

The DKFZ within the NFDI – Germany's National Research Data Infrastructure

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Germany's *Nationale Forschungsdateninfrastruktur* (NFDI, "national research data infrastructure") aims to organize data across scientific domains as a common good for excellent research. DKFZ has a leading role in three of the 26 consortia that constitute the NFDI: GHGA, NFDI4Immuno and NFDI4BIOIMAGE. By driving the development and deployment of infrastructures for findable, accessible, interoperable and reusable (FAIR) data, DKFZ champions open and standardized research data practices in biomedicine.

GHGA
THE GERMAN
HUMAN
GENOME-
PHENOME
ARCHIVE



Develops and operates national omics data infrastructure for human data

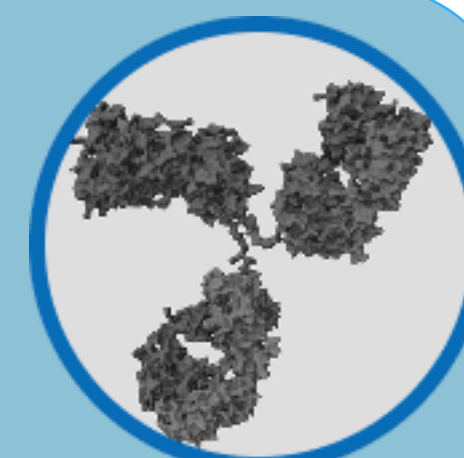
Contributes to national genome sequencing program genomDE and **operates** national FEQA node

Enables the use of human omics data in research

Ensures data security and **prevents** misuse



**NFDI4
Immuno**



Develops and operates a data hub for immunological data as part of an international Data Commons for immunology

Provides annotated high-quality data sets

Harmonizes community (meta)data standards

Develops tools for data analyses



**NFDI 4
BIOIMAGE**



Develops cloud-ready next-generation file formats for large N-dimensional array data

Provides scalable infrastructure for bioimage data management and processing

Maximizes the reach of reproducible image analysis workflows

Capacitates researchers for FAIR image data management

Impact of the three NFDI consortia at the DKFZ

Secure sharing of human omics data: GHGA enables protected access publication and reuse of DKFZ data (e.g. alongside preprints and publications).

Streamlined submission via ODCF integration: OTP-managed data can be efficiently submitted thanks to pre-collected metadata.

Secure access & compliance support: Guidance on FAIR sharing, consent requirements and controlled-access procedures.

National & international integration: Active role in genomDE, NAKO, EGA and GDI to enable global impact of German/DKFZ research.

Training & RDM support: Workshops and practical support for responsible human data management.

Assistance with implementing and maintaining **FAIR data principles** to improve data sharing across labs and across institutes

AIRR-Seq and Flow Cytometry expertise and support with experimental design and analysis through in-house data steward

Implementing **Data Repository** for storage and search of comparable data from various research groups

International committee involvement with International Union of Immunological Societies (IUIS) to standardize gene definitions for key investigative species

OMERO instance for bioimaging data management at the DKFZ, available for all DKFZ members. **Training** OMERO-based RDM and image analysis, and an **online resource for self education** about bioimaging RDM.

Spatial omics expertise and support through the embedded activities in the Single-cell open Lab and the IO-FAST initiative.

Bioimaging RDM support through the NFDI4BIOIMAGE Help Desk, which is available to all researchers in Germany.

Research Data Policy working group: Involvement in shaping a new RD-policy and implementing practical support to comply with the policy.

Basic RDM training: PhD initial courses

nfdi.de

nfdi4bioimage.de

ghga.de

nfdi4immuno.de

Acknowledgements

These NFDI consortia are funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) under the National Research Data Infrastructure (NFDI). Grant numbers 501875662 (NFDI4Immuno), 441914366 (GHGA), 501864659 (NFDI4BIOIMAGE)