

Research Infrastructures and COVID-19 Research



ACCELERATE is funded by the European Union Framework Programme for Research and Innovation Horizon 2020, under grant agreement 731112



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Responses to the questionnaire

Elettra-Sincrotrone Trieste S.C.p.A.

Elettra Sincrotrone Trieste is a multidisciplinary international research center of excellence, specialized in generating high quality synchrotron and free-electron laser light and applying it in materials and life sciences. We develop excellence by providing state-of-the-art services for high-quality, internationally recognized research, thus contributing to enhance the positive impact and relevance of science on society. For more details see: <https://www.elettra.eu/about/index.html>

SERVICE/S IMPLEMENTED

Elettra - Sincrotrone Trieste aims to actively contribute to COVID-19 research, giving special priority to urgent Coronavirus specific research projects. Researchers from all over the world have now the possibility to remotely access a group of relevant Elettra/FERMI beamlines, where to perform their experiments on a priority basis.

What stage in COVID-19 intervention your RI is addressing?

High-Precision Structure Determination of relevant biological systems (3D protein structure and details on the interaction sites; 3D molecular structure of drug candidates; Structural characterization of possible drug contenders using powder diffraction); X-ray Imaging and Tomography, XRF (Micrometric and sub-micrometric morphological and chemical imaging with relevance to COVID-19 research); IR-spectroscopy (Micrometric and sub-micrometric chemical imaging with relevance to COVID-19 research); Conformational studies of protein-ligand interaction by FTIR spectroscopy); Soft X-ray Transient Absorption on viral drugs

Instruments/databases involved:

Elettra beamlines (XRD1-XRD2-SYRMEP-MCX-SISSI-Bio and TwinMic) and FERMI beamlines

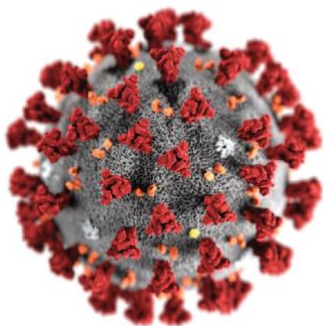
How is the proposal submitted?

<https://www.elettra.eu/userarea/covid-19-virus-elettra-rapid-access-proposals.html>

Who evaluates the proposal?

Peer-review: Internal COVID-19 Rapid Access Scientific Panel. External experts will be consulted when needed, also concerning ethical issues

Is the submission continuous, or linked to a deadline?



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Continuous

- **What is the estimated time from the submission to the access / service provision?**

2-3 weeks

CHARACTERISTICS OF THE ACCESS

Restrictions: No

In the case of analytical facilities, modality of access allowed: Remote access only

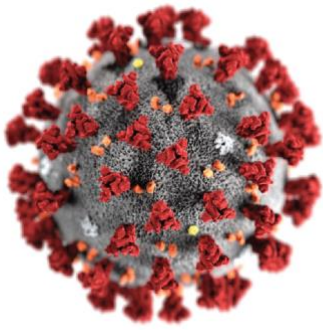
Comment for remote access only: Experiments will be performed by sample mailing. They will be remotely performed by users when possible, alternatively by the BL scientists guided by users.

Analytical Facilities: If on-site access is allowed, is mobility support available?	YES
All RIs: Is the access free for non-proprietary research?	YES
All RIs: Is commercial access available at reduced prices?	NO
Analytical Facilities: Are there limitations regarding the type of samples?	YES
Analytical Facilities: Are there special requirements for shipment of the samples?	YES
Analytical Facilities: Are there specific requirements regarding the preparation or handling of the samples?	YES

Additional comments related to the questions above: Services for proprietary research are provided by Elettra ILO. Biosafety at the beamlines does not allow to perform experiment with infective samples. Therefore, experiments with non-infective samples, such as viral proteins, fixed pulmonary tissues, candidate SARS-CoV2 drugs, are allowed

ACCESSIBILITY OF THE PUBLICATION AND DATA

Is there any requirement to publish in open access journals?	NO
Is the data generated associated to metadata and is it publicly available?	YES
If yes, what is the embargo period?	Three-year embargo period, renewable for additional two years upon request of the Principal Investigator (PI)
Where is the data or metadata published? (e.g. in the institution's catalogue, in other open data repositories, etc).	Three-year embargo period, renewable for additional two



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Do you have further comments about data or metadata?	The preferred data format is HDF but not all the experimental station support it yet