

Research Data Management and Central Service Facilities: eResearch Services for researchers at UMG

Judith Friedrich

Ethikkommission, UMG

Dagmar Härter

Bereichsbibliothek Medizin, SUB

Marie Hedderich

Forschungsmanagement, UMG

Harald Kusch

Medizinische Informatik, UMG

Florian Gottschalk

Datenschutzbeauftragter, UMG

Andreas Leha, Tim Mathes, Thomas Asendorf

Med. Biometrie und Statistische Bioinformatik, UMG

Sara Nußbeck

Zentrale Biobank, UMG

Timo Henne

eResearch Alliance

Agenda

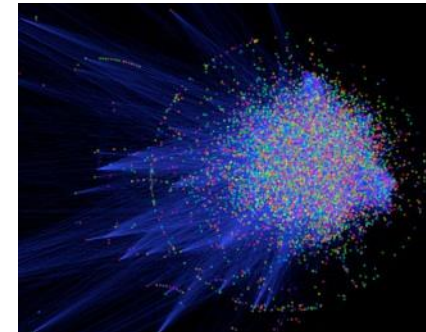
1. Management of research data
2. The Göttingen eResearch Alliance
 - 2.1. Division Library Medicine (SUB)
 - 2.2. Computing-Services (GWDG)
3. Core facilities at the UMG
4. Ethikkommission at the UMG
5. Data protection officer at the UMG
6. Services at the Department of Medical Informatics
7. Services at the Medical Statistics / Medical Bioinformatics
8. Services of the Central Biobank UMG

1. Management of Research Data

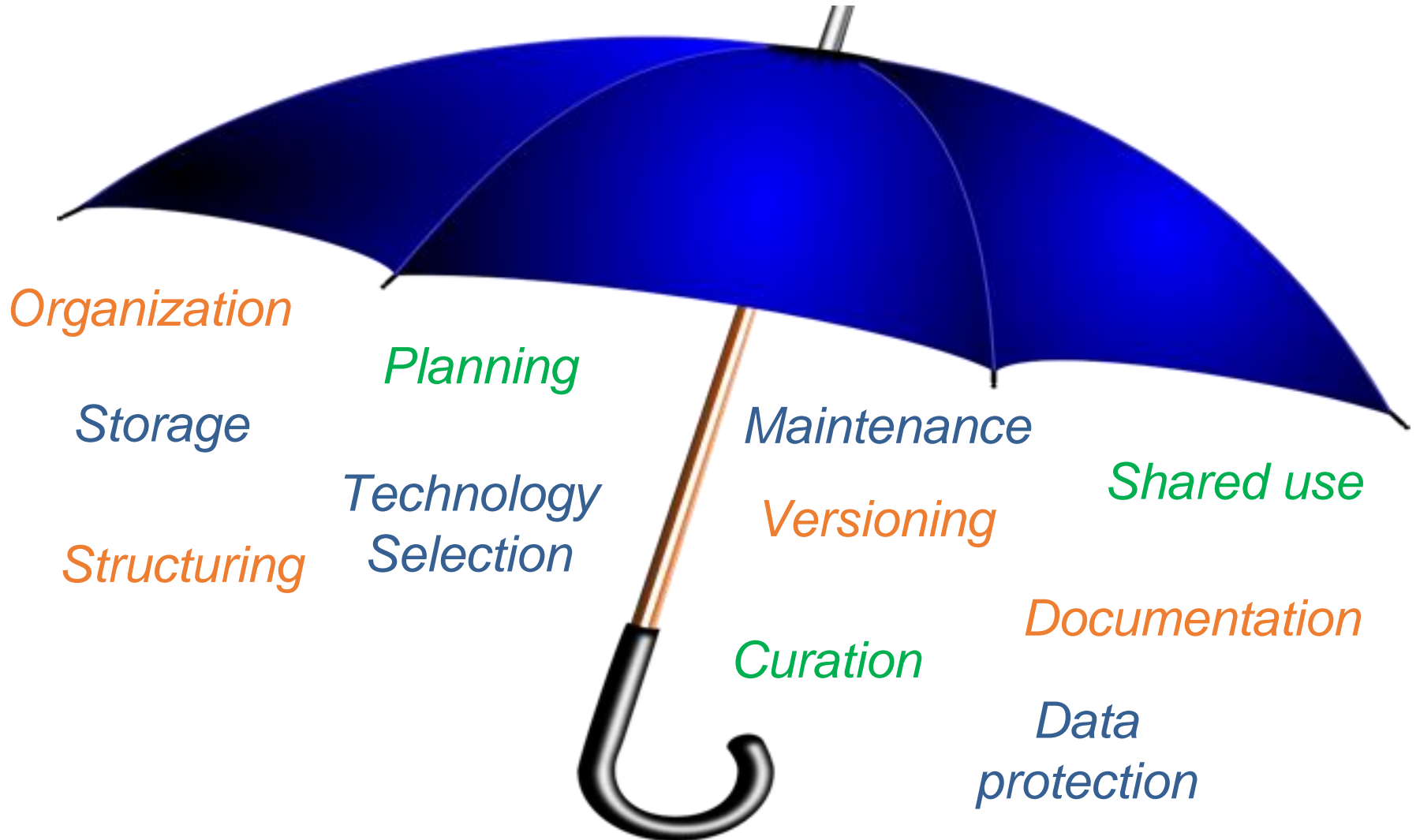


Data are **representations** of observations, objects, or other entities used as **evidence** of phenomena for the purposes of research or scholarship.

(Christine Borgmann 2014)



What is research data management?



Basic questions I

Organization and storage

- Can you find, access and use what you need when you need it?
- Are your data stored safely? Have you implemented a backup plan?



Basic questions II

Documentation

- Is the meaning of all the data and processing steps known, documented, findable and accessible?
- Is the information still understandable, when you revisit the data at a later time?



Thinking ahead...

Curation and sharing

- Is there a long term plan for the data?
- Can the data be made available for other researchers?
 - Funder's requirements
- Is there a repository or archive where you can store your data?
- What do you need today to support this and ease your daily work?



FAIR data principles

- ✓ **Findable:** have sufficiently rich metadata and a unique and persistent identifier.
- ✓ **Accessible:** retrievable by humans and machines through a standard protocol; open and free; authentication and authorization where necessary.
- ✓ **Interoperable:** metadata use a 'formal, accessible, shared, and broadly applicable language for knowledge representation'.
- ✓ **Reusable:** metadata provide rich and accurate information; clear usage license; detailed provenance.

Wilkinson, M. D et al. (2016). The FAIR Guiding Principles for scientific data management and stewardship. *Scientific Data*, 3(1). <https://doi.org/10.1038/sdata.2016.18>

Research Data Policy of Göttingen University incl. UMG



RESEARCH DATA POLICY OF THE GEORG-AUGUST UNIVERSITY GÖTTINGEN (INCL. UMG)

SEARCH DEUTSCH

Research data policy of the Georg-August University Goettingen (incl. UMG)

Excerpt from the Amtlichen Mitteilungen I der Georg-August-Universität Göttingen of 15.01.2024/Nr. 1, p. 1f:

Preamble:

The Georg-August-University Goettingen is committed to diligently preserve results of scholarship, to produce novel results through research, and to make results accessible and reusable for academia and the wider society, now and for future generations. The management, protection, preservation and sustainable provision of research data must therefore be carried out in accordance with recognized standards, meet the FAIR data principles and fulfill legal and ethical obligations. The University acknowledges that the implementation of this guideline will depend on the settings and requirements of each subject area.

Guideline:

1. The University commits itself to the FAIR data principles and promotes and supports open access to research data.
2. Research data are analogue and digital objects which are collected, observed, simulated, derived, generated or analysed for the purpose of information retrieval in the course of research.
3. Management of research data includes their planning, collection, processing, documentation and preservation. It ensures the access to, and the reuse, of research data.
4. Research data management is generally the responsibility of the person leading a project and the researcher who is acting in an individual capacity. A particular responsibility is the adherence to the DFG code of conduct "Guidelines for Safeguarding Good Research Practice" as well as standards in their subject area.
5. Research projects with research data require a data management plan that includes but is not restricted to the topics of access rights to research data and necessary precautions for handling them.
6. The University provides support and advice for research data management in the preparatory stages of research projects, during their conduct and after their completion, and provides appropriate training.
7. The University implements and maintains essential services for research data infrastructure that ensures adequate storage, technical availability and a citable publication of digital research data. Specific requirements have to be aligned among all stakeholders and may involve additional funding.
8. Storage and archiving of digital research data is carried out within the technological and informational infrastructure of the University or in acknowledged external or internal subject repositories, with specific consideration of the services of the National Research Data Infrastructure, NFDI.
9. The University and its researchers adhere in their research data management to given conditions of ethics, data protection, intellectual property, privacy and disclosure. This leaves regulations untouched that relate to an assessment of research data according to the German employee invention act and specific contractual agreements.
10. If exploitation or publication rights of data were transferred to third parties, it should be a precondition that research data remain openly and freely available for research purposes.

Research Data Policy of Göttingen University incl. UMG

- Officially issued on 28th August 2014, revision in 2023
- One of the first German universities with such a policy

Research data policy of the Georg-August University Goettingen (incl. UMG)

Excerpt from the Amtlichen Mitteilungen der Georg-August-Universität Göttingen of 15.01.2024/Nr. 1, p. 3f:

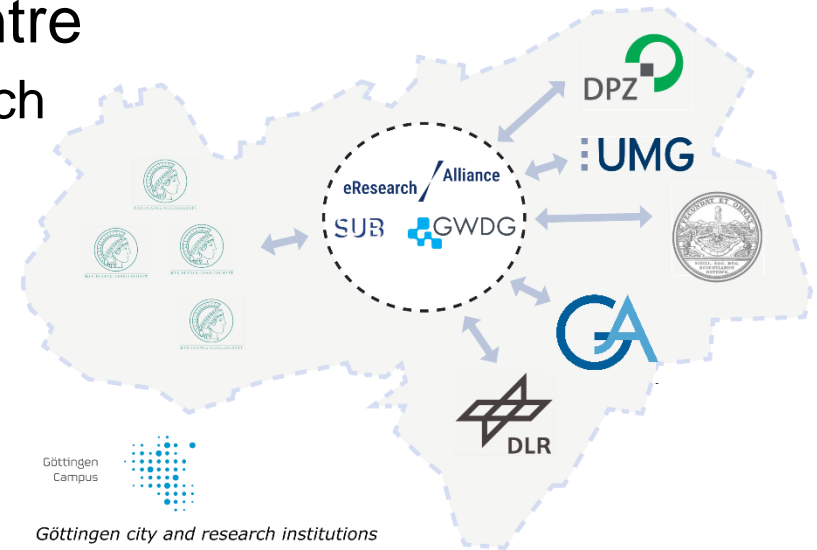
- Topics addressed:
 - FAIR data principles
 - Research Data, Research Data Management and its purposes
 - Responsibilities for Data Management
 - Data Management Plans
 - Support, training and provision of services
 - Storage locations and solutions
 - Ethical and legal standards
 - Open Access
- eResearch Alliance: support and advice on the implementation of the policy for the Göttingen Campus

eResearch = *enhanced*Research

2. eResearch Alliance

eResearch Alliance

- Run **jointly** by Library and IT-Centre
 - GWDG: ~150 people, 30 in eResearch
 - SUB: ~450 people, 40 in eResearch
- Close **cooperation** with
 - Department of Medical Informatics
 - Research and Transfer Department
- **Brokering-Office** with currently 5 staff members
 - Team from different disciplines with eResearch expertise
 - Actual services and projects in individual organisations
 - Network with eResearch experts across the campus
 - Translate discipline-specific requirements into information-infrastructure tasks



eRA Services

Consulting

- Data management requirements
- Data integration
- Data policies
- DMPs
- Legal aspects
- Expert network
- ...

Training

- Data management
- eResearch topics
- Digital literacy
- Expert network
- Open Science
- ...

Digital Services

- Storage
- Computing
- Communication
- Cooperation
- Project participation
- Foster reuse of solutions
- Sustain solutions
- Development of new services
- ...

