

BBMRI.it Directory of COVID-19 biobanks and collections

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INTRODUCTION

Italy has been dramatically at the forefront of the COVID-19 pandemic, being the first European country to experience the COVID-19 outbreak.

AIM

To structure a coordinated and extensive biobanking action all over the country

METHOD

Set up a COVID-19 dedicated section of the BBMRI.it portal

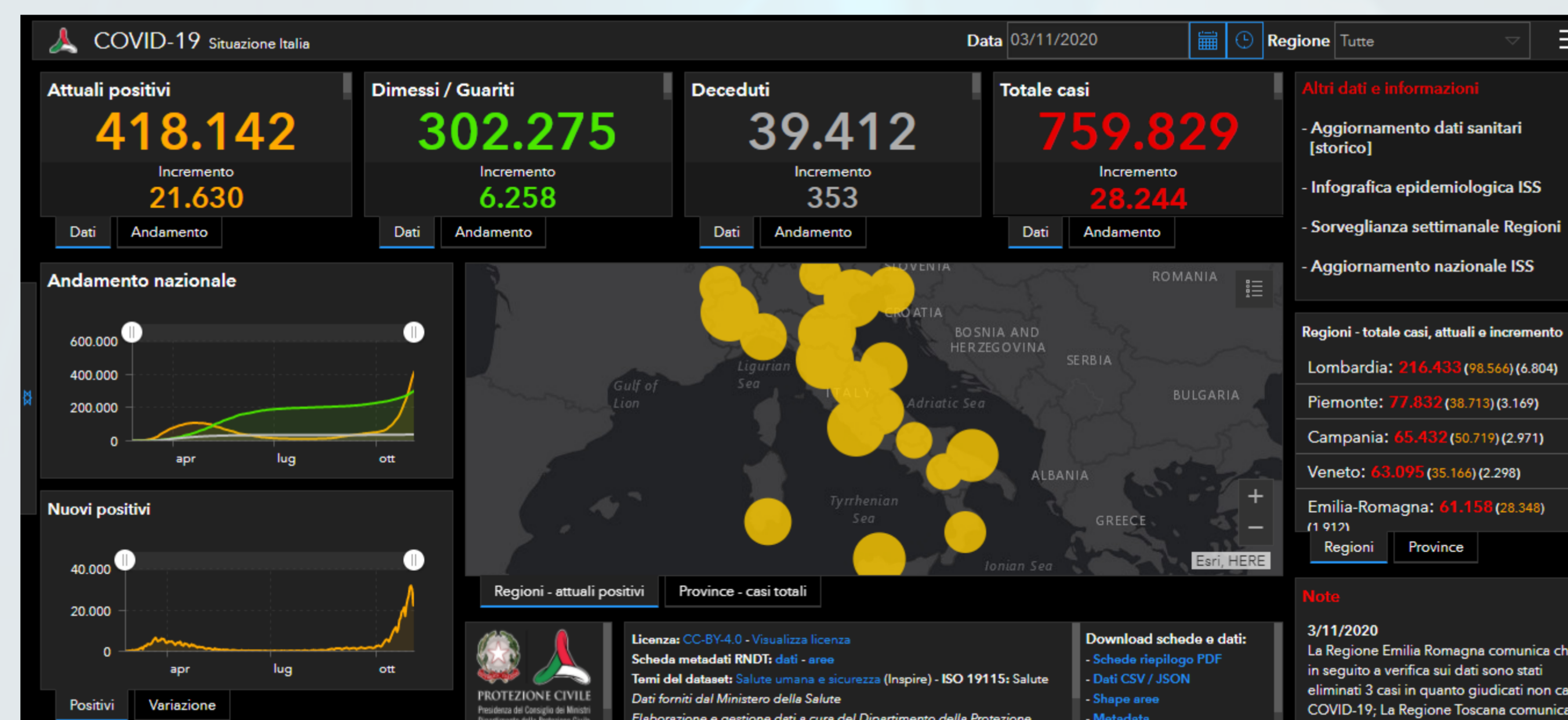
Launch a survey among Italian biobanks in order to promote sharing of resources.

