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2025 Scientific Days of the ANRS Emerging infectious diseases

The challenges of international research

1 and 2 April 2025

PRESS KIT

Institut Pasteur Conference Center, Paris

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MEETING THE CHALLENGES OF INTERNATIONAL RESEARCH

Editorial by Prof. Yazdan Yazdanpanah, *director of ANRS Emerging infectious diseases*

On behalf of ANRS Emerging infectious diseases, I am very pleased to welcome all our partners to Paris for our fourth Science Days.

This major event will enable 400 members of the ANRS MIE national and international scientific community, its institutional, university, hospital and association partners and its teams in France and abroad to meet up to hold discussions, share their knowledge, and strengthen their cooperation on the diseases within their scope.

ANRS MIE, which operates autonomously of Inserm, is a key institution in combating endemic and emerging infectious diseases. It is also one of the only French research agencies to fund and support international research projects, which account for a quarter of its funding. International cooperation is essential to prepare for and prevent epidemics, and to detect, control and treat them when they do occur.

We have thus chosen to devote these Science Days to "international challenges", and these challenges have never been greater. With climate change looming as a threat to the future of humanity, it will have escaped no one that the geopolitical context has changed in recent weeks, with serious repercussions from across the Atlantic.

The recent measures taken by the United States administration are cause for concern in the international scientific and medical community. Not only do they affect researchers in the United States, they also have repercussions throughout the world.

While we reiterate our solidarity with our colleagues who are affected, we must also take note of the consequences of these measures for international research and, beyond that, for global public health. Numerous projects have been carried out in conjunction with the United States – some of which are being presented during our Science Days – and it remains a leading source of funding. These collaborations have produced considerable results, both in the richest countries and in those with low or intermediate resources, particularly in the field of HIV/AIDS and communicable diseases. No ideology should be allowed to compromise these partnerships, which have the potential to make great progress.

This unprecedented context is a reminder of just how much the place and role of France and Europe needs to be strengthened. In the face of U.S. withdrawal, it is more urgent than ever to encourage the coordination, leadership and promotion of cross-cutting, collaborative and multidisciplinary research.

International scientific cooperation is fundamental to tackling the health challenges facing the world. Only this can save lives.

A university professor and hospital practitioner since 2006, Yazdan Yazdanpanah is an internationally recognised specialist in infectious diseases. Professor of medicine at Paris-Cité University and head of the infectious and tropical diseases department at Bichat-Claude-Bernard Hospital (Paris Hospitals - APHP) since 2012, he has also been director of the Inserm thematic institute for immunology, inflammation, infectiology and microbiology (IT I3M) since 2017.

SCIENTIFIC DAYS OF THE ANRS EMERGING INFECTIOUS DISEASES

THE CHALLENGES OF INTERNATIONAL RESEARCH

IN SUMMARY

Against the background of increased epidemic risks and the growing impact of environmental and societal crises on public health, research must be based on collaboration, adaptation and innovation. ANRS Emerging infectious diseases has thus chosen to devote its 2025 Science Days to the "challenges faced by international research".

With a packed programme, these two days will provide an opportunity to share progress and prospects, both in preventing, detecting and responding to epidemics and in terms of innovation. At a time when scientific research is under threat in the United States, this meeting is an opportunity to highlight the urgent need for cooperation between international players.

BOOSTING SCIENTIFIC RESEARCH THROUGH INTERNATIONAL COOPERATION

Infectious diseases know no borders, so since its creation ANRS MIE has been involved in efforts to combat epidemics on an international scale. It leads and coordinates a network of key partners, bringing together various research and health institutions and authorities, particularly in low- and middle-income countries. In France, West and Central Africa, South-East Asia and Brazil, this international network aims to bring together players, define research priorities and pool resources. This collaborative approach is being strengthened by the gradual introduction, from 2022 onwards, of international research platforms in global health (PRISME). These collaborations boost research by linking different countries and different institutions, not only in human health but also, where possible, in animal and environmental health. Examples include HIV-associated tuberculosis with sub-Saharan Africa and Cambodia (through the DATURA project), the ELDORADO trial of antiretroviral combination therapy in HIV-infected patients, conducted in collaboration with Brazil, Cambodia, Cameroon and Côte d'Ivoire, research on arboviral diseases with Brazil, the establishment of a global network for clinical research on emerging diseases, led largely by the United States (STRIVE project), and an African network for genomic monitoring and research in sub-Saharan Africa with Africa CDC (Afroscreen). Other examples include research into hepatitis B (the HIPOCAMP project) and the prevention of mother-to-child transmission of the virus in Burkina Faso, Cameroon, Côte d'Ivoire, Togo, Cambodia and Vietnam, and the study of dengue fever in South-East Asia (the SEA-ROADS project) to develop a system for monitoring vector-borne diseases in the context of climate change.
Producing and sharing scientific knowledge and making it accessible is indeed crucial for all our societies. Close partnerships between scientists in the United States, France and other countries are currently helping to prepare for and respond to new pandemics. ANRS MIE considers that input from the United States is essential to provide a coordinated global response to health challenges, and that the place of their researchers must be preserved within international networks.

