

Du 19 au 20  
septembre  
2022

Muséum de  
Toulouse

35 allées Jules Guesde  
31000 Toulouse

aviesan

alliance nationale  
pour les sciences de la vie et de la santé **ITMO I3M**  
Immunologie, Inflammation, Infectiologie et Microbiologie

Avec le soutien de la Délégation régionale du CNRS Occitanie Ouest et de  
l'Institut Toulousain des Maladies Infectieuses et Inflammatoires – Infinity.

# Colloque annuel de l'ITMO I3M

Immunologie  
Inflammation  
Infectiologie  
Microbiologie

**PROGRAMME SCIENTIFIQUE**

# COMITE DES EXPERTS de l'ITMO I3M

- Brigitte AUTRAN UPMC / AP-HP / Inserm
- Ulrich BLANK CRI / CNRS / Inserm / Université Paris Diderot
- Frédéric BRINGAUD MFP / CNRS / Université de Bordeaux
- Sophie BROUARD CRTI / CNRS / Inserm / Université de Nantes
- Michel COGNE MICMAC / EFS / Inserm / Université de Rennes
- Bruno COIGNARD Santé publique France
- Christophe CORDEVANT Anses
- Gilles COTTRELL IRD
- Marc DALOD CIML / CNRS / Inserm / Aix-Marseille Université
- Xavier DE LAMBALLERIE Virus émergents / IRD / Inserm / Aix-Marseille Université
- Pierre DELOBEL Infinity / CHU Toulouse / Université de Toulouse
- Alpha DIALLO ANRS
- Jean DUBUISSON CIIL / Institut Pasteur de Lille / Inserm / CNRS / Univ. de Lille
- Isabelle FUGIER Sanofi
- Marie-Paule KIENY Inserm
- Jean LANG Sanofi
- Roger LE GRAND IDMIT / CEA / Inserm
- Marc LECUIT Institut Pasteur
- Lulla OPATOWSKI Institut Pasteur
- Marie-Cécile PLOY RESINFIT / Université de Limoges / CHU de Limoges
- Bénédicte PY CIRI / Inserm / CNRS / ENS / Univ. Claude Bernard Lyon 1
- Philippe SOLANO IRD
- Jean Nicolas TOURNIER IRBA / Inserm / Aix-Marseille Université
- Nathalie VACHIERY ASTRE / Cirad / Inrae / Montpellier Université d'Excellence
- Muriel VAYSSIER-TAUSSAT Inrae

**L'Institut thématique Immunologie, Inflammation, Infectiologie et Microbiologie (I3M)** rassemble 4 domaines scientifiques afin de relever les enjeux biomédicaux associés aux pathologies immunitaires, inflammatoires et infectieuses.

Dans une approche « One health », son objectif est de créer un continuum entre ces domaines de recherche et de développer une cohérence stratégique pour relever de nombreux défis qui constituent des préoccupations quotidiennes de santé : les immunodéficiences, l'allergie, les maladies auto-immunes, la transplantation, les pathologies chroniques, l'émergence et la réémergence de pathogènes, les maladies infectieuses, le microbiome, la résistance anti-microbienne, la vaccinologie et les biothérapies.

### Principales missions

- ◆ Animer la réflexion et coordonner la recherche au niveau national, européen et international pour d'une part, faciliter l'acquisition de connaissances fondamentales et leurs valorisation, mais également favoriser le développement de la recherche translationnelle en soutenant son implémentation au niveau sociétal.
- ◆ Contribuer à la programmation de la recherche dans les domaines concernés au niveau national (ANR, Plans nationaux, PHRC ...), régional (DIM, etc...) et international (programmation H2020 et actions communes européennes telles que Joint Action, Joint program, EDCTP ...)
- ◆ Encourager la recherche en partenariat avec les pays du Sud et mettre en place des actions coordonnées en concertation avec les acteurs d'Aviesan. Le groupe de travail Aviesan Sud vise ainsi à assurer une coordination géostratégique de la recherche française au Sud.
- ◆ Animer le réseau I3M des unités de recherche et plateformes pour renforcer la visibilité de ses acteurs et développer des actions de communication au sein de cette communauté.

