNRS, CNRS, SPHERE

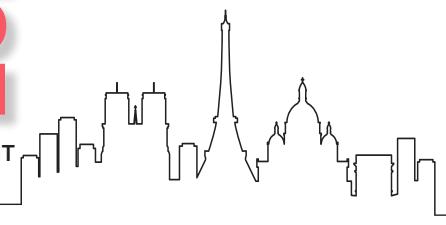
Speech from Patients - Association BAMP - Marie-Joëlle Gros

Speech from Gerard Chaouat's friends - Julia Szekeres-Bartho, Pierre-Yves Robillard

# 30<sup>TH</sup> WEDNESDAY MARCH 2022

AUDITORIUM

DAY 1 MATERNOFETAL TOLERANCE - RECURRENT MISCARRIAGES AND ENVIRONMENT



08:30  
10:10

## SYMPOSIUM I : THE EARLY IMMUNE DIALOGUE BETWEEN THE EMBRYO AND THE MOTHER

*Chairs : Marigoula Varla-Leftheriotis / Udo Jeschke*

- |  |                       |
|--|-----------------------|
| 8:30-8:50 Fetal-maternal immune interactions in pregnancy  | Julia Szekeres-Bartho |
| 8:50-9:00 Primary trophoblast cultures as model to study fetal-maternal interface: characterization of HLA profiles and immune cell interactions | Michael Eikmans       |
| 9:00-9:20 Trophoblast immune cell dialogue via extracellular vesicles and non-coding RNA   | Udo Markert           |
| 9:20-9:30 Immune checkpoint ligands expressed by embryo-derived extracellular vesicles   | Éva Görgey            |
| 9:30-9:50 Preimplantation factor modulates trophoblastic invasion throughout the decidualization of human endometrial stromal cells              | Hadia Moindjje        |
| 9:50-10:10 Endogenous retroviruses and placenta: the HEMO protein  | Odile Heidmann        |

10:10  
10:30

COFFEE BREAK

10:35  
12:25

## SYMPOSIUM II : IMMUNOMECHANISM OF MATERNOFETAL TOLERANCE

*Chairs : Marie Pierre-Piccinni / Michael Eikmans / Theodora Keramitsoglou*

- |   |                           |
|---|---------------------------|
| 10:35-11:00 Repertory of circulating and uterine NK cells   | Francesco Colucci         |
| 11:00-11:20 HLA-G : where are we ?  | Nathalie Rouas-Freiss     |
| 11:20-11:30 Soluble HLA-G blood levels are not increased during ongoing pregnancy in women with a history of recurrent pregnancy loss | Juliette Krop             |
| 11:30-11:50 HLA-F and HLA-G in reproduction with a focus on fertility   | Thomas Vauvert F Hviid    |
| 11:50-12:00 A firstborn boy and maternal HLA class II polymorphism negatively affect pregnancy prognosis in recurrent pregnancy loss  | Caroline Nogaard-Pedersen |
| 12:00-12:20 The possible role of IL-35 on the fetal allograft tolerance in human  | Marie Pierre-Piccinni     |
| 12:20-12:30 Aging modifies endometrial dendritic cell function and tissue distribution of double negative T cells                     | Marta Rodriguez-Garcia    |

12:30  
13:30

LUNCH

13:30  
15:00

## SYMPOSIUM III : RECURRENT MISCARRIAGES

*Chairs : Ole Christiansen / Arsene Mekinian*

- |   |                         |
|---|-------------------------|
| 13:30-13:50 Circulating immune biomarkers and recurrent pregnancy loss  | Johanne Kwak-Kim        |
| 13:50-14:10 Immune profiling and recurrent miscarriages   | Alaa Kazhalawi          |
| 14:10-14:30 Dendritic cells and tregs interplay at the maternal-fetal interface   | Guillaume Darrasse-Jèze |
| 14:30-14:40 Modification of peripheric Treg and CD56 levels in RIF women after egg-donation treated with GM-CSF and controls          | Fabio Scarpellini Marco |
| 14:40-14:50 LMWH-induced miRNA changes in peripheral blood mononuclear cells in pregnancies with unexplained recurrent pregnancy loss | Valentina Bruno         |
| 14:50-15:10 IL-2 in recurrent miscarriages: rational and preliminary result   | David Klatzman          |

