

All tools and resources

This is the main tool and resource list of our website. This is a curated list which means that not all tools or resources that exist for a certain topic are listed here. This is mainly because we do not intend to be a registry. In most cases you will only find back the tools or resources that are mentioned in the different pages. Most pages will show a filtered list of this main table at the end of the page.





We link tools and resources to related information in ELIXIR registries: related policies and standards in FAIRsharing, scientific and technical descriptions of the resource in bio.tools, and related training in TeSS. If you see a missing link with one of the registries or a mistake, please open an [issue](#) or check our [how to add a tool or resource guide](#).












It is recommended to add:











- your training materials and events into the training registry [TeSS](#)
- your standards, databases and policies in [fairsharing](#) registry
- your software tools, databases and services for bioinformatics and the life sciences in [bio.tools](#) registry
















All entries per page












Search:






















Tool or resource	Description	Related pages	Registry
23 Things for Research Data Management tool 	Shared reference tool for knowledge on data management.	Human data Data management plan Compliance monitoring ...	
3D-Beacons	Network providing unified programmatic access to experimentally determined and predicted structure models	Structural Bioinformatics	 Tool info
3DBioNotes	3DBIONOTES-WS is a web application designed to automatically annotate biochemical and biomedical information onto structural models.	Structural Bioinformatics Machine actionability	 Tool info  Training
























Tool or resource 	Description 	Related pages 	Registry 
4DN-BINA-OME-QUAREP (NBO-Q)	Rigorous record-keeping and quality control are required to ensure the quality, reproducibility and value of imaging data. The 4DN Initiative and BINA have published light Microscopy Metadata Specifications that extend the OME Data Model, scale with experimental intent and complexity, and make it possible for scientists to create comprehensive records of imaging experiments. The Microscopy Metadata Specifications have been adopted by QUAREP-LiMi and are being revised in QUAREP-LiMi in collaboration with instrument manufacturers	OMERO Bioimaging data	 Standa
AACR-GENIE	Real-world cancer genomic dataset aggregated from multiple institutions.	Cancer data	
Access to Biological Collection Data Schema (ABCD)	A standard schema for primary biodiversity data	Microbial biotechnology	
Access to Research Infrastructure Administration (ARIA)	Access and data management platform that allows facilities to manage outputs and associate them with proposal information and other research outputs.	Structural Bioinformatics	 Tool info
Ada Discovery Analytics (Ada)	Ada is a performant and highly configurable system for secured integration, visualization, and collaborative analysis of heterogeneous data sets, primarily targeting clinical and experimental sources.	TransMed	
Addgene	A searchable repository with a focus on plasmids	Microbial biotechnology	 Tool info  Standa  Traini
Agrischema 	Linked data schemas for the fields of agriculture, food, agri-business, plant biology.	Data Steward Researcher Documentation and meta...	
Agronomic Linked Data	The RDF Knowledge-based Database for plant molecular networks	Machine actionability	 Standa













Tool or resource	Description	Related pages	Registry
AgroPortal	Browser for ontologies for agricultural science based on NBCO BioPortal.	Plant Phenomics Documentation and meta...	 Tool info  Standa
AICSImageIO	Image Reading, Metadata Conversion, and Image Writing for Microscopy Images in Pure Python	Bioimaging data	
Alchemer	Commercial online survey tool.	Health data	
All of Us	NIH research program with diverse patient health, genetic, and lifestyle data.	Cancer data	 Traini
Amazon Web Services	Amazon Web Services	Data transfer	 Traini
Analysis Data Model for data and metadata of clinical trial statistical analysis (ADaM)	A CDISC Foundational Standard that defines dataset and metadata standards.	Health data	 Tool info
AnnData	Python package for handling annotated data matrices in memory and on disk, positioned between pandas and xarray.	Single-cell sequencing	 Tool info  Traini
Annotare	Annotare is a tool for submitting functional genomics data to the ArrayExpress collection in BioStudies.	Single-cell sequencing	 Traini
AOP4EUpest	AOP4EUpest web server is devoted to the identification of pesticides involved in an Adverse Outcome Pathway via text mining approaches.	Toxicology data	 Tool info
APID Interactomes	APID (Agile Protein Interactomes DataServer) is a server that provides a comprehensive collection of protein interactomes for more than 400 organisms based in the integration of known experimentally validated protein-protein physical interactions (PPIs)	Proteomics	 Tool info
Apple HealthKit	A framework for health and fitness data integration on Apple devices.	Cancer data	

Tool or resource 	Description 	Related pages 	Registry
Argos	Plan and follow your data. Bring your Data Management Plans closer to where data are generated, analysed and stored.	Data management plan	 Traini
ArrayExpress	A collection in BioStudies for archiving and publishing data from high-throughput functional genomics experiments.	Microbial biotechnology Single-cell sequencing Data publication	 Tool info  Standa  Traini
Arvados	With Arvados, bioinformaticians run and scale compute-intensive workflows, developers create biomedical applications, and IT administrators manage large compute and storage resources.	Data analysis	
ATCC	Biological materials resource including cell-lines, strains and genomics tools	Microbial biotechnology	 Tool info
Atlas	Free, publicly available web-based, open-source software application developed by the OHDSI community to support the design and execution of observational analyses to generate real world evidence from patient level observational data.	TransMed	 Tool info  Traini
b2share	Store and publish your research data. Can be used to bridge between domains	Bioimaging data	 Standa
BacDive	A searchable database for bacteria specific information	Microbial biotechnology	 Tool info  Standa  Traini
Bacillus Genetic Stock Center (BGSC)	A repository specific to Bacillus strains	Microbial biotechnology	
BBMRI catalogue 	Biobanking Netherlands makes biosamples, images and data findable, accessible and usable for health research.	Human data Researcher Data analysis Existing data Data storage	
BBMRI-ERIC's ELSI Knowledge Base	The ELSI Knowledge Base is an open-access resource platform that aims at	Human data Ethical aspects GDPR compliance	
















Tool or resource 	Description 	Related pages 	Registry 
	providing practical know-how for responsible research.		
Beacon	The Beacon protocol defines an open standard for genomics data discovery.	Human data Data discoverability	 Tool info  Standa  Traini
Beacon for OMOP (B4OMOP)	Beacon for OMOP (B4OMOP) software allows for the integration of a Beacon onto any OMOP Common Data Model (CDM) database.	Data discoverability	
Beacon v2	Developed through the Global Alliance for Genomics and Health (GA4GH) Discovery workstream with support from ELIXIR, Beacon is a data discovery protocol defining an open standard for discovering genomic and phenoclinic data in research and clinical applications.	Data discoverability	 Traini
Beacon v2 Reference Implementation (B2RI)	An open-source out-of-the-box toolkit to initiate a Beacon v2. B2RI includes tools for loading metadata, such as phenotypic data and genomic variants into a MongoDB database, and features a Beacon query engine (REST API).	Data discoverability	
Belnet 	Belnet is the privileged partner of higher education, research and administration for connectivity. We provide high-bandwidth internet access and related services for our specific target groups.	Data Steward Researcher Research Software Engi... Data transfer	
Benchling	R&D Platform for Life Sciences	Microbial biotechnology	 Traini
Better BibTeX (BBT)	A plugin for Zotero and Juris-M that makes it easier to manage bibliographic data.		
bfconvert	The bfconvert command line tool can be used to convert files between supported formats.	Bioimaging data	
BIAFLOWS	BIAFLOWS is an open-soure web framework to reproducibly deploy and benchmark bioimage analysis workflows	Data analysis	 Tool info

















Tool or resource	Description	Related pages	Registry
BigNASim	Repository for Nucleic Acids MD simulations	Biomolecular simulatio...	 Tool info
BIII	The BioImage Informatics Index is a registry of software tools, image databases for benchmarking, and training materials for bioimage analysis	Bioimaging data	 Tool info
BindingDB	Public, web-accessible database of measured binding affinities	Biomolecular simulatio...	 Tool info  Standards
Bio-Formats	Bio-Formats is a software tool for reading and writing image data using standardized, open formats.	OMERO	 Tool info  Training
Bio-Formats	Bio-Formats is a software tool for reading and writing image data using standardized, open formats	Bioimaging data	 Tool info  Training
bio.tools	Essential scientific and technical information about software tools, databases and services for bioinformatics and the life sciences.	Human pathogen genomics Data analysis	 Tool info  Standards  Training
Bioactive Conformational Ensemble	Platform designed to efficiently generate bioactive conformers and speed up the drug discovery process.	Biomolecular simulatio...	 Tool info
Bioassay Ontology	The BioAssay Ontology (BAO) describes chemical biology screening assays and their results, including high-throughput screening (HTS) data, to categorise assays and data analysis.	Enzymology and biocata...	 Standards
Bioconda	Bioconda is a bioinformatics channel for the Conda package manager	Data analysis	 Tool info  Standards  Training
BioContainers	BioContainers Flow	Single-cell sequencing Data analysis	 Tool info  Training
BioData.pt Data Management Portal (DMPortal)	This instance of Dataverse is provided by the BioData.pt. We can help you write and maintain data management plans for your research. 	Researcher Data Steward Data storage	 Tool info  Standards










Tool or resource 	Description 	Related pages 	Registry 
BioData.pt Data Stewardship Wizard 	This tool guides users through generating Data Management Plans. Data Stewardship Wizard 	Researcher Data Steward Data management plan	 Tool info
Biodiversity Information Standards (TDWG)	Biodiversity Information Standards (TDWG), historically the Taxonomic Databases Working Group, work to develop biodiversity information standards	Microbial biotechnology	 Standards
bioformats2raw	Java application to convert image file formats, including .mrxs, to an intermediate Zarr structure compatible with the OME-NGFF specification.	Bioimaging data	
BioImage Model Zoo	BioImage is a collaborative effort to bring AI models to the bioimaging community.	Machine learning	 Standards  Training
BioImageArchive	The BioImage Archive stores and distributes biological images that are useful to life-science researchers.	Bioimaging data Data publication	 Standards
BioMedIT 	A secure IT network for the responsible processing of health-related data.	Human data Data analysis Data sensitivity	
BioModels	A repository of mathematical models for application in biological sciences	Enzymology and biocata... Microbial biotechnology Data publication	 Tool info  Standards  Training
BioPortal	A comprehensive repository of biomedical ontologies	Bioimaging data Health data Documentation and meta...	 Tool info  Standards  Training
BioSamples	BioSamples stores and supplies descriptions and metadata about biological samples used in research and development by academia and industry.	Plant Genomics Plant sciences Virology	 Tool info  Standards  Training
Bioschemas	Bioschemas aims to improve the Findability on the Web of life sciences resources such as datasets, software, and training materials	Plant Phenomics Enzymology and biocata... Intrinsically disorder... Virology Data discoverability	 Standards  Training












Tool or resource	Description	Related pages	Registry
		Machine actionability Documentation and meta...	
BioStudies	A database hosting datasets from biological studies. Useful for storing or accessing life sciences data without community-accepted repositories, and for linking components of data from multi-omics studies.	Microbial biotechnology Plant sciences Single-cell sequencing Data publication Project data managemen...	 Tool info  Standa  Traini
BisQue	Resource for management and analysis of 5D biological images	Bioimaging data	 Tool info
Bitbucket	Git-based code hosting and collaboration tool, built for teams.	Data organisation	 Standa
BMDS	EPA's Benchmark Dose Software (BMDS) collects and provides easy access to numerous mathematical models that help risk assessors estimate the quantitative relationship between a chemical dose and the test subject's response.	Toxicology data	
BMRB	Biological Magnetic Resonance Data Bank	Intrinsically disorder... Structural Bioinformatics	 Tool info
BoostDM	BoostDM is a method to score all possible point mutations (single base substitutions) in cancer genes for their potential to be involved in tumorigenesis.	Human data	 Tool info  Traini
Box	Cloud storage and file sharing service	Data transfer Data storage	 Traini
BrAPI	Specification for a standard API for plant data: plant material, plant phenotyping data	Plant Phenomics Plant sciences	 Traini
BrAPI compatible server	Submit a new BrAPI compatible server	Plant sciences	
BRAVA	BRAVA is a tool designed to help developers test servers that comply with the BrAPI specifications.	Plant Phenomics	
BRENDA	Database of enzyme and enzyme-ligand information, across all	Enzymology and biocata... Microbial biotechnology	 Tool info  Standa

Tool or resource	Description	Related pages	Registry
	taxonomic groups, manually extracted from primary literature and extended by text mining procedures		 Trainii
BRENDA Tissue Ontology	A structured controlled vocabulary for the source of an enzyme. It comprises terms for tissues, cell lines, cell types and cell cultures from uni- and multicellular organisms.	Enzymology and biocata...	 Standa  Trainii
Bulk Rename Utility	File renaming software for Windows	Data organisation	
CAMEO	Continuous evaluation of the accuracy and reliability of protein structure prediction methods in a fully automated manner	Structural Bioinformatics	 Tool info  Standa
Cancer Genome Interpreter	Cancer Genome Interpreter (CGI) is designed to support the identification of tumor alterations that drive the disease and detect those that may be therapeutically actionable.	Cancer data Human data	 Tool info
Cancer Pharmacogenomics	Pharmacogenomics knowledge base including cancer pharmacogenomic information.	Cancer data	
Cancer Therapeutics Response Portal (CTRP)	Resource to explore relationships between cancer cell line genotypes and drug response.	Cancer data	
CAPRI	Critical assessment of structure prediction methods for protein-protein interactions	Structural Bioinformatics	
CAS Registry	The CAS Registry (Chemical Abstracts Service Registry) includes more than 188 million unique chemicals. CAS Registry Numbers are broadly used as a unique identifier for chemical substances. The Registry is maintained by CAS, a subdivision of the American Chemical Society.	Toxicology data	 Standa
CASP	Biennial critical assessment of techniques for protein structure prediction	Structural Bioinformatics	 Tool info  Trainii