Open Science Göttingen

- Campus wide network on promoting Open Science
- Göttingen Open Science MeetUp
 - Open Science principles
 - Teaching
 - Data science
- “HackyHour”: Meet, discuss, experiment together with experts on a given topic

<https://pad.gwdg.de/s/OpenScienceGOE#>

<https://hackyhour.github.io/Goettingen/>



GÖTTINGEN RESEARCH ONLINE

Publications

Publication
data
management

Dspace-CRIS

Data

Research
data
repository

Dataverse

Instruments

Large
equipment
portal

openIRIS

Plan

Data
management
planning

RDMO

...

more
services

GÖTTINGENRESEARCHONLINE

GRO.data

- Research Data Repository
- Based on Dataverse
- For all disciplines
- Storage, exchange, publication
- DOIs upon publication
- Individual management of access rights and roles

GÖTTINGENRESEARCHONLINE
Search
User Guide
Support
Log In

Metrics
622 Downloads
Contact
Share

Publish your research data! Search, find, and cite data from the Göttingen Campus and beyond.

Göttingen Research Online is an institutional repository for the publication of research data at the Göttingen Campus. It is managed by the Göttingen eResearch Alliance, a joint group of SUB and GWDG. If you are interested in publishing your data here, please see our author instructions and get in touch with us. See our Quick Start Guide

Search this dataverse...
Find
Advanced Search
Add Data

☒ Datasets (11)
☒ Datasets (22)
☐ Files (214)

Dataverse Category
Research Project (6)
Researcher (3)
Department (1)
Research Group (1)

Publication Year
2019 (19)
2018 (13)
2017 (1)

Author Name
Hoffmann, Ellen (5)
Claudia Engelhardt (3)
Elsner, Ines (3)
Inga Kraus (3)
Kusch, Harald (3)
More...

Subject
Medicine, Health and Life Sciences (14)
Arts and Humanities (7)
Agricultural Sciences (6)
Other (4)
Physics (2)
More...

Keyword Term
Applied Art (3)

1 to 10 of 33 Results
Sort

Image review on mobile devices for suspected stroke patients: Evaluation of the mRay® software solution
May 14, 2019 - Alex Brehm Dataverse
Brehm, Alex, 2019, "Image review on mobile devices for suspected stroke patients: Evaluation of the mRay® software solution", <https://doi.org/10.25625/NDWV9G>, Göttingen Research Online, V1
Supplementary data for paper Image review on mobile devices for suspected stroke patients: Evaluation of the mRay® software solution

Alex Brehm Dataverse (Dienste der GWDG)
May 14, 2019

PDF Copy Of Online Survey
May 3, 2019 - GRaCE
Roertgen, Steffen; Harald, Kusch; Claudia Engelhardt; Sven Bingert; Valeria Savin; Inga Kraus, 2019, "PDF Copy Of Online Survey", <https://doi.org/10.25625/R48ZD5>, Göttingen Research Online, V1
This is a PDF copy of an online-survey sent to members of UMG within the GRaCE-project. Link to a copy of the online-survey: Online Survey

Survey results
Mar 20, 2019 - Dehradun Dataverse
Hoffmann, Ellen, 2019, "Survey results", <https://doi.org/10.25625/OTNSMI>, Göttingen Research Online, V1, UNF:6:dgChlu7tRy+FFugy9x8e9Q== [fileUNF]
Results of the survey of 100 migrant households in Dehradun, Uttarakhand, Northern India (data digitalized into Excel)

Kandai-images
Mar 20, 2019 - Dehradun Dataverse
Hoffmann, Ellen, 2019, "Kandai-images", <https://doi.org/10.25625/ZW5CW2>, Göttingen Research Online, V1
Time series of land use maps of Kandai village, Uttarakhand, North India

GÖTTINGENRESEARCHONLINE

GRO.publications

- Publication Data Repository
- Based on DSPACE-CRIS
- Researcher profiles
- ORCID connection
- Export to various formats and citation styles
- Selectable presentation through embedded links

The screenshot shows the GÖTTINGENRESEARCHONLINE PUBLICATIONS interface. At the top, there is a navigation bar with 'Publications', 'Researcher', and 'Journals' tabs. A search bar is on the right. Below the navigation bar, the 'Publications' section is active. It features a search bar with 'Search' and 'Reset' buttons, and a link to 'Add Filters'. The results show '1-50 of 64954' items. A pagination bar includes '< previous', '1' (selected), '2', '3', '4', '...', '1300', and 'next >'. Three publication entries are listed:

- 2021 | Conference Paper**
Die Sackgassen des Humiliationismus in Metaphysik oder Positivismus
Gisbertz-Astolfi, P. (2021)
In: U. Neumann; P. Tiedemann & S. I Liu (Eds.), Menschenwürde ohne Metaphysik pp. 63-74. 29th IVR World Congress: Workshop "Menschenwürde ohne Metaphysik", Luzern.
Archiv für Rechts- und Sozialphilosophie - Beihefte: Steiner Verlag.
[Details](#)
- 2021 | Book Chapter**
Art. 53 – Der Bundesrat, Teilnahme der Bundesregierung
Schwerdtfeger, A. (In Press)
In: I. von Münch; P. Kunig; J. A. Kämmerer & M. Kotzur (Eds.), Grundgesetz-Kommentar: GG. (7. ed.). C. H. Beck.
[Details](#)
- 2021 | Book Chapter**
Art. 137 – Beschränkung der Wählbarkeit von öffentlich Bediensteten

On the right side, there is a 'Filter' section with dropdown menus for 'Type', 'Date issued', 'Author', 'Subject', and 'Publication Affiliation' (currently set to 'Göttingen University').

GÖTTINGENRESEARCHONLINE

GRO.instruments

- Campus-wide registration and administration of large equipment
- Central information hub for researchers and administration
- Booking functionality for researchers on campus

The screenshot displays the Göttingen Research Online – Instruments web application. At the top, there is a navigation bar with links for 'Browse', 'Scheduler', 'Services', 'Dashboard', 'Admin', and 'Help'. Below this is a search bar with the placeholder text 'Enter filter text' and a 'Filter' dropdown menu. The main content area features a grid of instrument cards, each with a thumbnail image, name, provider, affiliations, and resource type. Examples include a '1290 Infinity UHPLC / QTOF 6540 MS' (Agilent Technologies), a '3 Tesla MRI Siemens Prisma fit' (Scientific Core Facility MR-Research in Neurosciences), and a '3D Laser Lithography - Nanoscribe'. A sidebar on the right contains a 'New resource' button and a list of resources with details like 'Name: 3D Laser Lithography - Nanoscribe', 'Provider: Cleanroom Center of the Faculty of Physics', and 'Resource Type: Lithography'. The bottom section of the page has a large banner with the title 'Göttingen Research Online – Instruments' and a search bar. Below the banner, there is a 'Resources' section with a description: 'This is a list of resources that are publicly visible. Registration provides a more in-depth view of resources available to you.' and a 'SEE RESOURCES' button.

GÖTTINGEN RESEARCH ONLINE

GRO.plan

- Data management planning tool
- Based on RDMO
- Versioning and sharing of DMPs
- Goal: campus-specific support

The screenshot shows the Göttingen Research Online (GRO) website. The header is dark blue with the logo 'GÖTTINGEN RESEARCH ONLINE PLAN' on the left and 'Language' and 'My account' on the right. The main content area is white. On the left, under 'My Projects', there is a text box explaining how to create a Data Management Plan (DMP) and a table with columns: Project name, My GRO.plan role, Creation Date, Last updated, Selected Catalog, and Quick Links. Below the table is a button 'Create new project'. On the right, under 'My personal data', there is a form with fields for Name (Timo Gnad), Email (gnadt@sub.uni-goettingen.de), and a 'Search projects' section with a search box and an 'Import as new project' section with 'Select file' and 'Upload' buttons. The footer is dark blue and contains three sections: 'About' (with links to About RDMO, Terms and Conditions, Privacy, and Imprint), 'Contact' (with 'Support Team: Göttingen eResearch Alliance' and email 'info@eresearch.uni-goettingen.de'), and 'Göttingen Research Online' (describing the services and listing 'GRO.data', 'GRO.instruments', and 'GRO.publications').

GÖTTINGEN RESEARCH ONLINE PLAN

Language ▾ My account ▾

My Projects

In order to start creating a Data Management Plan (DMP), you first need to create a "Project" with a project title, a brief description of your research question(s) or research field, and a catalog of questions for creating the DMP which you can select from a prepared list. Click on "Create new project" below to do so, or click on an already existing project name in the list below to access the project's information.

Project name	My GRO.plan role	Creation Date	Last updated	Selected Catalog	Quick Links
Create new project					

My personal data

Name
Timo Gnad

Email
gnadt@sub.uni-goettingen.de

Search projects

Import as new project

About

About RDMO
Terms and Conditions
Privacy
Imprint

Contact

Support Team: Göttingen eResearch Alliance
info@eresearch.uni-goettingen.de

Göttingen Research Online

Göttingen Research Online bundles various services for Göttingen researchers:

GRO.data (research data repository)
GRO.instruments (large equipment portal)
GRO.publications (publication data repository)

We support Göttingen Campus researchers with services, best practice trainings and consultations on research data management and eResearch topics

For Researchers

Find support in [planning your data management](#), get information on how to [store, share and publish your research data](#), use [Göttingen Research Online \(GRO\) services](#) or collaborate with [partners on campus](#).

For Students

Learn about eResearch topics in our [Explain! section](#). Become informed on how to request a [training event for your group](#) or use our [training material](#).

For Technical Staff

Check out our [Service Catalogue](#) for eResearch services at the Göttingen Campus or find eResearch offers and solutions from [other organisations](#).

We are here to help you with ...

- › Know-how about storing, sharing, publishing or citing data
- › Organizing training measures on Research Data Management (RDM)
- › Getting support for publishing Open Access

On our pages you find...

- › Information on available services > service catalog
- › Policies and funders' requirements regarding RDM
- › Advice on legal or ethical aspects concerning research data

GET IN TOUCH

www.eresearch.uni-goettingen.de

2.1 Division Library Medicine (SUB)

Dagmar Härter



NIEDERSÄCHSISCHE STAATS- UND
UNIVERSITÄTSBIBLIOTHEK GÖTTINGEN

Research, Data, Management: Data management basics and services for your daily research routine at the UMG


Support and Services at the Medical Library






GEORG-AUGUST-UNIVERSITÄT
GÖTTINGEN

BBM / SUB Göttingen

SUB | NIEDERSÄCHSISCHE STAATS- UND
UNIVERSITÄTSBIBLIOTHEK GÖTTINGEN

Catalogues, subjects, website 

Göttingen State and University Library > News Deutsch



News

[Service monitor & FAQ](#)

[First-time visitor?](#)

[Contact](#)

[Locations & facilities](#)

[Borrowing & renewing](#)


SUB news


Scan & Deliver orders soon possible directly in the Göttingen University Catalogue (GUK)

To further simplify orders for the Scan & Deliver service, from tomorrow, Wednesday 29 April, you can order the desired scans simply via the [Göttingen University Catalogue \(GUK\)](#) with your user account. [Read more >](#)

Gradual opening of our locations

Good news everyone!
We are planning a gradual opening of our locations - of course in compliance with

Service monitor 

COVID-19 

Quick links

[Access e-journals & e-books](#)

[Additional and test offers](#)

At www.sub.uni-goettingen.de you can find all information regarding the SUB, including all service offers online and offline

Accessing electronic resources from home?

