

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

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*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. Advisory services at the Department of Medical Informatics
7. Core Facility Medical Biometry and Statistical Bioinformatics
8. Services of the central UMG Biobank

# Example: CRC 1002

## Electronic laboratory notekeeping

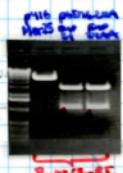


### Paper lab notebook

OCTOBER 15 1998

DIGEST:

2 $\mu$ l pG16 MET25 2.5 $\mu$ l 6EM16.2MA Eno21/AA  
 4.5 $\mu$ l UNIVERSAL B 4.5 $\mu$ l UNIVERSAL B  
 22.5 $\mu$ l H<sub>2</sub>O 22 $\mu$ l H<sub>2</sub>O  
 0.5 $\mu$ l Bantie 0.5 $\mu$ l Bantie  
 0.5 $\mu$ l EcoRI 0.5 $\mu$ l EcoRI  
 → CIP



LIGS: 6 $\mu$ l pG16 MET25  
 2 $\mu$ l Eno24/AA / H<sub>2</sub>O  
 19 $\mu$ l H<sub>2</sub>O  
 3 $\mu$ l T4-LIGG  
 0.5 $\mu$ l T4-LIGASE

AND TRANSFORM AFTER 4h OF LIGATION

NIHESI TEMPATE-DNA FOR MAKING RNA:



### Electronic lab notebook (ELN)

Home / AG Lehnart Demo / Experiments / Experiment 1 based on Template AG Lehnart STED Microscopy Image Acquisition

Name: Experiment 1 based on Template AG Lehnart STED Tags: di-8-ANEPPS, STED, Microscopy, Fluorescence SD381

Microscopy Image Acquisition

Publication Tag Search... AND OR Add Go

Wagner et al. 2012

<field id="229625">  
 <fieldName>Primary antibody</fieldName>  
 <fieldType>STRING</fieldType>  
 <lastModifiedDate>2015-08-26</lastModifiedDate>  
 <fieldData><https://hdl.handle.net/11022/umg-sfbl002-antibody-primary-119></fieldData>

Signal

Audit: My RSpace Activity  
 You can filter this audit by Actions and Date Range  
 Get Audit Report

You found 462 hits.

Time	User	Action	Type	Resource	Name
2016-04-21 15:38:12	Dr. Harald Kusch	READ	RECORD	SD381	Experiment 1 based on Template AG Lehnart STED Microscopy Image Acquisition
2016-04-21 12:21:12	Dr. Harald Kusch	READ	RECORD	SD366	Experiment 1 based on Template - AG Lehnart - Western Blot - Immuno detection for Western Blotting
2016-04-21 11:54:56	Dr. Harald Kusch	DELETE	RECORD	SD499	Untitled document
2016-04-21 11:54:56	Dr. Harald Kusch	DELETE	RECORD	SD505	Untitled document
2016-04-21 11:42:08	Dr. Harald Kusch	READ	RECORD	SD353	Template - AG Lehnart - Western Blot - Immuno detection for Western Blotting

Dye di-8-ANEPPS

Excitation in nm 490

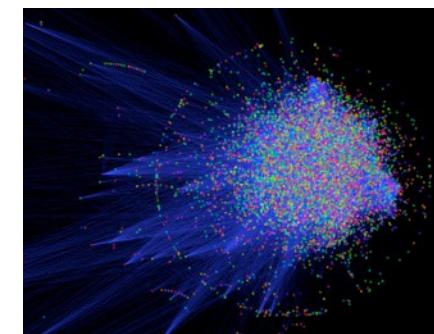
laser pulsed diode laser (Pico TA 490, Toptica)