Create a Directory of COVID-19 collections

RESULTS

A COVID-19 dedicated section of the BBMRI.it portal has been set up <https://www.bbmri.it/en/biobanche-covid19/>. A Directory of COVID-19 collections has been created, including bioresources available in 18 Italian institutions:

- **Prospective clinical cohorts:** adult patients (10 cohorts; >10.500 patients; >82.000 samples); elderly patients (2 cohorts; 1.650 patients; 9.800 samples); pediatric patients (1 small cohort 58 children; >230 samples)
- **Prospective cohorts from healthcare workers** (5 cohorts; 4.900 individuals; 8.950 samples)
- **Swab leftover samples** from different Italian Regions (>12.000 samples)
- **Post mortem tissue collections** (complete autopsy of 59 patients).



COVID-19, situation in Italy, November 3rd 2020

CONCLUSIONS

Patient care has the highest priority. The next challenge, however, is to support those who are finding a cure for COVID-19. This is a challenging situation because this falls in the area between clinical care, public health and clinical research. Biobanks can provide a key service to researchers, such as the efficient and high-quality storage of samples in clinical and research settings.

COLONNE	RICERCA AVANZATA	Cerca:
NOME	ISTITUZIONE	COLLEZIONE COVID-19
Centro Risorse Biologiche - Ospedale San Raffaele	IRCCS Ospedale San Raffaele	YES ✓
COVID-19 Policlinico Tor Vergata	Policlinico Tor Vergata	YES ✓
COVID-19 ASST Bergamo	Divisione di Immunematologia e Medicina Trasfusionale ASST Papa Giovanni XXIII di Bergamo	YES ✓
COVID-19 Biocr	Università degli studi di Milano-IRCCS POLICLINICO SAN DONATO	YES ✓
COVID-19 BIOGEM	BIOGEM scari	YES ✓
COVID-19 Don Gnocchi	Fondazione don Gnocchi IRCCS Milano	YES ✓
COVID-19 Gemelli Roma	Policlinico Universitario Fondazione Agostino Gemelli	YES ✓
COVID-19 IRCCS San Matteo	UOC Microbiologia e Virologia Fondazione IRCCS Policlinico San Matteo Pavia	YES ✓
COVID-19 PTP	PTP Science Park Scari	YES ✓

AIM of the action

- ✓ samples (swabs, blood and derivatives, BAL, DNA)
- ✓ radiological data (lung HRCT/CT, brain MRI, kidney/abdominal CT)
- ✓ laboratory data (basic lab results, IL-6, D-dimers, anti-Sars-CoV-2 antibody titer)
- ✓ demographic data

Promote access to

- ✓ pathogenesis of the disease
- ✓ dynamics of viral replication (infectivity assays from respiratory and non-respiratory samples)
- ✓ kinetics of immune response mediated by cells and antibodies (blood samples)
- ✓ inflammation and thrombosis triggered by SARS-CoV-2 infection
- ✓ SARS-CoV-2 genetic variants and the genetic susceptibility of hosts
- ✓ role of (multiple) comorbidities linked to age and frailty in the outcome of the disease
- ✓ invasion of SARS-CoV-2 and damage at different anatomical sites

In order to study

REFERENCES

[Persistence of Anti-SARS-CoV-2 Antibodies in Non-Hospitalized COVID-19 Convalescent Health Care Workers](#). Bruni M, Cecatiello V, Diaz-Basabe A, Lattanzi G, Mileti E, Monzani S, Pirovano L, Rizzelli F, Visintin C, Bonizzi G, Giani M, Lavitrano M, Faravelli S, Forneris F, Caprioli F, Pellicci PG, Natoli G, Pasqualato S, Mapelli M, Facciotti F. J Clin Med. 2020 Oct 1;9(10):3188. doi: 10.3390/jcm9103188. PMID: 33019628 Free PMC article.

CONTACT INFORMATION

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