Elektronische Zeitschriftenbibliothek
Niedersächsische Staats- und Universitätsbibliothek Göttingen

GEORG-AUGUST-UNIVERSITÄT GÖTTINGEN
NIEDERSÄCHSISCHE STAATS- UND UNIVERSITÄTSBIBLIOTHEK GÖTTINGEN SUB

Zugangs- und Benutzungshinweise / Nutzungsbedingungen **Aktuelle Informationen zu Zeitschriften von Elsevier und Cell Press** Datenbank-Infosystem (DBIS)

Zeitschriften
Zeitschriftensuche
Liste nach Fachgebiet
Liste nach Alphabet
Liste neuer EZB-Titel

Bibliothek
Ansprechpartner
Zeitschrift vorschlagen
Bibliothek auswählen

Information & Service
Über die EZB
Hilfe zur EZB
EZB Dienste

Zeitschriftenliste nach Fachgebiet

Fachgebiet	Anzahl
Allgemeine und vergleichende Sprach- und Literaturwissenschaft, Indogermanistik, Außereuropäische Sprachen und Literaturen	3143
Allgemeines, Fachübergreifendes	7533
Anglistik, Amerikanistik	1404
Archäologie	1217
Architektur, Baugenieur- und Vermessungswesen	2319
Bildungsgeschichte	412
Biologie	5597
Chemie und Pharmazie	2926
Elektrotechnik, Mess- und Regelungstechnik	1581
Energie, Umweltschutz, Kerntechnik	2345
Ethnologie (Völker- und Völkerkunde)	1556
Geographie	1283
Geowissenschaften	2240
Germanistik, Niederländische Philologie, Skandinavistik	439
Geschichte	4817
Informatik	4041
Informations-, Buch- und Bibliothekswesen, Schrift- und Handschriftenkunde	1575
Klassische Philologie, Byzantinistik, Mittellateinische und neugriechische Philologie, Neulatein	518
Kunstgeschichte	2039
Land- und Forstwirtschaft, Gartenbau, Fischereiwirtschaft, Hauswirtschaft, Ernährung	4037
Maschinenwesen, Werkstoffwissenschaften, Fertigungstechnik, Bergbau u. Hüttenwesen, Verkehrstechnik, Feinwerktechnik	2350
Mathematik	2419
Medien- und Kommunikationswissenschaften, Publizistik	1422
Medizin	14989

Die Volltexte der Zeitschriften sind

- ☒ ☐ ☐ frei zugänglich
- ☒ ☐ ☐ für Angehörige der Uni Göttingen freigeschaltet
- ☐ ☐ ☒ nur für einen Teil der erschienenen Jahrgänge zugänglich
- ☒ ☐ ☐ nicht zugänglich, nur Inhaltsverzeichnis/Abstracts

[Nutzungsbedingungen](#)

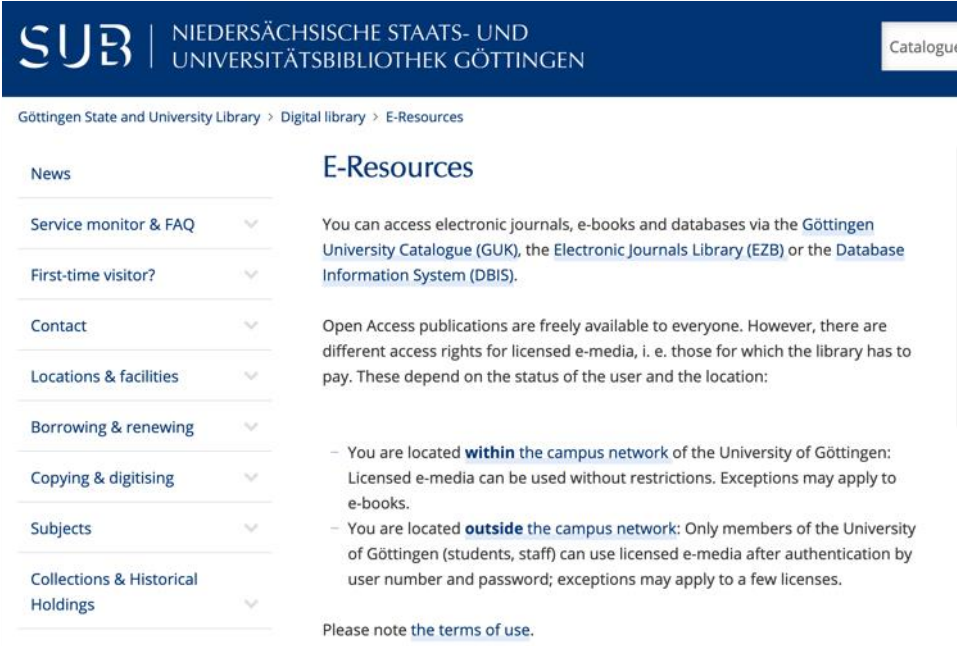
As a member of the UMG you just have to order a password for your member card. You find the button on our homepage.

On the SUB homepage you can then access all electronic resources via the search bar, if you are logged in with your credentials (user number and password)

Accessing electronic resources from home?

Here you will find the conditions of access and use, whether to access electronic resources from home or from outside the campus network:

<https://www.sub.uni-goettingen.de/-ML3Uj>



The screenshot shows the website of the Niedersächsische Staats- und Universitätsbibliothek Göttingen (SUB Göttingen). The header is dark blue with the SUB logo and the library's name. A 'Catalogue' button is in the top right. Below the header, a breadcrumb trail reads 'Göttingen State and University Library > Digital library > E-Resources'. On the left, a vertical menu lists various services: News, Service monitor & FAQ, First-time visitor?, Contact, Locations & facilities, Borrowing & renewing, Copying & digitising, Subjects, and Collections & Historical Holdings. The main content area is titled 'E-Resources' and contains two paragraphs of text. The first paragraph explains that electronic journals, e-books, and databases can be accessed via the Göttingen University Catalogue (GUK), the Electronic Journals Library (EZB), or the Database Information System (DBIS). The second paragraph discusses Open Access publications, noting that while they are freely available, access rights for licensed e-media vary by user status and location. It lists two scenarios: access within the campus network (unrestricted for licensed e-media) and access outside the campus network (restricted to university members with authentication). A final note asks users to read the terms of use.

SUB | NIEDERSÄCHSISCHE STAATS- UND UNIVERSITÄTSBIBLIOTHEK GÖTTINGEN

Catalogue

Göttingen State and University Library > Digital library > E-Resources

News

Service monitor & FAQ

First-time visitor?

Contact

Locations & facilities

Borrowing & renewing

Copying & digitising

Subjects

Collections & Historical Holdings

E-Resources

You can access electronic journals, e-books and databases via the Göttingen University Catalogue (GUK), the Electronic Journals Library (EZB) or the Database Information System (DBIS).

Open Access publications are freely available to everyone. However, there are different access rights for licensed e-media, i. e. those for which the library has to pay. These depend on the status of the user and the location:

- You are located **within** the campus network of the University of Göttingen: Licensed e-media can be used without restrictions. Exceptions may apply to e-books.
- You are located **outside** the campus network: Only members of the University of Göttingen (students, staff) can use licensed e-media after authentication by user number and password; exceptions may apply to a few licenses.

Please note the terms of use.

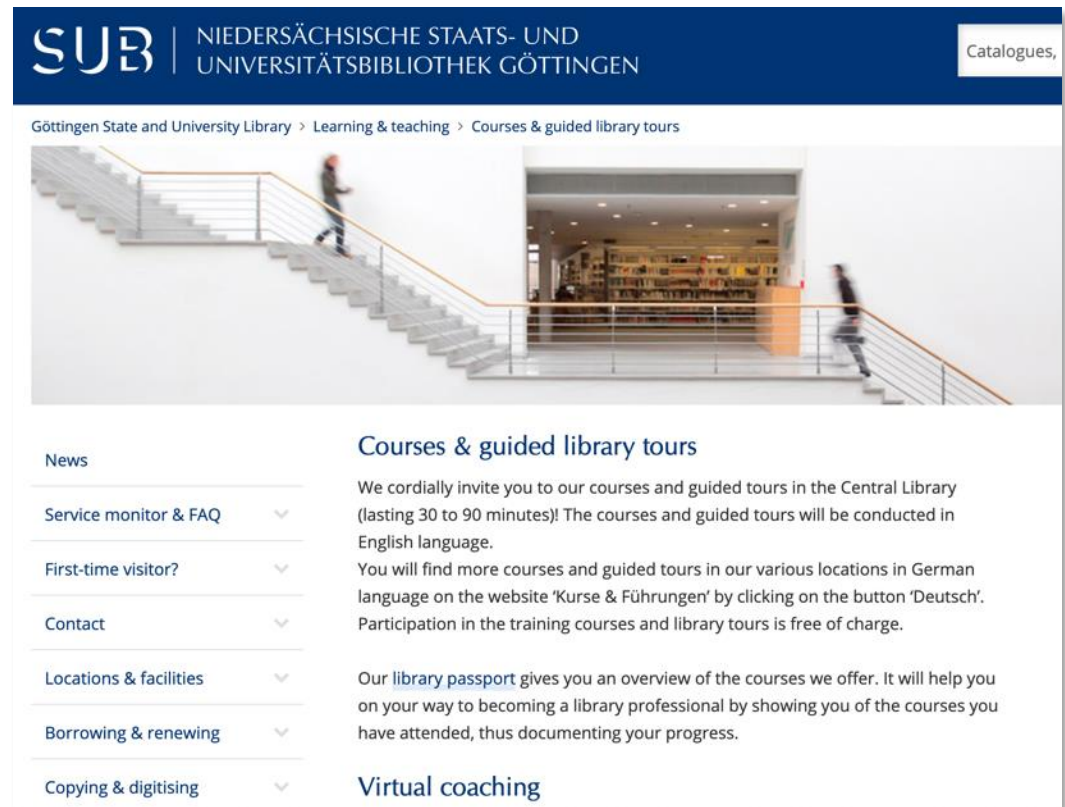
Current information on courses and library offers can be found here:

<https://www.sub.uni-goettingen.de/-cJTgW>

Many offers are already available as online services. Please refer to the current information on the SUB homepage and on our course page. These offers are also communicated in the library newsletter.

You can also subscribe to the library newsletter on the UMG homepage:

<https://www.umg.eu/studium-lehre/studieren-an-der-umg/lernunterstuetzung/>



The screenshot displays the SUB Göttingen website. The header features the SUB logo and the text 'NIEDERSÄCHSISCHE STAATS- UND UNIVERSITÄTSBIBLIOTHEK GÖTTINGEN'. A navigation bar below the header includes the breadcrumb 'Göttingen State and University Library > Learning & teaching > Courses & guided library tours'. The main content area is divided into two columns. The left column contains a 'News' section with a list of links: 'Service monitor & FAQ', 'First-time visitor?', 'Contact', 'Locations & facilities', 'Borrowing & renewing', and 'Copying & digitising'. The right column features the 'Courses & guided library tours' section, which includes an introductory paragraph, a paragraph about finding more courses in German, and a paragraph about the library passport. Below this is a section for 'Virtual coaching'. A large photograph of a modern library interior with a staircase and bookshelves is positioned above the text on the right.

SUB | NIEDERSÄCHSISCHE STAATS- UND UNIVERSITÄTSBIBLIOTHEK GÖTTINGEN

Catalogues,

Göttingen State and University Library > Learning & teaching > Courses & guided library tours

News

- Service monitor & FAQ
- First-time visitor?
- Contact
- Locations & facilities
- Borrowing & renewing
- Copying & digitising

Courses & guided library tours

We cordially invite you to our courses and guided tours in the Central Library (lasting 30 to 90 minutes)! The courses and guided tours will be conducted in English language.

You will find more courses and guided tours in our various locations in German language on the website 'Kurse & Führungen' by clicking on the button 'Deutsch'. Participation in the training courses and library tours is free of charge.

Our library passport gives you an overview of the courses we offer. It will help you on your way to becoming a library professional by showing you of the courses you have attended, thus documenting your progress.

Virtual coaching

Online offers for download:



Göttingen State and University Library > Learnli

News

First-time visitor? ▾

Contact ▾

Locations & facilities ▾

Borrowing & renewing ▾

Copying & digitising ▾

Subjects ▾

Collections & Historical Holdings ▾

Digital library ▾

Electronic publishing ▾

Learning & teaching ▴

Academic work: tools and methods

Courses & guided library tours

Self-study materials

Individual & group work spaces

Textbooks & semester

Click on
„Learning & Teaching“
-> „Self-study materials“



Medizin

Then scroll down to
„Medicine“

- [Endnote-Selbstlernkurs \(PDF 331 KB\)](#)
- [Literaturrecherche-Selbstlernkurs Medizin \(PDF 599 KB\)](#)
- [PubMed für Medizinstudierende \(PDF 291 KB\)](#)
- [Zotero-Selbstlernkurs für Medizinstudierende \(PDF 695 KB\)](#)
- [Zugriffsmöglichkeiten auf Volltexte von Zeitschriftenaufsätzen für Medizin-Studierende \(PDF 1,4 MB\)](#)
- [Workshop Einstieg in die 3D-Welt \(PDF 9,5 MB\)](#)

Open Access consultation

News

FAQ - Frequently asked questions

First-time visitor?