# 1. Management of Research Data

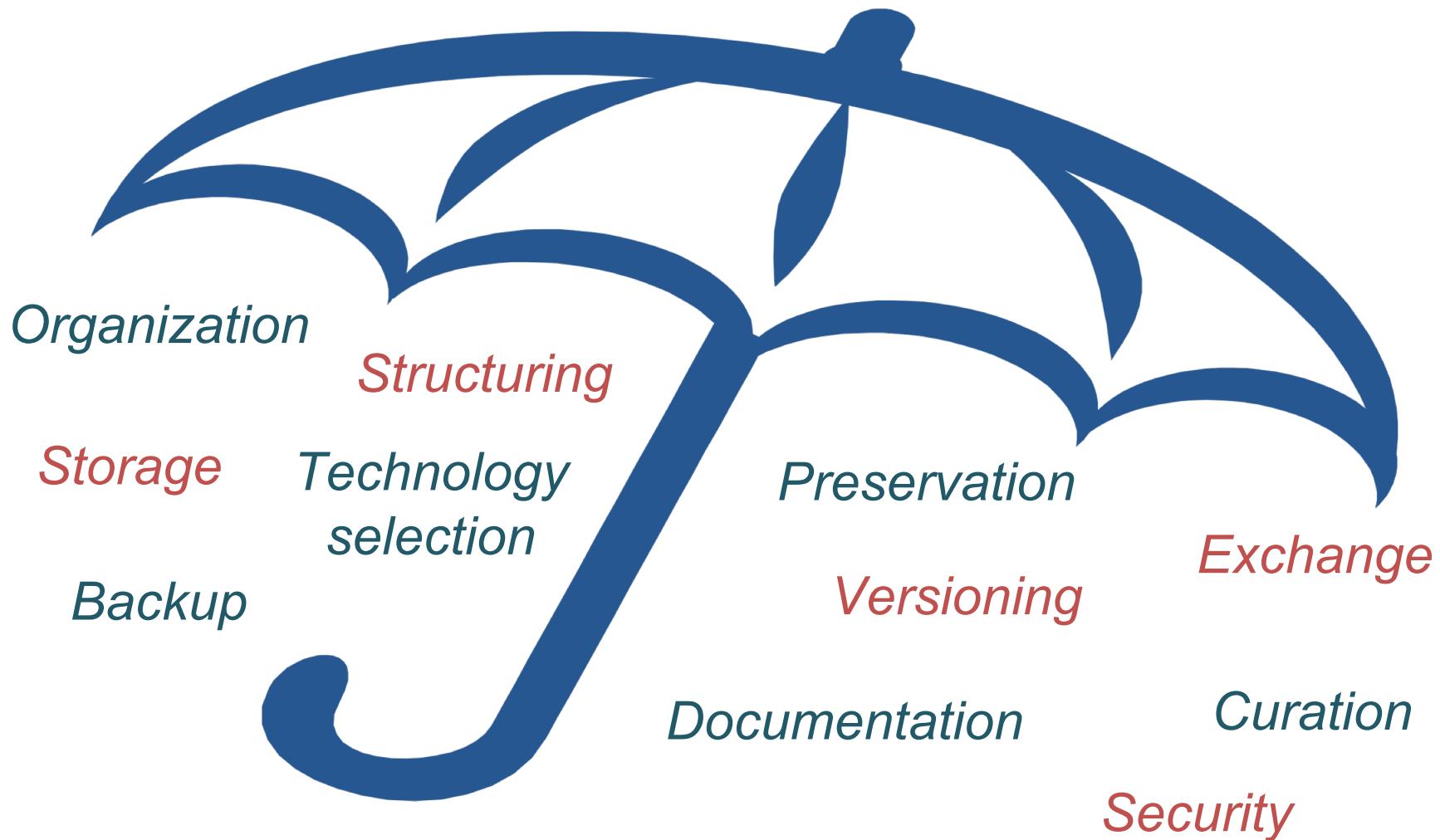


Data are **representations** of observations, objects, or other entities used as **evidence** of phenomena for the purposes of research or scholarship.

*(Christine Borgmann 2014)*



# What is research data management?



# Basic questions I

## Organization and storage

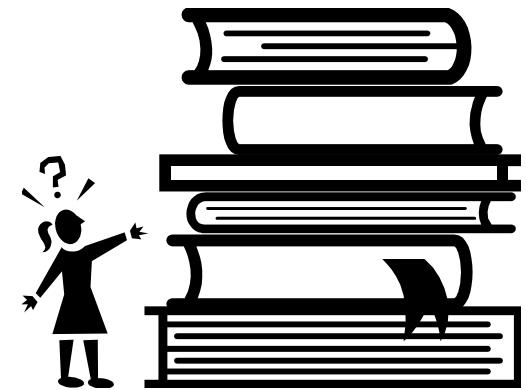
- Do you find what you need when you need it?
- Are your data stored safely? Have you implemented a backup plan?



# Basic questions II

## Documentation

- Is the meaning of all the data and processing steps known?
- 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?



# Research Data Policy of Göttingen University incl. UMG

The screenshot shows the homepage of the Göttingen eResearch Alliance. At the top left is the logo 'GA' with the years '1737'. To its right is the text 'Göttingen eResearch Alliance'. Below this is a menu bar with 'Focus areas'. At the bottom of the header is a blue bar containing 'Current page: 28. August 2014: Res...', 'Aa+' and 'Aa-' buttons, a search icon, and 'Search | Deutsch'.

## 28. August 2014: Research data policy of the Georg-August University Goettingen (incl. UMG)

### 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 high expectations and fulfil legal and ethical obligations. The University acknowledges that the implementation of this guideline will depend on the settings and requirements of each subject area.

1. The University promotes and supports open access to research data.
2. Research data are those data collected, observed, simulated, derived, or generated during the course of research.
3. Management of research data includes their planning, collection, processing, and preservation. It ensures the access to, and the reuse, reproducibility, and quality assurance of all research data underpinning research results.
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 good practices of research 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 and technical availability 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.
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.

Source: <http://www.uni-goettingen.de/en/488918.html>

# Research Data Policy of Göttingen University incl. UMG

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

Current page: ▶ Homepage ▶ 28. August 2014: Res...

Aa+ Aa-



Search | Deutsch

- Topics addressed:

## Preamble:

- Research Data, Research Data Management and its purposes
- Data Management Plans
- Support, training and provision of services

## Storage location

2. Research data are those data collected, observed, simulated, derived, or generated during the course of research.

3. Management of research data includes the creation, processing, analysis, storage, and preservation. It ensures the access to, and the reuse, reproducibility, and quality assurance of all research data underpinning research results.

4. Responsibility for management of research data lies with 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 good practices of research 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 cautions for handling them.

6. The University provides the necessary infrastructure and support for the implementation of the policy. This includes the provision of staff, resources, and funding, and provides appropriate training.

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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.

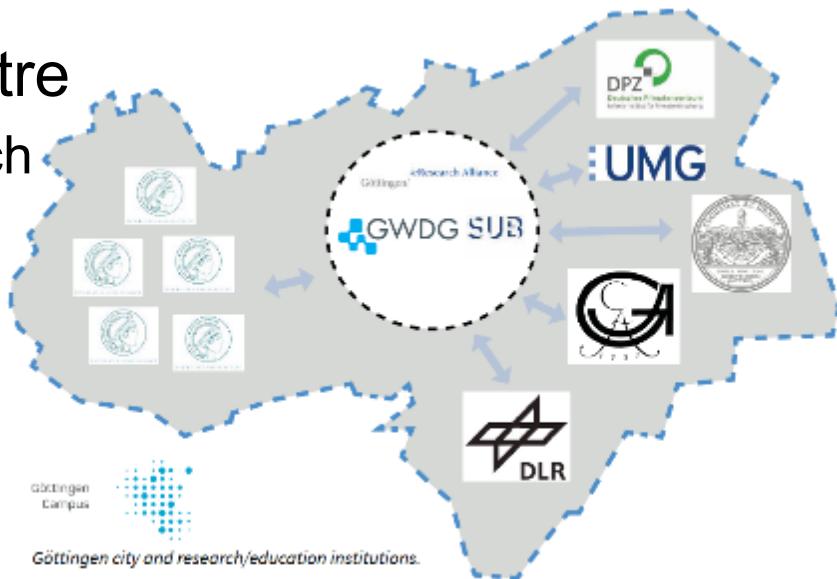
Source: <http://www.uni-goettingen.de/en/488918.html>

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 Department
- **Brokering-Office** with currently 5 staff members
  - Team from different disciplines w/ eResearch expertise
  - Actual services and projects in individual organisations
  - Network w/ eResearch experts across the campus
  - Translate discipline-specific into information-infrastructure requirements



# eRA Services

## Consulting

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

## Training

- Data management
- eResearch topics
- Digital literacy
- Expert network
- Network on 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
  - <https://pad.gwdg.de/s/OpenScienceGOE#>
  - Open Science principles
  - Teaching
  - Data science
- “HackyHour”: Meet, discuss, experiment together with experts on a given topic

<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

# GÖTTINGEN RESEARCH ONLINE

## GRO.data

- based on Dataverse
- research data repository
- for all disciplines
- storage, exchange, publication
- DOIs
- individual roles and rights management