### Actions phares de 2021-2022

- ◆ Implémentation du Programme prioritaire de recherche (PPR) sur la résistance aux antibiotiques, piloté par l'Inserm-I3M (<https://ppr-antibioresistance.inserm.fr/>).
- ◆ Co-pilotage par l'INRAE et l'Inserm du Programme et équipements prioritaires de recherche (PEPR) sur les Systèmes alimentaires, le microbiome et la santé.
- ◆ Participation au PEPR sur les maladies émergentes piloté par l'ANRS | MIE.
- ◆ Coordination et contribution à des actions européennes.
- ◆ Développement des activités de communication : plateforme (<https://i3m.aviesan.fr/>) et newsletters mensuelles.

**Informations :** [contact.i3m@inserm.fr](mailto:contact.i3m@inserm.fr)

# PROGRAMME DU COLLOQUE

Lundi 19 septembre 2022

**13h30**

## ACCUEIL CAFÉ

**14h00**

## INTRODUCTION

**Sylvie Guerder**, *Inserm / CNRS, Directrice de l'ITMO I3M*

**Yazdan Yazdanpanah**, *Inserm, Directeur de l'ITMO I3M & ANRS | MIE*

**Nicolas Fazilleau**, *Directeur d'Infinity*

**14h15**

## PRESENTATION DE L'ITMO I3M

**Sylvie Guerder**, *Inserm / CNRS, Directrice de l'ITMO I3M*

**Yazdan Yazdanpanah**, *Inserm, Directeur de l'ITMO I3M & ANRS | MIE*

**Evelyne Jouvin-Marche**, *Inserm, Directrice adjointe de l'ITMO I3M*

## SESSION 1 - IMMUNOLOGIE

### Modérateurs

**Sophie Laffont-Pradines**, *Infinity, Toulouse*

**Benjamin Terrier**, *Inserm, Directeur adjoint de l'ITMO I3M*

**14h45**

**Julie Helft**, *Institut Cochin, Paris*

- ◆ Macrophage subsets and T cell immunity in breast cancer

**15h15**

**Nicolas Serafini**, *Institut Pasteur, Paris*

- ◆ Role of ILC3 in intestinal immunosurveillance

**15h45**

**Fanny Lafouresse**, *CRCT, Toulouse*

- ◆ Regulation of tissue-resident memory CD8<sup>+</sup> T cells (TRM) in cancers

**16h00**

## PAUSE CAFÉ

**16h30**

**Bénédicte Manoury**, *INEM, Paris*

- ◆ Regulation of intracellular Toll-like receptors and their chaperone UNC93B1 in inflammatory diseases

# PROGRAMME DU COLLOQUE

Lundi 19 septembre 2022

## SESSION 2 – ACTUALITES SCIENTIFIQUES

### Modérateurs

**Nicolas Fazilleau**, *Directeur d'Infinity, Toulouse*

**Sylvie Guerder**, *Inserm / CNRS, Directrice de l'ITMO I3M*

**17h00**

**Christophe Cordevant**, *Anses, Maison-Alfort*

- ◆ Can animals outside Africa be affected by the ongoing Monkeypox outbreak, or even become key players?

**17h15**

**Fernando Real**, *CIL, Lille*

- ◆ A new compartment of human immunodeficiency virus (HIV) persistence: Platelets carry HIV in individuals under antiretroviral treatment

**17h30**

**Isabelle Fugier**, *Sanofi, Marcy-l'Etoile*

- ◆ Overview of Public Private partnership opportunities in France and in Europe

**17h45**

**PAUSE / Changement de Salle**

**18h00**

**TABLES RONDES : Le Partenariat Public - Privé**

*Animées par :*

**Marc Bonneville**, *Institut et Fondation Mérieux, Marcy-l'Etoile*

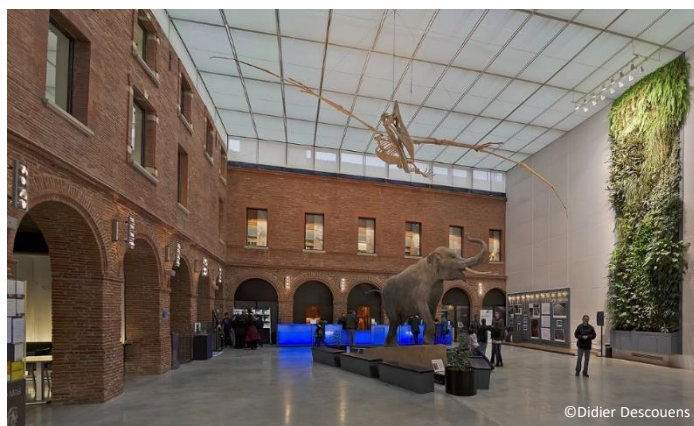
**Isabelle Fugier**, *Sanofi, Marcy-l'Etoile*