15:00  
16:00

COFFEE BREAK : POSTER SESSION

16:00  
18:00

## SYMPOSIUM IV : PRETERM BIRTH AND IMMUNOLOGY

*Chairs : Marijke Faas / Thierry Fournier*

- |   |                      |
|---|----------------------|
| 16:00-16:20 Association between biomarkers of the fetal immune system with birth weight and preterm delivery  | Anke Diemert         |
| 16:20-16:30 Detection of microchimeric fetal cells in maternal peripheral blood during and after oocyte donation pregnancy  | Kim Van Bentem       |
| 16:30-16:40 A combination of immune cell types identified through ensemble machine learning strategy detects altered profile in recurrent pregnancy loss strategy detects altered profile in recurrent pregnancy loss | Renate Van der Molen |
| 16:40-17:00 HLA sensitisation and fetal losses  | Julien Zuber         |
| 17:00-17:10 Immune cells at the maternal fetal interface during placental development: a single cell approach in mice   | Ludivine Doridot     |
| 17:10-17:40 The potential interplay between the innate immune system and microbiota in uterine related pathology  | Roberta Bulla        |
| 17:40-17:50 Prenatal transfer of pathogen-specific maternal microchimeric cells to the fetus  | Dennis Yüzen         |

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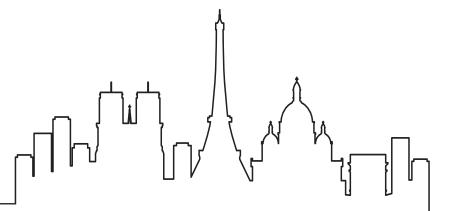
MERCK

FERRING  
PHARMACEUTICALS

# 31<sup>TH</sup> THURSDAY MARCH 2022

AUDITORIUM

DAY 2 IMMUNOLOGY – PREECLAMPSIA AND INFECTION



08:30  
09:55

## SYMPOSIUM I : PREECLAMPSIA BIOMARKERS

*Chairs: Vassilis Tsatsaris | Pierre-Yves Robillard | Thierry Fournier*

- |   |                   |
|---|-------------------|
| 08:30-08:50 Defining the galectin-1-glycan networks in preeclampsia   | Sandra Blois      |
| 08:50-09:10 The preeclampsia gene STOX1 locally affects genome methylation in cells trophoblast   | Daniel Vaiman     |
| 09:10-09:30 IFN, TORCH, IFITM and pregnancy   | Thierry Fournier  |
| 09:30-09:45 Is secreted Corin a new marker of preeclampsia?   | Severine Degrelle |
| 09:45-10:00 Down regulation of CD24 in preeclampsia and its In-Vitro STOX1 model - a new target for immunotherapy of the syndrome? miscarriage/ infertility | Marei Sammar      |

10:00  
10:30

COFFEE BREAK

10:30  
12:10

## SYMPOSIUM II : PREECLAMPSIA TREATMENTS

*Chairs: Sandra Blois | Brice Gaudillière*

- |   |                          |
|---|--------------------------|
| 10:30-10:50 Prevention of preeclampsia with aspirin. Where are we?  | Vassilis Tsatsaris       |
| 10:50-11:10 Competitive Ligand-based approach using VEGF coated apheresis columns to improve the angiogenic balance in preeclampsia | Edouard Lecarpentier     |
| 11:10-11:20 Uptake of preeclampsia-derived EVs activates microglia in vitro   | Julian A. Henao-Restreno |
| 11:20-11:40 Pathophysiology and management of placental inflammatory syndromes  | David Williams           |
| 11:45-12:10 HCG glycoforms: different sources of production for different biological functions throughout pregnancy                 | Thierry Fournier         |
| 12:00-12:10 Absence of maternal-derived gal-3 drives unusual placentation increasing the risk of FGR                                | Yiran Xie                |