GÖTTINGENRESEARCHONLINE

Metrics 622 Downloads

Search this dataverse... Find Advanced Search + Add Data Sort

Dataverses (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)

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

Keyword Term Applied Art (3)

1 to 10 of 33 Results

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 (Dienst 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 QRaCE-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:dgChiu7tRy+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

# GÖTTINGEN RESEARCH ONLINE

## GRO.publications

- based on DSPACE-CRIS
- publication data repository
- researcher profiles
- ORCID connection
- export to various formats, citation styles
- selectable presentation through embedded links

The screenshot shows the Göttingen Research Online Publications interface. At the top, there is a navigation bar with links for GRO, Help, Login, and DE. Below the navigation is a search bar. The main content area is titled "Publications". It features a search bar with a "Search" button and a "Reset" button. Below the search bar is a link to "Add Filters". A message indicates "1-50 of 64954" results. A navigation bar below shows page numbers from 1 to 1300. Three publication entries are listed:

- 2021 | Conference Paper: Die Sackgassen des Humiliationismus in Metaphysik oder Positivismus by Gisbertz-Astolfi, P. (2021). It is part of the 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 by Schwerdtfeger, A. (In Press). It is part of the book Grundgesetz-Kommentar: GG. (7. ed.). C. H. Beck. [Details](#)
- 2021 | Book Chapter: Art. 137 – Beschränkung der Wählbarkeit von öffentlich Bediensteten by I. von Münch; P. Kunig; J. A. Kämmerer & M. Kotzur (Eds.). [Details](#)

On the right side, there is a "Filter" sidebar with dropdown menus for Type (Select Type), Date issued (Select Date), Author (Select Author), Subject (Select Subject), and Publication Affiliation (Göttingen University).

# GÖTTINGEN RESEARCH ONLINE

## GRO.plan

- based on RDMO
- data management planning tool
- versioning and sharing of DMPs
- goal: campus-specific support

The screenshot shows the 'My Projects' page of the GÖTTINGEN RESEARCH ONLINE PLAN. At the top, there is a dark blue header bar with the text 'GÖTTINGEN RESEARCH ONLINE PLAN' and 'Language - My account -'. Below the header, the main content area has a white background. On the left, there is a sidebar with sections for 'My personal data' (Name: Timo Gnadt, Email: gnadt@sub.uni-goettingen.de), 'Search projects' (with a search input field), and 'Import as new project' (with a 'Select file' button and an 'Upload' button). The main content area is titled 'My Projects' and contains a sub-header: '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.' Below this text, there is a horizontal navigation bar with links: 'Project name', 'My GRO.plan role', 'Creation Date', 'Last updated', 'Selected Catalog', and 'Quick Links'. A blue button labeled 'Create new project' is located at the bottom of this bar.



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](#)

## 2.1 Division Library Medicine (SUB)

Dagmar Härter

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

Support and Services at the Medical Library



# BBM / SUB Göttingen

The screenshot shows the homepage of the Niedersächsische Staats- und Universitätsbibliothek Göttingen (SUB) website. The header features the SUB logo and the text "NIEDERSÄCHSISCHE STAATS- UND UNIVERSITÄTSBIBLIOTHEK GÖTTINGEN". A search bar contains the placeholder "Catalogues, subjects, website" with a magnifying glass icon. Below the header, there are links for "Göttingen State and University Library > News" and "Deutsch". The main content area includes a large image of the library's interior with multiple levels and a staircase, along with smaller images of letters on a wall and a person walking. A sidebar on the left lists navigation links: "News", "Service monitor & FAQ", "First-time visitor?", "Contact", "Locations & facilities", and "Borrowing & renewing". The central news section discusses the "Scan & Deliver" service and the gradual opening of locations. A "Service monitor" section provides status information for various services, and a "COVID-19" section offers links to relevant resources.

Göttingen State and University Library > News

Deutsch

**SUB** | NIEDERSÄCHSISCHE STAATS- UND UNIVERSITÄTSBIBLIOTHEK GÖTTINGEN

Catalogues, subjects, website

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](http://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?

The screenshot shows the homepage of the Georg-August-Universität Göttingen library system. At the top left is the EZB logo. The top right features the university's name and the SUB logo. A search bar is centered at the top. On the left, there's a sidebar with links for 'Zeitschriften', 'Bibliothek', and 'Information & Service'. The main content area displays a table titled 'Zeitschriftenliste nach Fachgebiet' with columns for 'Fachgebiet' and 'Anzahl'. To the right of the table is a sidebar with a section titled 'Die Volltexte der Zeitschriften sind' containing four items with colored circles (green, yellow, red) indicating different levels of access. Below this is a link to 'Nutzungsbedingungen'.

Fachgebiet	Anzahl
Allgemeine und vergleichende Sprach- und Literaturwissenschaft. Indogermanistik. Außereuropäische Sprachen und Literaturen	3143
Allgemeines. Fachübergreifendes	7533
Anglistik. Amerikanistik	1404
Archäologie	1217
Architektur, Bauingenieur- und Vermessungswesen	2319
Bildungsgeschichte	412
Biologie	5597
Chemie und Pharmazie	2926
Elektrotechnik, Mess- und Regelungstechnik	1581
Energie, Umweltschutz. Kerntechnik	2345
Ethnologie (Volks- 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. Mittelalterliche und neugriechische Philologie. Neulaten	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

You need to register once as user of the library system with your UMG staff card and receive a password

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/-6WftH>

## Prerequisite:

Your data must be entered once in the lending system in the library, then you will receive a password. With this data you can then log in to use the licensed e-resources.

SUB | NIEDERSÄCHSISCHE STAATS- UND UNIVERSITÄTSBIBLIOTHEK GÖTTINGEN Catalogue

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

**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>

We are currently converting all offers to 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.

**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:

The screenshot shows the homepage of the Niedersächsische Staats- und Universitätsbibliothek Göttingen (SUB). A green arrow points to the 'Learning & teaching' menu item in the sidebar. Another green arrow points to the 'Self-study materials' link within that menu. The main content area displays a list of resources under the heading 'Medizin'. A yellow double-headed arrow indicates the user should scroll down to this section. The page footer contains links for SUB Göttingen, Universität Göttingen, and Stadt Göttingen.