MONITORING AND RESPONDING TO EMERGING DISEASES THROUGH COORDINATION AND INNOVATION

In France and internationally, ANRS MIE plays a central role in supporting the preparation of responses to future infectious threats, but also as a benchmark player, an inter-institutional coordinator and a catalyst for research when an epidemic occurs. It can then set in motion a scientific leadership and monitoring procedure to respond rapidly to health crises, through a multi-modal system comprising several scalable levels of response depending on the severity of the epidemic outbreak. In recent months, it has activated "Emergence Units" for epidemics of mpox, avian influenza, Marburg virus, Sudan ebolavirus and Oropouche. Lastly, ANRS MIE has been appointed by the WHO to coordinate the collaborative open research consortium (CORC) dedicated to filoviruses. CORCs are an innovative WHO initiative designed to help implement a rapid response to emerging health threats.

Apart from coordination, innovation also means adapting international research to emerging diseases.

For example, the AIR-POP project, led by ANRS MIE in Guinea, has demonstrated that the use of drones to transport samples for the early detection of HIV in infants could be an effective solution, and it could potentially be transposed to meet other urgent medical needs. The "Beyond TB Cure" project, funded by ANRS MIE as part of the call for proposals launched jointly with the South African SAMRC, aims to assess pulmonary and subclinical tuberculosis using advanced AI technology. It is helping to make progress with adjuvant therapies and in analysing imaging. These tools can be very important when there is an outbreak.

2025 Scientific Days

The challenges of international research

April 1st and 2nd, 2025

At the Institut Pasteur

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PROGRAMME

Tuesday 1st April 2025

9.30am
10am
Welcome coffee

INTRODUCTION

10am - 10.30am
Philippe Baptiste, Minister for Higher Education and Research, France
Didier Samuel, Chairman and Chief Executive Officer of Inserm, France
Yazdan Yazdanpanah, Director of ANRS Emerging infectious diseases, France

KEYNOTE

10.30am - 11am
An overview of the major issues in international research: experiences from Cambodia
Saphonn Vonthanak (University of Health Science, Cambodia)

SESSION 1 — Preparation and prevention: global approaches in action

Moderation: Marie Jaspard (ALIMA, *hôpital Saint-Antoine AP-HP,* Sorbonne University, Inserm, iPLesp, France) and **Abdoulaye Touré** (CERFIG, Gamal Abdel Nasser University, Guinea)

11am - 11.30am
STRIVE: A global research network for clinical studies of infectious diseases
Linda Wittkop (Inserm, University of Bordeaux, Isped, France)
and **Anani Badje** (PAC-CI, Ivory Coast)

11.30am - 12pm
Challenges, positions and resources for international research ("One Health" approach)
Costanza Puppo (CIP - Lyon 1 University, PÔPS - *université Lumière Lyon 2,* France)

12pm - 12.30pm
International Franco-Congolese cooperation to combat zoonoses: the TTHALESS tuberculosis study
Frédéric Le Gal (Avicenna Hospital AP-HP, Paris 13 University, Inserm, France)
and **Luis Flores Giron** (Lwiro Primate Rehabilitation Centre, Democratic Republic of the Congo)

12.30pm - 2 pm
Lunch break — **Posters session**

SESSION 1 *(continued)* — Preparation and prevention: global approaches in action

Moderation: Marie Jaspard (ALIMA, *hôpital Saint-Antoine AP-HP,* Sorbonne University, Inserm, iPLesp, France) and **Abdoulaye Touré** (CERFIG, Gamal Abdel Nasser University, Guinea)

2pm - 2.30pm
BeReady Now European Partnership
Hervé Raoul (ANRS Emerging infectious diseases, France)

2.30pm - 3pm
Durable: Delivering a Unified Research Alliance of Biomedical and public health Laboratories against Epidemics
Jean-Claude Manuguerra (*Institut Pasteur,* France)

3pm - 3.15pm YOUNG SCIENTIST
A global approach to monitoring and controlling arboviruses in Burkina Faso
Bachirou Tinto (IRSS, *centre MURAZ,* Burkina Faso)

3.15pm - 4pm
Coffee break — **Networking corner**

SESSION 2 — Detecting and controlling: the urgency of emergencies

Moderation: Anca Streinu-Cercel (Carol Davila University of Medicine and Pharmacy, Romania) and **Mireille Mpoudi** (Ministry of Defence, ANRS Emerging infectious diseases, Cameroon)

4pm - 4.30pm
International clinical research on mpox: results of the Unity and Palm 007 projects
Alexandra Calmy (Geneva University Hospitals, Switzerland)
and **Placide Mbala** (INRB, Kinshasa University, Democratic Republic of the Congo)

4.30pm - 5pm
Contribution of genomics in the response to epidemics
Eddy Kinganda-Lusamaki (INRB, Unikin, Democratic Republic of the Congo; TransVIHMI, IRD, France)

5pm - 5.30pm
Avian influenza: research projects at Anses
Béatrice Grasland (Anses, Ploufragan-Plouzané-Niort Laboratory, France)