12:10  
13:10

LUNCH

13:40  
15:15

## SYMPOSIUM III : EPIDEMIOLOGY AND LONG-TERM CONSEQUENCE OF PREECLAMPSIA

*Chairs: Daniel Vaiman | Julia Skekeres-Bartho | Vassilis Tsatsaris*

- |  |                       |
|--|-----------------------|
| 13:40-14:10 A few debates in 2020 about preeclampsia. News on late preeclampsia (after 34 weeks, 90% of cases) | Pierre-Yves Robillard |
| 14:10-14:30 Early Origins of Neurodevelopmental Disorders  | Steven Schepanski     |
| 14:30-14:40 Regulatory T-cells undergo apoptosis during preeclampsia prevented by Gal-2                        | Laura Hahn            |
| 14:40-15:10 Immune clockwork in healthy and pathological pregnancies   | Brice Gaudillière     |

15:15  
16:15

COFFEE BREAK : POSTER SESSION

16:15  
18:30

## SYMPOSIUM IV : SARS COV-2 AND PREGNANCY

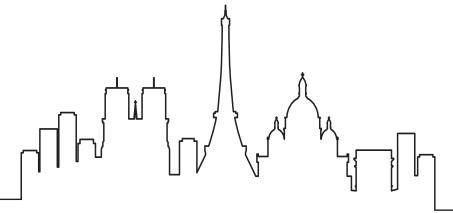
*Chairs: Marta Rodriguez Garcia | Pierre Roques | Olivier Picone*

- |  |                       |
|--|-----------------------|
| 16:15-16:35 Natural history of Sars-CoV-2 infection in pregnant women  | Pierre Roques         |
| 16:35-16:50 Follow-up for pregnant women during the COVID-19 pandemic  | Olivier Picone        |
| 16:50-17:10 COVID-19 and intriguing placental data   | Ann-Christin Tallarek |
| 17:10-17:30 Treatment of immunomodulation during pandemic in case of recurrent miscarriage/infertility   | Joan Kwak-Kim         |
| 17:40-17:50 Evaluation of Sars-CoV-2 entry receptors in COVID-19 positive and negative placentae: correlation between expression and infectivity | Chiara Agostinis      |
| 17:50-18:00 Diminished humoral and cellular immune response in pregnant women upon vaccination against SARS-CoV-2 infection                      | Tayyip Emre Kehribar  |
| 18:00-18:10 Galectin-1 levels raise in maternal circulation upon SARS-CoV-2 vaccination/ infection during gestation                              | Fangqi Zhao           |
| 18:10-18:20 Blood sEVs from healthy and GDM patients modulate 1:1B4 pancreatic beta cell proliferation and metabolism                            | Rachel R. Zabel       |
| 18:20-18:30 Aggravated breast cancer progression in pregnant mice might be supported by alterations in the y6 T cell compartment                 | Kristin Thiele        |

20:00

GALA DINER

01<sup>TH</sup> FRIDAY APRIL 2022



**DAY 3** IMPACT OF ENVIRONMENT ON PREGNANCY AND PERSONALIZED REPRODUCTIVE MEDICINE

09:00  
10:40

**SYMPOSIUM I : IMPACT OF THE ENVIRONMENT ON PREGNANCY AND PERSONALIZED REPRODUCTIVE MEDICINE**

*Chairs : Mona Rahmati | Olivier Sandra | Nathalie Lédée*

9:00-9:20 Prenatal environmental challenges and children's health : mediators and mechanisms

Petra Arck

9:20-9:40 Impact of phthalates on human trophoblast differentiation and function

Severine Degrelle

9:40-10:00 Effects of F0 maternal diesel engine exhaust exposure during gestation on F1 and F2 offspring phenotype

Anne Tarrade

10:00-10:20 Reproductive function in a polluted world: lessons from animal models

Richard Lea

10:20-10:40 Prenatal acetaminophen exposure distorts ovarian macrophages with long lasting consequences for gonadal function