**Jean Lang**, *Sanofi, Marcy-l'Etoile*

**Franck Mouthon**, *France Biotech, Paris*

**19h00**

**DINER COCKTAIL**



# PROGRAMME DU COLLOQUE

Mardi 20 septembre 2022

**08h15**

**ACCUEIL**

## **SESSION 3 – INFLAMMATION**

**Modérateurs**

*Anne Astier, Infinity, Toulouse*

*Evelyne Jouvin-Marche, Inserm, Directrice adjointe de l'ITMO I3M*

**08h30**

*Anne Dejean, Infinity, Toulouse*

- ◆ Eomes in the regulation of CD4 T cell response during Neuroinflammation

**09h00**

*Thomas Henry, CIRI, Lyon*

- ◆ Pyrin inflammasome: from antibacterial response to autoinflammatory syndrome

**09h30**

## **KEYNOTE SPEAKER**

*Sophie Ugolini, CIML, Marseille*

- ◆ Neural regulation of immunity

**10h15**

**DISCUSSION GENERALE / FEEDBACK A PROPOS DES TABLES RONDES**

**10h30**

**PAUSE CAFÉ**

## **SESSION 4 – INFECTIOLOGIE/MICROBIOLOGIE**

**Modérateurs**

*Nicolas Blanchard, Infinity, Toulouse*

*Patricia Renesto, ITMO I3M*

**11h00**

*Laurent Meertens, Institut de Recherche Saint-Louis, Paris*

- ◆ Know the enemy: a toolkit to understand host-viruses molecular interactions

# PROGRAMME DU COLLOQUE

Mardi 20 septembre 2022

- 11h30**      **Estelle Marion, INCIT-Atomyca, Angers**  
♦ *Mycobacterium ulcerans*: from field ecology to-host pathogen interaction
- 12h00**      **Frédéric Bringaud, MFP, Bordeaux**  
♦ The trypanosome-specific subcellular compartmentalization leads to unique metabolic behaviors
- 12h30**      **Nadia Khelef, SGPI, Paris**  
♦ Presentation of National Acceleration Strategy for Emerging Infectious Diseases and CBRN Threats
- 12h40**      **CONCLUSIONS ET PERSPECTIVES**  
**Sylvie Guerder, Inserm / CNRS, Directrice de l'ITMO I3M**  
**Benjamin Terrier, Inserm, Directeur adjoint de l'ITMO I3M**
- 12h45**      **FIN DU COLLOQUE**





# PRESENTATIONS DES INTERVENANTS

## KEYNOTE SPEAKER



### **Sophie Ugolini**

DR1-Inserm, Aix Marseille Univ, CNRS, INSERM, Centre d'Immunologie de Marseille-Luminy, Marseille

Sophie Ugolini is a research director at the French Institute for Health and Medical Research (INSERM) and the head of the Neural Regulation of Immunity laboratory at the Marseille-Luminy Immunology Centre (CIML), France. Her principal research goal is to understand how innate and adaptive immune responses are regulated to establish potent antimicrobial and antitumor defense without inducing excessive inflammation and autoimmunity. She has used natural killer (NK) cells as a cell model for studying the mechanisms of immune tolerance and responsiveness from the molecular to the cellular and systemic levels. Her team has analysed the mechanisms of immune defense in various infectious and cancer models, in both humans and mice, by genetic and functional approaches.

More recently, she has been exploring the interactions between the nervous and immune systems. In particular, her laboratory has identified novel neuroimmune pathways playing a crucial role in the regulation of infectious diseases, inflammation and tissue repair. Among other distinctions, Sophie Ugolini received an European Research Council (ERC) award, the “Duquesne award” from the *Ligue nationale contre le cancer*, the “Research award” from INSERM and the “Dandrimont-Bénicourt award” from the *Institut de France*.