**SUB | NIEDERSÄCHSISCHE STAATS- UND UNIVERSITÄTSBIBLIOTHEK GÖTTINGEN**

Göttingen State and University Library > Learning & teaching

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

Bibliotheksralley für Studierende der Politik-, Sozial- und Wirtschaftswissenschaften

Kursunterlagen zum Herunterladen (PDF 514 KB): Einführung in die Literaturrecherche für Studierende der Sportwissenschaften

Von der Literaturliste zum Buch: Information für Studienanfängerinnen und Studienanfänger der Wirtschaftswissenschaften (PDF 1,5 MB)

Zotero-Kursunterlagen zum Herunterladen: Einführung in Zotero mit sozialwissenschaftlichen Beispielen

## Medizin

Bibliotheksralley für die Bereichsbibliothek Medizin (PDF 376 KB)

Endnote-Selbstlernkurs für Medizin-Studierende zum Herunterladen

Endnote Self Study Material for Medical Students (PDF 648 KB)

Literaturrecherche für Medizin-Studierende: Wo Sie finden, was Sie suchen! (PDF 1,3 MB)

PubMed for medical students (PDF 2,5 MB)

PubMed für Medizin-Studierende (PDF 3,2 MB)

Zotero-Kursunterlagen zum Herunterladen: Zotero Selbstlernkurs für Medizinstudierende

Zugriffsmöglichkeiten auf Volltexte von Zeitschriftenaufsätzen für Medizin-Studierende (PDF 2,0 MB)

Sitemap Kontakt Impressum Datenschutzhinweis (Opt-Out) Feedback Short URL

**SUB Göttingen**

Benutzerkonten Offnungszeiten Bücherwunsch für Studierende Kurse & Führungen SUB bei Facebook SUB bei Twitter SUB bei Instagram Ihre Meinung Frag die SUB

**Universität Göttingen**

Universität Göttingen UniVZ Lageplan zur Barrierefreiheit eCampus mit Stud.IP studiT Online Support Göttinger Bibliotheken Mensa Speisepläne GWDG

**Stadt Göttingen**

Willkommen in Göttingen Stadtplan Verkehrsverbindungen studieren-in-goettingen.de

Letzte Änderung 25.10.2018

# Open Access consultation

The screenshot shows the left sidebar of the university's website. A green arrow points to the 'Open Access' link in the sidebar, which is highlighted with a grey background. Another green arrow points to the main content area where the 'Open Access' section is displayed.

**Open Access an der Universität Göttingen**

Die Georg-August-Universität Göttingen (einschließlich der Universitätsmedizin) hat 2016 eine neue Open-Access-Leitlinie (PDF 1,9 MB), Seite 1895 - 1896, beschlossen und „verfolgt das Ziel, die wissenschaftlichen Ergebnisse ihrer Wissenschaftler und Wissenschaftlerinnen möglichst breit öffentlich zugänglich und nutzbar zu machen. Open Access bereitgestellte Publikationen lassen sich ohne Zugriffsbeschränkungen nutzen. Dies befördert unmittelbar und nachhaltig Forschungs- und Innovationsprozesse in Wissenschaft, Wirtschaft und Gesellschaft. ... Mandate wie das der Europäischen Kommission und des Europäischen Forschungsrates machen die Umsetzung von Open Access für alle geforderten Projekte verbindlich. Diese Leitlinie setzt einen allgemeinen Empfehlungsrahmen für Open Access an der Universität und ergänzt die von der Universität Göttingen verabschiedete Leitlinie zu Forschungsdaten.“ Die Leitlinie aus dem Jahr 2016 ersetzt die Open-Access-Resolution (PDF 248 KB) der Universität Göttingen von Dezember 2005.

Weitere Unterstützung bietet das Angebot der Göttingen eResearch Alliance. Sie berät Themen wie z. B. Forschungsdatenmanagement, Entwicklung von Datenstrategien für Forschungsprojekte u. a. Darüberhinaus betreibt die SUB Göttingen ein Open-Access-Referat sowie einen Publikationsfonds. Sie engagiert sich in nationalen und internationalen Projekten wie Confederation of Open Access Repositories (COAR) und OpenAIRE. Das EU-Hochschulbüro der Universität Göttingen informiert auf seiner Internetseite detailliert über den Open-Access-Pilot der Europäischen Union.

Auf unseren Webseiten finden Sie Informationen zu Fragestellungen wie

- Open Access in den Disziplinen: Präsentation zu Open Access in der Universitätsmedizin Göttingen (PDF 4,5 MB)
- Gibt es für das Publizieren in Open-Access-Journalen oder bei Verlagen Verlagsvereinbarungen oder Publikationsbeihilfen?
- Ich habe der SUB Göttingen für meine Publikationen eine Rechteübertragung vor 2007 übertragen und möchte hierzu nochmals die Infos nachlesen?
- Wo finde ich was zum Thema Verlagspolicies?

Bestände  
Digitale Bibliothek  
Elektronisches Publizieren  
Publizieren  
Universitätsverlag Göttingen  
Open Science  
**Open Access**  
Wo finde ich was?  
Open-Access-Publikationsfonds  
Verlagsvereinbarungen  
Rechtliches  
Lernen & Lehren  
Projekte & Forschung  
Spenden & Fördern  
Wir über uns  
SUB A-Z

 GEORG-AUGUST-UNIVERSITÄT GÖTTINGEN

Webseitensuche Letzte Änderungen Sitemap Kontakt Impressum Datenschutzhinweis (Opt-Out) Feedback Short URL

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

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



## 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](mailto:bbmed@sub.uni-goettingen.de)**



## 2.2. Computing Services (GWDG)

Prof. Dr. Philipp Wieder



NEUIGKEITEN

DIENSTE ▾

FORSCHUNG & LEHRE

ÜBER UNS

SUPPORT

ANMELDEN

EN DE

A background image depicting a large white cloud in the center, with binary code (0s and 1s) floating around it. In the foreground, there are icons of a smartphone, a laptop, and a tablet, each displaying binary code. A large white arrow points from left to right across the bottom of the image. The overall theme is cloud computing and data storage.