Vicky Bazzano

10:40  
11:00

COFFEE BREAK

11:00  
12:30

**SYMPOSIUM II : ENVIRONMENT AND MALE INFERTILITY**

*Chairs : Maciej Kurpisz | Guy Cassuto*

11:00-11:20 How immune cell phenotypes determine a region-specific immune response in the epididymis

Andreas Meinhardt

11:20-11:40 Molecular profiling of spermatozoa

Guy Nino Cassuto

11:40-11:50 Comparison of histone H3K4me3 between IVF and ICSI technologies and between boy and girl offspring

Huixia Yang

11:50-12:20 Personalized medicine in treatment of azoospermia: HLA puzzle

Maciej Kurpisz

12:10-12:30 Role of seminal plasma exposure on implantation

David Sharkey

12:30  
13:30

LUNCH

13:30  
15:45

**SYMPOSIUM III : IMMUNOLOGY AND PERSONALIZED REPRODUCTIVE MEDICINE**

*Chairs : Petra Arck | René Frydman | Kenneth Beaman*

13:45-14:05 The role of HLA and maternal-fetal histo-incompatibility in pregnancy outcome

Michael Eikmans

14:05-14:15 Placental inflammatory pathology lesions are specifically observed in uncomplicated pregnancies after ovocyte donation and are associated with fetal-maternal HLA mismatching

Xuezi Tian

14:15-14:35 Clinical usage of endometrial testing: experience of an "Implantation Clinic" in the UK

Mona Rahmati

14:35-14:55 Is the optimal time of embryo transfer need to be personalized : The Win-test

Frida Entezami

14:55-15:15 The endometrial immune profiling: Where are we after 10 years ?

Nathalie Lédée

15:15  
15:45

COFFEE BREAK

16:00  
17:30

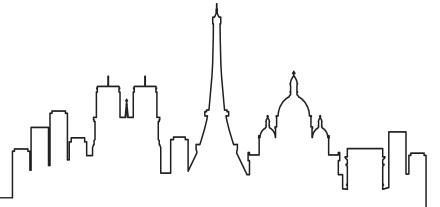
**SYMPOSIUM IV : SELECTED PRESENTATION AND PRIZE**

Prize Elsevier for young investigator (basic-clinical science)

Prize Elsevier for senior investigator

# ABSTRACTS

***Submit your abstract : [www.len-medical.fr/esri](http://www.len-medical.fr/esri)***



## How to submit

Authors may be allowed to submit their abstract online from December, 1st 2021 to January, 31 th 2022 without prior registration: extended abstract deadline until february, 15th

Final selection for oral or poster selection and publication would require the registration of at least 1 presenting author to attend the meeting and present the work.

## Notification of acceptance

Notices of poster acceptance, oral presentations will be emailed to the submitting authors by March, 1 st 2022

## Publication

Accepted abstract will be published by Elsevier in *Journal of Reproductive Immunology*

## Category : Basic research / clinical research

**Thema :** Immune dialogue and fetal tolerance/preterm birth/recurrent miscarriages/preeclampsia/reproductive medicine/impact of environment and Sars-Cov2 in pregnancy

**Presentation preference :** select oral only, oral or poster, poster only, invited speaker

For invited speaker - you should use the invited speaker option

Are you candidate for the young investigator award : yes or no ?

## Abstract format requirement

Begin your abstract with the abstract title, author's names, and author's affiliations. Underline the name of the presenting author. Abstracts should be structured and consist of no more than 500 words, and organized into four paragraphs labeled: Problem, Method of Study, Results and Conclusions.

**Abstract Title** - Maximum 20 words. Please capitalize the first letter of the first word. The remaining words should not be capitalized.

**Authors and affiliation** - You must enter the names of ALL AUTHORS (including yourself if you are an author) in the order in which you wish them to appear in the printed journal text. You will also need to include their institution, city, state and country. Author's names entered in any other section will NOT be printed in the author index or the final program.

**Abstract Body** - Please include your abstract body below (max 500 words). No tables or images will be allowed. Your abstract must be organized into four separate paragraphs:  
**Problem/Method of Study/Results/Conclusions**

**Permissions** - Acknowledge author's permissions and authorize publication online in the journal.

**Registration** - Confirm that at least 1 presenting author will register for and attend the meeting to present the work.