Contact

Locations & facilities

Borrowing & renewing

Copying & digitising

Subjects

Collections & Historical Holdings

Digital library

eResearch Alliance

Publishing & Open Access

Publishing

Open Science & Open Access

Publication Funds

FAQ - Frequently asked questions

Learning & teaching

Projects & research

Support us

Open Access

Open Access means that scientific literature is made available free of charge on the internet, while the author's copyrights are protected. Open Access therefore allows the reading and downloading of entire texts and the printing of a private copy. Readers will have no financial, legal, or technical barriers to overcome; internet access is all that is needed. The authors retain their rights to their research work, while the public can freely utilise the publications. Numerous publishing houses allow their authors the use of Open Access, or have their own Open Access strategies. Open Access publications achieve far more visibility and are more likely to be quoted than traditional publications. The German Rectors' Conference, the Wissenschaftsrat, the Standing Conference, the German Research Foundation and the European Commission support this type of publications with increasing emphasis. Comprehensive information on the topic of Open Access can be found on the information platform open-access.net.empt



Open Access at the University of Göttingen

Göttingen University (including University Medical Center Göttingen) adopted an updated Open Access Policy (PDF 1,9 MB, in German only) in 2016 which 'promotes and supports making the research results of its researchers as widely accessible and usable as possible. Open access publications should be used without access restrictions to support research and innovation in science, business and society in a direct and lasting way. Research funders including the German Research Foundation and the European Commission promote Open Access to scientific publications and research data. Mandates, such as the ones of the European Commission and the European Research Council, require all funded projects to publish their results in Open Access. This policy provides recommendations for Open Access at the University of Göttingen and complements the University's research data policy.' This policy replaces the Open Access Resolution (PDF 248 KB) of December 2005. It aligns its Open Access strategies with those of the Max-Planck Institute and other forward-looking universities. Göttingen State and University Library is a central partner in this endeavour, and responsible for the implementation, coordination, and continuation of the strategy within the university.

Göttingen scientists can also use the services of the Göttingen eResearch Alliance. They assist all researchers on the Göttingen Campus with eResearch related questions and data management. Göttingen State and University Library also participates in national and international projects, such as the Confederation of

Contents

Open Access

Position of policy makers and funders on Open Access

Open Science

Open Science at Göttingen University

Open Science Meet-up

The Carpentries

More information

Contact

Elektronisches Publizieren

Platz der Göttinger Sieben 1
37073 Göttingen
Germany
+49 551 39-25290 (Tel.)
publizieren@uni-goettingen.de

Julika Mimkes



Platz der Göttinger Sieben 1
37073 Göttingen
Germany
+49 551 39-25767 (Tel.)
mimkes@sub.uni-goettingen.de

Dr. Birgit Schmidt

On the SUB homepage, click on „Publishing & Open Access“ -> „Open Science & Open Access“

Here you can find all our services and offers on the topic of publishing Open Access

Research support / Virtual coaching

<https://pad.gwdg.de/ResearchSupport#>

The SUB offers individual consultation hours on various topics, such as:

- finding relevant literature
- academic writing process
- organizing sources
- Word/Excel questions
- statistical methods
- handling research data

Research Support



Having trouble finding relevant literature for your term paper or thesis? Feeling like you're losing track of your ideas and struggling with structuring your essay? Problems quoting or formatting in MS Word or MS Excel? Your reference management programme isn't doing what you want it to?

The Research Support is here to help you! Find answers to all of your questions to complete your term paper or thesis quickly and successfully.

Time and place

Also to use for free: The library's makerspace



3D printer for testing purposes

3D anatomy table for virtual dissection



(Almost) Always there for you:

- Monday – Friday from 8 – 24
- Saturday, Sunday and Holidays from 8/10 – 22/20
- By phone: 39-8395
- By email: bbmed@sub.uni-goettingen.de



- <https://www.sub.uni-goettingen.de/en/locations-facilities/locations-and-opening-hours/medical-library/>

2.2. Computing Services (GWDG)

Prof. Dr. Philipp Wieder

A banner for GWDG Cloud Server. It features a central image of a white cloud against a blue background with binary code. On the left and right sides, there are images of tablets and smartphones displaying binary code. Navigation arrows are visible on the left and right sides of the banner.

Erhalten Sie dynamische Rechenleistung, Anwendungen oder IT-Dienste, die mit Ihren Anforderungen wachsen.

GWDG CLOUD SERVER

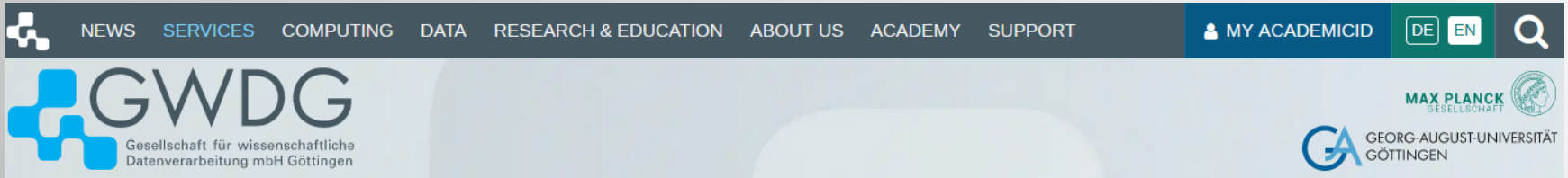
Professor Dr Philipp Wieder

Gesellschaft für wissenschaftliche Datenverarbeitung mbH

- **Public authority: Göttingen University & Max Planck Society**
- **Operation of Computing Center, parallel computers, networks, Campus-WLAN**
- **~ 150 Employees, > 20.000 WLAN devices online per day, certified acc. to ISO 9001**
- **IT-research institution**
 - Leadership and Participation in national and international research projects
 - Research Leitung- und Mitarbeit in nationalen und internationalen Forschungsprojekten
 - Research foci:
 - Data management & electronic research infrastructure
 - Virtual research environment & innovative digital tools
 - Data analysis, visualisation and big data technologies
 - Cloud Computing
 - Next-Generation Networking

Portfolio

Services for the Sciences



SERVICES

Storage services

- Backup
- Cryptshare
- Data Archiving
- File Service
- GWDG ownCloud

Application Services

- Application and Event Management
- Bioinformatics Programs
- Databases
- Jupyter
- Library Service Aleph
- Library Service Koha
- Online Surveys
- Plagiarism Prevention
- Pseudonymisation and Data Trusteeship
- STACK-Maxima
- Statistics Programs

E-Mail and collaboration

- E-Mail Service (MS Exchange 2016)
- GitLab
- GWDG Pad
- GWDG Web Office
- Mailing Lists
- Managed Services
- MS SharePoint
- Project Management Service
- Rocket.Chat
- ShareLaTeX
- Spam and Virus Filtering

General services

- Computer Lending Pool
- Identity and Access Management [MPG]
- Identity and Access Management [Uni]
- Large Format Printing
- Large Format Scanner
- Print Server
- Single Sign-on (SSO) / Authentication and Authorization Infrastructure (AAI)
- Software and Licence Management
- Standard Printing
- URL Shortener
- Videoconferencing

Server services

- FTP Server
- GWDG Cloud Server
- Housing of Servers
- Virtual Server
- Web Hosting

IT Consulting

- Apple Support Centre
- Establishing Directory Services (AD, LDAP)
- Hardware Purchase
- IT Security
- Planning of Data Transmission Networks
- Scientific Data Management

Network services

- Client Management for Windows
- Client-Management for macOS and iOS
- Integration into the Active Directory
- IP Address Management System
- Setting up eduroam
- System Monitoring
- User Management with OpenLDAP

IT security services

- Public Key Infrastructure (PKI)
- Virus Protection
- Vulnerability Scans on Network-attached Equipment

Example Infrastructure

GWDG Cloud Server



„Virtual“ Computer for researchers, working groups and projects

- Computer per self-service
- Suited for arbitrary applications
- Allocatable in different sizes
- Complete control over virtual computer
- Own IP address
- Operated in Göttingen

Our Private Cloud for your dynamic, safe and scalable computing power

Server



Create your own virtual machines and use up to 3 servers for your applications

Processor



Choose the computing strength of your machine and assign up to 12

Memory



8.0 / 24.0 GB

Assign up to 24.0 GB of memory to your virtual machine to match your

IP Address



Grant world wide access to your virtual machine by assigning a public ip

Compute optimized

c1.small



2 Cores
2 GB RAM
20 GB Disk

c1.medium



4 Cores
4 GB RAM
40 GB Disk

c1.large



8 Cores
8 GB RAM
80 GB Disk

c1.xlarge



16 Cores
16 GB RAM
160 GB Disk

c1.xxlarge



32 Cores
32 GB RAM
320 GB Disk

Images



CentOS
CentOS 6.6 Server x86_64



CentOS
CentOS 7.1 Server x86_64



Debian
Debian 7.8 Server x86_64



Fedora
Fedora 20 Desktop GNOME x86_64



Fedora
Fedora 20 Server KDE x86_64



Fedora
Fedora 20 Server x86_64



openSUSE
openSUSE 13.1 Desktop GNOME x86_64



openSUSE
openSUSE 13.1 Desktop KDE x86_64



openSUSE
openSUSE 13.1 Server x86_64



Scientific Linux
Scientific Linux 6.6 Server x86_64



Scientific Linux
Scientific Linux 7.1 Server x86_64



Ubuntu
Ubuntu 12.04.5 LTS Server x86_64

Example collaborative work

A selection



Kollaboration

- Hosted, private wiki (*eMail to support@gwdg.de*)
- Own Mailinglists: <https://www.gwdg.de/e-mail-collaboration/mailling-lists>
- Cooperative work on texts: pad.gwdg.de
- Sharing documents: owncloud.gwdg.de / cryptshare
- Online work on Office documents: owncloud.gwdg.de
- Live cooperative work on LaTeX-Documents: sharelatex.gwdg.de
- Internetchats (like ICQ): jabber.gwdg.de
- Web- / Team-Chats (like Slack): chat.gwdg.de
- Software development / Project management: gitlab.gwdg.de

Administration of projects and software development

- Web-based project management with large choice of functionalities for supporting the project life cycle
- Features
 - Wiki
 - Management of tasks
 - Time management
 - Document repository
 - User management
- Integrated Git- and SVN-Repository for software development
- Integration into own development environment possible
- Project areas, in which you can create or manage projects by yourself
- projects.gwdg.de

Diverse solutions and platforms

VIDEOCONFERENCING

The general [GWDG](#) offer for videoconferencing is the DFNconf service. It is operated by the DFN-Verein, of which the [GWDG](#), [MPG](#), and the University of Göttingen are members.

Currently, however, there are performance bottlenecks due to the strongly increased usage, so that the DFNconf service is not available in the usual stable manner. More information, also regarding the utilization of the service due to the current COVID-19 situation, can be found on web pages of the the DFN-Verein: <https://www.conf.dfn.de>.

The [GWDG](#) has therefore decided to include alternative offers in its portfolio in order to bridge this phase for customers and provide suitable solutions. These are commercial, payed cloud offers where the information leaves our own jurisdiction. We can therefore not guarantee data protection and these services are not permitted for sensitive and/or personal data. We ask you to take this into account when using them.

Community solutions operated by the GWDG

- [BigBlueButton](#) (operated by the [GWDG](#)): After a successful test operation at the [GWDG](#), a new production operation has been setup under <https://meet.gwdg.de/>; Suitable for groups of up to 100 participants. Currently, telephone dial-in under first test. Higher stability than Jitsi.
- [DFNconf](#) (operated by DFN-Verein): Currently only limited use.
- [Jitsi](#) (operated by [GWDG](#)): Open source solution, suitable for videoconferencing with smaller numbers of participants. With more than 10 participants the quality fluctuates. A [GWDG](#) hosted version of Jitsi might come back in the future. We currently offer [BigBlueButton](#) instead.