# PRESENTATIONS DES INTERVENANTS



## **Marc Bonneville**

Vice President in charge of Scientific and Medical Affairs – Institut Mérieux  
Scientific and Medical Director – Fondation Mérieux, Marcy-l'Etoile

Marc Bonneville, D.V.M. and CNRS research director, is a T cell specialist who has authored 200+ papers and co-invented 8 patents, co-founded a biotech company (Innate Pharma) and led an INSERM research center in Nantes for 15+ years. He joined the Mérieux group in 2013 as VP in charge of scientific and medical affairs, and has been from July 2020 onwards the scientific and medical director of Fondation Mérieux, a non-profit entity that fights infectious diseases through diagnostic and research capacity building in low resource countries. He has been chairing the Alliance for Research and Innovation of Healthcare Industries since 2016.



## **Frédéric Bringaud**

DR1 - CNRS, Laboratoire de Microbiologie Fondamentale et Pathogénicité  
UMR 5234 CNRS - Université de Bordeaux, Bordeaux

Frédéric Bringaud has been working for over 30 years on the molecular biology and metabolism of trypanosomes, with a particular focus in central carbon metabolism. After obtaining his PhD in 1992 on glucose transporters of trypanosomes, followed by a post-doc in Los Angeles on mitochondrial RNA editing in Leishmania, he was recruited at the CNRS in Bordeaux to work on trypanosome metabolism and mobile genetic elements. One of his main objectives is to elucidate the topology of the metabolic network, notably by discovering new metabolic pathways, and to understand regulations between the different metabolic branches.



### **Christophe Cordevant**

Senior Scientific Advisor / Knowledge Transfer Officer, Institute Representative OH EJP, Agence nationale de sécurité sanitaire de l'alimentation, de l'environnement et du travail (Anses), Maisons-Alfort

Christophe Cordevant is a member of the Strategic & Programs Department at Anses, as Senior Scientific Advisor for Microbiology since 2014. He has a 20 years' experience in molecular microbiology and typing in the field of foodborne zoonoses both at the Institut Pasteur of Lille and Bio-Rad. He is currently member of the Scientific Steering Board of the OH EJP and the Governing Board of the MedVetNet association. He is also implicated in institutional initiatives at national and international level like JPI AMR French mirror group, GMI, EU Sewage Sentinel System for SARS-CoV-2... Christophe is involved in both COVID19 and Monkeypox health crisis by representing Anses within the EMERGEN consortium.



### **Isabelle Fugier**

Head for R&D Partnerships & Stakeholders Engagement in France at Sanofi in the Vaccines division, Marcy-l'Etoile

Isabelle Fugier holds a Ph.D. in Immunology (CIML). After a 15 year-long scientific career in different Biotech, University or Research Institutes (in France and in the US), she joined the R&D Vaccines division at Sanofi in 2006. In this division, she held several positions with increasing responsibilities. Her scientific expertise is mainly on immunology and vaccinology and her transversal skills are on Project, team & alliance management with a good knowledge of the French and European health ecosystems and external public funding mechanisms.

# PRESENTATIONS DES INTERVENANTS



## **Julie Helft**

CRCN-Inserm, Université Paris Cité, INSERM U1016, CNRS UMR8104, Institut Cochin, Phagocytes and Cancer Immunology team, Paris

Julie Helft is an INSERM researcher leading the “Phagocyte and Cancer Immunology” lab at the Institut Cochin. Her career has been dedicated to decipher how mononuclear phagocytes regulate adaptive immunity. During her PhD (France) and post-doctoral trainings (US and UK), she studied the interactions between T cells and dendritic cells and dendritic cell ontogeny. In 2017, she started a research group at Institut Curie, working on macrophage biology in breast tumors. In 2020, she started her own lab at Institut Cochin which focuses on understanding the role of macrophages in regulating CD8+ T cell infiltration in tumors and on developing new immunotherapies targeting macrophage subsets



## **Thomas Henry**

DR2-Inserm, CIRI, Centre International de Recherche en Infectiologie, Univ Lyon, Inserm U1111, Université Claude Bernard Lyon 1, CNRS, UMR5308, ENS de Lyon, Lyon

Thomas Henry obtained his PhD in 2005 at the CIML in the team of JP Gorvel. He then joined Denise Monack laboratory at Stanford University to work on the innate immune defenses to a zoonotic pathogen replicating in the macrophage cytosol, *Francisella tularensis*. In 2010, he created his team in Lyon thanks to a starting package from the FINOVI foundation and an ERC grant. TH is Research Director (DR2) at Inserm since 2015. In CIRI, his team focuses on innate immunity and particularly on innate immune complexes termed inflammasomes. His team studies inflammasomes in antibacterial defenses (with the model pathogen *Francisella tularensis*) and in autoinflammatory diseases (including Familial Mediterranean Fever).