5.30pm - 6pm
Wastewater-based monitoring to track Poliovirus in French Guiana
Stéphanie Raffestin *(Institut Pasteur de la Guyane,* France)

6pm - 6.30pm
Oropouche and other arboviroses in the Amazon basin
Daniele Medeiros (Evandro Chagas Institute, Aggeu Magalhães Institute, Brazil)

6.30pm - 6.45pm YOUNG SCIENTIST
Impact of insecticides on the *Wolbachia*-induced 'pathogen-blocking' in *Ae. aegypti*
Benjamin Dupuis *(Institut Pasteur*, France)

6.45pm
Cocktail reception — **Networking corner**

PROGRAMME

Wednesday 2 April 2025

8.30am
9am
Welcome coffee

LATE-BREAKER

9am - 9.30am
Global health at risk: the fallout from cuts in US funding
David Paltiel (Yale School of Public Health, USA)

9.30am - 9.45am
Modelling the impact of PEPFAR withdrawal in West Africa: preliminary results
Romain Silhol (Imperial College London, HPTN modelling centre, United Kingdom)

KEYNOTE

9.45am - 10.15am
HIV Long acting: state of knowledge and access to treatment
Meg Doherty (WHO, Switzerland), **Philippe Duneton** (Unitaid, Switzerland) and **Carmen Perez-Casas** (Unitaid, Switzerland)

SESSION 3 — Research in times of crisis

Moderation: Fatoumata Hane (UASZ, IEFSG, Senegal) and **Klaudia Porten** (Epicentre, France)

10.15am - 10.45am
The health of trans women and MSM during the COVID-19 pandemic in Brazil: the ANRS Cobra study
Dulce Ferraz *(Université Lumière Lyon 2,* France ; Fiocruz, Brasil)

10.45am - 11.15am
Digital tools to quantify the impact of climate change on infectious disease risk
Rachel Lowe (Barcelona Supercomputing Center, Spain)

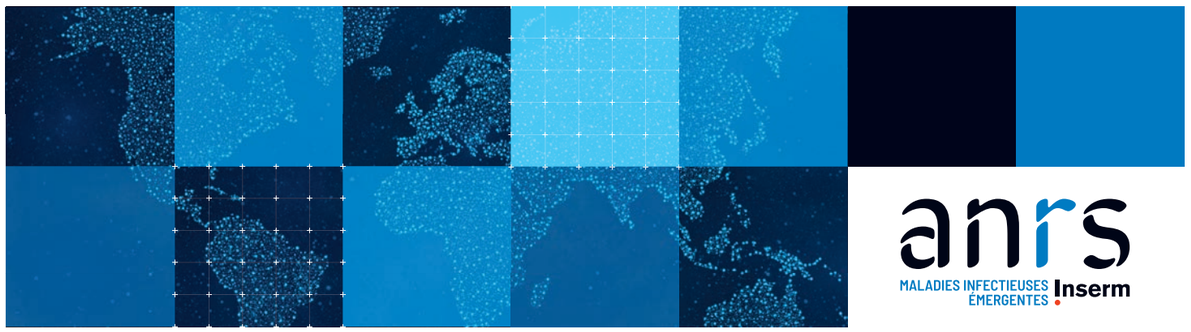
11.15am - 11.45am
Journey to Haiti: sexual violence experienced by women in French Guiana
Leslie Alcouffe (Amazonian Population Health Institute, Cayenne Hospital, France)

11.45am - 12.15pm
Research experience in times of crisis: the COVID4P project in Burkina Faso
Adama Sana (CNRST, IRSS, Centre MURAZ, Burkina Faso)

12.15pm - 12.30pm YOUNG SCIENTIST
Modelling the spread of chikungunya in Reunion Island
Lina Cristancho Fajardo *(Institut Pasteur,* Paris Cité University, Inserm, CNRS, France)

12.30pm - 1.30pm

Lunch break | **Posters session**



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SESSION 4 — Innovation and access: transforming diagnostic and therapeutic approaches

Moderation: Renaud Becquet (Inserm, IRD, University of Bordeaux, France) and **Boubacar Djelo Diallo** (Ignace Deen University Hospital, Guinea)

1.30pm - 2pm
Prevention of mother-to-child transmission of hepatitis B: the HIPOCAMP study
Didier Ekouevi (University of Lomé, Center for Training and Research in Public Health, Togo)

2pm - 2.30pm
Allogeneic stem cell transplantation to cure HIV: the international experience of IciStem
Javier Martínez-Picado *(Institució Catalana de Recerca i Estudis Avançats,* Spain)

2.30pm - 3pm
Cervical cancer screening in women living with HIV: methods and challenges in AIMA-CC
Apollinaire Horo (Felix Houphouët-Boigny University, University Hospital of Yopougon, Ivory Coast) and **Pierre Debeaudrap** (Ceped, IRD, France)

3pm - 3.30pm

Coffee break | **Networking corner**

3.30pm - 4pm
The indispensable role of NGOs in the development of projects in LMICs: the example of SCDI in Vietnam
Khuat Thi Hai Oanh (SCDI, Vietnam)