Commercial, external platforms

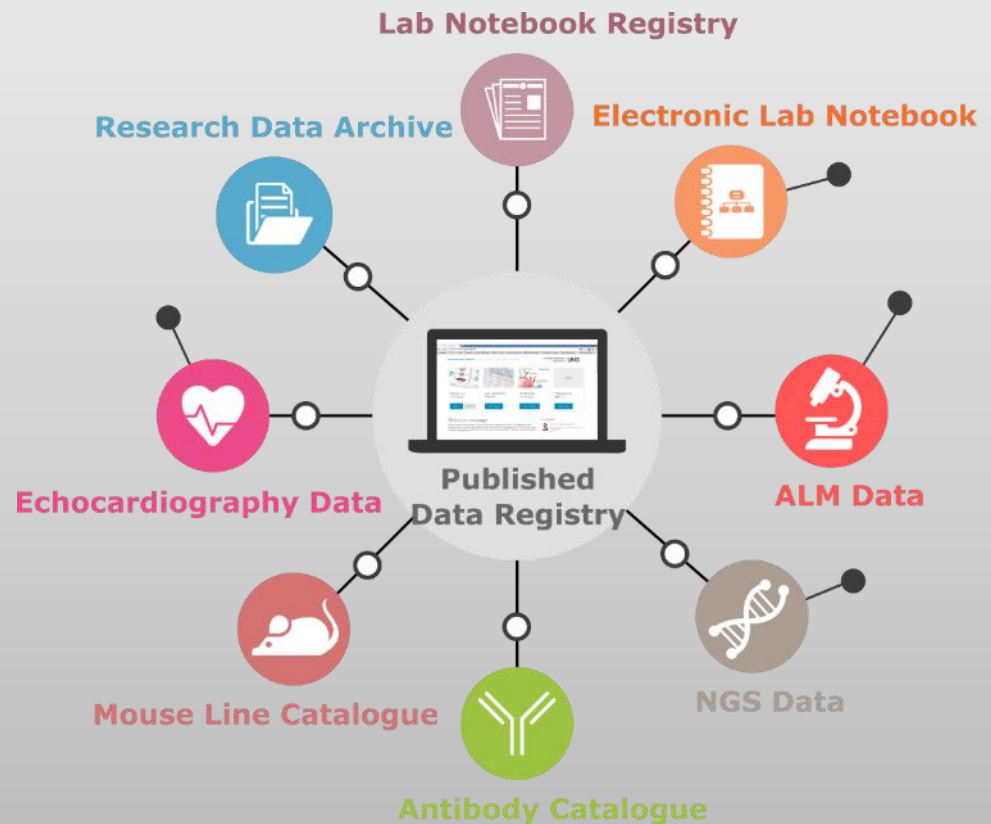
- [Zoom](#)
 - Cloud-based, critical in terms of data protection, scales well for larger subscriber numbers.

– Table of Contents

- Videoconferencing
 - Community solutions operated by the GWDG
 - Commercial, external platforms
 - Evaluation and recommendations especially for the University of Göttingen
 - Assessment for courses
 - Alternatives
 - Microsoft Teams
 - Limitations and challenges
 - Media server of the GWDG

Support of researchers from different disciplines

- **Goals**
 - Traceability
 - Transmission of data to community repositories
- **Collection & Documentation of**
 - Publications
 - ALM data
 - NGS data
 - Supersonic data
- **Connection of**
 - Publications
 - Antibodies
 - Lab notebooks
 - Mouse-Genome-Lines



Your personal contact with us



+49 551 201 1523

Contact our hotline



support@gwdg.de

Send us an email and we will contact you soon



support.gwdg.de

Check your tickets
(Account required)



www.gwdg.de/docs

www.gwdg.de/faq

Docs & FAQ



New here?

A brief overview of frequently asked questions

[Request account](#)

[Change password](#)

[Check email](#)

[Wi-Fi \(eduroam\)](#)

[Download Antivirus Software](#)

[Print](#)

[Buy Software](#)

[Courses](#)

3. Ethikkommission at the UMG

Judith Friedrich

Information event „Research Data Management and Central Service
Facilities at the UMG“

- ▶ Office of the “Ethik-Kommission”
(ethics committee)
- ▶ Where? Von Siebold-Str. 3
- ▶ When? Monday-Friday
9:30–12:00



„Ethik-Kommission“

- ▶ Purpose of the Ethik-Kommission (What does the Ethik-Kommission do?)

The Ethik-Kommission is an independent body whose purpose is to evaluate the ethical and legal aspects of biomedical research involving human subjects. As laid down in the Declaration of Helsinki, also research projects **involving patient data** have to be approved by an research ethic committee.

- ▶ Responsibility of the Ethik-Kommission of the UMG

The Ethik-Kommission of UMG is responsible for members and dependants of the Medical Faculty of Göttingen and its teaching hospitals.

Ethik-Kommission

- ▶ Method of operation (How does the Ethik-Kommission work?)
 - The Ethik-Kommission only reacts to applications by giving an evaluative statement.
 - Holds a non-public meeting once a month

Gives a written notice to the applicant of its decision

The Ethik-Kommission consists of:

- ▶ 11 members and 23 deputies
- ▶ medical doctors, paramedical staff, experts in statistics and ethics, lawyers, laypersons
- ▶ all members act on a voluntary basis

Persons of contact

- ▶ Chairman: Prof. Dr. Brockmöller
- ▶ Manager: Mrs. Wettschereck

▶ Contact persons

for “other” studies and studies involving medical devices

Mrs. Dr. Friedrich
Mr. Langer

- ▶ Secretary: Mrs. Gödicke

Studies (1)

- ▶ **AMG–Studies** (studies involving **pharmaceuticals**)
Studies regulated by “Arzneimittelgesetz” and
Clinical Trial Regulation
- ▶ **MDR/MPG–Studies** (studies involving **medical devices**)
Studies regulated by “Medical Device Regulation” or
“Medizinproduktegesetz”

Studies (2)

▶ “other Studies”

- Research projects with “Beratungspflicht” by MBO (Operating researchers are obliged to consult the Ethik-Kommission’s advice by *Muster Berufsordnung für deutsche Ärztinnen und Ärzte*)
- Possibility of accepting the vote of another Ethik-Kommission (Übernahmevotum)
- Retrospective data analysis studies: possibility of a shortened approval process

Comprehensive consultation:

- ▶ Make an appointment
- ▶ For further information, please refer to our website:

<https://www.umg.eu/ueber-uns/vorstand/kommissionen/ethikkommission/>

4. Datenschutzbeauftragter der UMG

Florian Gottschalk

Research and Data Protection

- „sensitive data“ / personal data
- Datenschutz-Grundverordnung (DSGVO)
- Datenschutz-, Einwilligungserklärung („broad consent“)
- Data and IT security: Frank Dickmann (fdickmann@med.uni-goettingen.de)
- Technologie- und Methodenplattform für die vernetzte medizinische Forschung e.V. (TMF) https://www.tmf-ev.de/Arbeitsgruppen_Foren/AGDS.aspx

Research and Data Protection

Further information

Florian Gottschalk

Tel.: 39-62762

E-Mail: datenschutz@med.uni-goettingen.de

<https://www.umg.eu/ueber-uns/vorstand/stabsstellen-beauftragte/beauftragte/datenschutzbeauftragter/>



5. Core facilities at UMG

Dr. Marie Hedderich

3. Core Facilities at the UMG



Research, Data, Management: Data management basics and services for your daily research routine at the UMG

Central Core Facilities

- ▷ **Central Animal Facility** (*Dr. Riedesel, sekretariat.zte@med.uni-goettingen.de, 39-63900*)
- ▷ **Central Biobank UMG** (*PD Dr. Nußbeck, biobank@med.uni-goettingen.de, 39-65700*)
- ▷ **Central Research Workshop Facilities** (*Mr. Lott, clott@gwdg.de, 39-5924*)
- ▷ **Clinical Trials Unit UMG** (*Mr. Tostmann, studienzentrum-umg@med.uni-goettingen.de, 39-60812*)

Scientific Core Facilities

- ▷ **NGS-Core Unit for Integrative Genomics (NIG)** (*Dr. Salinas, gsalina@gwdg.de, 39-60778*)
- ▷ **Proteomics** (*Dr. Lenz, proteomics.ms@med.uni-goettingen.de, 39-65192*)
- ▷ **MR-Research in Neurosciences** (*PD Dr. Dechent, mrserviceeinheit.sekretariat@med.uni-goettingen.de, 39-13140*)
- ▷ **Medical Biometry and Statistical Bioinformatics**
(*Dr. Leha, service.biometry.bioinformatics@med.uni-goettingen.de, 39-64829*)
- ▷ **Cell Sorting** (*Prof. Wulf, cellsorting@med.uni-goettingen.de, 39-8427*)
- ▷ **MR-Research in Cardiovascular Imaging** (*N.N., 39-68965*)
- ▷ **Medical Data Integration Center (MeDIC)** (*Prof. Dr. Tibor Kesztyüs, tibor.kesztyues@med.uni-goettingen.de, 39-61531*)

Where to find information?

<https://www.umg.eu/en/research/science-support/scientific-infrastructure/core-facilities/>

Core Facilities

University Medical Center Göttingen

Core facilities have been set up in selected areas to methodological support and promote research at the University Medical Center Göttingen (UMG). This process enables the efficient and sustainable provision of specific scientific services and infrastructures and leads to an improved utilization of highly specialized equipment. In addition, the scientific subjects matter expertise is promoted and expanded.

The UMG has three central core facilities. In addition, six scientific core facilities are established and listed to scientific departments of the UMG in order to ensure long-term high standard methods expertise.

Central core facilities



Central BioBank

Read more



Central Scientific Workshop

Read more



Central Animal Facility

Read more

Scientific core facilities

NGS Facility for Integrative Genomics

Read more

Proteomics

Read more

MR-Research in Neurosciences

Read more

Medical Biometry and Statistical Bioinformatics

Read more

Cell Sorting

Read more

Medical data integration center (UMG-MeDIC)

Read more

MR-Research in Cardiovascular Imaging

Read more

- Contact details
- User regulations
- User fees
- Catalogue of services
- Application form

Please contact the facilities in advance to plan and calculate the costs of the experiment!

Application for flat-rate user fees and costs for keeping laboratory animals

DFG-Vordruck 55.03 – 01/23

Seite 1 von 2

DFG form 55.04 – 11/21

page 1 of 12

Hinweis

Richtwerte für die Beantragung und Abrechnung von
Mitteln für Versuchstiere

guide values for basic animal husbandry:

- 0,75 € per mouse/week
- 1,50 € per rat/week

separate application for animal purchase

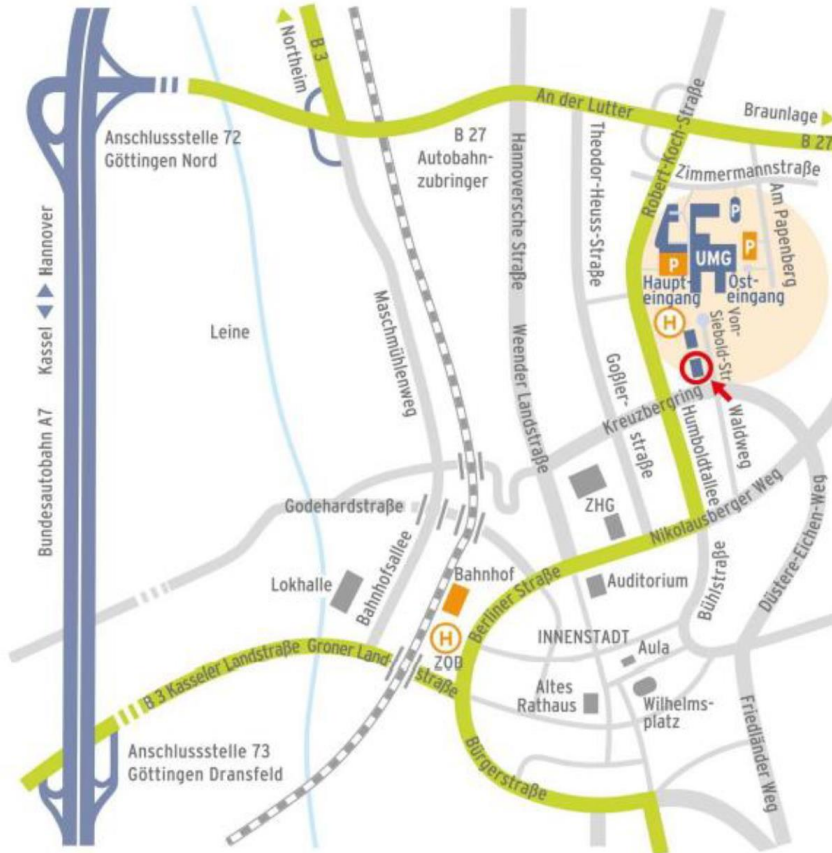
Guidelines

for Instrumentation Usage Costs and Core Facilities

- Magnetic resonance imaging
- Mass spectrometry
- Advanced light microscopy
- Electron microscopy
- NMR spectroscopy
- Flow cytometry

It can only be applied for project-specific costs!

