



RDA / EOSC Future Ambassador: Opening of data in the genomics domain

What:

Genomics is a field in Life Science where Computer Science contributes tremendously in the research advances. Personalized Medicine is a promising field in Life science, and it is also an interdisciplinary field with very high contributions of computer science, in particular AI and its sub-domain Machine Learning (and Deep Learning). As practically all domains involving AI, Machine Learning and Deep Learning, the domain of Personalized Medicine requests the availability of big data vs. very large databases. The scientific progress is linked to the opening and standardization of these data. This is all the more critical as the application in oncology is a field of predilection for personalized medicine and as people with terminal cancer place all their hopes in effective predictive medicine, so as not to have to undergo heavy but ineffective treatments against their disease.

My role will be to raise awareness for the opening of data in the mentioned domain, and to help this large community to take the necessary steps forward, with the multiple barriers that are particularly present in France, due to a very strict and complex legislation concerning personal and sensitive data. We have a triptych of actors involved: the RDA and its domain-related Working Groups and Communities of Practice, EOSC and its services

dedicated to communities, and the community for Machine Learning for Personalized Medicine.

Though there are many personalized medicine projects in Europe, most of the data are far from being open and shared. Proposed activities are the following:

1. To propose lines of development around personalized medicine to the RDA health an AI RDA working/interest groups (a liaison exists already)
2. To interact with IHI (formerly IMI) and EOSC, as a "liaison" so that the EOSC Life Science could also provide a portfolio of services around personalized medicine
3. To provide an input to the European communities of data scientists for personalized medicine such as guidelines.

Means of achievements are this funding as it can be used for attending the RDA groups meetings and RDA plenaries, IHI meetings, personalized medicine forums, and workshops around ML for personalized medicine. A specific disciplinary barrier is the sensitivity of these personal data, so we will also interact with RDA sensitive data group.

Who:

Isabelle Perseil is an expert in R&D in scientific computing (HPC, data management and research infrastructures) for the Life sciences, in one of the largest European life sciences research institutes, INSERM (the French NIH).

Biography:

With 35 years of experience in Computer Science, Dr. Ing. Isabelle Perseil is an expert in R&D in scientific computing (HPC, data management and research infrastructures) for the Life sciences, in one of the largest European life sciences research institutes, INSERM (the French NIH) where she has worked for 22 years.

She is in charge of detecting innovations in scientific computing in relation to the needs of the 300 research units - in scientific computing, AI, data management and use of infrastructures to support scientific computing. Dr. Perseil is in charge of dissemination of the best practices, through research projects contributions and evaluations, workshops and training.

Dr. Perseil is the Work Package co-leader in the European Research project EOSC-Life for delivering FAIR and Provenance Services to the research communities. She is one of the RDA Technical Advisory Board Co-chairs and a member of the EOSC Semantic Interoperability Task Force.

Scientific Domain:

Scientific computing for Life science

Your Domain specific Engagement:

Isabelle and her activities are also [featured on the RDA website](#).

Country:

FRANCE

EOSC FUTURE FUNDING PLATFORM