4pm - 4.30pm
Using drones in Guinea to improve diagnosis and transport samples: the AIR-POP project
Gabrièle Laborde Balen (CRCF, Fann National University Hospital, Senegal ; TransVIHMI, France)

4.30pm - 5pm
DATURA: Tuberculosis in adults and adolescents with severe immunodepression
Bindiya Meggi *(Instituto Nacional da Saúde,* Mozambique)

5pm - 5.15pm YOUNG SCIENTIST
How can we improve the diagnosis of invasive fungal infections in people living with HIV?
Aude Struny-Leclère *(Institut Pasteur,* France)

Closure
5.15pm - 5.30pm
Anne-Claire Amprou, Ambassador for Global Health, France
Yazdan Yazdanpanah, Director of ANRS Emerging infectious diseases, France
Yasmine Belkaid, President of the Institut Pasteur, France

5.30pm
End of the 2025 Scientific Days

01. BOOSTING SCIENTIFIC COOPERATION

THROUGH THE ANRS MIE INTERNATIONAL NETWORK

ANRS MIE is a French research support agency whose mission is to lead, assess, coordinate and fund multidisciplinary research aimed at eliminating HIV/AIDS, sexually transmitted infections (STIs), viral hepatitis and tuberculosis as public health problems and ensuring that emerging infectious diseases are no longer a threat.

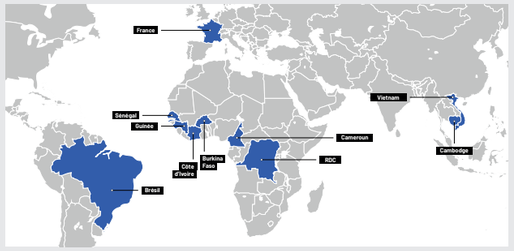
An autonomous agency of Inserm, it supports research to provide scientific responses to infectious diseases in times of crisis and over the long term and is part of an international effort to combat epidemics.

As such, it leads and coordinates a network of key partners from France and low- and middle-income countries (LMICs), known as the "international network".

This network was set up in the 1990s in the context of combating the HIV/AIDS epidemic, when the agency made it one of its core missions to support the development of research in low- and middle-income countries (LMICs) by strengthening and structuring existing scientific collaboration between local and French teams through formal institutional partnerships and by providing financial support.

Over the past 30 years, this has made it possible to build and coordinate a dense, diverse and evolving network, bringing together partners from research and academic institutions (national public health institutes, methodology and management centres, research laboratories, universities), hospitals, donors, ministries and embassies, and local and national associations involved across the entire spectrum of research into infectious diseases.

Today, **the international network is made up of 9 partnerships bringing** together various research and health institutions and authorities based in **France, sub-Saharan Africa, South-East Asia and Brazil** (see map).



The ANRS Emerging infectious diseases international network creates a particularly favourable context for strengthening and expanding scientific, technical and academic cooperation. It facilitates reflection, the joint construction of ideas and, ultimately, the development of research projects.

Éric D'Ortenzio
Physician, clinician and epidemiologist
Director of the strategy and partnerships department, ANRS MIE

There are two types of partnership within the network: partner sites, which were the first partnerships created in the 1990s, and international research platforms in global health (PRISME), which have been developed since 2022.

Members of the international network:

- Côte d'Ivoire PRISME
- Guinea PRISME
- Democratic Republic of the Congo PRISME
- Brazil partner site
- Burkina Faso partner site
- Cambodia partner site
- Cameroon partner site
- Senegal partner site
- Vietnam partner site

The international network aims to:
***Bring together research players** in France and in partner countries; **define a common scientific strategy and agenda,** taking the needs of each country into account; **optimise** use of technical, human and financial resources for research.*

Specifically, the members of the international network:

*Identify research **priorities**; set up thematic working groups and **networks**; jointly develop and implement research **projects**; train research teams and support young **researchers**; strengthen research **infrastructure**; share knowledge and communicate results to improve public **policy**; **mobilise** research teams in the event of an epidemic.*

The network's member partners are encouraged to strengthen their collaboration to carry out activities on a regional or even international scale, in particular by setting up multi-country projects and developing training courses. They also interact with other local and international institutions, networks and alliances.

International research platforms in global health (PRISME) :

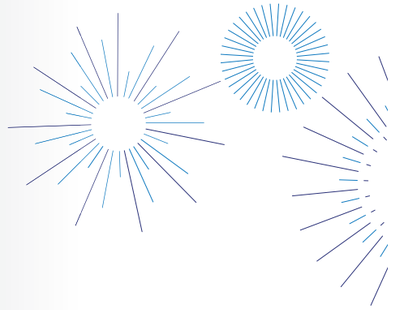
To build a more cohesive dynamic and to include emerging infectious diseases at the centre of its international scientific partnerships,

ANRS MIE created a new model of innovative partnership in 2022: international research platforms in global health (PRISME).

