

SEEK for Science: A Data Management Platform which Supports Open and Reproducible Science.

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‘Open Science’ is vital for ensuring accessibility, and reproducibility of research. Publishing findings in open access journals is not enough; readers need access to the assets (data, models, SOPs etc.) made during, or used within, the research for validation and reuse.

SEEK for Science (<http://www.seek4science.org/about>) is an “Aggregated Asset Infrastructure”, providing a suite of tools to support access-controlled asset sharing across large consortia of researchers working in systems biology. A scientist may register their assets, either through a direct upload, or through a web-link held in public databases. SEEK supports versioning of all assets in order to retain the history and life-cycle of the assets. The Investigation, Studies, Assay (ISA) framework is used so that registered assets can be interlinked to provide descriptions, scientific context, relationships between assets, and provide clear credit to the scientists and projects involved in the creation of the assets.

SEEK is open-source software, and is highly configurable and adaptable. Although its origins are for use in Systems Biology research, it is being used and adapted in several other projects including BioVeL (<http://www.biovel.eu>), and the Virtual Liver Network (<http://www.virtual-liver.de/wordpress/en>).

Open Access Licence: BSD

Code URL: <https://bitbucket.org/seek4science/seek>