

PANDEMICS ANALYTICS 2025

Forward

The International Conference on Pandemics Analytics (PANDEMICS ANALYTICS 2025) continues a series of events targeting lessons learned from past and current pandemics and building a basis for pandemic science analytics. The focus is on models for preparedness, awareness, use of medical achievements (such as short-time vaccine development), promptly developed logistics (vaccine production, supply coordination, vaccinations, quarantines), as well as on handling hospital capacity and personnel. The conference was held on October 26-30, 2025 in Barcelona, Spain.

A pandemic is defined as a widespread occurrence of a disease, at a global level, and affecting a large number of people. Pandemics are rare, but their effects are deeply damaging to society. Continuous actions on prevention and control of infectious diseases exist, coordinated by national and international bodies, such as the World Health Organization (WHO). In pre-pandemic times, citizen preparedness has mainly focused on the early warning and early monitoring of infectious diseases. Local/global health research uses data gathering and visualization, usually via dashboards. Research cooperation between countries is generally on an 'as needed' basis.

Limiting the impact of pandemics on citizens' lives (including social, economic, and educational aspects) requires the adoption of the best tools by all parties involved. These tools include Big Data for real-time accurate reports, AI-based decisions for supplies delivery scheduling, high speed and secure communications, as well as means for combating fake news on social networks and countering the offenders.

We take this opportunity to thank all the members of the PANDEMICS ANALYTICS 2025 Technical Program Committee as well as the numerous reviewers. We also kindly thank all the authors who dedicated much of their time and efforts to contribute to the PANDEMICS ANALYTICS 2025.

This event could also not have been a reality without the support of many individuals, organizations, and sponsors. We are grateful to the members of the PANDEMICS ANALYTICS 2025 organizing committee for their help in handling the logistics and for their work to make this professional meeting a success.

We hope the PANDEMICS ANALYTICS 2025 was a successful international forum for the exchange of ideas and results between academia and industry and to promote further progress with respect to pandemic science analytics. We also hope that Barcelona provided a pleasant environment during the conference and everyone saved some time for exploring this beautiful city

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