

MISSIONE 4
ISTRUZIONE
RICERCA

POTENTIATING THE ITALIAN CAPACITY FOR STRUCTURAL BIOLOGY SERVICES IN INSTRUCT-ERIC



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Italiadomani
PIANO NAZIONALE
DI RIPRESA E RESILIENZA

Panel di riferimento: **H&F**

Titolo della Proposta: **Potentiating the Italian Capacity for Structural Biology Services in Instruct-ERIC**

Codice della proposta: **IR0000009**

Tipologia: **(i) - Empowering**

Proponente: **CNR**

Infrastruttura di Ricerca: **INSTRUCT-ERIC - Integrated Structural Biology Infrastructure**

Importo totale: **17.977.617,89€**

Di cui al Sud: **7.255.761,23€ (40,36%)**

Abstract:

Instruct-ERIC is a distributed, ESFRI landmark RI that provides peer-reviewed access to all high-end technologies, methods, expertise, and training in structural biology (SB). Italy participates in Instruct since its inception, with a key role in the construction and governance of this RI. The Italian center, Instruct IT, operates through CERM/CIRMMP, hosted by the University of Florence. Its long-standing expertise and top-notch instrumentation make Instruct IT the reference center for NMR in Instruct-ERIC. Instruct IT has also promoted Instruct-ITALIA to reinforce the exploitation of Instruct IT and of the whole Instruct-ERIC by Italian SB scientists. CNR is the Italian Representing Entity in Instruct-ERIC. The present ITACA.SB project gathers excellent CNR SB facilities featuring the skills and instruments that best complement CERM/CIRMMP in providing access to the full SB portfolio.

ITACA.SB will:

- 1) significantly upgrade the NMR instrumentation at CERM/CIRMMP
- 2) potentiate the sample production capabilities – a known bottleneck in SB
- 3) enhance access to new X-ray, cryo-EM, and BioSAXS instruments
- 4) offer sample preparation protocols specific to each different technique
- 5) set-up a centralized computing facility for the project
- 6) implement a training program to i) help SB scientists to best exploit Instruct services and ii) train future scientists to run the SB infrastructure.

Integration in ITACA.SB of CNR facilities in the South of Italy will contribute to a harmonic development of the Italian SB research. Coordination among RIs of the ESFRI Health&Food

domain will be also implemented so to provide robust answers to challenging biological questions brought forward by the users. Finally, participation of the Italian center of Instruct-ERIC to projects of the H2020 and Horizon Europe EC programmes (e.g. EOSC-Life, iNEXT-Discovery, ISIDORe, CanServ,..) will ease the internationalization of ITACA.SB

Elenco partecipanti alla Proposta:

- Consiglio Nazionale delle Ricerche
- Università degli Studi di Firenze