Contact Details – Research Management



Research Management
 Von-Siebold-Str. 3, 37075 Göttingen
forschung@med.uni-goettingen.de

6. Services at the Department of Medical Informatics

Dr. Harald Kusch

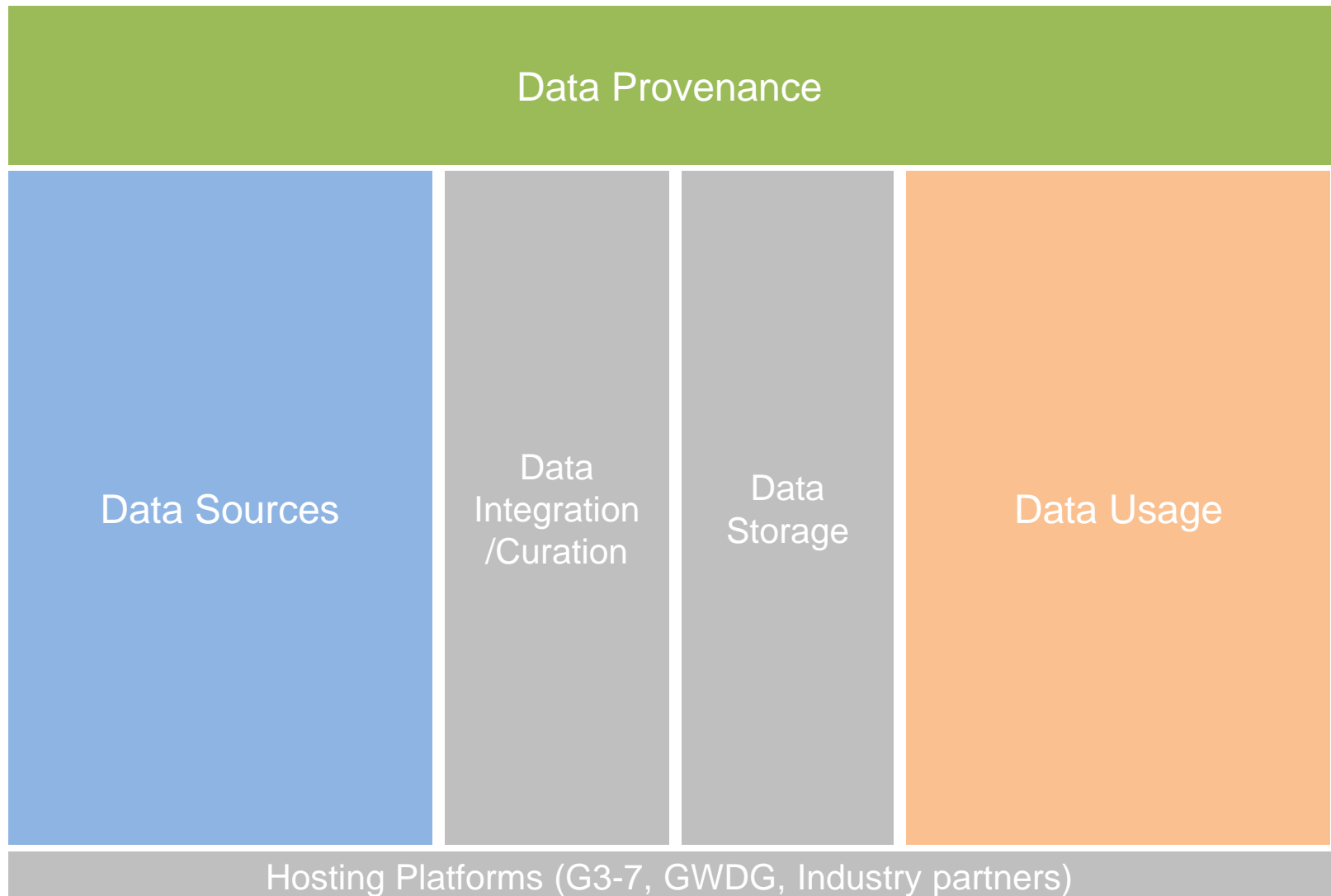
<https://medizininformatik.umg.eu/>



Advisory services at Department of Medical informatics

- Support for design of scientific studies in coordination with Med. Statistics, “Studienzentrum” or other service facilities at Göttingen Campus
- Provision of information infrastructures in cooperation with computing centers, external research institutions, biobanks etc.
- Open for all institutions, working groups and PhD students
- Open also for national or international research partners or consortia

Hard- und software infrastructure



Example services

- Coordination of large biomedical expert networks, e.g.:
 - Nationale Forschungsdateninfrastruktur (NFDI4Health)
 - Medical Informatics Initiative (HiGHmed)
- Handling of sensitive patient data: e.g. Deutsches Zentrum für Herz- und Kreislaufforschung (DZHK)
- OMICS data management: Clinical Research Unit 5002
- FAIR biomedical data management, e.g.:
 - Cluster of Excellence Multiscale Bioimaging (MBExC)
 - INF-project of a Collaborative Research Center: Cardiology CRC 1002

Contact persons at Department of Medical Informatics

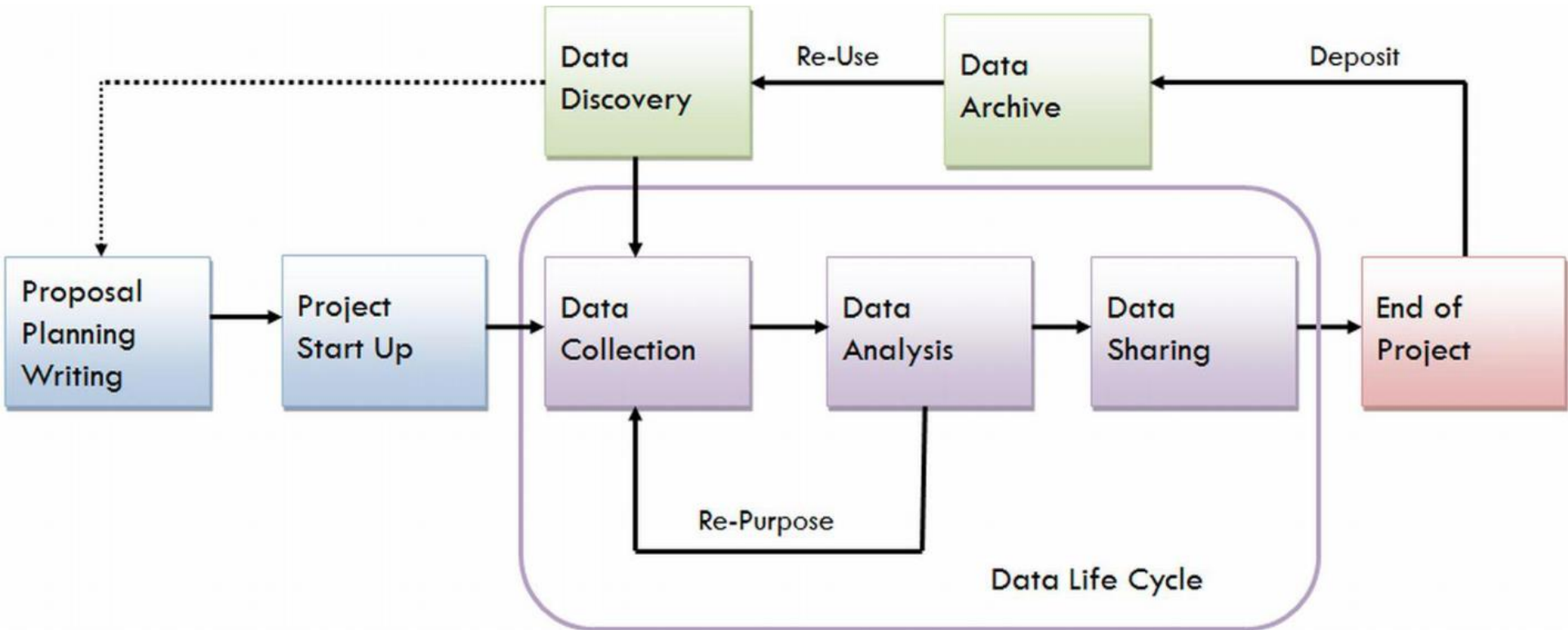
Prof. Dr. Dagmar Krefting	Head of Department
Prof. Dr. Ulrich Sax	IT-infrastructures for translational research
Sabine Hanß	IT-infrastructures for clinical collaborative research
Prof. Dr. Tibor Kesztyüs	Medizinisches Forschungs-Daten-Integrations-Centrum (UMG-MeDIC)
Prof. Dr. Anne-Christin Hauschild	Clinical Decision Support
Nicolai Spicher	Biosignal Processing
Kerstin Pischek-Koch	Intersectoral research
Dr. Harald Kusch	IT infrastructures in biomedical basic research
Contact to Göttingen eResearch Alliance	



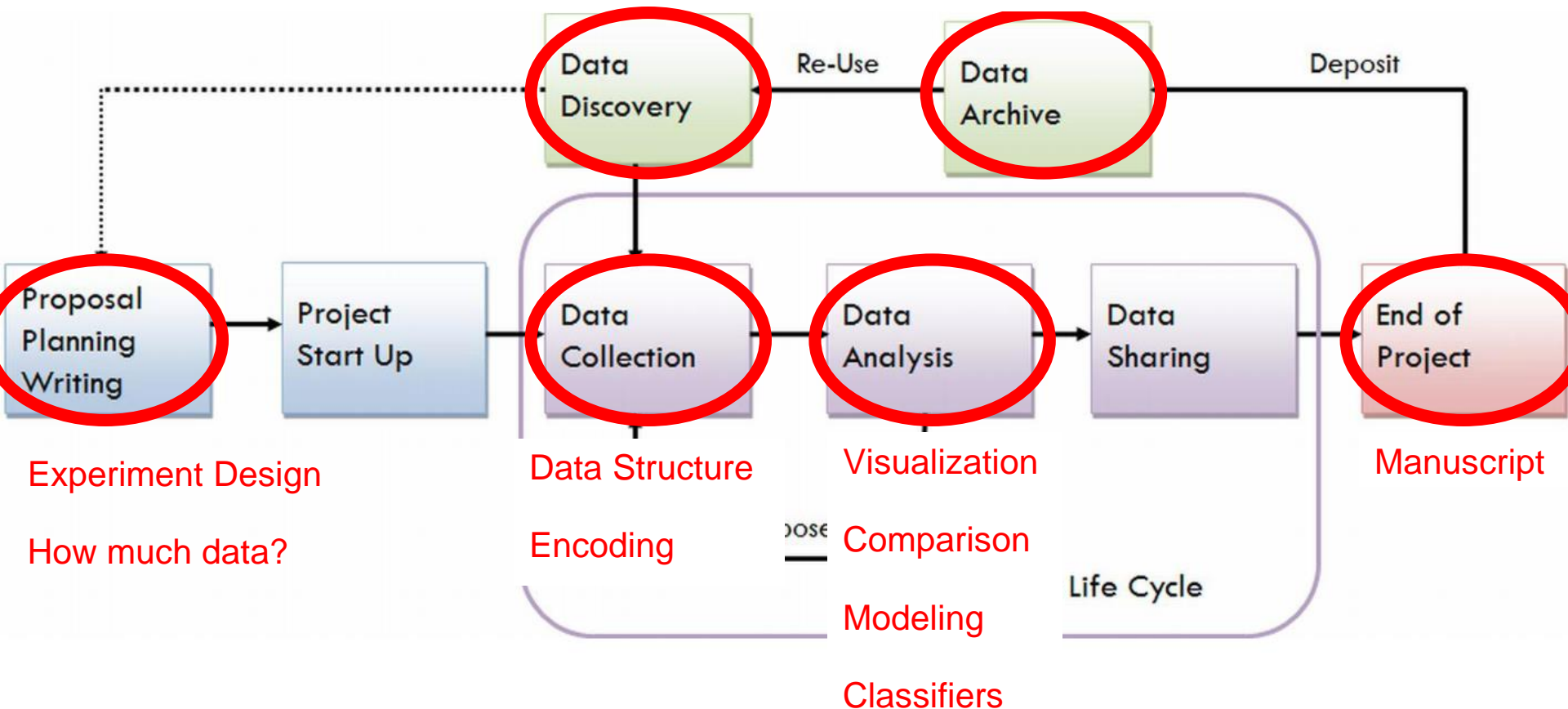
7. Services at the Medical Statistics / Medical Bioinformatics