The strength of this new model of collaboration, which is inclusive and adaptable to each partnership, is that it brings together various French and local institutions around a **common scientific, technical and academic cooperation project.** It provides a forum for pooling the human, technical and financial resources of its members, enabling the development of innovative, high-impact research projects.

Three PRISME platforms are currently in place with **Guinea, the Democratic Republic of Congo (DRC) and Côte d'Ivoire.**

DATURA, A RESEARCH PROJECT LED BY THE ANRS MIE INTERNATIONAL NETWORK



Focus

The DATURA study aims to determine an appropriate treatment for tuberculosis in adults and adolescents living with HIV. Implemented since 2020 in five African countries (Cameroon, Guinea, Uganda, Zambia and Mozambique) and in Cambodia, it is a perfect illustration of the cooperative work performed by the ANRS MIE international network.

The World Health Organisation (WHO) estimates that around 9.9 million people contracted tuberculosis in 2020. Of these, 9% were co-infected with HIV and accounted for 19% of all deaths due to tuberculosis. Around 72% of patients co-infected with tuberculosis and HIV live in Africa. The mortality rate among patients co-infected with tuberculosis and HIV remains unacceptably high, despite good access to anti-tuberculosis treatment and early initiation of antiretroviral therapy (ART).

Led by the ANRS MIE international network, the DATURA study is a clinical trial to assess the efficacy of intensified anti-tuberculosis treatment against tuberculosis mortality in immunocompromised patients (hospitalised adolescents and adults) living with HIV. Its aim is to study therapy combining increased doses of antibiotics with a corticosteroid.

The trial sites were deliberately chosen in the four regions of sub-Saharan Africa (West, Central, East and South) to potentially target different circulating TB strains, different host genetic factors (e.g. relating to drug catabolism) and, overall, the diversity of healthcare provision in Africa. The therapy should also help to improve equal rights to appropriate care for patients, whatever the resources and level of the local healthcare system. The DATURA results should be applicable to the whole of sub-Saharan Africa. The inclusion of an Asian site further strengthens the potential for widespread application of the therapy.

Find out more about the ANRS DATURA study: https://datura.w.uib.no

Launched in May 2020 for a period of 54 months, the DATURA study will provide an assessment of the impact of this treatment on mortality at 48 weeks. Other secondary assessment criteria include analysis of mortality at 8 and 24 weeks, tolerance to treatment, success of tuberculosis treatment, and the response to antiretroviral therapy. If the therapy proves as successful as expected (reducing mortality by one-third), and if it leads to improvement in public health policies, thousands of deaths from tuberculosis could be avoided in Africa every year. The study is nearing completion, and initial results will be published shortly.

PARTNER INSTITUTIONS

- Institut National de la Santé et de la Recherche Médicale (French Institute of Health and Medical Research), Montpellier, France
- Nantes University Hospital, France
- Institute of Research for Development (IRD), France
- Médecins sans frontières, France
- University of Bergen, Norway
- Ignace Deen National Hospital, Conakry, Guinea
- Yaoundé Central Hospital, Cameroon
- University Hospital, Lusaka, Zambia
- Mbarara University of Science and Technology, Uganda
- Institut Pasteur – Cambodia, Phnom Penh, Cambodia
- National HIV/AIDS and STD Dermatology Centre, Phnom Penh, Cambodia
- Instituto Nacional de Saúde, Maputo, Mozambique

2. MONITORING AND RESPONDING TO EPIDEMICS

OF EMERGING INFECTIOUS DISEASES

While it plays a central supporting role in preparing for future threats from infectious diseases, ANRS MIE also plays a role in the French and international scientific landscape in the research response to epidemics that arise and that fall within its scope. It thus acts as a benchmark player and a catalyst for research.

In the event of emerging or re-emerging epidemics in France or abroad, ANRS MIE can trigger a scientific leadership and monitoring procedure to respond rapidly to health crises. It has set up a **mechanism with different levels of response, depending on the severity of an epidemic outbreak.**

Level 0

Surveying: setting up scientific monitoring, producing scientific information (chronology of the epidemiology of the disease, monitoring of scientific articles, general information on the disease, recommendations from health agencies, etc.).

Level 1

Enhanced vigilance: definition of research priorities with an expert group, international consultation, mobilisation of seed funding from “emergency funds”.

Level 2

Mobilising research: mobilising funding for top-down projects or via flash calls for proposals based on defined research priorities.

Level 3

Alert for a coordinated research response: implementation of specific response measures in consultation with all players in French research, activation of a crisis mechanism (funding, acceleration, prioritisation).

In 2024, the ANRS MIE epidemic monitoring and response unit produced 9 scientific briefs and made a significant contribution to scientific monitoring.

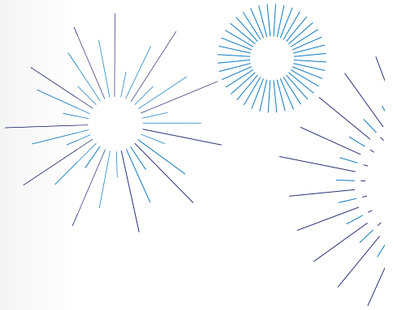
The agency has also activated **four Emergence Units** for the mpox epidemic in the Democratic Republic of the Congo and West and Central Africa, H5N1 avian influenza (level 0 then level 1) and the Oropouche virus.