### **Nadia Khelef**

Coordinator of the National Acceleration Strategy on Emerging Infectious Diseases and CBRN threats at Secrétariat Général pour l'Investissement

Nadia Khelef was trained as microbiologist and has worked as researcher in the field of infectious diseases for more than 15 years in France and in the US. Nadia has then been successively manager Grants office, responsible for EU affairs at the Institut Pasteur, and contributor to the setting up of Bioaster, a Public Private Partnership dedicated to accelerate the translation of biomedical discoveries in the field of infectious diseases. Nadia has served as diplomatic advisor to the French Minister of Higher Education and Research and Sherpa of the DG and Senior Advisor for Global Affairs, in charge of relations with global health international organizations. More recently, she was Head of Public Private Partnerships at Institut Pasteur. She is now Coordinator of the National Acceleration Strategy on Emerging Infectious Diseases and CBRN threats at Secretariat General pour l'Investissement, which pilots the France 2030 programme, investing in research, innovation, industry and training to transform key sectors of the national economy.



### **Fanny Lafouresse**

CRCN - Inserm, Centre de Recherches en Cancérologie de Toulouse (CRCT), Inserm, CNRS, Université Toulouse III-Paul Sabatier, Toulouse

Fanny Lafouresse is an early career scientist at the Centre de Recherches en Cancérologie de Toulouse (CRCT). She obtained a PhD in Immunology and Infectious Disease from the University of Toulouse III, France, in 2012. After a first postdoctoral training at the Institut de Pharmacologie et de Biologie Structurale (IPBS) in Toulouse, she moved to the Walter and Eliza Hall Institute (WEHI), in Melbourne, Australia, in 2015. Together, she studied lymphocyte trafficking and activation in different pathological conditions both in human and mouse models. Currently, she is developing and coordinating a new research thematic studying tissue-resident memory CD8<sup>+</sup> T cell regulation in cancers.

# PRESENTATIONS DES INTERVENANTS



## **Nadine Laguette**

CR – CNRS, Equipe Bases Moléculaires de l'Inflammation, Institut de Génétique Humaine, CNRS UMR9002, Université de Montpellier, Montpellier

Nadine Laguette joined the Institute of Human genetics in Montpellier in 2009 after completing her PhD at the Institut Cochin in Paris. She was recruited by the CNRS in 2021 and started her research group within the IGH in 2015. Together with her team, they study the molecular mechanisms involved in the initiation and maintenance of inflammatory responses in order to decipher how the dysregulation of these pathways leads to pathological outcomes and their impact on general homeostasis. The ultimate goal they pursue is to identify novel means to prevent inflammation-associated deleterious outcomes in human pathologies.



## **Jean Lang**

Global Head VR&D Scientific Networks & Partnerships, VR&D External Scientific Affairs, Sanofi, Marcy-l'Etoile

Jean Lang started his Research & Development (R&D) within the Pharmaceutical Industry in 1988 before joining Sanofi Pasteur R&D. From 1995 to 2014 his main R&D focus was Dengue. He worked with 15 countries/multiple clinical trial sites of Latin America and Asia, leading the end-to-end epidemiology to Phase III efficacy trials process during 10 years. His key R&D principles were capacity building and knowledge transfer. Dengue vaccine dossier filings were done in Asia and Latin America first and 20 licensures were obtained by 2018. Since 2014, he has led a variety of R&D-focused Public Private Global Health driven projects (e.g., HIV, Malaria, ETEC, Zika, rabie, yellow fever, SARS-CoVs). He is involved in the current COVID-19 outbreak vaccine preparedness and response.



### **Bénédicte Manoury**

DR1 - CNRS, Institut Necker Enfants Malades, INSERM U1151-CNRS  
UMR 8253, Université Paris Cité, Faculté de Médecine Necker, Paris

Bénédicte Manoury studied biochemistry and cell biology at the University Pierre and Marie Curie in Paris. She was awarded a PhD in Immunology at the University René Descartes and an EMBO long-term post-doctoral fellowship to work in the laboratory of Pr C Watts in Dundee studying antigen presentation in dendritic cells. She came back to Paris to start her own team in 2004 supported by an ATIP-Avenir grant (INSERM). She is now the head of the « Immune response and Danger signals » group at the Institut Necker Enfants Malades where she studies endosomal Toll-like receptor activation in inflammatory diseases.