Tool or resource 	Description 	Related pages 		Registry
Castor	Castor is an EDC system for researchers and institutions. With Castor, you can create and customize your own database in no time. Without any prior technical knowledge, you can build a study in just a few clicks using our intuitive Form Builder. Simply define your data points and start collecting high quality data, all you need is a web browser.	Health data	Identifiers	 Tool info
CatBoost	CatBoost is a high-performance open source library for gradient boosting on decision trees.	Machine learning		
CATH	A hierarchical domain classification of protein structures in the Protein Data Bank.	Proteomics		 Tool info  Standards  Training
cBioPortal	A platform for exploring, analysing, and visualising cancer genomics data.	Cancer data		 Tool info  Standards  Training
cBioPortal for Cancer Genomics 	cBioPortal provides a web-based resource for researchers to explore, visualize, analyze, and share multidimensional cancer genomic datasets, as well as other studies involving multidimensional genomic data.	Human data Data analysis Existing data Data storage	Researcher	
CBS, Statistics Netherlands 	The national statistical office, Statistics Netherlands (CBS), provides reliable statistical information and data in the life sciences and health domain.	Human data Existing data	Researcher	
CDISC/SEND	CDISC SEND Controlled Terminology	Toxicology data		
CEDAR	CEDAR is making data submission smarter and faster, so that scientific researchers and analysts can create and use better metadata.	Data discoverability Documentation and meta...		 Tool info  Standards
Cell Ontology	The Cell Ontology (CL) is a candidate OBO Foundry ontology for the representation of cell types.	Enzymology and biocata...		 Standards
CellDataSet	The main class used by Monocle to hold single cell expression data. CellDataSet	Single-cell sequencing		








Tool or resource	Description	Related pages	Registry
	extends the basic Bioconductor ExpressionSet class.		
CellMarker	A database of manually curated cell markers in human/mouse and web tools based on scRNA-seq data.	Single-cell sequencing	 Tool info
CellProfiler	Image analysis software	OMERO	 Tool info  Traini
CellRanger	A set of analysis pipelines that perform sample demultiplexing, barcode processing, single cell gene counting, V(D)J transcript sequence assembly and annotation, and Feature Barcode analysis from single cell data.	Single-cell sequencing	
CellRepo	A version management tool for modifying strains	Microbial biotechnology	
Cellular Microscopy Phenotype Ontology (CMPO)	An ontology for expressing cellular (or multi-cellular) terms with applications in microscopy	Microbial biotechnology	 Standa  Traini
CERNBox	CERNBox cloud data storage, sharing and synchronization	Data storage	
ChannelsDB 2.0	A comprehensive resource of channels, pores and tunnels found in biomacromolecular structures deposited in the Protein Data Bank.	Biomolecular simulatio...	 Tool info  Standa
ChEBI	Dictionary of molecular entities focused on 'small' chemical compounds	Enzymology and biocata... Human pathogen genomics Microbial biotechnology	 Tool info  Standa  Traini
ChEMBL	Database of bioactive drug-like small molecules, it contains 2-D structures, calculated properties and abstracted bioactivities.	Enzymology and biocata... Toxicology data	 Tool info  Standa  Traini
Chemical Entities of Biological Interest (ChEBI)	ChEBI) is a dictionary describing small chemical compounds including distinct synthetic or natural atoms, molecules, ions, ion pairs, radicals, radical ions, complexes, and conformers.	Enzymology and biocata... Human pathogen genomics Microbial biotechnology	 Tool info  Standa  Traini














Tool or resource 	Description 	Related pages 	Registry
Chemotion	Chemotion is a repository for chemistry research data that provides solutions for current challenges to store research data in a feasible manner, allowing the conservation of domain specific information in a machine readable format.	Enzymology and biocata...	 Tool info  Standa
Chipster 	Chipster is a user-friendly analysis software for high-throughput data such as RNA-seq and single cell RNA-seq. It contains analysis tools and a large reference genome collection.	CSC Researcher Research Software Engi... Data analysis	
Chocolatey	The Package Manager for Windows	Data analysis	
Choose a license	Choose an open source license	Licensing	
Clinical Data Interchange Standards Consortium (CDISC)	Consortium which defines several open standards for regulatory approval and case report forms in particular in the context of clinical trials meant for submission to FDA and EMA.	Health data	
Clinical Data Interoperability Services (CDIS)	REDCap feature which allows a REDCap project to interact with an EHR system and pull EHR data into REDCap.	Health data	
Clinical Interpretations of Variants in Cancer (CIViC)	A community knowledgebase for expert crowdsourcing the clinical interpretation of variants in cancer	Cancer data	 Tool info
Clinical Trial Registry-XML (CTR-XML)	A CDISC Data Exchange Standard that lets technology vendors implement tools that support a “write once, use many times” solution based on XML.	Health data	
ClinicalTrials.gov	ClinicalTrials.gov is a resource depending on the National Library of medicine which makes available private and public-funded clinical trials.	Cancer data Toxicology data	 Standa
Cloud computing 	CSC offers a variety of cloud computing services: the Pouta IaaS services and the Rahti container cloud service.	CSC Researcher Data Steward Data analysis	




















Tool or resource 	Description 	Related pages 	Registry 
Comet	Open source tandem mass spectrometry (MS/MS) sequence database search tool.	Proteomics	 Tool info
Common Data Elements (CDE) in a box	A collection of software applications which enables creation, storing and publishing of Common Data Elements according to the CDE semantic model.	Rare disease data	 Tool info
Common Workflow Language (CWL)	An open standard for describing workflows that are build from command line tools	Data analysis	 Standards  Training
Comptox	The CompTox Chemicals Dashboard provides toxicological information for over 800.000 chemical compounds. It is a part of a suite of databases and web applications developed by the US Environmental Protection Agency's Chemical Safety for Sustainability Research Program. These databases and apps support EPA's computational toxicology research efforts to develop innovative methods to change how chemicals are currently evaluated for potential health risks.	Toxicology data	 Tool info  Standards
Computational Modeling in Biology Network (COMBINE)	An initiative to bring together various formats and standard for computational models in biology	Microbial biotechnology	
Conda	Open source package management system	Data analysis	 Training
Consent Clauses for Genomic Research	A resource for researchers when drafting consent forms so they can use language matching cutting-edge GA4GH international standards	Human data	
Convenient And Reusable Rapid OMOP Transformer (CaRROT-Mapper)	Open-source tool to map datasets to the OMOP CDM.	Health data	
Cookiecutter	A command-line utility that creates projects from cookiecutters (project	Data organisation	












Tool or resource	Description	Related pages	Registry
	templates), e.g. creating a Python package project from a Python package project template.		
Copasi	COPASI is a software application for simulation and analysis of biochemical networks and their dynamics.	Enzymology and biocata...	i Tool info 🎓 Training
COPO	Portal for scientists to broker more easily rich metadata alongside data to public repos.	Plant Phenomics Plant sciences Data discoverability Documentation and meta...	i Tool info 🗄️ Standa
COVID-19 Data Portal	The COVID-19 Data Portal enables researchers to upload, access and analyse COVID-19 related reference data and specialist datasets. The aim of the COVID-19 Data Portal is to facilitate data sharing and analysis, and to accelerate coronavirus research. The portal includes relevant datasets submitted to EMBL-EBI as well as other major centres for biomedical data. The COVID-19 Data Portal is the primary entry point into the functions of a wider project, the European COVID-19 Data Platform.	Human pathogen genomics	i Tool info 🗄️ Standa 🎓 Training
COVID-19 Structural Hub	Structural information organiser, collecting structures deposited in public repositories together with computationally predicted models from SARS-CoV-2, as well as their interactions with host proteins.	Structural Bioinformatics	🎓 Training
Create a Codebook	Examples and tools to create a codebook by the Data Documentation Initiative (DDI)	Documentation and meta...	
Creative Commons License Chooser	It helps you choose the right Creative Commons license for your needs.	Licensing	
Cromwell	Cromwell is a Workflow Management System geared towards scientific workflows.	Data analysis	
Crop Ontology	The Crop Ontology compiles concepts to curate phenotyping assays on crop	Plant sciences	🗄️ Standa 🎓 Training













Tool or resource	Description	Related pages	Registry
	plants, including anatomy, structure and phenotype.		
Crypt4GH	A Python tool to encrypt, decrypt or re-encrypt files, according to the GA4GH encryption file format.	Human data	 Trainii
CS3	Cloud Storage Services for Synchronization and Sharing (CS3)	Data storage	
CTD	A database that aims to advance understanding about how environmental exposures affect human health.	Toxicology data	 Tool info  Trainii
CUDA toolkit	The CUDA Toolkit from NVIDIA provides everything you need to develop GPU-accelerated applications	Machine learning	
cURL	Command line tool and library for transferring data with URLs	Data transfer	 Trainii
CWL in Toil	The Common Workflow Language CWL is an emerging standard for writing workflows that are portable across multiple workflow engines and platforms. Toil has full support for the CWL v1.0, v1.1, and v1.2 standards.	Data analysis	
cwltool	This is the reference implementation of the Common Workflow Language open standards. It is intended to be feature complete and provide comprehensive validation of CWL files as well as provide other tools related to working with CWL.	Data analysis	
Cytomine-IMS	Image Data management	Bioimaging data	
CyVerse UK 	The CyVerse Data Store is a cloud-based storage space, accessible via the CyVerse Discovery Environment (DE), a virtual bioinformatics lab workbench, and developer APIs such as the AGAVE API. In the DE, users can share datasets and tools to analyse data with as many or as few people as they wish.	Data Steward Researcher Documentation and meta...	
















Tool or resource	Description	Related pages	Registry
Czech National Repository 	<p>National Repository (NR) is a service provided to the scientific and research communities in the Czech Republic to store their generated research data together with persistent DOI identifier. NR service is currently under the pilot program.</p> 	<p>Researcher</p> <p>Data Steward</p> <p>Research Software Engi...</p> <p>Data storage</p> <p>Existing data Identifiers</p> <p>Data management plan</p>	
dados.gov.pt 	<p>Open data portal of the Portuguese Public Administration.</p>	<p>Researcher</p> <p>Data Steward</p> <p>Data publication</p> <p>Existing data</p>	
DAISY	<p>Data Information System to keep sensitive data inventory and meet GDPR accountability requirement.</p>	<p>TransMed Human data</p> <p>GDPR compliance</p>	<p> Tool info</p> <p> Traini</p>
DAMAP	<p>It guides you step by step through a DMP and lets you export a pre-filled DMP as a Word document that you can customize and use for submission to funders. Also, DAMAP is compatible with the RDA recommendation for machine-actionable DMPs and offers an export of JSON DMPs. DAMAP is open source and to be self deployed.</p>	<p>Data management plan</p>	
Data Agreement Wizard (DAWID)	<p>The Data Agreement Wizard is a tool developed by ELIXIR-Luxembourg to facilitate data sharing agreements.</p>	<p>Human data</p> <p>GDPR compliance</p>	
Data Catalog	<p>Unique collection of project-level metadata from large research initiatives in a diverse range of fields, including clinical, molecular and observational studies. Its aim is to improve the findability of these projects following FAIR data principles.</p>	<p>TransMed</p>	<p> Traini</p>
Data Catalog Vocabulary (DCAT)	<p>DCAT is an RDF vocabulary designed to facilitate interoperability between data catalogs published on the Web.</p>	<p>Rare disease data</p> <p>Virology</p> <p>Data discoverability</p> <p>Machine actionability</p> <p>Documentation and meta...</p>	<p> Standards</p>













Tool or resource 	Description	 Related pages	 Registry
Data Curation Centre Metadata list	List of metadata standards	Data discoverability Documentation and meta...	
Data Stewardship Wizard	Publicly available online tool for composing smart data management plans	CSC FAIRtracks Plant Genomics Plant Phenomics Plant sciences Data management plan GDPR compliance	 Tool info  Traini
Data Stewardship Wizard Storage Costs Evaluator	This service provides simple estimation of storage costs based on desired properties and local/actual configuration.	Costs of data management	
Data Use Ontology (DUO)	DUO allows to semantically tag datasets with restriction about their usage.	Cancer data Human data Ethical aspects	 Standa  Traini
data.world Data License list	Overview of typical licenses used for data resources	Licensing	
DataCite	A search engine for the complete collection of publicly available DataCite DOIs	Existing data	 Standa
DataPLAN	Data Management Plan (DMP) generator that focuses on plant science.	Plant sciences	 Tool info
DATAVERSE	Open source research data respository software.	Plant Phenomics Enzymology and biocata... Plant sciences Machine actionability Data storage	 Traini
DataverseNO 	DataverseNO is a national, generic repository for open research data. Various Norwegian research institutions have established partner agreements about using DataverseNO as institutional repositories for open research data.  	Data publication	









Tool or resource 	Description 	Related pages 	Registry 
Datos.gob.es 	Open data portal of the spanish government. A meeting point for the various actors that make up the open data ecosystem.	Researcher Data Steward Research Software Engi...	
dbGAP	The database of Genotypes and Phenotypes (dbGaP) archives and distributes data from studies investigating the interaction of genotype and phenotype in Humans	Cancer data Human data	 Tool info  Standa  Traini
DESeq2	Differential gene expression analysis based on the negative binomial distribution	Toxicology data	 Tool info  Traini
Digital Imaging and Communications in Medicine (DICOM)	A standard for medical imaging data storage and transmission.	Cancer data	 Standa
Disease Ontology (DOID)	The Disease Ontology has been developed as a standardised ontology for human disease to provide the biomedical community with consistent, reusable and sustainable descriptions of human disease terms, phenotype characteristics, underlying mechanisms and related medical vocabulary disease concepts.	Human pathogen genomics	 Standa
DisGeNET	A discovery platform containing collections of genes and variants associated to human diseases.	Human data Toxicology data	 Tool info  Standa  Traini
DisProt	A database of intrinsically disordered proteins	Intrinsically disorder...	 Tool info  Standa  Traini
DMP Canvas Generator	Questionnaire, which generates a pre-filled a DMP	Data management plan	
DMP OPIDoR 	Online questionnaire for the development of data management plans - repository of DMPs. DMPRoadmap	IFB Researcher Data Steward Data management plan	

















Tool or resource	Description	Related pages	Registry
DMPanner	Semi-automatically generated, searchable catalogue of resources that are relevant to data management plans.	Data management plan	
DMPonline	Data Management Plans that meet institutional funder requirements.	CSC Plant sciences Data management plan	 Traini
DMPonline 	DMPonline is a web-based tool that supports researchers to develop data management and sharing plans. It contains the latest funder templates and best practice guidelines to support users to create good quality DMPs. DMPRoadmap	Data Steward Researcher Data management plan	
DMPonline.be 	This instance of DMPonline is provided by the DMPbelgium Consortium. We can help you write and maintain data management plans for your research. DMPRoadmap 	Data Steward Researcher Data management plan	
DMPRoadmap	DMP Roadmap is a Data Management Planning tool	Data management plan	
DMPTool	Build your Data Management Plan	Data management plan	 Traini
DMPtuuli 	Data management planning tool (Finland). DMPRoadmap	CSC Researcher Data Steward Data management plan	
DNA Data Bank of Japan (DDBJ)	A database of DNA sequences	Microbial biotechnology	 Tool info  Standa
Docker	Docker is a software for the execution of applications in virtualized environments called containers. It is linked to DockerHub, a library for sharing container images	Single-cell sequencing Data analysis	 Traini
Docker Compose overview	Compose is a tool for defining and running multi-container Docker applications.	Data analysis	
Docker Hub	Docker Hub is the world's easiest way to create, manage, and deliver your team's container applications.	Data analysis	 Standa  Traini