These Emergence Units are in permanent contact with Europe and its Health Emergency Preparedness and Response Authority (HERA), in particular through the Coordination Mechanism for Cohorts and Trials (COMECT) of which ANRS MIE is a member, and with the international community through the coordination of the ANRS MIE international network, the World Health Organisation Collaborative Open Research Centre on Filoviruses, which ANRS MIE also coordinates, and the agency’s active participation in the Global Research Collaboration for Infectious Disease Preparedness (GLOPID-R) and the Pandemic Pact.

As soon as it was set up, ANRS MIE was mobilised alongside the French health and research ministries to respond to the Covid-19 pandemic through an unprecedented mechanism for organising research (the ad hoc research prioritisation committee). It was then called on to provide a response, through research, to other lower-impact epidemics, and was structured and equipped with a multi-level response system.

Armelle Pasquet-Cadre
Physician specialising in infectious and tropical diseases
Head of the epidemic monitoring and response unit at ANRS MIE

THE MPX-RESPONSE PROJECT AND THE UNITY TRIAL: A RESPONSE TO COMBAT MPOX



Focus

In May 2022, there was an outbreak of a major worldwide epidemic of mpox (monkeypox). A recent spike in Africa and the emergence of a new viral clade highlight the continuing challenges posed by this disease and the need for solid data on treatments. Led by ANRS MIE, UNITY is a clinical trial designed to assess the efficacy of an antiviral agent.

In 2022, the World Health Organisation (WHO) declared that the epidemic outbreak of mpox in several countries constituted a “public health emergency of international concern”. The end of the emergency was announced a year later, but reported cases were kept under surveillance as the threat of further epidemics remained real. Since November 2023, an unprecedented smallpox epidemic has been reported in the Democratic Republic of Congo (DRC) and has spread to several African countries, caused by various viral clades and in particular by the newly identified clade Ib.

A better understanding of the disease is needed to develop effective strategies for the care and treatment of patients and thus avoid a global health crisis.

Convened by the WHO and ANRS MIE, an expert group has been tasked with drawing up a basic protocol designed to promote global collaboration: the MPX-RESPONSE project. In addition to ANRS MIE, the project involves around fifteen leading international scientific partners, including Fundação Oswaldo Cruz - Fiocruz (Brazil), Fundaçión Huésped (Argentina), Oslo University Hospital (Norway), the Universities of Geneva and Basel (Switzerland) and Paris Hospitals - APHP (France). This project is funded by the European Commission.

The MPX-RESPONSE project comprises three clinical trials designed to assess the safety and efficacy of an antiviral medication for the treatment of human mpox (tecovirimat), and to obtain marketing authorisation if the results are positive. Among these three trials, UNITY is coordinated and funded by ANRS MIE, and is being conducted in Argentina, Brazil and Switzerland. More than 500 people have been included in this trial, which will soon be able to provide the international scientific and medical community with unique data on the efficacy of the drug under assessment.

The MOSAIC cohort is an observational study that aims to deepen our understanding of the clinical and virological outcomes of patients diagnosed with mpox, by providing a comprehensive overview of the natural history of the disease. In addition to the EU countries, the MOSAIC cohort includes the United Kingdom and Switzerland. Oxford University is the study sponsor and ANRS MIE is the sponsor’s representative in the European Union.

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Using research to respond to global health challenges

Scan me to find out more about our international activities!

3. STRENGTHENING SCIENTIFIC COOPERATION

BETWEEN FRANCE AND BRAZIL ON ARBOVIRUSES: THE “ONE HEALTH” APPROACH

RESPONDING TO THE GROWING THREAT OF ARBOVIRUSES

Arboviral diseases are caused by arboviruses (arthropod-borne viruses), i.e. viruses transmitted to humans and/or other vertebrates by certain types of blood-feeding arthropod (mosquitoes, ticks, sand flies and Culicoides). They transmit the pathogen when they feed on blood, after biting an infected individual or animal. Arboviral diseases include dengue fever, Zika and chikungunya, among others.

Arboviruses circulate mainly in tropical or subtropical regions, but in recent years there has been an increase in the description of indigenous cases in temperate regions, including Europe and mainland France. They comprise approximately 500 viruses, of which a hundred or so are pathogenic for humans. They belong to different genera, such as flaviviruses (yellow fever virus, dengue virus, Zika, Usutu virus, West Nile virus, tick-borne encephalitis virus, etc.) and alphaviruses (chikungunya). Some arboviruses can cause viral haemorrhagic fevers (e.g. Rift Valley fever or Crimean-Congo haemorrhagic fever).

Under the leadership of ANRS MIE, the multidisciplinary and multi-institutional Arbo-France group is a network for monitoring and research into human and animal arboviral diseases in mainland France and its overseas territories.