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

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

### E-Mail Collaboration

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

### Server Services

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

### Network Services

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

### Application Services

- Persistent Identifier (PID)
- Library Service Aleph
- Library Service Koha
- Databases
- Application and Registration Services
- Plagiarism Prevention
- Online Surveys
- Bioinformatics Programs
- Statistics Programs
- Jupyter
- Pseudonymisation and Data Trusteeship

### IT Security Services

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

### General Services

- Videoconferencing
- Identity and Access Management [MPG]
- Identity and Access Management [Uni]
- Single Sign-on (SSO) /Authentication and Authorization Infrastructure (AAI)
- Software and Licence Management
- Computer Lending Pool
- General Services - Print & Scan Services

### IT Consulting

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

# 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	Processor	Memory	IP Address
1 / 3	2 / 12	8.0 / 24.0 GB	1 / 3

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

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

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

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 16 Cores 16 GB RAM 160 GB Disk
Images				
 CentOS 6.6 Server x86_64	 CentOS 7.1 Server x86_64	 Debian 7.8 Server x86_64		
 Fedora 20 Desktop Gnome x86_64	 Fedora 20 Desktop KDE x86_64	 Fedora 20 Server x86_64		
 openSUSE 13.1 Desktop Gnome x86_64	 openSUSE 13.1 Desktop KDE x86_64	 openSUSE 13.1 Server x86_64		
 Scientific Linux 6.6 Server x86_64	 Scientific Linux 7.1 Server x86_64	 Ubuntu 12.04.5 LTS Server x86_64		

## Kollaboration

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

# Example collaborative work

## Video conferencing



### 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.

#### – 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

### 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.

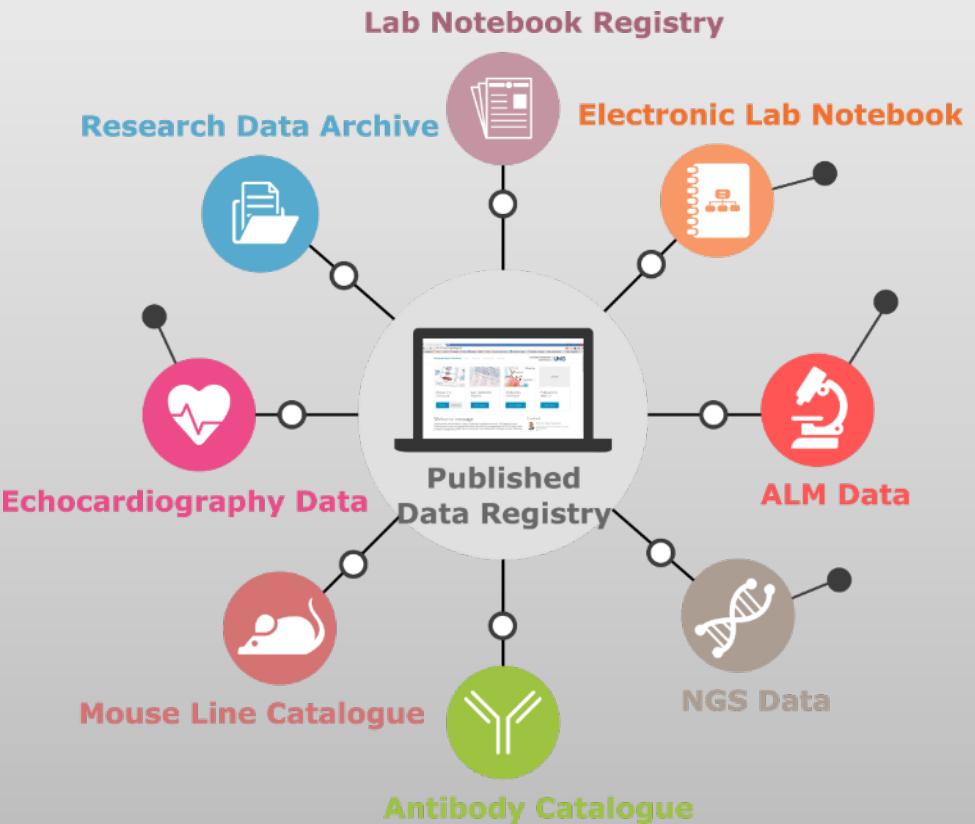
Project specific example

## DFG Collaborative Research Center 1002



### 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](tel:+495512011523)

Contact our hotline



[support@gwdg.de](mailto:support@gwdg.de)

Send us an email and we will contact you soon



[support.gwdg.de](https://support.gwdg.de)

Check your tickets  
(Account required)



[www.gwdg.de/docs](https://www.gwdg.de/docs)

[www.gwdg.de/faq](https://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**



Info-Veranstaltung  
"Datenmanagement und Service-  
Einheiten an der UMG"

# „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:

- ▶ 9 members and some deputies
- ▶ medical doctors, paramedical staff, experts in statistics and ethics, lawyers
- ▶ 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”
- ▶ MPG-Studies (studies involving medical devices)  
Studies regulated by “Medizinproduktegesetz”

# Studies (2)

## ► “other Studies”

- Research projects with “Beratungspflicht” by MBO  
(Operating researchers are obliged to consult the Ethik-Kommission’s advice)
- Possibility of accepting the vote of another Ethik-Kommission (Übernahmeveratum)
- Retrospective data analysis studies: possibility of a shortened approval process

# Comprehensive consultation:

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

[www.ethikkommission.med.uni-goettingen.de](http://www.ethikkommission.med.uni-goettingen.de)

# 4. Datenschutzbeauftragter der UMG

Dr. Thomas Langbein

## Research and Data Protection

**Germanys constitution (GG):**

1. Derived from Art 1 and 2 → Right of informational self-determination
2. Freedom of Research and Teaching, Art 5(3) GG



**Personal data are subjected to the national Laws of data protection and – since 25th of May 2018 – also European legislation**

# Research and Data Protection

## Laws:

- German Data Protection Act (BDSG)
- Federal Data Protection Laws (e.g. NDSG)
- European General Data Protection Regulation (GDPR/  
EU-DSGVO)



**On principle: Processing of personal data is prohibited ... except it is allowed by other laws or regulations OR by permission of the person concerned. („Prohibition with Reservation of authorisation“)**

# Research and Data Protection

**But: There are special facilities for research projects!**

**DSGVO: Article 89** *Safeguards and derogations relating to processing for archiving purposes in the public interest, scientific or historical research purposes or statistical purposes* (*Link: <https://gdpr-info.eu/art-89-gdpr/>*)