Tool or resource 	Description 	Related pages 	Registry 
Dockerfile reference	Docker can build images automatically by reading the instructions from a Dockerfile	Data analysis	
Dockstore	Dockstore is a free and open source platform for sharing reusable and scalable analytical tools and workflows. It's developed by the Cancer Genome Collaboratory and used by the GA4GH.	Data analysis	 Tool info  Traini
DOME-ML	Data, Optimisation, Model and Evaluation in Machine Learning (DOME-ML) is a set of community guidelines, recommendations and checklists for supervised ML validation in biology.	Cancer data Machine learning	 Standa
DORA 	Digit Object Repository at the Libr4RI (4 ETH Domain Research Institutes, that are EAWAG, EMPA, PSI, WSL).	Data publication	
DPIA Knowledge Model	A DSW knowledge model guiding users through a set of questions to collect information necessary for a research project Data Protection Impact Assessment (DPIA).	Human data GDPR compliance	
DPMRoadmap @ ELIXIR Luxembourg 	This instance of DMPOnline is provided by ELIXIR Luxembourg and has FNR template for Data Management Plan (DMP).  	Data management plan	
draw.io	draw.io is a free online diagram software for making flowcharts, process diagrams, org charts, UML, ER and network diagrams.	Creating a data-flow d...	
Dropbox	Cloud storage and file sharing service	Data transfer Documentation and meta... Data storage	
Drug Matrix	A toxicogenomic resource that provides access to the gene expression profiles of over 600 different compounds in several cell types from rats and primary rat hepatocytes.	Toxicology data	
Drug-Gene Interaction	Drug-Gene Interaction Database linking drugs to their target genes.	Cancer data	 Tool info








Tool or resource 	Description 	Related pages 	Registry 
Database (DGIdb)			
DrugBank	Comprehensive database containing information on drugs and drug targets.	Cancer data	 Tool info  Standa  Traini
DrugMap	Database for drug mechanisms, targets, pathways, and indications.	Cancer data	 Tool info
Dryad	Open-source, community-led data curation, publishing, and preservation platform for CC0 publicly available research data	Bioimaging data Biomolecular simulatio... Data publication	 Standa
DS Wizard ELIXIR Slovenia 	Publicly available online tool for composing smart data management plans. Data Stewardship Wizard	Data management plan	
DS-Wizard ELIXIR-Norway 	DS-Wizard is a tool to aid the creation, organisation and sharing of data management plans. It provides scientists with guidance, facilitating the understanding of the key components of FAIR-oriented Data Stewardship. The template in this instance provides additional guidance on resources, laws and regulations in Norway. Data Stewardship Wizard 	TSD NeLS Marine Metagenomics Data management plan	
DS-Wizard ELIXIR-SE 	Data Stewardship Wizard is a tool to be used when planning for data management, including generating a data management plan (DMP). This instance provides guidance with focus towards Swedish life science researchers, including national resources. Data Stewardship Wizard 	Data management plan	
Dublin Core Metadata Terms	A metadata standard for describing resources of any kind.	Virology Data discoverability Data provenance Machine actionability Documentation and meta...	 Standa







Tool or resource 	Description 	Related pages 	Registry
Dutch COVID-19 Data Support Programme 	To support investigators and health care professionals with tools and services in their search for ways to overcome the pandemic and its health consequences.	Human data Existing data	Researcher
Dynameomics	Database of folding / unfolding pathway of representatives from all known protein folds by MD simulation	Biomolecular simulatio...	
e!DAL	Electronic data archive library is a framework for publishing and sharing research data	Plant Phenomics Plant sciences	 Tool info  Traini
e!DAL-PGP	Plant Genomics and Phenomics Research Data Repository	Plant Genomics Plant Phenomics	 Standa  Traini
e-INFRA CZ (Supercomputing and Data Services) 	e-INFRA CZ provides integrated high-performance research computing/data storage environment, providing world-class services to government, industry, and researchers. It also cooperates with European Open Science Cloud (EOSC) implementation in the Czech Republic.	Data Steward Research Software Engi... Data analysis Data storage	
Eastern Cooperative Oncology Group (ECOG)	A scale for assessing patient functional status.	Cancer data	
easy.DMP	Data Management Plan Generator	Data management plan	
EasyDMP 	DMP tool from UNINETT Sigma2 (SIKT) . 	Data management plan	
ECOTOX	The ECOTOXicology Knowledgebase (ECOTOX) is a comprehensive, publicly available Knowledgebase providing single chemical environmental toxicity data on aquatic life, terrestrial plants, and wildlife.	Toxicology data	 Standa
ECPGR	Hub for the identification of plant genetic resources in Europe	Plant sciences	
ECPGR Central Crop Databases	A number of ECPGR Central Crop Databases have been established through the initiative of individual	Plant sciences	














Tool or resource 	Description 	Related pages 	Registry
and other Crop Databases	institutes and of ECPGR Working Groups. The databases hold passport data and, to varying degrees, characterization and primary evaluation data of the major collections of the respective crops in Europe.		
EDKB	Endocrine Disruptor Knowledge Base is a platform designed to foster the development of computational predictive toxicology. This platform allows direct access to ten libraries containing the following resources: a biological activity database, QSAR training sets, in vitro and in vivo experimental data for more than 3,000 chemicals, literature citations, chemical-structure search capabilities.	Toxicology data	
Educloud Research 	Educloud Research is a platform provided by the Centre for Information Technology (USIT) at the University of Oslo (UiO). This platform provides access to a work environment accessible to collaborators from other institutions or countries. This service provides a storage solution and a low-threshold HPC system that offers batch job submission (SLURM) and interactive nodes. Data up to the red classification level can be stored/analysed. 	Data analysis Data sensitivity Data storage	
eLab BioData.pt 	An electronic lab notebook (ELN) for BioData.pt training programmes (data wiped periodically). 	Researcher Data Steward Principal Investigator... Documentation and meta... Data quality Project data managemen... Data provenance Machine actionability	
eLabFTW	A free and open source electronic lab notebook.	Documentation and meta...	 Trainii









Tool or resource 	Description 	Related pages 	Registry
Electron Microscopy Data Bank (EMDB)	A public repository for electron cryo-microscopy maps and tomograms of macromolecular complexes and subcellular structures.	Structural Bioinformatics	 Tool info  Standa
ELIXIR Core Data Resources	Set of European data resources of fundamental importance to the wider life-science community and the long-term preservation of biological data	COVID-19 Data Portal Existing data	 Standa  Standa
ELIXIR Deposition Databases for Biomolecular Data	List of discipline-specific deposition databases recommended by ELIXIR.	CSC IFB Marine Metagenomics NeLS Data discoverability Data publication Documentation and meta...	 Standa
ELIXIR eLearning Platform 	Learning Management System. 		
ELN Finder	A tool to aid in choosing the most suitable Electronic Lab Notebook (ELN) for a specific purpose.	Documentation and meta...	
ELN Finder 	Electronic Laboratory Notebook (ELN) selection service.	Documentation and meta... Researcher Research Software Engi...	
ELN Guide 	Guide for Electronic Laboratory Notebooks (ELN).	Documentation and meta... Researcher Research Software Engi...	
ELN Video Tutorials 	Video Tutorials for Electronic Laboratory Notebooks (ELN).	Documentation and meta... Researcher Research Software Engi...	
EMBL-EBI's data submission wizard	EMBL-EBI's wizard for finding the right EMBL-EBI repository for your data.	Data publication	
EMPIAR	Electron Microscopy Public Image Archive is a public resource for raw, 2D electron microscopy images. You can browse, upload and download the raw images used to build a 3D structure	OMERO Bioimaging data Structural Bioinformatics Data publication	 Tool info  Standa  Traini
ENA COMPARE Data Hubs	This tool carries out data hub set up at the European Nucleotide Archive (ENA).	Project data managemen...	








Tool or resource	Description	Related pages	Registry
ENA upload tool	The program submits experimental data and respective metadata to the European Nucleotide Archive (ENA).	Data brokering	 Trainii
Ensembl	Genome browser for vertebrate genomes that supports research in comparative genomics, evolution, sequence variation and transcriptional regulation.	Identifiers	 Tool info  Standa  Trainii
Ensembl Plants	Open-access database of full genomes of plant species.	Plant Genomics	 Standa  Trainii
EnzymeML	EnzymeML is a standardised data format for catalytic reaction data, designed to ensure consistency and interoperability. It enables researchers to store, share, and enrich reaction data with detailed metadata in JSON or XML formats.	Enzymology and biocata...	 Tool info
ERN Registries Generic Informed Consent Forms	EJP RD - European Joint Programme on Rare Diseases - ERN Registries Generic Informed Consent Forms	Rare disease data	
ERPA	Web-based tool allowing users to create and manage a register of personal data processing activities (ROPA).	Human data GDPR compliance	
EU General Data Protection Regulation	Regulation (eu) 2016/679 of the european parliament and of the council on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing directive 95/46/ec (general data protection regulation).	TSD Human data Data sensitivity	
EU Survey	European Commission's official multilingual online survey-management system built for the creation and publishing of globally accessible forms.	Health data	
EUDAT licence selector wizard	EUDAT's wizard for finding the right licence for your data or code.	Licensing	
EudraVigilance	The European database of suspected adverse drug reaction reports is a	Toxicology data	












Tool or resource 	Description 	Related pages 	Registry
	public resource aimed to provide access to reported suspected side-effects of drugs. Side-effects are defined according to the MedDRA ontology.		
EUPID	EUPID provides a method for identity management, pseudonymisation and record linkage to bridge the gap between multiple contexts.	Human data	
EURISCO	European Search Catalogue for Plant Genetic Resources	Plant sciences	 Tool info
Europe PMC	Europe PMC is a repository, providing access to worldwide life sciences articles, books, patents and clinical guidelines.	Machine actionability	 Tool info  Standards  Training
European Cancer Imaging Initiative (EUCAIM)	A federated platform for cancer imaging data.	Cancer data	
European Electronic Health Record Exchange Format (EEHRxF)	Recommended by the European Commission as the format to be used for the exchange of EHR data for cross-border healthcare.	Health data	
European Joint Programme on Rare Diseases (EJP RD)	A programme aiming to create an effective rare diseases research ecosystem for progress, innovation and for the benefit of everyone with a rare disease.	Rare disease data	
European Joint Programme on Rare Diseases Metadata Model	This core model is designed to represent data about a rare disease patient and biosample registries. The model is based on and builds on existing standards, such as the European Rare Disease Registry Infrastructure and the Common Data Elements from the rare disease community and other more generalised standards for data sharing such as the W3C DCAT vocabulary.	Rare disease data	
European Joint Programme on Rare Diseases	The Virtual Platform is a federated ecosystem, in which resources are enhanced to be amenable to rare	Rare disease data	









Tool or resource 	Description 	Related pages 	Registry
Virtual Platform (EJP RD)	disease research, and made Findable, Accessible, Interoperable and Reusable: data stays at the source level but can be queryable at distance from an EJP RD query point.		
European Medicines Agency's (EMA) medicine finder	European Medicines Agency's (EMA) portal for authorised medicines in the EU.	Cancer data	
European Nucleotide Archive (ENA)	A record of sequence information scaling from raw sequencing reads to assemblies and functional annotation	Galaxy Plant Genomics Human pathogen genomics Microbial biotechnology Single-cell sequencing Virology Data brokering Data publication Project data managemen...	 Tool info  Standards  Training
European Organisation for Research and Treatment of Cancer (EORTC) Quality of Life Questionnaires (QLQ)	A set of questionnaires developed to assess the quality of life of cancer patients.	Cancer data	
European Rare Disease Registry Infrastructure directory of registries (ERDRI.dor)	ERDRI.dor provides an overview of participating rare disease registries with their main characteristics and description.	Rare disease data	
European Rare Disease Registry Infrastructure metadata repository (ERDRI.mdr)	ERDRI.mdr serves to ease the integration of heterogeneous data from different rare disease registries. For this purpose, it contains a collection of metadata which specifies the used data elements of a registry including the designation of the used data elements, their definition and units of measurement.	Rare disease data	













Tool or resource	Description	Related pages	Registry
European Reference Networks (ERNs)	Virtual networks involving healthcare providers across Europe. They aim to facilitate discussion on complex or rare diseases and conditions that require highly specialised treatment, and concentrated knowledge and resources.	Rare disease data	 Trainii
European Variation Archive (EVA)	Open-access database of all types of genetic variation data from all species.	Plant Genomics Plant sciences	 Tool info  Standa  Trainii
Evidence and Conclusion Ontology (ECO)	Controlled vocabulary that describes types of evidence and assertion methods	Existing data Documentation and meta...	 Standa
EVORA Ontology	European Viral Outbreak Response Alliance Ontology	Virology	
Expression Atlas	Gene expression across species and biological conditions	Machine actionability	 Tool info  Standa  Trainii
EzCatDB	EzCatDB is a database of enzyme catalytic mechanisms.	Enzymology and biocata...	
FAERS	The FDA Adverse Event Reporting System (FAERS) is an american resource that contains adverse event reports, medication error reports and product quality complaints submitted by healthcare professionals, consumers, and manufacturers. MedDRA ontology is used for coding adverse effects. Note that reports available in FAERS do not require a causal relationship between a product and an adverse event and further evaluations are conducted by FDA to monitor the safety of products.	Toxicology data	 Tool info
FAIDARE	FAIDARE is a tool allowing to search data across distinct databases that implemented BrAPI.	Plant Phenomics Plant sciences	 Tool info  Trainii
FAIR Cookbook	FAIR Cookbook is an online resource for the Life Sciences with recipes that help you to make and keep data Findable,	TransMed Health data Human pathogen genomics Compliance monitoring ...	 Tool info  Trainii