# ACCESS MAP

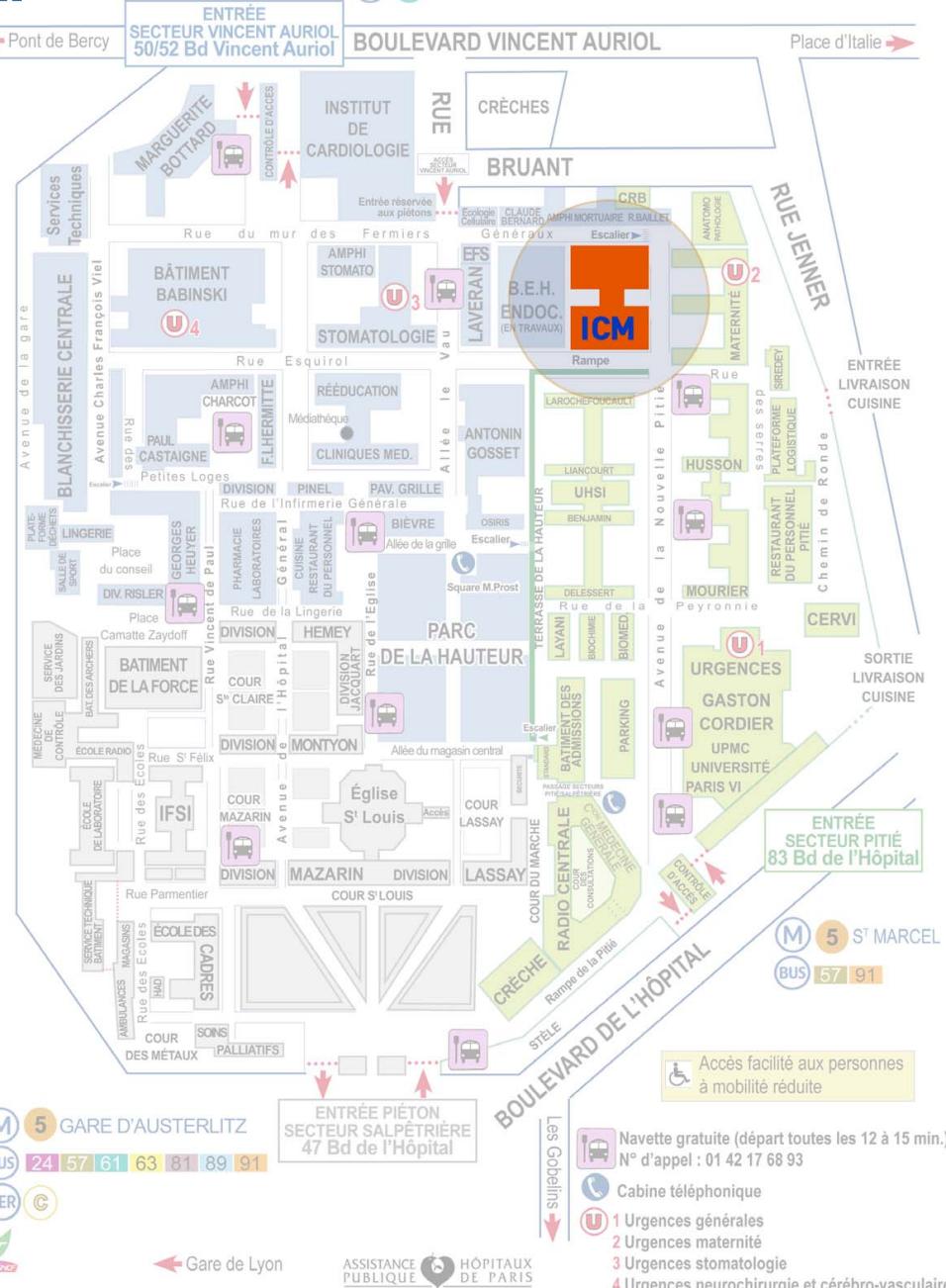
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