**Lower Saxony Law of Data Protection (NDSG)**: § 13  
**Processing of personal data in research projects**

(Link:  
[http://www.voris.niedersachsen.de/jportal/portal/t/124p/page/bsvorispro.d.psml/action/portlets.jw.MainAction?p1=j&eventSubmit\\_doNavigate=searchInSubtreeTOC&showdoccase=1&doc.hl=0&doc.id=jlr-DSGND2018pP13&doc.part=S&toc.poskey=#focuspoint](http://www.voris.niedersachsen.de/jportal/portal/t/124p/page/bsvorispro.d.psml/action/portlets.jw.MainAction?p1=j&eventSubmit_doNavigate=searchInSubtreeTOC&showdoccase=1&doc.hl=0&doc.id=jlr-DSGND2018pP13&doc.part=S&toc.poskey=#focuspoint))

**German Law of Data Protection (BDSG neu): § 27 – Data processing for scientific or historical or statistical purposes**

(Link: <https://dejure.org/gesetze/BDSG/27.html>)

## Research and Data Protection

Declaration of confidentiality (*see page 6*)

Data access agreement (*see page 7*)

TMF-Working Groups to data protection in research projects

(Link: [http://www.tmf-ev.de/Arbeitsgruppen\\_Foren/AGDS.aspx](http://www.tmf-ev.de/Arbeitsgruppen_Foren/AGDS.aspx))

# Research and Data Protection

## Declaration of confidentiality

### VERPFLICHTUNG AUF DIE VERTRAULICHKEIT

Im Rahmen der Dokumentations- und Nachweispflichten des Art. 5 Abs. 2 DS-GVO (Accountability) ist die Verpflichtung der zur Verarbeitung befugten Personen auch weiterhin als probates Mittel anzusehen, um die Einhaltung datenschutzrechtlicher Vorschriften von vornherein zu gewährleisten. Dies zeigt sich unter anderem am Regime der Auftragsverarbeitung (AV), welches in Art. 28 Abs. 3 lit. b DS-GVO die Verpflichtung auf die Vertraulichkeit zumindest beim Dienstleister ausdrücklich als Pflichtinhalt des AV-Vertrages vorsieht.

Darüber hinaus legt Art. 32 Abs. 4 DS-GVO fest, dass sowohl Verantwortliche als auch Auftragsverarbeiter Schritte zu unternehmen haben, um sicherzustellen, dass die unterstellten Personen mit Zugang zu personenbezogenen Daten nur auf Anweisung des Verantwortlichen tätig werden. Art. 29 DS-GVO bezieht sich ebenfalls auf diese eindeutig weisungsabhängige Verarbeitung. Hierzu gehört es, unmissverständlich auf die Bedeutung und den Umfang datenschutzrechtlicher Regeln hinzuweisen und Mitarbeitern etwaige Risiken von Gesetzesverstößen vor Augen zu führen.

Der Bundesgesetzgeber hat im Rahmen der Umsetzung der Richtlinie 2016/680/EU für den Datenschutz in Polizei und Justiz an der förmlichen Verpflichtung festgehalten. § 53 BDSG n.F. verwendet insoweit sogar den hergebrachten Begriff des Datengeheimnisses. Was im öffentlichen Bereich recht ist, kann daher im nicht-öffentlichen Bereich nur billig sein.

Bei berufs- und standesrechtlicher Verschwiegenheitspflicht ist das Weglassen einer Verpflichtung für mitwirkende Personen gem. § 203 Abs. 4 Satz 2 Nr. 1 StGB ggf. sogar strafbewehrt, falls die mitwirkende Person unbefugt fremde Geheimnisse offenbart.

# Research and Data Protection

## Data access agreement

UNIVERSITÄTSMEDIZIN GÖTTINGEN UMG

Datenschutzbeauftragter der UMG  
Tel.: 0551 39 22762  
E-Mail: datenschutz@med.uni-goettingen.de

### Datenzugriffsvereinbarung/2017

Bitte ausgefüllt (Seite 1-2) an den Datenschutzbeauftragten senden. Falls keine Rückfragen sind, erhält der Antragstellende Seite 1 zurück und kann damit im Zentralarchiv die benötigten Patientenakten anfordern bzw. bei elektronischem Zugriff einen ixserv-Account im G3-7 Informations-technologie (Sachgebiet Klinische Systeme) beantragen.

An den  
Datenschutzbeauftragten der Universitätsmedizin Göttingen

Telelift 142

Per Fax: 39 - 12726      Als gescanntes Dokument (PDF) an: datenschutz@med.uni-goettingen.de

#### 1. Persönliche Daten des/der Antragstellenden

Name	
Privatanschrift	
Telefon/E-Mail	
Abteilung/Klinik	

#### 2. Thema des Forschungsvorhabens:

(Leeres Feld für handschriftliche Angabe)

3. Zweck:  Promotion  Habilitation  Sonstiges Forschungsvorhaben

4. Folgende Patientendaten werden benötigt (z.B. Patienten der Klinik...Zeitraum...Diagnose ...):

(Leeres Feld für handschriftliche Angabe)

→ weiter mit Nr.5

Unterschrift des Datenschutzbeauftragten

Stand 02/2016

Unterschrift der Archivleitung bzw. der Leitung der speichernden Stelle

1

# Research and Data Protection

## Keep in contact



**Dr. Thomas Langbein**  
Tel.: 39-22762  
E-Mail: [datenschutz@med.uni-goettingen.de](mailto: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 and Scientific Core Facilities

## Central Core Facilities

- \* **Central Animal Facility** (*Dr. Riedesel, sekretariat.zte@med.uni-goettingen.de, 39-63902*)
- \* **Biobank** (*PD Dr. Nußbeck, sara.nussbeck@med.uni-goettingen.de, 39-65701*)
- \* **Scientific Workshop** (*Mr. Lott, clott@gwdg.de, 39-4119*)

## Scientific Core Facilities

- \* **NGS-Serviceeinrichtung für Integrative Genomik (NIG)**  
(*Dr. Salinas, gsalina@gwdg.de, 39-60778*)
- \* **Proteomics** (*Dr. Lenz, proteomics.ms@med.uni-goettingen.de, 39-65192*)
- \* **MR-Research** (*PD Dr. Dechent, mrserviceeinheit.sekretariat@med.uni-goettingen.de, 39-13141*)
- \* **Medical Biometry and Statistical Bioinformatics**  
(*Dr. Leha, andreas.leha@med.uni-goettingen.de, 39-4987*)
- \* **Cell Sorting** (*Prof. Wulf, cellsorting@med.uni-goettingen.de, 39-12772*)

# Central and Scientific Core Facilities

## Two new Scientific Core Facilities

- \* **UMG Medical Data Integration Center (MeDIC) - research data**
- \* **Research-MR for cardiovascular imaging**

## Information event for researchers at the UMG



*Come and get to know the contact persons  
and services!*

# Where to find information?

<https://www.umg.eu/forschung/science-support/wissenschaftliche-infrastruktur/serviceeinrichtungen/>

The screenshot shows the 'Serviceeinrichtungen' section of the UMG website. It is organized into two main categories: 'Zentrale Serviceeinrichtungen' and 'Wissenschaftliche Serviceeinrichtungen'. Each category contains three items, each with a small image, a title, a brief description, and a 'Mehr lesen' button.