Tool or resource	Description	Related pages	Registry
	Accessible, Interoperable and Reusable (FAIR)		
FAIR Data Point (FDP)	A FAIR Data Point stores metadata in a standardized and sharable way.	Rare disease data	 Standa  Traini
FAIR Data Points	Metadata for machines	Rare disease data	 Traini
FAIR Evaluation Services	Resources and guidelines to assess the FAIRness of digital resources.	Compliance monitoring ...	
FAIR Implementation Profile	The FIP is a collection of FAIR implementation choices made by a community of practice for each of the FAIR Principles.	Data management plan Project data managemen...	 Standa
FAIR-Aware 	Online tool which helps researchers and data managers assess how much they know about the requirements for making datasets findable, accessible, interoperable, and reusable (FAIR) before uploading them into a data repository.	Researcher Data management plan Compliance monitoring ... Data publication	
FAIR-Wizard	The FAIR wizard utilizes FAIRification resources developed by the FAIRplus project and other platforms, suggests FAIRification materials based on the FAIRification requirements, and designs FAIRification solutions for data owners, data stewards, and other people involved in FAIRification.	Compliance monitoring ...	 Traini
FAIRassist.org	Help you discover resources to measure and improve FAIRness.	Compliance monitoring ...	
Fairdata.fi 	With the Fairdata Services you can store, share and publish your research data with easy-to-use web tools.	CSC Researcher Data Steward Data storage Data publication Existing data	
FAIRDOM-SEEK	A data Management Platform for organising, sharing and publishing research datasets, models, protocols, samples, publications and other research outcomes.	NeLS Plant Phenomics Microbial biotechnology Plant sciences Data discoverability Documentation and meta... Data storage	 Tool info









Tool or resource	Description	Related pages	Registry
FAIRDOMHub	Data, model and SOPs management for projects, from preliminary data to publication, support for running SBML models, etc. (public SEEK instance)	NeLS Plant Genomics Plant Phenomics Microbial biotechnology Plant sciences Data discoverability Documentation and meta...	 Standa  Trainii
FAIRshake	A System to Evaluate the FAIRness of Digital Objects	Compliance monitoring ...	
FAIRsharing	A curated, informative and educational resource on data and metadata standards, inter-related to databases and data policies.	FAIRtracks Health data Microbial biotechnology Plant sciences Virology Data discoverability Data provenance Data publication Existing data Machine actionability Documentation and meta...	 Standa  Trainii
FDA-approved tools	Various digital health tools approved by the FDA for medical use (e.g., wearables, software, diagnostics).	Cancer data	
Federated EGA	The Federated EGA is an infrastructure built upon the European Genome-phenome Archive (EGA), an EMBL-EBI and CRG data resource for secure archiving and sharing of human sensitive biomolecular and phenotypic data resulting from biomedical research projects.	Cancer data	 Trainii
Federated EGA Finland 	FEGA allows you to store and share sensitive data in Finland in a way that fulfils all the requirements of the General Data Protection Regulation (GDPR). The European Genome-phenome Archive (EGA)	CSC Researcher Data Steward Data sensitivity Data publication Existing data Human data	
Federated EGA Norway node 	Federated instance collects metadata of -omics data collections stored in national or regional archives and makes them available for search through the main EGA portal. With this solution, sensitive data will not	Human data Data sensitivity Existing data Data publication TSD	








Tool or resource	Description	Related pages	Registry
	<p>physically leave the country, but will reside on TSD.</p> <p>The European Genome-phenome Archive (EGA)</p> <p></p>		
Federated EGA Sweden node 	<p>Secure archiving and sharing of genetic and phenotypic data resulting from Swedish biomedical research projects.</p> <p>The European Genome-phenome Archive (EGA)</p>	<p>Human data</p> <p>Data sensitivity</p> <p>Existing data</p> <p>Data publication</p>	
Federated Health Information Model (FHIM)	<p>A UML-based logical health information model defined by the Open Group, intended to achieve interoperability between multiple healthcare standards and protocols.</p>	<p>Health data</p>	
Feide 	<p>Feide is the national solution for secure login and data exchange in education and research. Feide can be linked with Life Science Login (LS Login) through eduGAIN.</p> <p></p>	<p>TSD NeLS</p> <p>Marine Metagenomics</p>	
FHIR4FAIR	<p>Guidance on how FHIR can be used for supporting FAIR health data.</p>	<p>Health data</p>	
FigShare	<p>Data publishing platform</p>	<p>Biomolecular simulatio...</p> <p>Enzymology and biocata...</p> <p>Data publication</p> <p>Identifiers</p> <p>Documentation and meta...</p>	<p> Standa</p> <p> Trainii</p>
Fiji	<p>Fiji is an image processing package</p>	<p>OMERO</p>	<p> Toolinfo</p> <p> Trainii</p>
FileZilla	<p>A free FTP (FTPS and SFTP) solution with graphical interface</p>	<p>Data transfer</p>	<p> Trainii</p>
Findata 	<p>The Health and Social Data Permit Authority. Findata offers services and enables secure and efficient utilisation of data materials containing health and social data.</p>	<p>CSC Researcher</p> <p>Data Steward</p> <p>Data sensitivity</p> <p>Existing data</p> <p>Human data</p>	
Fingenious 	<p>Finnish Biobank Cooperative (FINBB) connects researchers to Finnish biomedical research. Via Fingenious®</p>	<p>CSC Researcher</p> <p>Data Steward</p>	

















Tool or resource 	Description 	Related pages 	Registry
	services the researcher can connect to all Finnish public bio banks.	Data sensitivity Human data	
FIP Wizard	FIP Wizard is a toolset to facilitate the capture of data in FAIR Convergence Matrix questionnaire prompting communities to explicitly declare their FAIR Implementation Profiles. These profiles can be then stored and published as nanopublications.	Data management plan Project data managemen...	
Flame	Flame is a flexible framework supporting predictive modeling and similarity search within the eTRANSAFE project.	Toxicology data	 Tool info
Flemish Supercomputing Center (VSC) 	VSC is the Flanders' most highly integrated high-performance research computing environment, providing world-class services to government, industry, and researchers.	Data Steward Research Software Engi... Data analysis Data storage	
Free-IPA	FreeIPA is an integrated Identity and Authentication solution for Linux/UNIX networked environments.	TransMed	
Freegenes	Repository of IP-free synthetic biological parts	Microbial biotechnology	
GA4GH Data Security Toolkit	Principled and practical framework for the responsible sharing of genomic and health-related data.	Human data	
GA4GH Genomic Data Toolkit	Open standards for genomic data sharing.	Human data	
GA4GH Regulatory and Ethics toolkit	Framework for Responsible Sharing of Genomic and Health-Related Data	Human data Ethical aspects	
Galaxy	Open, web-based platform for data intensive biomedical research. Whether on the free public server or your own instance, you can perform, reproduce, and share complete analyses.	Marine Metagenomics Single-cell sequencing Data analysis Data provenance Data storage	 Tool info  Traini
Galaxy Belgium 	Galaxy Belgium is a Galaxy instance managed by the Belgian ELIXIR node, funded by the Flemish government, which utilizing infrastructure provided	Researcher Data analysis	










Tool or resource	Description	Related pages	Registry
	<p>by the Flemish Supercomputer Center (VSC).</p> <p>Galaxy</p>		
Galaxy Estonia 	<p>This is the Estonian instance of Galaxy, which is an open source, web-based platform for data intensive biomedical research.</p> <p>Galaxy</p>	<p>Researcher</p> <p>Data analysis</p>	
Galaxy MetaCentrum 	<p>Galaxy MetaCentrum is a Galaxy instance managed by the Czech ELIXIR node and e-INFRA. It provides extra support for RepeatExplorer tool for plant genomic analysis.</p> <p>Galaxy</p>	<p>Researcher</p> <p>Data analysis</p>	<p> Tool info</p>
GenBank	<p>A database of genetic sequence information. GenBank may also refer to the data format used for storing information around genetic sequence data.</p>	<p>Microbial biotechnology</p> <p>Virology</p>	<p> Tool info</p> <p> Standards</p> <p> Training</p>
Gene Expression Omnibus (GEO)	<p>A repository of MIAME-compliant genomics data from arrays and high-throughput sequencing</p>	<p>Microbial biotechnology</p> <p>Single-cell sequencing</p> <p>Data publication</p>	<p> Standards</p>
Gene Ontology	<p>The Gene Ontology Consortium continues to develop, maintain and use a set of structured, controlled vocabularies for the annotation of genes, gene products and sequences.</p>	<p>Single-cell sequencing</p>	<p> Tool info</p> <p> Standards</p> <p> Training</p>
Genesys	<p>Genesys is an online platform where you can find information about Plant Genetic Resources for Food and Agriculture PGRFA conserved in genebanks worldwide.</p>	<p>Plant sciences</p>	
Genomic Epidemiology Ontology (GenEpiO)	<p>The Genomic Epidemiology Ontology (GenEpiO) covers vocabulary necessary to identify, document and research food-borne pathogens, infectious disease surveillance and outbreak investigations.</p>	<p>Human pathogen genomics</p>	<p> Standards</p>
Genomic Standards	<p>The Genomic Standards Consortium (GSC) is an open-membership working body enabling genomic data</p>	<p>Marine metagenomics</p>	<p> Standards</p>









Tool or resource 	Description 	Related pages 	Registry
Consortium (GSC)	integration, discovery and comparison through international community-driven standards.		
Genomics of Drug Sensitivity in Cancer (GDSC)	Database of drug sensitivity and genomic data from cancer cell lines.	Cancer data	
GFBio Data Management Plan Tool 	DMP creation and support by German Federation for Biological Data (GFBio).	Data management plan	
GHGA 	The German Human Genome-Phenome Archive.	Data storage Documentation and meta... Researcher Data Steward	
GHS Classification	GHS (Globally Harmonized System of Classification and Labelling of Chemicals) classification was developed by the United Nations in an attempt to align standards and chemical regulations in different countries. GHS includes criteria for the classification of health, physical and environmental hazards, and what information should be included on labels of hazardous chemicals and safety data sheets.	Toxicology data	
Git	Distributed version control system designed to handle everything from small to very large projects	Single-cell sequencing Data organisation	 Traini
GitHub	Versioning system, used for sharing code, as well as for sharing of small data	Machine learning Creating a data-flow d... Data organisation Documentation and meta...	 Standa  Traini
GitLab	GitLab is an open source end-to-end software development platform with built-in version control, issue tracking, code review, CI/CD, and more. Self-host GitLab on your own servers, in a container, or on a cloud provider.	Data organisation	 Standa  Traini





Tool or resource	Description	Related pages	Registry
Global Initiative on Sharing All Influenza Data (GISAID)	A web-based platform for sharing viral sequence data, initially for influenza data, and now for other pathogens (including SARS-CoV-2).	Human pathogen genomics Virology Machine actionability	 Standa
Globus	High-performance data transfers between systems within and across organizations	Data transfer	
GnplS	A multispecies integrative information system dedicated to plant and fungi pests. It allows researchers to access genetic, phenotypic and genomic data. It is used by both large international projects and the French National Research Institute for Agriculture, Food and Environment.	Plant Phenomics	 Tool info  Standa
Google Dataset Search	Search engine for datasets	Existing data	
Google Drive	Cloud Storage for Work and Home	Data transfer	
Google Fit	A health-tracking platform by Google for collecting and accessing fitness data.	Cancer data	
GotEnzymes	GotEnzymes: an extensive database of enzyme parameter predictions.	Enzymology and biocata...	
GPCRmd	Repository of GPCR protein simulations	Biomolecular simulatio...	 Tool info
Greek COVID-19 Portal 	Provides information, guidelines, tools and services to support researchers to utilise Greek and European infrastructures for data sharing. The portal is a national node of the European COVID-19 Data Portal. COVID-19 Data Portal	COVID-19 Data Portal	
Handbook for Adequate Natural Data Stewardship 	Guidelines on data stewardship and practical toolbox for researchers at Dutch University Medical Centres (UMCs).	Human data Researcher Data management plan Compliance monitoring ...	
Harmony	Fast, sensitive and accurate integration of single-cell data.	Single-cell sequencing	 Tool info  Trainii

















Tool or resource 	Description 	Related pages 	Registry
Hartwig Medical Foundation (HMF)	Multi-omic cancer dataset of >7000 patients, including whole genome sequencing and clinical outcomes.	Cancer data	
Harvard Medical School - Electronic Lab Notebooks	ELN Comparison Grid by Harvard Medical School	Identifiers Documentation and meta...	
Haz-Map	Haz-Map is an occupational health database that makes available information about the adverse effects of exposures to chemical and biological agents at the workplace. These associations have been established using current scientific evidence.	Toxicology data	
Health-RI Service Catalogue 	Health-RI provides a set of tools and services available to the biomedical research community.	Human data Researcher Data analysis Existing data Data storage	
Hierarchical Data Format	HDF5 consists of a file format for storing HDF5 data, a data model for logically organizing and accessing HDF5 data from an application, and the software (libraries, language interfaces, and tools) for working with this format.	Single-cell sequencing	 Standards
High performance computing 	CSC Supercomputers Puhti, Mahti and LUMI performance ranges from medium scale simulations to one of the most competitive supercomputers in the world.	CSC Researcher Data Steward Data analysis	
HL7 FHIR	A standard used for health care data exchange.	Cancer data Health data	
Homebrew	The Missing Package Manager for macOS or Linux	Data analysis	
How to License Research Data - DCC	Guidelines about how to license research data from Digital Curation Centre	Licensing	
HuggingFace	The platform where the machine learning community collaborates on models, datasets, and applications.	Machine learning	 Trainii



Tool or resource 	Description 	Related pages 	Registry 
Human Data Guidelines 	Guidelines as well as further information on legal considerations when working with human biomedical data.	Human data Data sensitivity	
Human Phenotype Ontology (HPO)	Standardised vocabulary of phenotypic abnormalities encountered in human disease.	Health data	 Tool info  Standa
Human Protein Atlas	The Human Protein Atlas contains information for a large majority of all human protein-coding genes regarding the expression and localization of the corresponding proteins based on both RNA and protein data.	Proteomics	 Standa  Traini
HumanMine	HumanMine integrates many types of human data and provides a powerful query engine, export for results, analysis for lists of data and FAIR access via web services.	Human data	 Tool info  Standa  Traini
HUNTCloud 	The HUNT Cloud, established in 2013, aims to improve and develop the collection, accessibility and exploration of large-scale information. HUNT Cloud offers cloud services and lab management. It is a key service that has established a framework for data protection, data security, and data management. HUNT Cloud is owned by NTNU and operated by HUNT Research Centre at the Department of Public Health and Nursing at the Faculty of Medicine and Health Sciences. 	Human data Data analysis Data sensitivity Data storage	
HUPO Proteomics Standards Initiative	The HUPO Proteomics Standards Initiative defines community standards for data representation in proteomics and interactomics to facilitate data comparison, exchange and verification.	Microbial biotechnology Proteomics	 Standa
HYPATIA - Cloud Infrastructure for ELIXIR Greece 	HYPATIA is a cloud-based infrastructure that has been developed to support the computational needs of the ELIXIR Greece community and the wider life sciences community including	Data analysis Data storage Data transfer	
















