West-life is part of the e-Infrastructures for virtual research environments (VRE), Project Number 675858

West-Life

View all your data in a single, coherent, place.

West-Life is your portal to processing data in the cloud.

Connect your processing together with a single portal.

West-life: your virtual research environment

West-Life is a H2020 Virtual Research Environment project that will provide the application level services specific to uses cases in structural biology, covering all experimental techniques (e.g. Xray, cryo-EM, NMR, SAXS), enabling structural biologists to get the benefit of the generic services developed by EUDAT and the EGI.

The focus of structural biology is shifting from single macromolecules produced by simpler prokaryotic organisms, to the macromolecular machinery of higher organisms, including systems of central relevance for human health. Structural biologists are expert in one or more techniques. They now often need to use complementary techniques in which they are less expert. [INSTRUCT][1] supports them in using multiple experimental techniques, and visiting multiple experimental facilities, within a single project. The [Protein Data Bank][2] is a public repository where final structures and (some) of the data leading to them are deposited. Nowadays journals require such a deposition as a precondition of publication. However, metadata are often incomplete. [West-Life][3] will pilot an infrastructure for storing and processing data that supports the growing use of combined techniques. There are some technique-specific pipelines for data analysis and structure determination but little is available in terms of automated pipelines to

handle integrated datasets. Integrated management of structural biology data from different techniques is lacking altogether.

West-Life will integrate the data management facilities and services (e.g. from [WeNMR][4]) that already exist, and enable the provision of new ones. The resulting integration will provide users with an overview of the experiments performed at the different research infrastructures visited, and links to the different data stores. It will extend existing facilities for processing this data. As processing is performed, it will automatically capture metadata reflecting the history of the project. The effort will use existing metadata standards, and integrate with them new domain-specific metadata terms.

West-Life will provide the application level services specific to uses cases in structural biology, enabling structural biologists to get the benefit of the generic services developed by [EUDAT][5] and the [EGI][6].

[1]: http://www.structuralbiology.eu [2]: http://www.pdbe.org [3]: http://www.west-life.eu [4]: http://www.wenmr.eu [5]: http://www.eudat.eu [6]: http://www.egi.eu

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