- Zentrale Serviceeinrichtungen:**
  - UMG Biobank:** Die UMG Biobank bietet qualitätsge sicherte Biomaterialien und gärtnerischen Service.
  - Wissenschaftliche Werkstätten:** Dienstleistungen für den Wissenschaftsbereich von Lehre.
  - Zentrale Tierexperimentelle Einrichtung (ZTE):** Weiterführende Infos und Kontakte zur ZTE finden Sie hier.
- Wissenschaftliche Serviceeinrichtungen:**
  - Transkriptomanalyselabor – Deep-Sequencing Core Facility:**
  - Proteomanalyse:**
  - MR-Forschung in der Neurologie und Psychiatrie:**
  - Medizinische Biometrie und Statistische Bioinformatik:**
  - Cell Sorting:**
  - Medizinisches Forschungs-Daten-Integrations-Centrum:**

- 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 – 03/16

Seite 1 von 1

## Hinweis

Richtwerte für die Beantragung von Tierkosten

guide values for basic animal husbandry:

- 0,70 € per mouse/week
- 1,40 € per rat/week

separate application for animal purchase

DFG-Vordruck 55.04 – 06/16

Seite 1 von 12

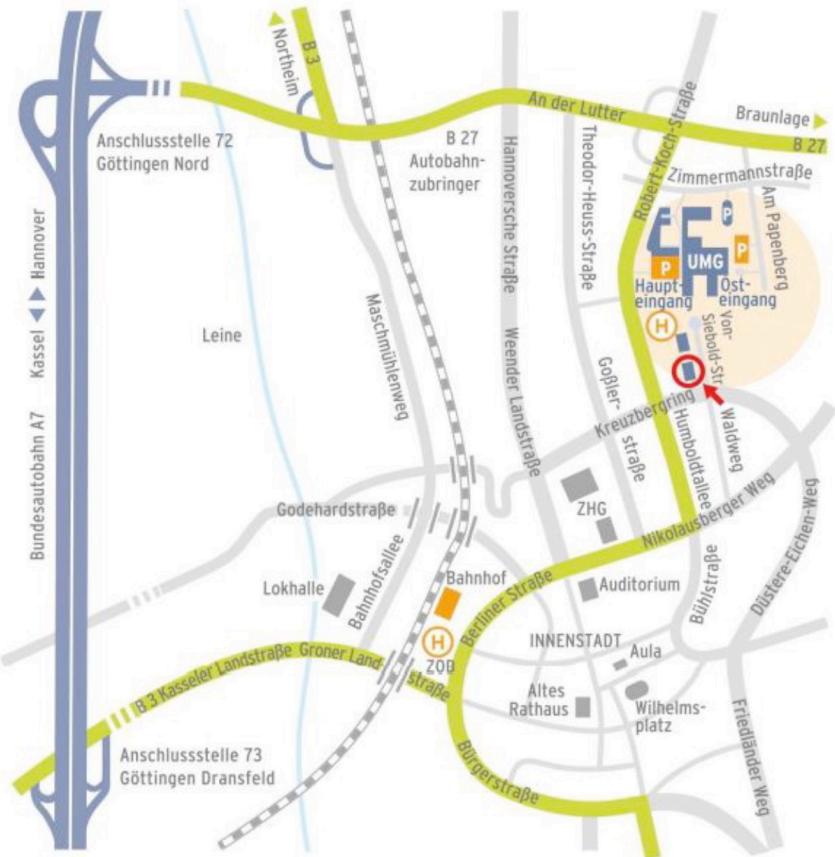
## Hinweise

zu Gerätenutzungskosten und zu Gerätzentren

- 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 – Forschung und EU-Büro



**Forschung und EU-Büro**  
Von-Siebold-Str. 3, 37075 Göttingen  
[forschung@med.uni-goettingen.de](mailto:forschung@med.uni-goettingen.de)