Tool or resource	Description	Related pages	Registry
	<p>researchers and institutions in Greece and internationally.</p> 		
IBM Aspera	With fast file transfer and streaming solutions built on the award-winning IBM FASP protocol, IBM Aspera software moves data of any size across any distance	Data transfer	
ICD-O-3 Coding Materials	A classification system for oncology, used in cancer registries and pathology reporting.	Cancer data	
ICGC-ARGO	Integrated clinical and genomic data for over 100,000 cancer patients from the International Cancer Genome Consortium.	Cancer data	
ICTV	The International Committee on Taxonomy of Viruses (ICTV) taxonomic database is a maintained resource comprised of a universal taxonomic scheme for all the viruses infecting animals (vertebrates, invertebrates and protozoa), plants (higher plants and algae), fungi, bacteria and archaea.	Virology	 Tool info  Standard
Identifiers.org	The Identifiers.org Resolution Service provides consistent access to life science data using Compact Identifiers. Compact Identifiers consist of an assigned unique prefix and a local provider designated accession number (prefix:accession).	FAIRtracks Identifiers	 Tool info  Standard  Training
iGEM Parts Registry	A collection of standard biological parts to which all entrants in the iGEM competition must submit their parts	Microbial biotechnology	
ilastik	ilastik is a user-friendly tool for interactive image classification, segmentation and analysis	OMERO	 Tool info
Image Data Resource (IDR)	A repository of image datasets from scientific publications	OMERO Bioimaging data Microbial biotechnology	 Tool info  Standard








Tool or resource	Description	Related pages	Registry
INDEXAR 	National directory of repositories and digital scientific journals, in the fields of science and culture.	Researcher Data Steward Data publication Existing data	
Infectious Diseases Toolkit (IDTk)	Discover tools and best practices for working with infectious disease data. IDTk provides general guidance as well as specific information for pathogen characterisation, socioeconomic data, human biomolecular data, and human clinical and health data.	COVID-19 Data Portal Human pathogen genomics Virology	
Informatics for Integrating Biology & the Bedside (i2b2)	An open-source data warehouse for clinical and translational research.	Cancer data	 Traini
Informed Consent Ontology (ICO)	The Informed Consent Ontology (ICO) is an ontology for the informed consent and informed consent process in the medical field.	Human data Ethical aspects	 Standa
Inkscape	Inkscape is a versatile and free graphic design editor suitable for both personal and professional use. It offers a comprehensive suite of design tools, enabling users to create and edit vector graphics, primarily in the SVG format. Additionally, Inkscape supports working with rasterized images (bitmaps), making it a powerful tool for diverse design projects.	Creating a data-flow d...	 Traini
Integrated Database of Small Molecules (IDSM)	Increasing interoperability of small molecules by agregating many different sources of information into a single, logically coherent and semantically interconnected information source.	Machine actionability	 Tool infi  Standa
InterMine 	InterMine integrates heterogenous data sources, making it easy to query and analyse data.	Data Steward Researcher Documentation and meta...	
International Classification of	Codes for diseases, signs and symptoms, abnormal findings, complaints, social circumstances, and	Health data	 Tool infi











Tool or resource	Description	Related pages	Registry
Diseases 10th Revision (ICD-10)	external causes of injury or diseases. Replaced by ICD-11 on 1/1/2022.		
International Classification of Diseases 11th Revision (ICD-11)	Replaces the ICD-10 as the global standard for recording health information and causes of death. It is developed by the World Health Organization and is annually updated.	Health data	 Tool info
International Compilation of Human Research Standards	The International Compilation of Human Research Standards enumerates over 1,000 laws, regulations, and guidelines (collectively referred to as standards) that govern human subject protections in 133 countries, as well as standards from a number of international and regional organizations	Human data	
International Multicrop Databases	A catalogue of relevant International Multicrop Databases	Plant sciences	
International Nucleotide Sequence Database Collaboration	The International Nucleotide Sequence Database Collaboration (INSDC) is a long-standing foundational initiative that operates between DDBJ, EMBL-EBI and NCBI. INSDC covers the spectrum of data raw reads, through alignments and assemblies to functional annotation, enriched with contextual information relating to samples and experimental configurations.	Galaxy Microbial biotechnology Plant sciences Data publication	 Training
International Nucleotide Sequence Database Collaboration (INSDC)	A collaborative database of genetic sequence datasets from DDBJ, EMBL-EBI and NCBI	Galaxy Microbial biotechnology Plant sciences Data publication	 Tool info  Training
International Society for the Advancement of Cytometry (ISAC)	Data standards and formats for reporting flow cytometry data	Microbial biotechnology	
International Union of	Resource for naming standards in biochemistry and molecular biology	Microbial biotechnology	

















Tool or resource 	Description 	Related pages 	Registry 
Biochemistry and Molecular Biology (IUBMB)			
InterPro	Functional analysis of protein sequences by classifying them into families and predicting the presence of domains and important sites	Proteomics	 Tool info  Standa  Traini
IntoGen	IntoGen collects and analyses somatic mutations in thousands of tumor genomes to identify cancer driver genes.	Human data	 Tool info  Traini
Intrinsically disordered proteins ontology (IDPO)	Intrinsically disordered proteins ontology	Intrinsically disorder...	 Tool info  Standa
IRIS	The Integrated Risk Information System (IRIS) resource evaluates information on health that might arise after exposure to environmental contaminants.	Toxicology data	 Tool info  Traini
iRODS	Integrated Rule-Oriented Data System (iRODS) is open source data management software for a cancer genome analysis workflow.	TransMed Bioimaging data Data storage	 Tool info
IRPMC	Integrated Resource for Reproducibility in Macromolecular Crystallography. Repository of diffraction experiments used to determine protein structures in the PDB, contributed by the CSGID, SSGCID, JCSG, MCSG, SGC, and other large-scale projects, as well as individual research laboratories.	Structural Bioinformatics	
ISA-tools	Open source framework and tools helping to manage a diverse set of life science, environmental and biomedical experiments using the Investigation Study Assay (ISA) standard	Plant sciences	 Standa
ISA4J	Open source software library that can be used to generate a ISA-TAB export from in-house data sets. These	Plant Phenomics	 Tool info












Tool or resource	Description	Related pages	Registry
	comprises e.g. local database or local file system based experimental.		
ISO 13606	A standard designed by the European Committee for Standardization to define a information architecture for communicating part or all of the EHR of a single patient between EHR systems or between EHR systems and a centralised EHR data repository.	Health data	
ISO 13972:2022	Defines data elements, the relationships between such data elements and terminologies for detailed small, reusable clinical models.	Health data	
ISO/DIS 14199	Domain model for data interchange that enables semantic interoperability and intends to integrate biomedical, clinical research and routine healthcare data.	Health data	
ISO/IEC 27001	International information security standard	Human data Compliance monitoring ...	 Standa
ITER	ITER is an Internet database of human health risk values and cancer classifications for over 680 chemicals of environmental concern from multiple organizations worldwide.	Toxicology data	 Traini
IUPAC-IUBMB Joint Commission on Biochemical Nomenclature (JCBN)	A collaborative resource from IUPAC and IUBMB for naming standards in biochemistry	Microbial biotechnology	
JBEI-ICE	A registry platform for biological parts	Microbial biotechnology	
JGA	The Japanese Genotype-phenotype Archive (JGA) is a service for permanent archiving and sharing of all types of individual-level genetic and de-identified phenotypic data resulting from biomedical research projects.	Human data	













Tool or resource 	Description 	Related pages 	Registry
Jisc Research data management toolkit 	Guidance on the research data lifecycle that signposts resources from a wide range of organisations and websites.	Data Steward Researcher Documentation and meta...	
Jotform	Commercial online survey tool.	Health data	
Jupyter	Jupyter notebooks allow to share code, documentation	Data analysis	 Traini
Jupyter kernels	Kernel Zero is IPython, which you can get through ipykernel, and is still a dependency of jupyter. The IPython kernel can be thought of as a reference implementation, as CPython is for Python.	Data analysis	
JWS Online	JWS-Online is a systems biology tool for the construction, modification and simulation of kinetic models and for the storage of curated models.	NeLS Enzymology and biocata...	 Standa
Keras	Keras is an open-source library that provides a Python interface for artificial neural networks.	Machine learning	 Traini
Keycloak	Keycloak is an open source identity and data access management solution.	TransMed	 Traini
KnetMiner	A software to make biological search more integrated, intuitive and intelligent, enabling a better way to discover and share new insights.	Machine actionability	 Tool info  Standa  Traini
Kubernetes	Kubernetes, also known as K8s, is an open-source system for automating deployment, scaling, and management of containerized applications.	Data analysis	 Traini
LeafNet	LeafNet is a convenient tool that can robustly localise stomata and segment pavement cells for light-microscope images of leaves	Plant Phenomics	 Tool info
learning.DSW 	A training instance of Data Steward Wizard (DSW), which has the FNR and the DPIA templates. <div>Data Stewardship Wizard </div>	Data management plan	










Tool or resource 	Description 	Related pages 	Registry
Libre Office Draw	LibreOffice Draw is a free, open-source vector graphics editor that is part of the LibreOffice suite, developed by The Document Foundation. This tool allows users to create designs with ease, offering a variety of features such as shape tools, straight and curved line tools, polygon tools, and more. It provides a robust platform for crafting illustrations and diagrams.	Creating a data-flow d...	
Life Science Login (LS Login)	An authentication service from EOSC-Life	IFB NeLS TransMed TSD	
Life-Monitor	LifeMonitor is a service to support the sustainability and reusability of published computational workflows.	Data analysis	 Traini
LimeSurvey	A free and open source platform to develop and publish online surveys.	Health data	
limma	Linear Models for Microarray Data	Toxicology data	 Tool info  Traini
LimTox	The LiMTox system is a text mining approach that tries to extract associations between compounds and a particular toxicological endpoint at various levels of granularity and evidence types, all inspired by the content of toxicology reports. It integrates direct ranking of associations between compounds and hepatotoxicity through combination of heterogeneous complementary strategies from term co-mention, rules, and patterns to machine learning-based text classification. It also provides indirect associations to hepatotoxicity through the extraction of relations reflecting the effect of compounds at the level of metabolism and liver enzymes.	Toxicology data	 Tool info
Linked Open Vocabularies (LOV)	Web portal for finding ontologies	Documentation and meta...	















Tool or resource 	Description 	Related pages 	Registry 
List of Prokaryotic names with Standing in Nomenclature (LPSN)	A database of prokaryote specific biodiversity information	Microbial biotechnology	 Tool info  Standa
Logical Observation Identifiers Names and Codes (LOINC)	Terminology standard for health measurements, observations, and documents.	Health data	
Loom	Loom is an efficient file format for large omics datasets.	Single-cell sequencing	
LUMI	EuroHPC world-class supercomputer	Data analysis	 Tool info
Luxembourg Covid-19 data portal 	The Luxembourgish COVID-19 Data Portal acts as a collection of links and provides information to support researchers to utilise Luxembourgish and European infrastructures for data sharing.	COVID-19 Data Portal Data sensitivity	
M-CSA (Mechanism and Catalytic Site Atlas)	M-CSA is a database of enzyme reaction mechanisms.	Enzymology and biocata...	 Standa
MacPorts	The MacPorts Project is an open-source community initiative to design an easy-to-use system for compiling, installing, and upgrading either command-line, X11 or Aqua based open-source software on the Mac operating system.	Data analysis	
MarDB	MarDB includes all non-complete marine microbial genomes regardless of level of completeness. Each entry contains 120 metadata fields including information about sampling environment or host, organism and taxonomy, phenotype, pathogenicity, assembly and annotation.	Marine Metagenomics	 Tool info
MarFun	MarFun is a manually curated marine fungi genome database.	Marine Metagenomics	












Tool or resource 	Description 	Related pages 	Registry 
Marine Metagenomics Portal (MMP)	High-quality curated and freely accessible microbial genomics and metagenomics resources for the marine scientific community	Marine Metagenomics	 Tool info
MarRef	MarRef is a manually curated marine microbial reference genome database that sequenced genomes. Each entry contains 120 metadata fields including information about sampling environment or host, organism and taxonomy, phenotype, pathogenicity, assembly and annotation information	Marine Metagenomics	 Tool info
Mascot	Powerful search engine which uses mass spectrometry data to identify proteins from DNA, RNA and protein sequence databases as well as spectral libraries.	Proteomics	 Tool info  Standards  Training
Mass Centric Peptide Database (MaCPepDB)	A database to quickly access all tryptic peptides of the UniProtKB	Proteomics	 Standards
MassIVE	Powerful search engine which uses mass spectrometry data to identify proteins from DNA, RNA and protein sequence databases as well as spectral libraries.	Proteomics	 Standards  Training
Medical Dictionary for Regulatory Activities (MedDRA)	A single standardised international medical terminology.	Cancer data	 Standards
MemProtMD	Database of over 5000 intrinsic membrane protein structures	Biomolecular simulation...	 Tool info
Mendeley data	Multidisciplinary, free-to-use open repository specialized for research data	Biomolecular simulation... Data publication Existing data	 Standards
Meta-pipe 	META-pipe is a pipeline for annotation and analysis of marine metagenomics samples, which provides insight into phylogenetic diversity, metabolic and functional potential of environmental communities.	Data analysis Marine Metagenomics	











Tool or resource	Description	Related pages	Registry
			
Metabolome Exchange	A repository of genomics data relating to the study of the metabolome	Microbial biotechnology	
MetaCyc	The MetaCyc database is a comprehensive resource for metabolic pathways and enzymes from all domains of life.	Enzymology and biocata...	 Tool info  Standa  Traini
Metagen-FastQC	Cleans metagenomic reads to remove adapters, low-quality bases and host (e.g. human) contamination	Data publication	
MIABIS	Minimum Information About Biobank data Sharing (MIABIS) is dedicated to standardising data elements used to describe biobanks, research on samples, and associated data.	Data discoverability Documentation and meta...	 Standa
MIAME	Minimum Information About a Microarray Experiment	Documentation and meta...	 Standa  Traini
MIAPPE	Minimum Information About a Plant Phenotyping Experiment	Plant Genomics Plant Phenomics Plant sciences Machine actionability Documentation and meta...	 Standa  Traini
MIAPPE-compliant spreadsheet template	MIAPPE-compliant spreadsheet template	Plant sciences	
MIAPPE_Checklist-Data-Model	This document describes the MIAPPE Checklist and Data Model	Plant sciences	
Microsoft Azure	Cloud storage and file sharing service from Microsoft	Data transfer	
Microsoft OneDrive	Cloud storage and file sharing service from Microsoft	Data transfer Data storage	
MineProt	A stand-alone server for structural proteome curation	Structural Bioinformatics	 Tool info
Minimum Information about a (Meta)Genome	a conceptual structure for extending the core INSDC information to describe genomic and metagenomic sequences.	Human pathogen genomics Marine metagenomics	 Standa














Tool or resource	Description	Related pages	Registry
Sequence (MIxS - MIGS/MIMS)			
Minimum Information about a Single-Cell Experiment (minSCe)	MinSCe is a minimum set of metadata categories used to describe a single-cell assay in sufficient detail to enable the analysis of transcriptomic data.	Single-cell sequencing	 Standa
Minimum Information about an Uncultivated Virus Genome (MIOViG)	MIxS - MIUViG (Minimum Information about an Uncultivated Virus Genome) is a checklist that is a part of the larger MIxS standard.	Virology	 Standa
Minimum Information about any (x) Sequence (MIxS)	An overarching framework of standard metadata that includes sequence-type and technology-specific checklists.	Human pathogen genomics Marine metagenomics Virology	 Standa
Minimum Information About Disorder Experiments (MIADE)	Minimum information guidelines for experiments structurally characterising intrinsically disordered protein regions.	Intrinsically disorder...	 Standa  Trainii
Minimum information standards in life sciences	List of minimum information standards on Wikipedia	Documentation and meta...	
MINSEQE	Minimum Information about a high-throughput SEQuencing Experiment	Documentation and meta...	 Standa  Trainii
MobiDB	A database of protein disorder and mobility annotations	Intrinsically disorder...	 Tool info  Standa  Trainii
MoDEL	Database of Protein Molecular Dynamics simulations representing different structural clusters of the PDB	Biomolecular simulatio...	 Tool info  Trainii
MoDEL-CNS	Repository for Central Nervous System-related mainly membrane protein MD simulations	Biomolecular simulatio...	









