

Members of MIRRI's Italian Node integrate the BY-COVID consortium

MIRRI, the pan-European research infrastructure for microbial resources, takes part in a new EU project for pandemic preparedness

Braga (Portugal) and Turin (Italy), 29 October 2021 – It has been officially launched a new €12 million Horizon Europe funded project, BeYond-COVID (BY-COVID), which will tackle the data challenges that can hinder effective pandemic response. The core aim of the project is to ensure that data on SARS-CoV-2 and other infectious diseases can be found and used by everyone.

BY-COVID is an interdisciplinary project that unites life science, medical, policy, social science and public health experts from across Europe. Led by ELIXIR, the project has 53 partners from 20 European countries. It will run for three years and is part of the European Commission's HERA Incubator plan "Anticipating together the threat of COVID-19 variants".

MIRRI, the pan-European distributed Research Infrastructure for the preservation, study, provision and valorisation of microbial resources and biodiversity, will take part in the project BY-COVID through the participation of three of the member organisations of its Italian node, MIRRI-IT, namely: Ospedale Policlinico San Martino (USMI), Istituto Zooprofilattico Sperimentale delle Venezie (IZSve), and Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia Romagna (IZSLER).

According to its Executive Director, Luís Soares, "*MIRRI has a pivotal role to play on the response to microbial-related emergencies, since we bring together a comprehensive set of resources, data, services and expertise, coming from our many partner organisations, which provide real added-value for researchers and companies working in the field of human and human-animal infectious diseases, or in the development of new diagnostic or therapeutic solutions*".

Paolo Romano, principal investigator of MIRRI-IT in the project, adds that "*the contribution provided by MIRRI partners to BY-COVID, while relatively limited in person-month effort, is very relevant for the best results of the project. The contribution of the Ospedale Policlinico San Martino will bring important knowledge and expertise in the health domain, while the other MIRRI-IT partners will provide a unique expertise in the domain of veterinary health and especially in infective diseases of zoonotic origin*".

The project BY-COVID, in a nutshell *

BY-COVID will build and expand upon the successful COVID-19 Data Platform, a resource initiated in the early stages of the pandemic and led by EMBL-EBI. Since its launch, many countries have established their own national data hubs, which ensures that data produced locally can be instantaneously connected and shared with the main COVID-19 Data Portal. Rather than focus purely on providing technical solutions to the biological data, BY-COVID will work with partners such as the Versatile emerging infectious disease Observatory (VEO) and the Public Health Information Research Infrastructure (PHIRI) to incorporate data from a broader range of disciplines, including public health and social sciences.

The BY-COVID project strives to simplify data access and reuse through four key pillars:

- Mobilise data – ensuring raw sequencing data from across the world can be easily submitted to core data hubs.
- Connect data – build the technical capacity to allow linking of sequence data and metadata, expanding beyond scientific and medical data to broader metadata from, for example, public health and economics, and support integration to the COVID-19 Data Portal.
- Standardise data – provide recommended data management protocols to encourage Findable, Accessible, Interoperable and Reusable (FAIR) data standards and interoperability among resources.
- Expose and analyse data – support exposure and analysis of FAIR data on infectious diseases such as the regular VEO reports on mutations and variation in publicly shared SARS-CoV-2 data and the open COVID-19 Galaxy analysis platform.

* Adapted from BY-COVID. For more information, please visit the BY-COVID website at <https://by-covid.org/>.

About MIRRI:

The **Microbial Resource Research Infrastructure (MIRRI)** is the pan-European distributed Research Infrastructure for the preservation, systematic investigation, provision and valorisation of microbial resources and biodiversity. It brings together 50+ microbial domain Biological Resource Centres (mBRCs), culture collections and research institutes from ten European countries and one associated country, namely: Belgium, France, Greece, Italy, Latvia, Netherlands, Poland, Portugal (headquarters), Romania, Russia and Spain. MIRRI serves the bioscience and the bioindustry communities by facilitating the access, through a single point, to the broadest range of high-quality microorganisms, their derivatives, associated data and services, with a special focus on the domains of Health & Food, Agro-Food, and Environment & Energy. By serving its users, by collaborating with other research infrastructures and by working with public authorities and policy makers, MIRRI contributes to the advancement of research and innovation in life sciences and biotechnology, as well as for a sustainable, competitive and resilient bioeconomy. More information and contacts: www.mirri.org | <https://www.linkedin.com/company/microbial-resource-research-infrastructure/> | info@mirri.org

About MIRRI-IT:

The Joint Research Unit MIRRI-IT is aimed at the implementation of the Italian node of MIRRI and at the development of the Italian network of collections of microbial resources. Its mission is to overcome fragmentation in availability of resources and services, enhancing the quality management system of the collections, while focusing on needs and challenges of the stakeholders interested in the biotechnological transfer of these resources. MIRRI-IT currently includes five partners and 18 associated partners from Universities, Public Research Institutes and Hospitals. Partners are active in many domains of interest for microbial resources, including food and nutrition, agriculture, forestry and environment, as well as human and animal health. For more information see www.mirri-it.it or get in touch by email with info@mirri-it.it.

