WeNMR: A worldwide e-Infrastructure for NMR and structural biology

Structural biology and life sciences in general, and NMR in particular, have always been associated with advanced computing. The current challenges in the post-genomic era call for virtual research platforms that provide the worldwide research community with both user-friendly tools, platforms for data analysis and exchange, and an underlying e-infrastructure. WeNMR, a three year EC co-funded project started in November 2010, groups different research teams into a worldwide virtual research community. It builds on the established eNMR e-Infrastructure and its steadily growing virtual organization, which is currently the second largest VO in the area of life sciences. WeNMR will consolidate the operation of the current services and provide an e-Infrastructure platform and Science Gateway for structural biology towards EGI for the users of existing infrastructures. It will involve researchers from around the world and will build bridges to other areas of structural biology. Integration with SAXS, a rapidly growing and highly complementary method, is directly included in WeNMR, but links will also be established to related initiatives. WeNMR will serve all relevant INSTRUCT communities in line with the ESFRI roadmap. WeNMR will operate and further consolidate the e-Infrastructure deployed within the eNMR project. A virtual research community platform will be established in the first year to serve as the central entry point for all communities and the main dissemination portal of the project. WeNMR will strengthen the European ties with National Grid Initiatives, the new EGI and PRACE initiatives toward an effective sharing of the offered service. Collaborations have been already established with the Asian, South-African, South- and North-American GRID initiatives, in close contact with existing EC projects, to extend and open the WeNMR Life-Science Gateway at a global level in the second year of the project. WeNMR will further establish and promote best practices in life sciences and offers (virtual) training services to worldwide researchers throughout the entire duration of the project.

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