Tool or resource	Description	Related pages		Registry
ModelArchive	Repository for theoretical models of macromolecular structures with DOIs for models	Biomolecular simulatio...	Structural Bioinformatics	 Tool info  Standards
MOLGENIS	Molgenis is a modular web application for scientific data. Molgenis provides researchers with user friendly and scalable software infrastructures to capture, exchange, and exploit the large amounts of data that is being produced by scientific organisations all around the world.	MOLGENIS	Identifiers	 Tool info
MolMeDB	Database about interactions of molecules with membranes	Biomolecular simulatio...		 Tool info  Standards
MolSSI - BioExcel COVID-19 therapeutics hub	Aggregating critical information to accelerate COVID-19 drug discovery for the molecular modeling and simulation community.	Biomolecular simulatio...		
MONARC	A risk assessment tool that can be used to do Data Protection Impact Assessments	TransMed	Human data	
Monocle	The Monocle 3 package provides a toolkit for analyzing single-cell gene expression experiments.	Single-cell sequencing		 Tool info  Training
MRI2DICOM	a Magnetic Resonance Imaging (MRI) converter from ParaVision® (Bruker, Inc. Billerica, MA) file format to DICOM standard	XNAT-PIC		
msconvert	Provides a set of open-source, cross-platform software libraries and tools that facilitate proteomics data analysis.	Proteomics		 Tool info  Training
MSK-CHORD	Platform from Memorial Sloan Kettering providing molecular and clinical data to support precision oncology.	Cancer data		
MTB Portal	Provides a general framework to interpret the functional and predictive relevance of a list of gene variants through interactive reports.	Cancer data		




Tool or resource 	Description 	Related pages 	Registry 
Multi-Crop Passport Descriptor (MCPD)	The Multi-Crop Passport Descriptor is the metadata standard for plant genetic resources maintained ex situ by genbanks.	Plant sciences	 Standards  Training
MyTARDIS	A file-system based platform handling the transfer of data	Bioimaging data	
NAISS 	The National Academic Infrastructure for Supercomputing in Sweden (NAISS) is a national research infrastructure that makes available large-scale high-performance computing resources, storage capacity, and advanced user support, for Swedish research. 	Data analysis Data storage	
National Cancer Institute (NCI) treatment drugs	A database of cancer-related drugs, including descriptions, uses, and approvals.	Cancer data	 Training
National Center for Biotechnology Information (NCBI)	Online database hosting a vast amount of biotechnological information including nucleic acids, proteins, genomes and publications. Also boasts integrated tools for analysis.	Identifiers	 Training
National instance of Genomic Data Infrastructure for ELIXIR Greece 	An instance of the Genomic Data Infrastructure GDI on ELIXIR Greece, for secure genomic data management, including storage, discovery, access, and reception. This is a pilot instance based on the GDI Starter Kit. 	Human data Data sensitivity Data publication Existing data	
NBIS Data Management Consultation 	Free consultation service regarding data management questions in life science research. 	Data management plan Data publication Data sensitivity	
NBP	The National Biomonitoring Program (NBP) is a public resource that offers an assessment of nutritional status and the exposure of the U.S. population to environmental chemicals and toxic substances.	Toxicology data	













Tool or resource	Description	Related pages	Registry
NCBI Taxonomy	NCBI's taxonomy browser is a database of biodiversity information	Human pathogen genomics Microbial biotechnology	 Standa
NCIMB	Hosts information relating to strains, cultures and more	Microbial biotechnology	
NeLS 	Norwegian e-Infrastructure for Life Sciences enables Norwegian life scientists and their international collaborators to store, share, archive, and analyse their omics-scale data. 	NeLS Marine Metagenomics	
Nettskjema 	Nettskjema is a solution for designing and managing data collections using online forms and surveys. It can be used for collecting sensitive data and offers a high degree of security and privacy. 	Data sensitivity TSD	
Nextcloud	As fully on-premises solution, Nextcloud Hub provides the benefits of online collaboration without the compliance and security risks	Data storage	
Nextflow	Nextflow is a framework for data analysis workflow execution	Data analysis	 Tool info  Trainii
Nextstrain	Nextstrain is an open-source project to harness the scientific and public health potential of pathogen genome data.	Virology	 Tool info  Standa  Trainii
NIRD 	The National Infrastructure for Research Data (NIRD) infrastructure offers storage services, archiving services, and processing capacity for computing on the stored data. It offers services and capacities to any scientific discipline that requires access to advanced, large-scale, or high-end resources for storing, processing, publishing research data or searching digital databases and collections. This service is owned and operated by Sigma2 NRIS , which is a joint collaboration between UiO, UiB, NTNU, UiT, and UNINETT Sigma2 .	Data transfer Data storage NeLS FAIRtracks	

















Tool or resource	Description	Related pages	Registry
			
NMRLipids	Repository for lipid MD simulations to validate force fields with NMR data	Biomolecular simulatio...	 Standa
Norwegian COVID-19 Data Portal 	The Norwegian COVID-19 Data Portal aims to bundle the Norwegian research efforts and offers guidelines, tools, databases and services to support Norwegian COVID-19 researchers.	Human data Data sensitivity Existing data Data publication COVID-19 Data Portal	
Norwegian Research and Education Cloud (NREC) 	NREC is an Infrastructure-as-a-Service (IaaS) project between the University of Bergen and the University of Oslo, with additional contributions from NeIC (Nordic e-Infrastructure Collaboration) and Uninett., commonly referred to as a cloud infrastructure. An IaaS is a self-service infrastructure where you spawn standardized servers and storage instantly, as needed, from a given resource quota.  	Data analysis Data storage	
NPDS	The National Poison Data System (NPDS) is a resource that provides poison exposure occurring in the US and some freely associated states.	Toxicology data	
OHDSI	Multi-stakeholder, interdisciplinary collaborative to bring out the value of health data through large-scale analytics. All our solutions are open-source.	TransMed Toxicology data Data quality	 Tool info
OHDSI Athena	Repository of ontologies for use with the OMOP CDM.	Health data	
OLOS 	OLOS is a Swiss-based data management portal, to help Swiss researchers safely manage, publish and preserve their data.	Data storage Data publication	
OME Data Model and File Formats	The OME Model is a specification for storing data on biological imaging.	Machine actionability	
OMERO	OMERO is an open-source client-server platform for managing, visualizing and	Galaxy OMERO Bioimaging data	 Tool info  Traini
















Tool or resource	Description	Related pages	Registry
	analyzing microscopy images and associated metadata		
OmicsDI	Omics Discovery Index (OmicsDI) provides a knowledge discovery framework across heterogeneous omics data (genomics, proteomics, transcriptomics and metabolomics)	Galaxy Existing data Machine actionability	 Tool info  Standa  Traini
Omnipy	Omnipy is a high level Python library for type-driven data wrangling and scalable workflow orchestration.	FAIRtracks	 Tool info  Traini
OMOP Common Data Model	Open community standard for observational health care data obtained from health records.	Health data	 Traini
OMOP-CDM	OMOP is a common data model for the harmonisation for of observational health data.	TransMed Cancer data Data quality	
OncoKB	Precision oncology knowledge base that annotates the effects and treatment implications of somatic mutations in cancer.	Cancer data	
OnotoMaton	OntoMaton facilitates ontology search and tagging functionalities within Google Spreadsheets.	Plant sciences Identifiers	
Ontobee	A web portal to search and visualise ontologies	Documentation and meta...	 Standa  Traini
ONTOBROWSER	The OntoBrowser tool was developed to manage ontologies and code lists.	Toxicology data	 Tool info
Ontology Lookup Service	EMBL-EBI's web portal for finding ontologies	FAIRtracks Bioimaging data Enzymology and biocata... Health data Documentation and meta...	 Tool info  Standa  Traini
Open Definition Conformant Licenses	Licenses that are conformant with the principles laid out in the Open Definition.	Licensing	
Open Funder Registry (OFR)	The Open Funder Registry (OFR) is a registry of persistent identifiers for grant-giving organisations.	Identifiers	 Standa

Tool or resource 	Description 	Related pages 	Registry 
Open mHealth	An open-source Clinical Interpretations platform for integrating mobile health data to improve healthcare insights.	Cancer data	 Standa
Open Neural Network Exchange (ONNX)	ONNX is an open format built to represent machine learning models.	Machine learning	
Open Researcher and Contributor ID Registry (ORCID)	ORCID is an open, non-profit, community-driven registry of unique researcher identifiers and offers a transparent method of attributing outputs.	Identifiers	 Tool info  Standa
Open-science.it 	Italian portal dedicated to the field of open science.	Data Steward Researcher Data management plan	
OpenAIRE Explore	Explore Open Access research outcomes from OpenAIRE network	Existing data	
openBIS	openBIS (open Biology Information System) is an Electronic Laboratory Notebook and a Laboratory Information Management System (ELN-LIMS) solution suitable for life science laboratories.	Enzymology and biocata...	 Trainii
OpenEBench	ELIXIR benchmarking platform to support community-led scientific benchmarking efforts and the technical monitoring of bioinformatics resources	Data analysis	 Tool info
OpenEHR	Non-profit organisation that publishes technical standards for an EHR platform along with domain-developed clinical models to define content.	Health data	 Standa
OpenMS	OpenMS offers an open-source C++ library (+ Python bindings) for LC/MS data management, analysis and visualization.	Proteomics	 Tool info  Trainii
OpenRDM.swiss 	openRDM.swiss offers research data management as a service to the scientific community, based on the powerful openBIS platform.	Data analysis	









Tool or resource	Description	Related pages	Registry
OpenRefine	Data curation tool for working with messy data	TransMed Data quality Machine actionability	 Trainii
openscience.no 	General information about open research, especially open access and guidance for researchers and institutions.		
OpenScienceFramework	free and open source project management tool that supports the entire research lifecycle: planning, execution, reporting, archiving, and discovery	Biomolecular simulation... Documentation and meta...	 Standa
OpenSlide	C library that provides a simple interface to read whole-slide images (also known as virtual slides)	Bioimaging data	
OpenStack	OpenStack is an open source cloud computing infrastructure software project and is one of the three most active open source projects in the world	Data analysis Data storage	 Trainii
Operational Data Model-XML (ODM-XML)	A CDISC Data Exchange Standard that is a vendor-neutral, platform-independent format for exchanging and archiving clinical and translational research data, along with their associated metadata, administrative data, reference data, and audit information.	Health data	
OSF	OSF (Open Science Framework) is a free, open platform to support your research and enable collaboration.	Data storage	 Trainii
OTP	One Touch Pipeline (OTP) is a data management platform for running bioinformatics pipelines in a high-throughput setting, and for organising the resulting data and metadata.	Human data	 Tool info
ownCloud	Cloud storage and file sharing service	Data transfer Data storage	
ownCloud@CESNET 	CESNET-hosted ownCloud is a 100 GB cloud storage freely available for Czech	Researcher Research Software Engi...	












Tool or resource	Description	Related pages	Registry
	<p>scientists to manage their data from any research projects.</p> <p>ownCloud </p>	<p>Data storage</p> <p>Data organisation</p>	
PAA	PAA is an R/Bioconductor tool for protein microarray data analysis aimed at biomarker discovery.	Proteomics	 Tool info
Paige AI	AI solutions for digital pathology in cancer detection.	Cancer data	
PanDrugs	Platform to prioritise cancer drug treatments based on individual multi-omics data including SNVs, CNVs, and gene expression.	Cancer data	 Tool info  Standards  Training
PANGAEA	Data Publisher for Earth and Environmental Science	Data publication	 Tool info  Standards  Training
PathAI	AI-powered pathology tools for cancer diagnosis and research.	Cancer data	
Pathogen Detection	NCBI Pathogen Detection integrates bacterial and fungal pathogen genomic sequences from numerous ongoing surveillance and research efforts whose sources include food, environmental sources such as water or production facilities, and patient samples. Foodborne, hospital-acquired, and other clinically infectious pathogens are included.	Human pathogen genomics	 Training
Pathogens Portal	The Pathogens Portal aims to provide access to data and tools relating to pathogens, their human and animal hosts and their vectors. Current content spans bacterial, viral and eukaryotic parasite lineages alongside human host data.	Human pathogen genomics	 Standards  Training
Pathoplexus	Pathoplexus is an open-source database designed to enhance the sharing and analysis of human viral pathogen genomic data.	Virology	 Standards
Patient-Reported Outcomes	A set of person-centred measures that evaluates and monitors physical,	Cancer data	