Arboviruses such as dengue virus, chikungunya, Zika and the Oropouche virus represent a growing threat, exacerbated by factors such as climate change and rapid urbanisation. The Amazon basin, which also includes French Guiana, is particularly vulnerable to the emergence of these diseases. It is thus a strategic site for studying these viruses and preparing for future health crises in a coordinated way.

The “One Health” approach, which links human, animal and environmental health, is crucial here. Brazil and France, with their complementary areas of expertise, are working together to share their knowledge and develop joint projects. These efforts are all the more important given the recent spate of dengue fever cases and the spread of the Oropouche epidemic in Brazil.

STRUCTURING COOPERATION BETWEEN FRANCE AND BRAZIL

Last October, Instituto Evandro Chagas and ANRS MIE, with the support of the French Embassy in Brazil and in partnership with the Arbo-France network, organised a workshop in Belém (Brazil) on the theme of “improving preparedness and response to global arboviruses through research collaboration”. It provided an opportunity to discuss potential synergies between the French and Brazilian research networks and to pave the way for the design of joint national and international projects to address the global health issues raised by arboviruses.

The continued development of Franco-Brazilian research on arboviruses will be one of the priorities for cooperation between ANRS MIE and its Brazilian partners in 2025, and the organisation of a France-Brazil season would help to intensify this collaborative dynamic in the field of health.

> *The One Health approach links human, animal and environmental health. This is particularly important in the face of the spread of arboviruses, which is now a global health priority, particularly for Brazil and France.*
>
> **Marion Fanjat**
> ***Deputy manager of the strategy and partnerships department, ANRS MIE***

4. PRESERVING THE PLACE OF U.S. RESEARCHERS

IN THE INTERNATIONAL SCIENTIFIC COMMUNITY

Producing and sharing scientific knowledge and making it accessible is crucial for all our societies. As such, ANRS MIE supports several thematic research networks with the aim of bringing together and structuring the scientific community around specific research topics, expertise and tools.

These networks make it easier to set up cross-cutting research projects, ensure broad territorial coverage, support skill-building among their members, harmonise practices and share tools and documentary resources, provide a forum for discussions on the network's theme, and increase the visibility of French research and partnerships in Europe and internationally.

Among them, the network of methodology and management centres (CMGs) is a group of entities providing support to ANRS MIE in promoting, coordinating and developing clinical studies.

The CMGs benefit from multi-year cross-cutting funding, shared tools and support with quality assurance. They are heavily involved in the clinical research platforms run by the agency, whether nationally (e.g. OPEN-ReMIE and IREIVAC-Emergence), in Europe (Proact-Eu-Response) or internationally (STRIVE). They play a major role in scientific leadership and the structuring of research, particularly in relation to regulatory aspects, open data, etc.

U.S. researchers are at the forefront of these international networks.

It is thus legitimate to be concerned about the measures announced by the Trump administration concerning their status and their work, and the sciences more generally. The withdrawal of the United States from the World Health Organisation (WHO), budget cuts in public health and research, the suspension of USAID (United States Agency for International Development) programmes, and restrictions imposed on the Pepfar (President's Emergency Plan for AIDS Relief) programme all threaten scientific cooperation and global health.

No country is capable of advancing public health on its own, or of protecting its population effectively in the event of a pandemic. Joint international efforts are imperative, and countries with low or intermediate resources cannot be left on their own.

ANRS MIE understands just how much U.S. knowledge and funding have led to numerous advances in both prevention and treatment. Close partnerships between scientists in the United States, France and other countries are currently helping to prepare for and respond to new epidemics. The United States must not compromise current collaborations: their role is essential in helping to structure and coordinate international clinical research networks.

> *Research is synonymous with emancipation, so long as it advances science and hence public health. It concerns all societies throughout the world and cannot be held back by ideologies. Supporting international scientific cooperation is also a way of guaranteeing democracy.*
>
> **Pr Yazdan Yazdanpanah,**
> ***Director of ANRS MIE***

STRIVE, A GLOBAL RESEARCH NETWORK FOR CLINICAL STUDIES ON INFECTIOUS DISEASES, UNDER U.S. GOVERNANCE

Focus

The work of the STRIVE network on pathogens, a priority in combating pandemics, is an example of international cooperation in which the United States plays a full part.

Launched in November 2023 in the wake of the Covid-19 pandemic, and following in the footsteps of the INSIGHT network (International Network for Strategic Initiatives in Global HIV Trials), the STRIVE network (Strategies & Treatments for Respiratory Infections and Viral Emergencies) aims to conduct international clinical trials and observational studies to assess the effectiveness of therapeutic strategies on adults with emerging infectious diseases. The aim is also to have an "ever-warm clinical research network" ready for use in the event of an epidemic/pandemic.

Governance of the STRIVE network is provided by a scientific steering committee which advises an executive committee. In all, more than 300 hospitals are involved worldwide, half of them in the United States but spread across 44 countries and six continents. As the International Coordination Centre (ICC), ANRS MIE has mobilised not only French hospitals but also sites from its international network, such as Côte d'Ivoire and Guinea, to build this unique network.

