



## Interdependence among human, animal and environmental health: holistic approach needed to tackle future pandemics

- The climate crisis, overpopulation and a hyperconnected, globalized world make us the animal species most susceptible to pandemics like the current one.
- To prevent future threats and be better prepared for dealing with them, we have to adopt a 'one health' approach: considering human health as it relates to animal and environmental health.
- On November 16 and 17, the "la Caixa" Foundation and Biocat are hosting the international conference "Pandemics: Overcoming Covid-19 and preparing for the future". This virtual event will bring together top experts in global health, including María Neira, director of Environment, Climate Change and Health at the World Health Organization (WHO).

**Barcelona, 11 of november 2021.** Humans are the animal species most susceptible to future pandemics like this one caused by SARS-CoV-2. Humans and domesticated animals make up 96% of all mammals on earth, which means the 8 billion people living on this planet are the main target for pathogens. Plus, we are hyperconnected in a globalized world that is increasingly feeling the effects of the climate crisis, where the destruction of natural habitats and lack of resources changes contact patterns among wild species.

"All of these factors increase the risk of new outbreaks of infectious diseases that could lead to epidemics like this one," warns Rachel Lowe, associate professor and Royal Society Dorothy Hodgkin Fellow at the London School of Hygiene and Tropical Medicine, who will take part in the CaixaResearch conference "[Pandemics: Overcoming Covid-19 and preparing for the future](#)" on November 16 and 17. Promoted by the "[la Caixa](#)" Foundation and [Biocat](#), the event will be held virtually and led by the [Barcelona Institute for Global Health \(ISGlobal\)](#) and the [IrsiCaixa AIDS Research Institute](#).

"If we want to prevent pandemics and be better prepared to deal with them, we can't keep thinking exclusively of human health, as if we were isolated. We need a holistic approach and to start considering our connections to animal and



environmental health,” added Lowe, an expert in climate and health who will soon be joining the Barcelona Supercomputing Center (BSC-CNS) as an ICREA researcher.

Previous epidemics in recent years, like SARS, the bird flu and Ebola, already showed the spread of the conditions necessary for pathogens to jump from wildlife to humans and the need to adopt a **‘One Health’** perspective, meaning a transdisciplinary approach to stopping them. However, over the past 20 years, despite devoting much time and effort to initiatives attempting to identify emerging pathogens with pandemic potential, which haven’t been fruitful, the measures needed to be better prepared or avoid these threats haven’t been implemented. “We’ve lacked investment in public health, in aligned epidemiological vigilance systems that can raise the alarm; in infrastructures, education and communication to combat disinformation; in giving both low- and high-income countries the ability to contain new outbreaks,” explains Carolyn Reynolds, who heads up the Pandemic Action Network initiative.

To look at the lessons learned over the past two years and debate how we can prepare for future pandemics, researchers from all over the planet will take part in the CaixaResearch **conference “Pandemics: Overcoming Covid-19 and preparing for the future”**, which already has 1,400 registered participants. “There will be more pandemics like Covid-19 and we have to be prepared to handle them,” highlights Julià Blanco, IrsiCaixa researcher and member of the scientific committee for the event with Denise Naniche, researcher and scientific director at ISGlobal. “It is crucial that we reflect on what we’ve learned from the SARS-CoV-2 healthcare crisis,” he adds.

“The measures we’ve implemented in recent years to reduce risks were based on a mistaken narrative, focusing on low-income countries and nature as the potential source of new outbreaks when high-income countries are more at risk of developing and spreading these new pathogens,” highlights Richard Kock, researcher at the Royal Veterinary College at the University of London. He believes it is crucial to invest in resources that strengthen public healthcare and cooperation among countries to promote global health.

In this regard, the first day of sessions will **focus on the tools to combat Covid-19** that have been developed in record time, mobilizing unprecedented resources for research: from vaccines to quick diagnostic tests and antiviral treatments. A scientific success story based on prior research and development that has been a true revolution in the field of infectious diseases.

Scientific committee:



The second day will reflect on **which strategies should be implemented to prevent a repeat of this type of pandemic**, focusing on 'one health' and the need for global equality. Because, although Covid-19 vaccines have been developed extremely fast, distribution and administration is far from equal. The situation in high-income countries, with large percentages of the population fully vaccinated, contrasts with the figure of under 3.5% vaccinated in Africa.

Some of the most noteworthy speakers taking part in the conference include **María Neira**, director of Environment, Climate Change and Health at the World Health Organization (WHO); **Adolfo García-Sastre**, virologist at the Global Health and Emerging Pathogens Institute of Icahn School of Medicine at Mount Sinai, US; **Daniel Prieto-Alhambra**, professor of pharmaco-epidemiology at Oxford University; **Nathalie Strub-Vergouft**, director of the Neglected Tropical Diseases (NTDs) initiative and the Covid-19 committee at The Lancet; and **Miguel Luengo-Oroz**, chief data scientist for UN Global Pulse, the United Nations initiative to apply big data and AI to sustainable development and humanitarian actions.

The full program for the conference is available here:

<https://event.meetmaps.com/caixaresearchconference/en/landing>

#### **Speakers available to media:**

*Julià Blanco*, IrsiCaixa researcher and member of the scientific committee for the event.

*Rachel Lowe*, associate professor and Royal Society Dorothy Hodgkin Fellow at the London School of Hygiene and Tropical Medicine.

*Denise Naniche*, researcher and scientific director at ISGlobal and member of the scientific committee for the event.

#### **FOR MORE INFORMATION AND INTERVIEWS:**

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**#CaixaResearchPandemics**

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