Tool or resource 	Description 	Related pages 	Registry 
Measurement Information System (PROMIS)	mental, and social health in adults and children.		
PCDDDB	The Protein Circular Dichroism Data Bank	Intrinsically disorder...	 Tool info
PDB	The Protein Data Bank (PDB)	Galaxy Intrinsically disorder... Structural Bioinformatics Data publication	 Tool info  Traini
PDB-Dev	Prototype archiving system for structural models obtained using integrative or hybrid modeling	Biomolecular simulatio... Structural Bioinformatics	
PDBe-KB	Protein Data Bank in Europe Knowledge Base	Machine actionability	 Tool info  Traini
PDBx/mmCIF format and tools	Information about the standard PDB archive format PDBx/mmCIF, its dictionaries and related software tools	Structural Bioinformatics	 Standa
PDBx/mmCIF ModelCIF Extension Dictionary	Extension of the PDBx/mmCIF dictionary for theoretical models of macromolecular structures	Structural Bioinformatics	
PeptideAtlas	Database of multi-organism, publicly accessible compendium of peptides identified in a large set of tandem mass spectrometry proteomics experiments.	Proteomics	 Tool info  Standa
PET Response Criteria in Solid Tumors (PERCIST)	A standardised method for assessing tumor response via PET imaging.	Cancer data	
PharmGKB	A resource that curates knowledge about the impact of genetic variation on drug response.	Toxicology data	 Tool info
Pharos	Pharos provides hazard, use, and exposure information on 140,872 chemicals and 180 different kinds of building products.	Toxicology data	 Tool info  Standa
Phenomenal 3D	Phenomenal-3D is an automatic open-source library for 3D shoot architecture	Plant Phenomics	 Tool info














Tool or resource 	Description 	Related pages 	Registry 
	reconstruction and analysis for image-based plant phenotyping		
Phenotypic Quality Ontology (PATO)	PATO is an ontology of phenotypic qualities, intended for use primarily in phenotype annotation.	Human pathogen genomics	 Tool info  Standards
PHIS	The open-source Phenotyping Hybrid Information System (PHIS) manages and collects data from plants phenotyping and high throughput phenotyping experiments on a day to day basis.	Plant Phenomics	 Training
PIA - Protein Inference Algorithms	PIA is a toolbox for mass spectrometry based protein inference and identification analysis.	Proteomics	 Tool info
PIPPA 	PIPPA, the PSB Interface for Plant Phenotype Analysis, is the central web interface and database that provides the tools for the management of the plant imaging robots on the one hand, and the analysis of images and data on the other hand.	Plant Phenomics Plant sciences Data Steward Researcher Research Software Engi...	 Tool info
plISA-tree	A data management solution for intra-institutional organization and structured storage of life science project-associated research data, with emphasis on the generation of adequate metadata.	Plant Phenomics	 Tool info
Plant 3D	Plant 3D is a plant phenotyping toolkit for 3D point clouds. Plant 3D (P3D) automatically extracts common phenotyping features of interest from high-resolution 3D scans of plant architectures.	Plant Phenomics	 Tool info
plant-miappe.json	BioSamples Plant MIAPPE checklist in JSON format	Plant sciences	
PlantCV	Plant Computer Vision (PlantCV) is an image processing toolkit for plant phenotyping analysis.	Plant Phenomics	 Tool info
PLAZA	Access point for plant comparative genomics, centralizing genomic data	Plant Genomics	 Standards  Training














Tool or resource	Description	Related pages	Registry
	produced by different genome sequencing initiatives.		
Podman	Manage containers, pods, and images with Podman. Seamlessly work with containers and Kubernetes from your local environment.	Data analysis	
Prefect	Prefect is a workflow orchestration tool empowering developers to build, observe, and react to data pipelines.	FAIRtracks	
PRIDE	PRoteomics IDentifications (PRIDE) Archive database	Proteomics Data publication	i Tool info Standa Traini
PRIDE Submission Tool	Main tool used to submit proteomics datasets to PRIDE Archive	Proteomics	
Privacy Impact Assessment Tool (PIA)	The open source PIA software helps to carry out data protection impact assessment	Human data	i Tool info
PROAST	PROAST (copyright RIVM National Institute for Public Health and the Environment) is a software package for the statistical analysis of dose-response data.	Toxicology data	
Protein MODification (PSI-MOD)	PSI-MOD is an ontology consisting of terms that describe protein chemical modifications.	Enzymology and biocata...	Standa Traini
PRotein Ontology (PRO)	Protein Ontology (PRO) provides an ontological representation of protein-related entities by explicitly defining them and showing the relationships between them.	Enzymology and biocata...	i Tool info Standa
ProteomeXchange	ProteomeXchange provides globally coordinated standard data submission and dissemination pipelines	Proteomics	i Tool info Standa Traini
protocols.io	A secure platform for developing and sharing reproducible methods.	Microbial biotechnology	Standa
PROV-DM: The PROV Data Model	PROV-DM is the conceptual data model that forms a basis for the W3C	Data provenance	








Tool or resource	Description	Related pages	Registry
	provenance (PROV) family of specifications.		
PUBLISSO	Documenting research data: Electronic Lab(oratory) Notebooks.	Documentation and meta...	
PUBLISSO 	Open access publishing platform for life sciences.	Data publication Researcher Data Steward	
Pydantic	Pydantic is the most widely used data validation library for Python.	FAIRtracks	 Traini
PyEnzyme	PyEnzyme is a comprehensive software solution for manipulating EnzymeML files.	Enzymology and biocata...	
PyMut	Python3 module that help in the prediction of pathology in protein mutations.	Human data	 Tool info
PySCeS	The Python Simulator for Cellular Systems (PySCeS) is a a flexible, user friendly tool for the analysis of cellular systems.	Enzymology and biocata...	 Tool info
Qure.ai	AI-based medical imaging analysis for radiology and oncology.	Cancer data	 Tool info
R Markdown	R Markdown documents are fully reproducible. Use a productive notebook interface to weave together narrative text and code to produce elegantly formatted output. Use multiple languages including R, Python, and SQL.	Data storage	 Traini
raw2ometiff	Java application to convert a directory of tiles to an OME-TIFF pyramid. This is the second half of iSyntax/.mrxs => OME-TIFF conversion.	Bioimaging data	
RD-Connect Genome Phenome Analysis Platform	The RD-Connect GPAP is an online tool for diagnosis and gene discovery in rare disease research.	Human data	 Tool info  Traini
RDA Standards	Directory of standard metadata, divided into different research areas	Data discoverability Data provenance Documentation and meta...	














Tool or resource 	Description 	Related pages 	Registry
RDM Guide 	RDM Guide describes Belgian data management guidelines, resources, tools and services available for researchers in Life Sciences.	Researcher Data Steward	
RDMO 	Research Data Management Organiser.	Data management plan	
re3data	Registry of Research Data Repositories	Data discoverability Data publication Existing data Licensing	 Traini
REACH registered substances	Portal with public data submitted to ECHA in REACH registration dossiers by substance manufacturers, importers, or their representatives, as laid out by the REACH Regulation (see Understanding REACH regulation).	Toxicology data	
Ready for BioData Management? 	Capacity building program in data management for the life sciences to empower researchers and institutions in managing their data more effectively and efficiently.	Researcher Data management plan Project data managemen...	
Real World Data for Clinical Research (Vulcan)	A minimal set of clinical research FHIR resources and elements in an EHR that can be utilised in an interoperable and consistent manner for clinical research.	Health data	 Tool info
Recherche Data Gouv	An ecosystem for sharing and opening research data	Plant sciences	 Standa
Recolecta 	The national aggregator of open access repositories. This platform brings together all the Spanish digital infrastructures in which open access research results are published and / or deposited.	Researcher Data Steward Research Software Engi...	
Red Española de Supercomputación 	The Spanish Supercomputing Network's mission is to offer the resources and services of supercomputing and data management necessary for the development of innovative and high-quality scientific and technological projects, through competitive calls based on the scientific excellence of the projects to be developed.	Researcher Data Steward Research Software Engi...	













Tool or resource 	Description 	Related pages 	Registry
REDCap	REDCap is a secure web application for building and managing online surveys and databases. While REDCap can be used to collect virtually any type of data in any environment, it is specifically geared to support online and offline data capture for research studies and operations.	TransMed Health data Identifiers	Cancer data Data quality  Tool info  Traini
REDCap Cloud	A fully managed REDCap system based in the cloud, provided by nPhase.	Health data	
REDportal	Database of A-to-I (deamination of adenosines to inosines) events that enables to search RNA editing sites by genomic region, gene name and other relevant features as the tissue of origin.	Epitranscriptome data	 Tool info
RedIRIS 	Spanish academic and research network that provides advanced communication services to the scientific community and national universities.	Researcher Data Steward Research Software Engi...	
REDtools	Python scripts to detect RNA editing events in RNAseq experiments	Epitranscriptome data	 Tool info
REDtools2	REDtools2 is the optimized, parallel multi-node version of REDtools.	Epitranscriptome data	
REMS	REMS (Resource Entitlement Management System), developed by CSC, is a tool that can be used to manage researchers' access rights to datasets.	TransMed	 Tool info  Traini
Renamer4Mac	File renaming software for Mac	Data organisation	
Renku 	An open-source knowledge infrastructure for collaborative and reproducible data science.	Data analysis	
Repository Finder	Repository Finder can help you find an appropriate repository to deposit your research data. The tool is hosted by DataCite and queries the re3data registry of research data repositories.	Data publication	








Tool or resource 	Description 	Related pages 	Registry
Research Data Management Organiser	Supports the systematic planning, organisation and implementation of research data management throughout the course of a project	Data management plan	
Research Data Management Platform (RDMP)	Research Data Management Platform (RDMP) at Health Informatics Centre, University of Dundee for automated loading, storage, linkage and provision of data sets	Data storage	 Tool info
Research Management Plan	Machine actionable DMPs.	Data management plan	
Research Object Crate (RO-Crate)	RO-Crate is a lightweight approach to packaging research data with their metadata, using schema.org. An RO-Crate is a structured archive of all the items that contributed to the research outcome, including their identifiers, provenance, relations and annotations.	Galaxy Microbial biotechnology Data provenance	 Standards  Training
Research Organization Registry (ROR)	The Research Organization Registry (ROR) is a project developing open unique identifiers for research organisations.	Identifiers	 Standards
RETTE 	System for Risk and compliance. Processing of personal data in research and student projects at UiB. 	Human data Data security GDPR compliance Data sensitivity Policy maker Data Steward	
Reva	Reva connects cloud storages and application providers	Data transfer	 Tool info  Training
Rightfield	RightField is an open-source tool for adding ontology term selection to Excel spreadsheets	Microbial biotechnology Plant sciences Identifiers	 Tool info
RIVM Health and Healthcare Data 	The Dutch National Institute for Public Health and the Environment (RIVM), together with other organisations, provides numbers and explanation on relevant topics, to prevent duplication of data collection.	Human data Existing data	Researcher













Tool or resource 	Description 	Related pages 	Registry 
RRI self reflection tool	The Self-Reflection Tool provides questions and statements addressing all stakeholder groups (policy makers, education representatives, civil society organisations, industry and business, and the research community).	Ethical aspects	
RRI Toolkit	The RRI Toolkit helps stakeholders across Europe put Responsible Research and Innovation into practice.	Ethical aspects	
Rstudio	Rstudio notebooks allow to share code, documentation	Data analysis	 Tool info  Traini
Rucio	Rucio - Scientific Data Management	Data transfer Data storage	
RxNorm	RxNorm is a normalized naming system for medications that is maintained by the National Library of Medicine. Rxnorm provides unique identifiers and allows unambiguous communication of drug-related information across the American health computer systems.	Health data Toxicology data	 Tool info  Standa
SABIO-RK	SABIO-RK is a curated database that contains information about biochemical reactions, their kinetic rate equations with parameters and experimental conditions.	Enzymology and biocata...	 Tool info  Standa  Traini
SAFE 	SAFE (secure access to research data and e-infrastructure) is the solution for the secure processing of sensitive personal data in research at the University of Bergen. SAFE is based on the "Norwegian Code of conduct for information security in the health and care sector" (Normen) and ensures confidentiality, integrity, and availability are preserved when processing sensitive personal data. Through SAFE, the IT department offers a service where employees, students and external partners get access to dedicated resources for processing of sensitive personal data. 	Human data Data analysis Data sensitivity Data storage	
















Tool or resource	Description	Related pages	Registry
salDB	SalDB is a salmon specific database of genome sequenced prokaryotes representing the microbiota of fishes found in the taxonomic family of Salmonidae.	Marine Metagenomics	
SASBDB	Small Angle Scattering Biological Data Bank	Intrinsically disorder...	
SBGrid Data Bank	Repository of X-ray diffraction, MicroED, LLSM datasets, as well as structural models.	Structural Bioinformatics	
SBOL Visual	A standard library of visual glyphs used to represent SBOL designs and interactions.	Microbial biotechnology	
SBOLDesigner	A CAD tool to create SBOL designs through the use of SBOL Visual glyphs.	Microbial biotechnology	
Scanpy	Scalable toolkit for analyzing single-cell gene expression data. It includes preprocessing, visualization, clustering, pseudotime and trajectory inference and differential expression testing.	Single-cell sequencing	 Tool info  Traini
Scater	Scater offers a collection of tools for analysis (such as quality control) for single-cell gene expression data.	Single-cell sequencing	 Tool info  Traini
SCEasy	sceasy is a package that helps easy conversion of different single-cell data formats to each other.	Single-cell sequencing	 Tool info
Schema.org	Schema.org is a collaborative, community activity with a mission to create, maintain, and promote schemas for structured data on the Internet, on web pages, in email messages, and beyond.	Enzymology and biocata... Machine learning Data discoverability Machine actionability Documentation and meta...	 Standa  Traini
ScienceMesh	ScienceMesh - frictionless scientific collaboration and access to research services	Data transfer Data storage	
Scientific Data's Recommended Repositories	List of repositories recommended by Scientific Data, contains both discipline-specific and general repositories.	Existing data	











Tool or resource 	Description 	Related pages 	Registry 
scikit-learn	scikit-learn is a free software machine learning library for the Python programming language.	Machine learning	 Tool info  Traini
SciLifeLab Data Repository (Figshare) 	A repository for publishing any kind of research-related data, e.g. documents, figures, or presentations.  	Existing data Data publication	
SciLifeLab RDM Guidelines 	Knowledge hub for the management of life science research data in Sweden.		
Scipion	Cryo em image processing framework. Integration, traceability and analysis.	Structural Bioinformatics	 Tool info  Standa
ScipionCloud	Cloud virtual machine with the Scipion software to process EM imaging data either in a single server or in a cluster.	Structural Bioinformatics	
SDRF	Information about a proposed standard for sample metadata annotations in public repositories called Sample and Data Relationship File (SDRF)-Proteomics format.	Proteomics	
SeaFile	SeaFile File Synchronization and Share Solution	Data transfer Data storage	
Semantic data model of the set of common data elements for rare diseases registration	A semantic data model describing the common data elements for rare diseases registration.	Rare disease data	
Semares	All-in-one platform for life science data management, semantic data integration, data analysis and visualization	Data discoverability Documentation and meta... Data storage	
Sensitive Data Services for Research 	CSC Sensitive Data Services for Research are designed to support secure sensitive data management through web-user interfaces accessible from the user's own computer.	CSC Researcher Data Steward Data sensitivity Data analysis Data storage Data publication Human data	