The research conducted by STRIVE is mainly funded by the National Institute of Allergy and Infectious Diseases (NIAID), one of the National Institutes of Health (NIH). All the data is analysed by the University of Minnesota, and its standardisation is a major factor in facilitating its use.

The two trials currently under way are to assess an antiviral medication (ensitrelvir) and an immunomodulator (abatacept) in hospitalised patients with Covid-19. SARS-CoV-2 can trigger a deregulated immune response, and previous studies have shown that early immunomodulation is likely to improve the course of the disease.

At the same time, an observational study (IC-SARI) designed to describe the pathogens causing severe respiratory infection in immunocompromised hospital patients is currently being finalised, and should involve around fifty sites worldwide. The lead investigator for this study is a French researcher (Prof. Linda Wittkop). Within this study, it is important to note that a sub-study aimed at assessing the diversity, equality and inclusion of participants and teams (healthcare workers and ICCs) has been suspended following recent decisions by the U.S. administration.

Two other trials are in preparation, one looking at the efficacy of corticosteroids in patients suffering from viral respiratory diseases, and the other at the efficacy of antiviral therapy in patients suffering from dengue fever (in gestation). For the latter, various sites in the ANRS MIE international network have been proposed, notably in Burkina Faso, Côte d'Ivoire and Guinea, as well as centres in Overseas France.

To date, NIH funding for all these studies has been confirmed.

5. SUPPORTING INTERNATIONAL RESEARCH THROUGH INNOVATION

THE AIR-POP PROJECT: USING DRONES TO REDUCE THE TIME TAKEN TO GET SAMPLES TO THE LABORATORY

Early detection of HIV in infants whose mothers are living with the virus is crucial if infected children are to receive immediate care. Supported by ANRS MIE, the AIR-POP project, led by Solthis and the Donka National Hospital in Conakry, Guinea, aims to carry out a cost-effectiveness modelling study on the use of drones to meet the challenge of road congestion in Conakry, which remains a major obstacle to the rapid delivery of blood samples to laboratories and emergency supplies to health centres.

Every year, 160,000 children are born with HIV worldwide, one-third of them in West and Central Africa where the transmission rate is 19.6%. The WHO recommends rapid screening of infants exposed to the virus so that treatment can be initiated before the age of eight weeks, as absence of care leads to increased mortality between the age of two and three months. However, in Guinea, where HIV prevalence is relatively low (1.7%), screening remains inadequate, not least because of the time taken to get samples to central laboratories, which can be as much as two to three months. This delay compromises the rapid initiation of treatment for infected infants.

A pilot study has shown that using drones to transport samples could be an effective, well-accepted and economically viable solution. The AIR-POP project thus aims to trial this approach on a larger scale at 20 prevention of mother-to-child transmission (PMTCT) sites in Conakry and Boké.

The main aim of the project is to measure the impact of drone transport on the accessibility and rapidity of early HIV screening for newborns, by comparing the proportion of children tested and the time taken to deliver the results with the current road transport method. The aim is also to assess the retention of children in the care pathway up to the age of nine months.

The study has several components. From a clinical and virological point of view, it will make it possible to analyse the effects of drone transport on the treatment cascade, in particular by measuring the reduction in time taken to obtain results and its impact on the rapid initiation of treatment. In terms of implementation, the aim is to test the feasibility of this strategy in both urban Conakry and rural Boké. The study will also look at the conditions for more widespread deployment, taking into account criteria such as acceptability to the public and healthcare workers, cost-effectiveness, environmental impact and optimisation of the drone transport network. Lastly, a public health component will explore the possible uses of drones for other medical emergencies, such as the delivery of blood bags or essential drugs.

The data collected will be used to support the introduction of a similar transport system in other countries in the region and to obtain funding for its large-scale deployment, notably through The Global Fund to Fight AIDS, Tuberculosis and Malaria. This should pave the way for wider use for other urgent medical needs and thus contribute to the overall improvement of healthcare in Guinea and West Africa.

ANNEXES

ANRS Emerging infectious diseases

ANRS Emerging infectious diseases, created on 1 January 2021, is an autonomous agency of Inserm. Its remit is to lead, evaluate, coordinate and fund research into HIV/AIDS, viral hepatitis, sexually transmitted infections, tuberculosis and emerging and re-emerging infectious diseases (in particular emerging respiratory infections, including Covid-19, viral haemorrhagic fevers and arboviral diseases).

The agency covers all areas of research:
basic, clinical, public health, and human and social sciences. Its organisation focuses on innovation and strengthening international partnerships.

With a "One Health" approach, covering human and animal health and the impact of humans on the environment, the agency is preparing the response to the scientific challenges posed by emerging diseases and the deployment of this response in times of crisis.

ANRS Emerging infectious diseases comes under the supervision of the French research and health ministries. It is directed by Prof. Yazdan Yazdanpanah.

The agency brings together and leads several national and international networks of researchers and physicians employed by the main research organisations, universities, hospitals and associations. Patients' associations and representatives of civil society are fully involved in its governance and operation.

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Scientific Committee of the 2025 ANRS MIE Scientific Days

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