### **Estelle Marion**

CRCN-Inserm, Atomyca team, label Equipe FRM, unité Inserm  
"Immunology and New Concepts in ImmunoTherapy" INCIT UMR 1302,  
Université d'Angers, Angers

Estelle Marion is a microbiologist investigating host-pathogens interactions in Buruli ulcer. In this disease, the pathogen, *Mycobacterium ulcerans*, causes severe cutaneous lesions and blocks the pain. During her PhD, she demonstrated that analgesia occurs through a specific neural pathway activated by mycolacton, the *M. ulcerans* secreted toxin. She then accepted a postdoctoral position in a hospital located in a rural area of Benin, devoted exclusively to the Buruli ulcer patients care. Upon her return to France, she works in close relationship with the medical staff. She now participates in the understanding of this neglected tropical disease pathophysiology and the identification of environmental factors contributing to disease incidence.

# PRESENTATIONS DES INTERVENANTS



## **Laurent Meertens**

CR1 - Inserm, Équipe Biologie des Virus Émergents, Université Paris Cité, INSERM U944 CNRS 7212, Institut de Recherche Saint-Louis, Hôpital Saint-Louis, Paris

During his 4 years of postdoctoral position in Dr. Dragic's lab at the Albert Einstein College of Medicine (NY), in which he studied the mechanism of Hepatitis C virus entry, Laurent Meertens developed a deep interest in the understanding of the molecular interactions that viruses establish with host cells during infection. When he joined Ali Amara team in 2008, this topic became his main research axis with a focus on emerging/reemerging viruses. Since, he carried out several proteomic and genetic approaches to identify host factors involved in dengue, chikungunya and, more recently, SARS-CoV-2 viruses infectious cycle, some of which could represent valuable antiviral drug targets.



## **Fernando Real**

CRCN - CNRS, Centre d'Infection et d'Immunité de Lille, INSERM U1019, CNRS UMR 9017, Institut Pasteur de Lille, Lille

CNRS researcher since 2020, Fernando Real is a Brazilian researcher with a PhD degree from the Universidade Federal de São Paulo, Brazil, and an Habilitation à Diriger des Recherches (HDR) from the Université Paris Cité, France. Fernando has been studying the mechanisms of pathogen persistence in host cells, focused on immunology and cell biology of the interplay between myeloid cells and the intracellular pathogens *Leishmania* spp., HIV and SARS-COV-2. He's currently investigating the connection between platelets and megakaryocytes hosting these viruses and their detrimental effects on immune cell dysfunctions.





### **Nicolas Serafini**

CR-Inserm, Innate Immunity Unit, Institut Pasteur, Inserm U1223, Paris

In 2010, Nicolas Serafini obtained his doctorate in Immunology from the Université de Paris, where he studied calcium homeostasis in myeloid cells in Pr. Renato Monteiro's lab under the direction of Dr. Pierre Launay. He completed his post-doctoral experience in Pr. James Di Santo's lab at the Institut Pasteur, working on innate lymphoid cells (ILCs) development. In 2015, he became an INSERM permanent scientist to develop a project on the spatio-temporal regulation of intestinal ILCs. The research goal of the team is to understand how environmental cues affect ILC behavior and function.







(c) Xavier BENECH

Avec tous nos remerciements  
aux intervenants et aux modérateurs

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alliance nationale  
pour les sciences de la vie et de la santé **ITMO I3M**  
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Avec le soutien de la Délégation régionale du CNRS Occitanie Ouest et de  
l'Institut Toulousain des Maladies Infectieuses et Inflammatoires (Infinity)

### Membres des Comités d'Organisation et Scientifique

**ITMO I3M** : Ulrich Blank, Michel Cogné, Marie-France Delauw,  
Sylvie Guerder, Evelyne Jouvin-Marche, Anne-Claire Langlois,  
Emilie Noguez, Patricia Renesto, Tomwesso Tchangbalarang et  
Angelica Tellier-Terawaki.

**Infinity** : Bénédicte Benech et Sophie Laffont-Pradines.

**Restons en contact !**

**Inscription à la newsletter I3M et diffusion de vos offres**  
**contact.i3m@inserm.fr**

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- ANRS | MIE : <https://www.anrs.fr/>
- PPR AMR : <https://ppr-antibioresistance.inserm.fr/>
- RFMTN : <https://www.rfmtn.fr/>