- *Core Facility Medical Biometry and Statistical Bioinformatics***
- *Systematic Reviews and Meta-Analyses***
- *Clinical Epidemiology and Health Economics***
- *Biometry, Data Management and Informatics in Clinical Trials***

Dr. Andreas Leha, Prof. Dr. Tim Mathes, Dr. Thomas Asendorf



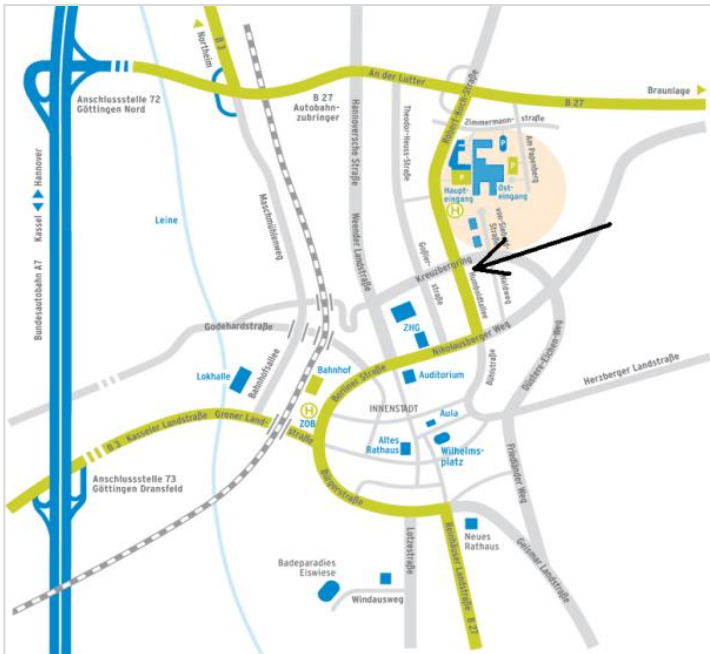
Courtesy of University of Virginia Library <https://data.library.virginia.edu/files/Research-Life-Cycle-LG>



Core Facility

Medical Biometry and Statistical Bioinformatics

Contact



University Medical Center Göttingen
Department of Medical Statistics

37099 Göttingen **Mailing Address**
Humboldtallee 32, 37073 Göttingen **Address**
0551 / 39-64829 **Phone**

service.biometry.bioinformatics@med.uni-goettingen.de **E-Mail**
medstat.umg.eu/forschung/wissenschaftliche-serviceeinheit/ **Website**

Core Facility

Medical Biometry and Statistical Bioinformatics

Short consulting

- ▶ Help with short questions concerning biostatistical or bioinformatical methods



- ▶ **Tuesday, 1pm – 3pm**

hybrid at the Department of Medical Statistics, Humboldtallee 32
as well as online via video conference

- ▶ Can be visited without prior appointment

- ▶ medstat.umg.eu/forschung/wissenschaftliche-serviceeinheit/statistische-beratung

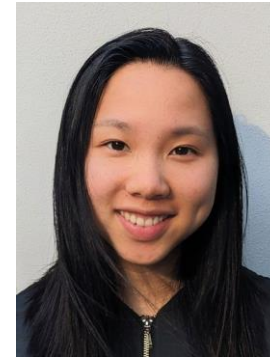


Core Facility

Medical Biometry and Statistical Bioinformatics

Coached working

- ▶ Assistance with statistics- and bioinformatics-software



current team of student assistants

- ▶ Location:
 - ▶ CIP-pool of the Department of Medical Statistics
 - ▶ Learning Ressource Center (Medical Library)
 - ▶ Or online via video conference
- ▶ No prior appointment necessary (for in presence sessions)
- ▶ Time schedule available at website



Core Facility

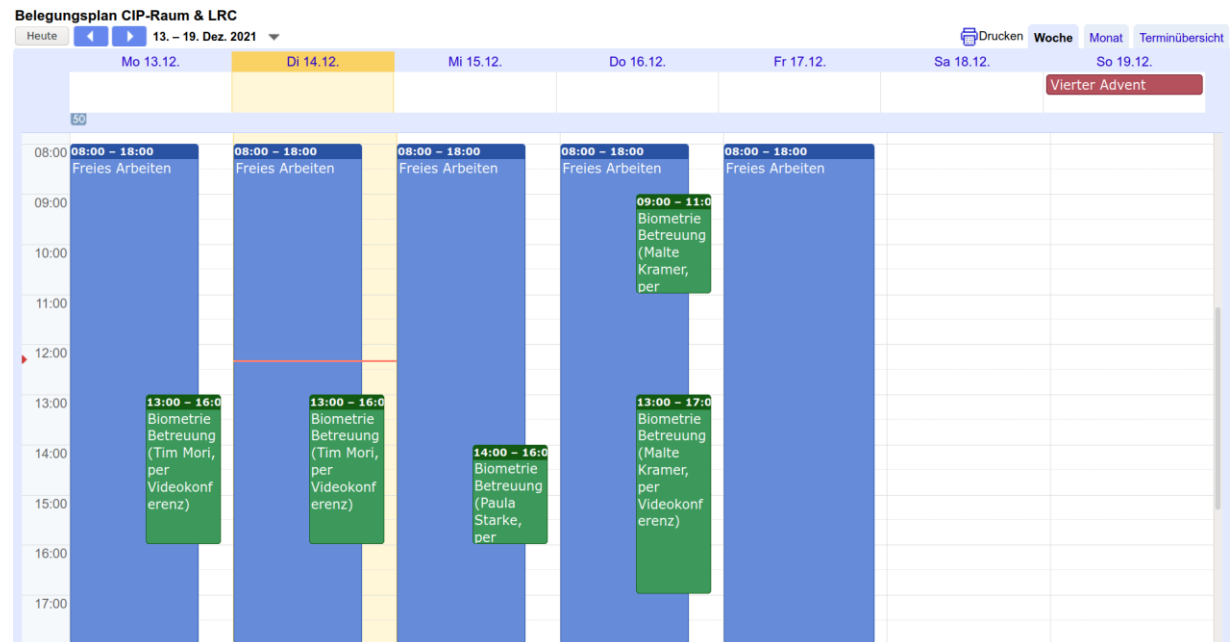
Medical Biometry and Statistical Bioinformatics

medstat.umg.eu/forschung/wissenschaftliche-serviceeinheit/betreutes-arbeiten/

► Coached working

Aufgrund der aktuellen Covid-19-Situation findet das Betreute Arbeiten ausschließlich digital per Videokonferenz mit den Mitarbeitern statt. Zur Terminvereinbarung außerhalb der unten genannten Zeiten und um die Zugangsdaten zu erhalten, senden Sie bitte eine Email an den jeweiligen Betreuer.

Aufgrund technischer Einschränkungen finden Sie die Belegungspläne aktuell nur extern als [Google-Kalender](#) (alle Angaben ohne Gewähr, Änderungen vorbehalten).

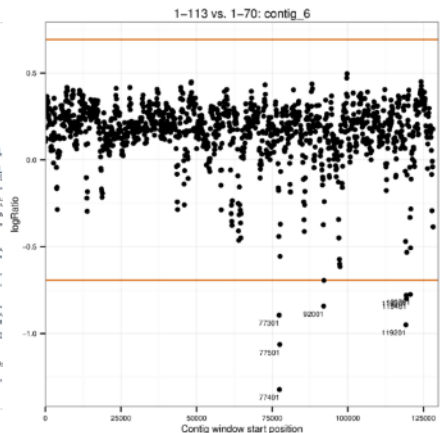
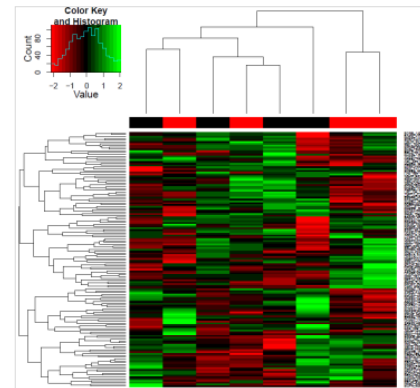


Core Facility

Medical Biometry and Statistical Bioinformatics

Project-related support

- ▶ We can carry out the biometrical and bioinformatical **planning** and **analysis** of your scientific experiments and studies:
 - ▶ Design of experiments, sample size planning
 - ▶ Statistical analysis
 - ▶ Bioinformatics analysis (e.g. array-, proteomics- and NGS-data)
 - ▶ Reporting of results

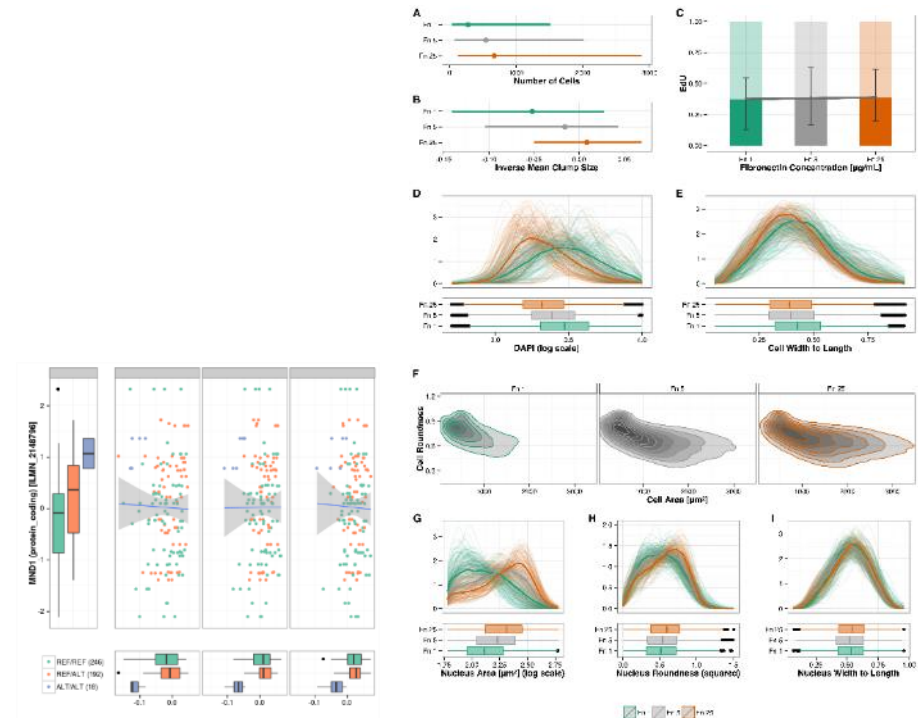


Core Facility

Medical Biometry and Statistical Bioinformatics

Project-related support

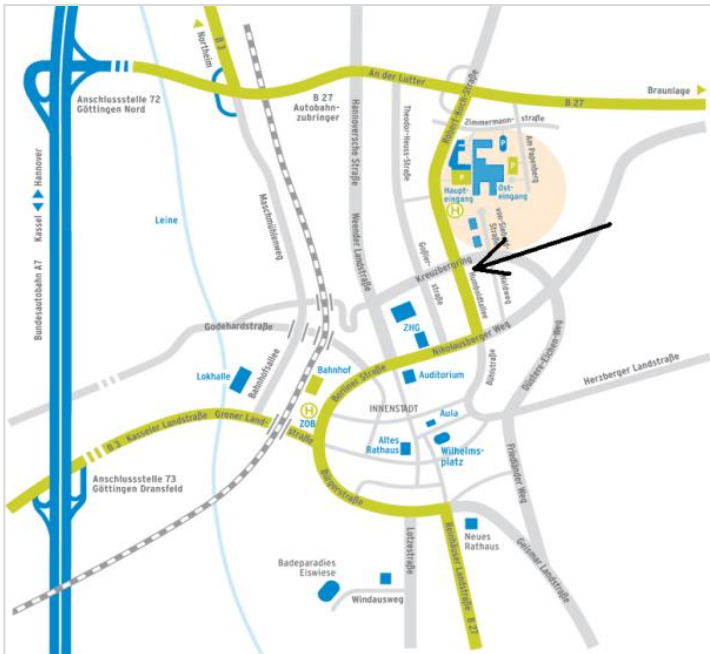
- ▶ We recommend early involvement (i.e. already in the planning phase)
- ▶ Appointment via our web form preferred (department homepage)
- ▶ There will be an invoice
 1. Discussion of project
 2. Cost estimate based on time effort
 3. Service request