Tool or resource 	Description 	Related pages 	Registry 
Sequence Read Archive	Sequence Read Archive (SRA) data, available through multiple cloud providers and NCBI servers, is the largest publicly available repository of high throughput sequencing data.	Cancer data Single-cell sequencing	 Standards  Training
Set of common data elements for rare diseases registration	Contains 16 data elements to be registered by each rare disease registry across Europe, which are considered to be essential for further research.	Rare disease data	
Seurat	Seurat is an R package designed for QC, analysis, and exploration of single-cell RNA-seq data.	Single-cell sequencing	 Tool information  Training
ShortBOL	A scripting language for creating Synthetic Biology Open Language (SBOL) in a more abstract way.	Microbial biotechnology	
SIB/Vital-IT Canvas Generator 	This is a tool to help scientists generate data management plans for SNSF - funded projects. The Word document produced complies with the SNSF instructions for creating DMPs.	Data management plan	
SIDER	Side Effect Resource containing information on marketed medicines and their recorded adverse drug reactions.	Cancer data	 Tool information
SIFTS	Structure integration with function, taxonomy and sequence	Intrinsically disorder...	
Sigma2 HPC systems 	The current Norwegian academic HPC infrastructure consists of three systems for different purposes. The Norwegian academic high-performance computing and storage infrastructure is maintained by Sigma2 NRIS , which is a joint collaboration between UiO, UiB, NTNU, UiT, and UNINETT Sigma2 (SIKT) . 	Data analysis	
Single Cell Portal	Interactive portal for single-cell genomics data.	Single-cell sequencing	
Single-cell best practices	An entry point for novices in the field of single-cell (multi-)omic analysis and	Single-cell sequencing	






Tool or resource	Description	Related pages	Registry
	guides advanced users to the most recent best practices.		
SingleCellExperiment	The SingleCellExperiment class is a lightweight Bioconductor container for storing and manipulating single-cell genomics data.	Single-cell sequencing	 Tool info
Singularity	Singularity is a container platform.	Data analysis	 Traini
Skyline	Freely-available, open-source Windows client application for building Selected Reaction Monitoring (SRM) / Multiple Reaction Monitoring (MRM), Parallel Reaction Monitoring (PRM), DIA/SWATH and targeted DDA quantitative methods and analyzing the resulting mass spectrometer data.	Proteomics	 Tool info
SMASCH	SMASCH (Smart Scheduling) system, is a web-based tool designed for longitudinal clinical studies requiring recurrent follow-up visits of the participants. SMASCH controls and simplifies the scheduling of big database of patients. Smasch is also used to organize the daily plannings (delegation of tasks) for the different medical professionals such as doctors, nurses and neuropsychologists.	TransMed Health data	
Snakemake	Snakemake is a framework for data analysis workflow execution	Data analysis	 Tool info  Traini
SPIDER pseudonymisation tool	ERDRI.spider (Secure Privacy-preserving Identity management in Distributed Environments for Research) pseudonymisation tool generates pseudonyms for RD patients.	Rare disease data	
SSBD:database	Added-value database for biological dynamics images	Bioimaging data	 Standa
SSBD:repository	An open data archive that stores and publishes bioimaging and biological quantitative datasets	Bioimaging data	
Standards for Reporting Enzyme	Resource of standards for reporting enzyme data	Enzymology and biocata... Microbial biotechnology	 Standa















Tool or resource 	Description 	Related pages 	Registry 
Data (STRENDa)			
STARsolo	A comprehensive turnkey solution for quantifying gene expression in single-cell/nucleus RNA-seq data, built into RNA-seq aligner STAR.	Single-cell sequencing	 Trainii
STRENDa DB	STRENDa DB is a storage and search platform that incorporates the STRENDa Guidelines in a user-friendly, web-based system.	Enzymology and biocata...	 Standa
STRING	Known and predicted protein-protein interactions.	Proteomics	 Tool info  Standa  Trainii
Study Data Tabulation Model (SDTM)	A CDISC Foundational Standard that provides a standard for organizing and formatting data to streamline processes in collection, management, analysis and reporting.	Health data	
Swedish Pathogens Portal 	The Swedish Pathogens Portal provides information, guidelines, tools and services to support researchers to utilise Swedish and European infrastructures for data sharing.	COVID-19 Data Portal Human data Data sensitivity Existing data Data publication	
Swiss Pathogen Surveillance Platform (SPSP) 	A secure One-health online platform that enables near real-time sharing under controlled access of pathogen whole genome sequences (WGS) and their associated clinical/epidemiological metadata. Since 20221 it has centralized and processed all SARS-CoV-2 sequencing data within the national genomic surveillance program.	COVID-19 Data Portal Existing data	
SWISSUbase 	SWISSUbase is a national cross-disciplinary solution for Swiss universities and other research organizations in need of local institutional data repositories for their researchers. The platform relies on international archiving standards and processes to ensure that data are preserved and accessible in the long-term.	Data storage Data publication	








Tool or resource 	Description 	Related pages 	Registry 
SynBioHub	A searchable design repository for biological constructs	Microbial biotechnology	 Tool info  Standa
Synthetic Biology Open Language (SBOL)	An open standard for the representation of in silico biological designs and their place in the Design-Build-Test-Learn cycle of synthetic biology.	Microbial biotechnology	 Tool info  Standa
Systematized Nomenclature of Medicine - Clinical Terms (SNOMED-CT)	Terminology standard consisting of codes, terms, synonyms and definitions used in clinical documentation and reporting.	Cancer data Health data	
Systems Biology Markup Language (SBML)	An open format for computational models of biological processes	Enzymology and biocata... Microbial biotechnology	 Tool info  Standa
Talend	Talend is an open source data integration platform.	TransMed	
Technology Hotels 	More than 130 Technology Hotels offer access to high-end technology and expertise in the field of bioimaging, bioinformatics, genomics, medical imaging, metabolomics, phenotyping, proteomics, structural biology, and/or systems biology.	Human data Bioimaging data Proteomics Researcher Compliance monitoring ...	
Tensorflow	A free and open-source software library for machine learning and artificial intelligence.	Machine learning	 Tool info  Traini
TG-GATES	A toxicogenomics database that stores gene expression data and biochemistry, hematology, and histopathology findings derived from in vivo (rat) and in vitro (primary rat hepatocytes, primary human hepatocytes) exposure to 170 compounds at multiple dosages and time points.	Toxicology data	 Tool info
The Cancer Imaging Archive (TCIA)	A repository of medical images related to cancer.	Cancer data	 Standa

Tool or resource 	Description	 Related pages	 Registry
The Environment Ontology (EnvO)	An ontology for expressing environmental terms	Microbial biotechnology	
The European Genome-phenome Archive (EGA)	EGA is a service for permanent archiving and sharing of all types of personally identifiable genetic and phenotypic data resulting from biomedical research projects	CSC TSD Cancer data Human data Virology Data publication	 Tool info  Standa  Traini
The Open Biological and Biomedical Ontology (OBO) Foundry	Collaborative effort to develop interoperable ontologies for the biological sciences	Documentation and meta...	 Standa
Therapeutic Target Database (TTD)	Database of known and explored therapeutic targets and their related drugs.	Cancer data	 Tool info  Standa
TopEnzyme	TopEnzyme is a framework and database for structural coverage of the functional enzyme space.	Enzymology and biocata...	 Tool info
Tox21_Toolbox	The Toxicology in the 21st Century program, or Tox21, is a unique collaboration between several federal agencies to develop new ways to rapidly test whether substances adversely affect human health. The Tox21 Toolbox contains data-analysis tools for accessing and visualizing Tox21 quantitative high-throughput screening (qHTS) 10K library data, as well as integrating with other publicly available data.	Toxicology data	
ToxCast_data	The Toxicology in the 21st Century program, or Tox21, is a unique collaboration between several federal agencies to develop new ways to rapidly test whether substances adversely affect human health. This portal contains diverse downloadable results of the ToxCast project.	Toxicology data	

Tool or resource 	Description 	Related pages 	Registry
Toxin and Toxin Target Database (T3DB)	The Toxin and Toxin Target Database is a bioinformatics resource that combines exhaustive toxin data with toxin target information. Currently it presents more than 42,000 toxin-target associations extracted from other databases, government documents, books and scientific literature. Each toxin record includes data on chemical properties and descriptors, toxicity values and medical information.	Toxicology data	 Tool info  Standards
Track Hub Registry	A global centralised collection of publicly accessible track hubs	FAIRtracks	 Standards
TrackFind	TrackFind is a search and curation engine for metadata of geneomic tracks. It supports crawling of the TrackHub Registry and other portals.	FAIRtracks	 Tool info
tranSMART	Knowledge management and high-content analysis platform enabling analysis of integrated data for the purposes of hypothesis generation, hypothesis validation, and cohort discovery in translational research.	TransMed Data storage	 Tool info
Transparent Reporting of a Multivariable Prediction Model	Guidelines for reporting predictive model studies in medicine.	Cancer data	 Standards
Tryggve ELSI Checklist	A list of Ethical, Legal, and Societal Implications (ELSI) to consider for research projects on human subjects	NeLS TSD Human data GDPR compliance	
TSD 	The TSD – Service for Sensitive Data, is a platform for collecting, storing, analysing and sharing sensitive data in compliance with the Norwegian privacy regulation. TSD is developed and operated by UiO. 	Human data Data analysis Data sensitivity Data storage TSD	
TU Delft data management costing tool	TU Delft costing tool helps to budget for data management personnel costs in proposals.	Costs of data management	

Tool or resource	Description	Related pages	Registry
Tumour, Nodes, Metastases (TNM) cancer staging system	A cancer staging system that describes the size of the tumor (T), lymph node involvement (N), and metastasis (M).	Cancer data	
TXG-MAPr	A tool that contains weighted gene co-expression networks obtained from the Primary Human Hepatocytes, rat kidney, and liver TG-GATEs dataset.	Toxicology data	 Tool info
UBER anatomy ONtology (UBERON)	Uberon is an integrated cross-species anatomy ontology covering animals and bridging multiple species-specific ontologies.	Human pathogen genomics	 Standards
udocker	udocker is a basic user tool to execute simple docker containers in user space without requiring root privileges.	Data analysis	
UK Biobank	Large-scale biomedical database with genetic, clinical, and lifestyle data from UK participants.	Cancer data	 Tool info  Training
UK Data Service Data Management costing Tool	UK Data Service activity-based costing tool.	Costs of data management	
UMLS	The Unified Medical Language System (UMLS) is a set of tools that establishes a mapping structure among different vocabularies in the biomedical sciences field to enable interoperativity between computer systems.	Toxicology data	
UniChem	UniChem is a very simple, large-scale non-redundant database of pointers between chemical structures and EMBL-EBI chemistry resources. Primarily, this service has been designed to maintain cross references between EBI chemistry resources. These include primary chemistry resources (ChEMBL and ChEBI), and other resources where the main focus is not small molecules, but which may nevertheless contain some small molecule information (eg: Gene Expression Atlas, PDBe).	Toxicology data	 Training

Tool or resource 	Description 	Related pages 	Registry 
UNIL DMP Online 	<p>This instance of DMPonline is provided by the Service des ressources informationnelles et archives (UNIRIS) of the University of Lausanne (UNIL) to help its community of researchers to write a Data Management Plan (DMP).</p> <p>DMPonline</p>	Data management plan	
Unimod	Protein modification for mass spectrometry	Proteomics	 Tool info  Standards
UniProt	Comprehensive resource for protein sequence and annotation data	Galaxy Enzymology and biocata... Intrinsically disorder... Proteomics Single-cell sequencing Structural Bioinformatics Machine actionability	 Tool info  Standards  Training
University of Cambridge - Electronic Research Notebook Products	List of Electronic Research Notebook Products by University of Cambridge	Identifiers Documentation and meta...	
usegalaxy.no 	<p>Galaxy is an open-source, web-based platform for data-intensive biomedical research. This instance of Galaxy is coupled with NeLS for easy data transfer.</p> <p>Galaxy </p>	Data analysis Data sensitivity Existing data Data publication NeLS	
Variant Call Format (VCF)	A common file format that contains information about variants found at specific positions in a reference genome.	Cancer data	 Standards
VisBOL	A JavaScript library for the visualisation of SBOL.	Microbial biotechnology	
Volumes	Volumes are the preferred mechanism for persisting data generated by and used by Docker containers.	Data analysis	 Training
WAYFIND-R	A federated real-world evidence platform containing clinical and	Cancer data	

Tool or resource	Description	Related pages	Registry
	genomic data from patients with solid tumours.		
Wellcome Open Research - Data Guidelines	Wellcome Open Research requires that the source data underlying the results are made available as soon as an article is published. This page provides information about data you need to include, where your data can be stored, and how your data should be presented.	Data publication	 Standa
WHO Classification of Tumours	The standard for diagnostic oncology, defining tumor types and classifications.	Cancer data	
Windows Package Manager	Windows Package Manager is a comprehensive package manager solution that consists of a command line tool and set of services for installing applications on Windows 10 and Windows 11.	Data analysis	
WinSCP	WinSCP is a popular SFTP client and FTP client for Microsoft Windows! Copy file between a local computer and remote servers using FTP, FTPS, SCP, SFTP, WebDAV or S3 file transfer protocols.	Data transfer	
WorkflowHub	WorkflowHub is a registry for describing, sharing and publishing scientific computational workflows.	Galaxy Data analysis Data provenance	 Tool info  Standa  Trainii
XNAT	Open source imaging informatics platform. It facilitates common management, productivity, and quality assurance tasks for imaging and associated data.	TransMed XNAT-PIC Bioimaging data Cancer data	 Tool info
XNAT-PIC Pipelines	Analysing of single or multiple subjects within the same project in XNAT	XNAT-PIC	
XNAT-PIC Uploader	Import tool for multimodal DICOM image datasets to XNAT	XNAT-PIC	
Zenodo	Generalist research data repository built and developed by OpenAIRE and CERN	FAIRtracks Plant Phenomics Bioimaging data Biomolecular simulatio...	 Standa  Trainii

Tool or resource	Description	Related pages	Registry
		Enzymology and biocata... Plant sciences Single-cell sequencing Data publication Identifiers	
Zooma	Find possible ontology mappings for free text terms in the ZOOMA repository.	Bioimaging data	i Tool info 🎓 Traini
Zotero	Free and open-source reference management software to manage bibliographic data and related research materials.		



Recommended in the **Horizon Europe Program Guide** as the “resource for Data Management guidelines and good practices for the Life Sciences”



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