

## **Standards and SOP implementation in the life-sciences research: a snapshot from the COST Action CHARME**

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**Abstract:** In a world where the biological and clinical research rely almost entirely on new and advanced high-throughput technologies and sophisticated approaches of omics data integration, the quality, reliability and format of data represents the most valuable features to be ensured. To answer to this pressing need, in 2005 the Research Data Management (RDM) initiative introduced a new set of principles for data management services. Following their principles, data should be FAIR – Findable, Accessible, Interoperable and Reusable. However, applying the FAIR data principles mainly addresses the metadata levels and does not necessarily take into account the quality of the source datasets, an essential prerequisite of good research. Generating data according to standards, using Standard Operating Procedures (SOPs) and implementing efficient Data Management Plans (DMP), by also hosting data on sustainable infrastructures are crucial steps forward a safe and reliable way to do research.

Harmonising standardisation strategies to increase the efficiency and competitiveness of European life-science research (CHARME), is an 4-year Action founded through COST (European Cooperation in Science and Technology) which addresses two main challenges: the sensibilization of the European scientific community, and of different stakeholders, around the theme of standards, and the unification of efforts of different initiatives toward the implementation of a common and efficient strategy for to promote good practices at any level of the data production and analysis process.

In her talk, Domenica D'Elia will present CHARME by underlining the scenario in which it moves forward and actions that the scientific community is called to support for a global implementation of standards and SOPs in the life-sciences research.