Core Facility

Medical Biometry and Statistical Bioinformatics

Contact



University Medical Center Göttingen
Department of Medical Statistics

37099 Göttingen **Mailing Address**
Humboldtallee 32, 37073 Göttingen **Address**
0551 / 39-64829 **Phone**

service.biometry.bioinformatics@med.uni-goettingen.de **E-Mail**
medstat.umg.eu/forschung/wissenschaftliche-serviceeinheit/ **Website**

Service Group

Systematic Reviews and Meta-Analyses

Methodological support for:

- Systematic reviews and meta-analyses
- Evidence reports for clinical practice guidelines
- Other types of evidence syntheses (e.g. Rapid-Reviews)

Junior-Prof. Dr. Tim Mathes



AG

Biometry, Data Management and Informatics in Clinical Trials

Joint Group of the *Medical Statistics, Medical Informatics and Clinical Trials Unit UMG*

Head: Dr. Thomas Asendorf and Sabine Hanß

Application phase

- ▶ Choice of primary/secondary endpoints
- ▶ Suitable study design
- ▶ Sample size planning and calculation
- ▶ Early aspects of data management

Data management

- ▶ Web based data bases in REDCap® and secuTrial®
- ▶ Conception of questionnaires
- ▶ Handling of eCRFs and SAEs

Statistical (interim) analysis

- ▶ Statistical analysis plan (SAP)
- ▶ Sample size re-calculation
- ▶ Descriptive statistics
- ▶ Analyses of primary and secondary endpoints
- ▶ Advanced graphical representation



Publication

- ▶ Specific statistical analyses
- ▶ Material and methods section
- ▶ Publication quality figures
- ▶ Publication of study protocols

Working with REDCap at the UMG

REDCap is running on GWDG Servers and administrated by the Working Group Biometry, Datamanagement and Informatics in Clinical Trials

Read & agree to conditions and register for an Account:

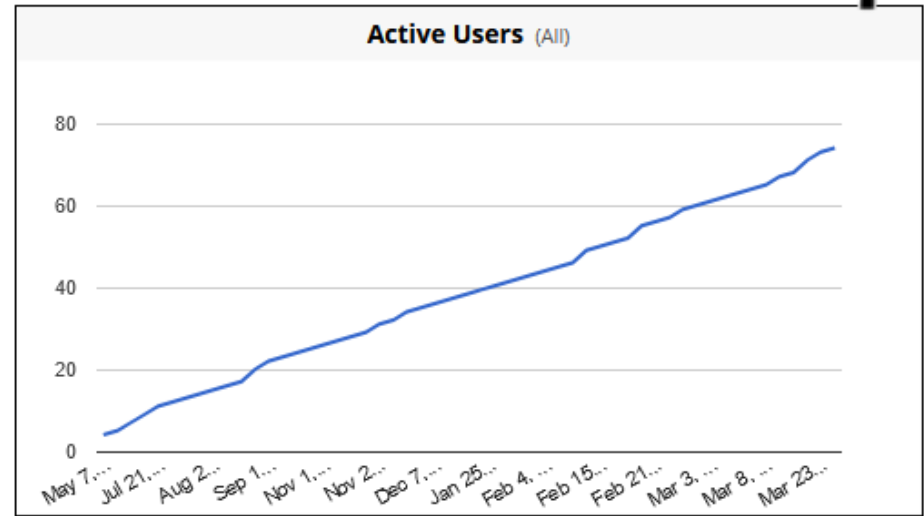
<https://redcap.umg.eu/surveys/?s=KHCYHL7A83>

Why use REDcap?

- ▶ Collect data in a structured way
- ▶ Thorough documentation with collaborators
- ▶ Data is secured and cannot be lost
- ▶ All edits to the data are documented
- ▶ Quick transition to data analysis

What can I use it for?

- ▶ Online documentation together with others
- ▶ Online questionnaires (PROs)
- ▶ Documentation via tablet or smartphone
- ▶ Longitudinal data
- ▶ Repeatable instruments (e.g. adverse events)



8. Services of the Central Biobank UMG

PD Dr. Sara Nußbeck

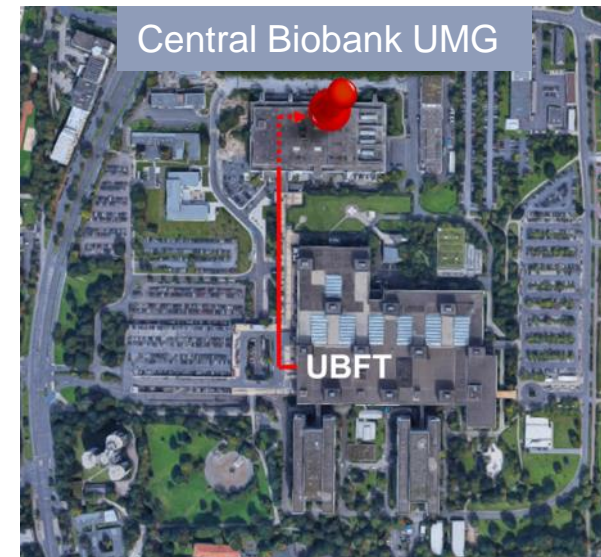
8. Services of the Central Core Facility Central Biobank UMG



PD Dr. Sara Nußbeck, Head of Central Biobank UMG

Central Biobank UMG – Central Core Facility

- Facility to support all researchers of the UMG
- Advise for biospecimen and biospecimen data collection
- Standardised processes for biospecimen processing
- Storage of biospecimen
 - at -80°C
 - in the vapour phase of LN₂
 - at room temperature (FFPE and slides)
- Retrieval of selected biospecimen
- Cooled transport and shipping
- Founding member of the biobank excellence network



Services

Services for biosamples and data

e.g. aliquoting, PBMC isolation, data quality control, IATA-compliant shipping, establishment of methods for the cryopreservation of biosamples, etc.

Provision of

e.g. centrifuges, safety bench, scanners for storage tubes and racks, containers for the refrigerated transport of samples, test environments (LN₂ /-80°C) incl. experienced personnel for tests

Process support

e.g. pre-packing of vessels for sample collection and storage for multicentre studies; ordering, administration and storage of storage vessels; reception, quality control and registration of biosamples

Expertise

e.g. counselling regarding various biobank aspects, procurement of co-operation partners and biosamples, training and further training

Infrastructure

- Sufficient structured storage capacity
- Backup-systems and equipment
 - High reliability of storage by redundancies in cooling and use of LN₂ vessels and back-up
 - Two independent temperature monitoring systems (24/7)
- Clearly identifiable storage containers and refrigeration equipment inventory (barcodes /2D-Code)
- Professional biospecimen management software



STARLiMS®

Advantages for user:

Comprehensive biospecimen logistics and use of technical expertise of the Central Biobank staff results in more time for your research.

Equipment of the Central Biobank UMG



Lagerroboter von außen

Equipment of the Central Biobank UMG



Auslagerung aus dem Lagerroboter

Equipment of the Central Biobank UMG



Innenleben des Lagerroboters

Equipment of the Central Biobank UMG



Auslagerung aus dem Stickstofftank

Equipment of the Central Biobank UMG



Transportwagen CryoCart

Equipment of the Central Biobank UMG

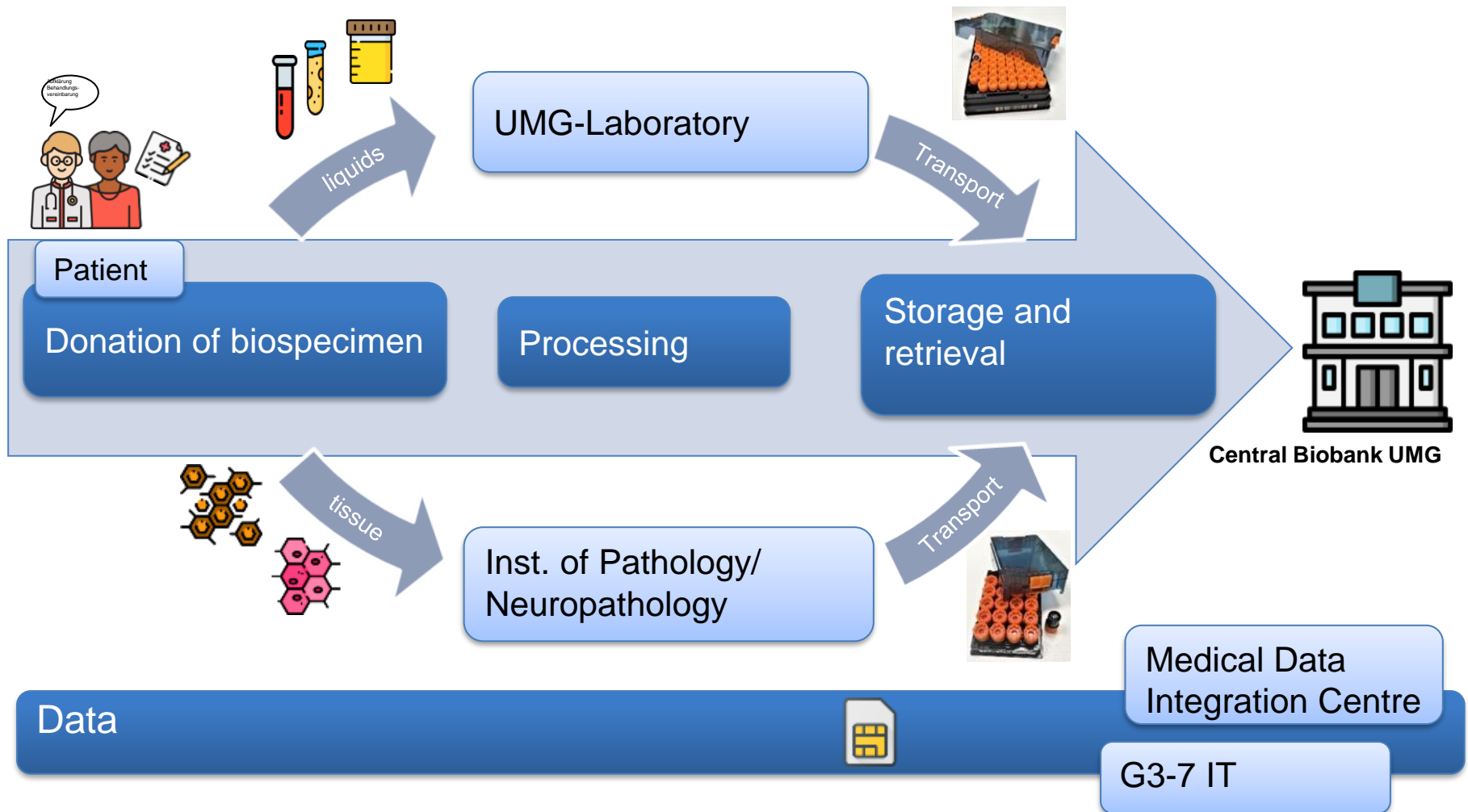


Transportgefäß CryoPod

Equipment of the Central Biobank UMG



Processes of UMG Collection



Have we aroused your interest?

- Contact us for your personal consultation:
 - biobank@med.uni-goettingen.de
 - Or visit our website: <https://biobank.umg.eu>

Dr. Kristin Hummel



Dr. Sandra Seelke



Dr. Christina Theda Thiesler



Aljoscha Erlebach



Thanks for your attention!
Are there further questions?

<http://ereseach.uni-goettingen.de>
info@ereseach.uni-goettingen.de