## 6. Advisory services at the Department of Medical Informatics

Dr. Harald Kusch

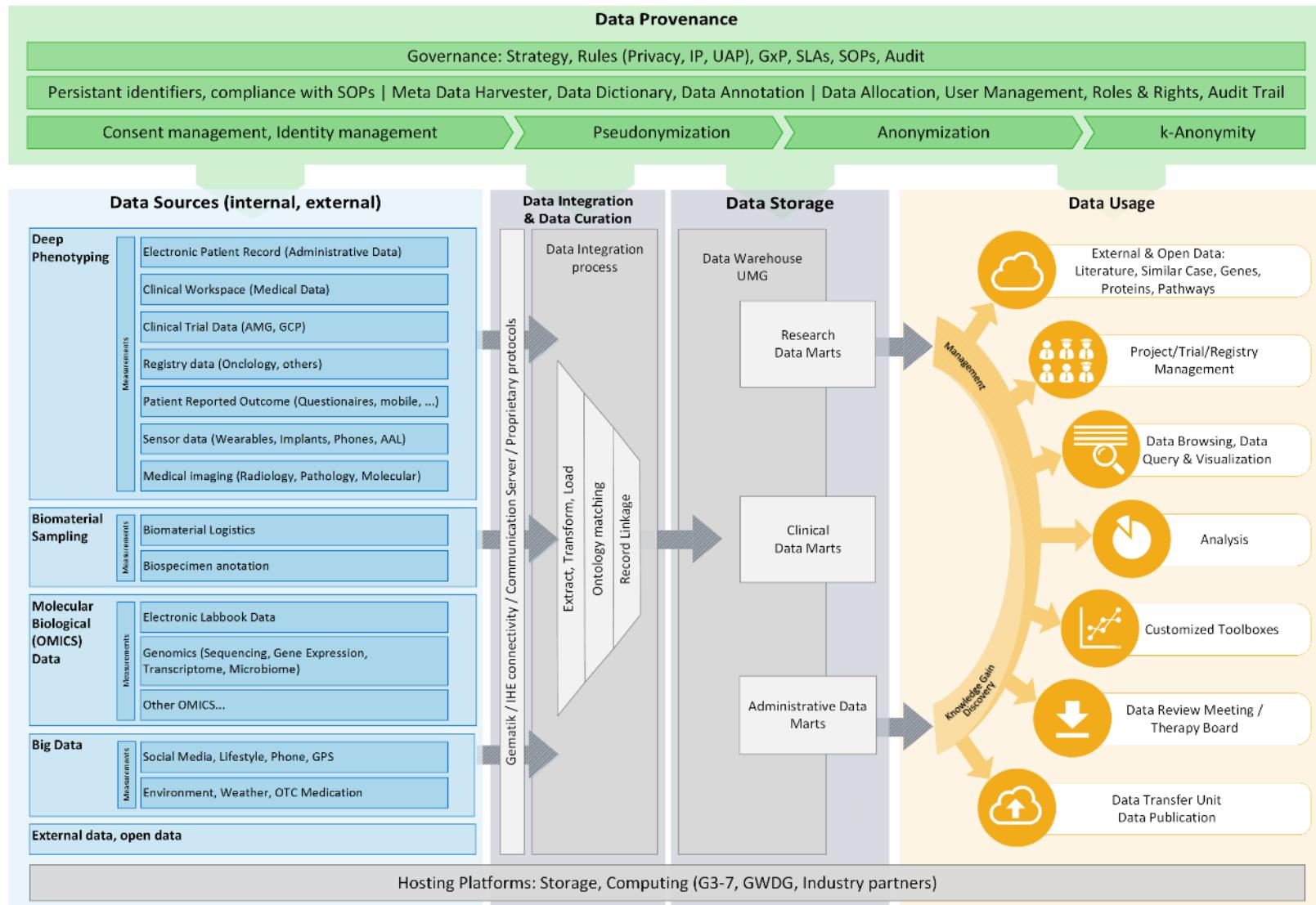
[mi.med.uni-goettingen.de](http://mi.med.uni-goettingen.de)



## 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

- Clinical Case Study: Investigation of rare cases in the children's hospital
- Pseudonymization of sensitive patient data: Multiple sclerosis
- Disease registers: European multiple sclerosis register (EUReMS)
- OMICS Data management: Systems medicine-consortia sysINFLAME, Deutsches Zentrum für Herz- und Kreislaufforschung (DZHK)
- Long-term analysis of data: Nationales Demenz-Netz
- IT-infrastructures for stem cell-research: DZHK
- INF-project of a Collaborative Research Center: Cardiology CRC 1002
- National consortia: Psychiatrie Netzwerk, Deutsches Zentrum für Herz- und Kreislaufforschung

## Contact persons at Department of Medical Informatics

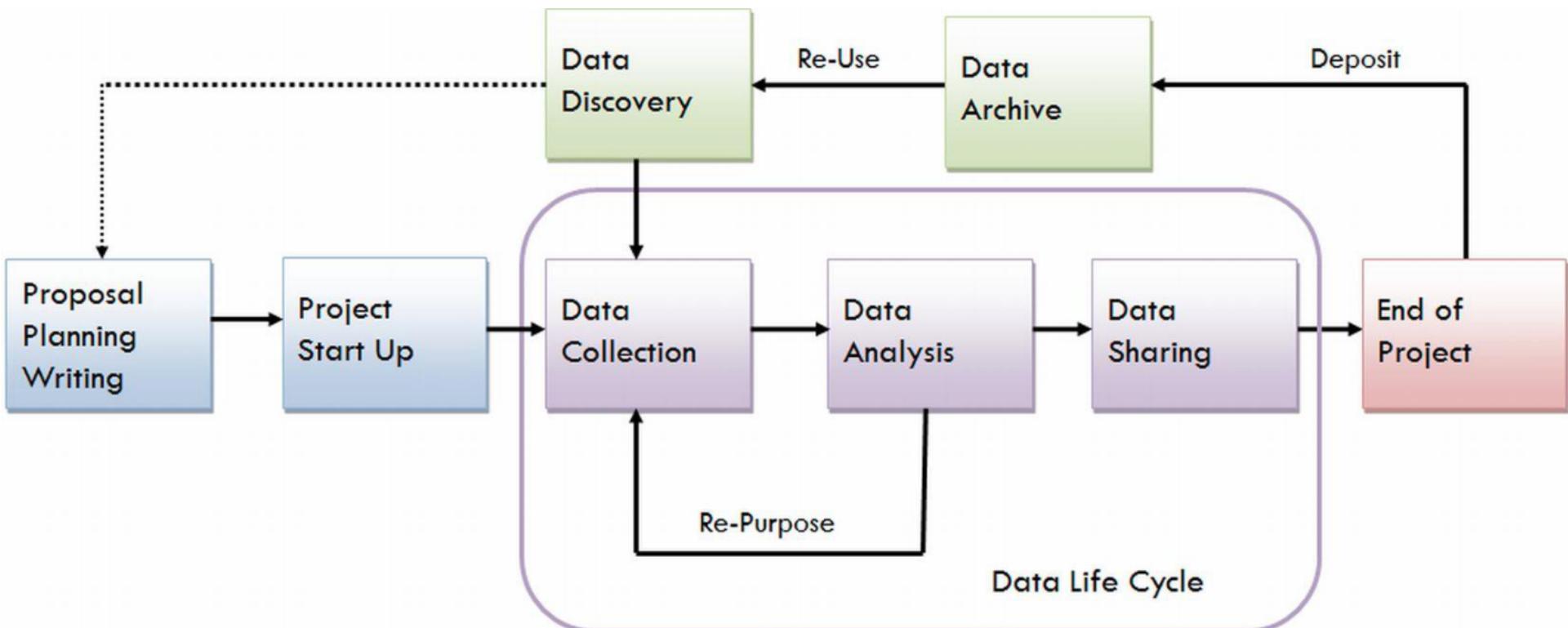
Prof. Dr. Dagmar Krefting	Head of Department
Prof. Dr. Ulrich Sax	IT-infrastructures for translational research
Sabine Hanß	IT-infrastructures for clinical collaborative research
Prof. Dr. Tibor Kesztyüs	Medizinisches Forschungs-Daten-Integrations-Centrum (UMG-MeDIC)
Kerstin Pischek-Koch	Intersectoral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



## 7. Core Facility

*Medical biometry and Statistical Bioinformatics*

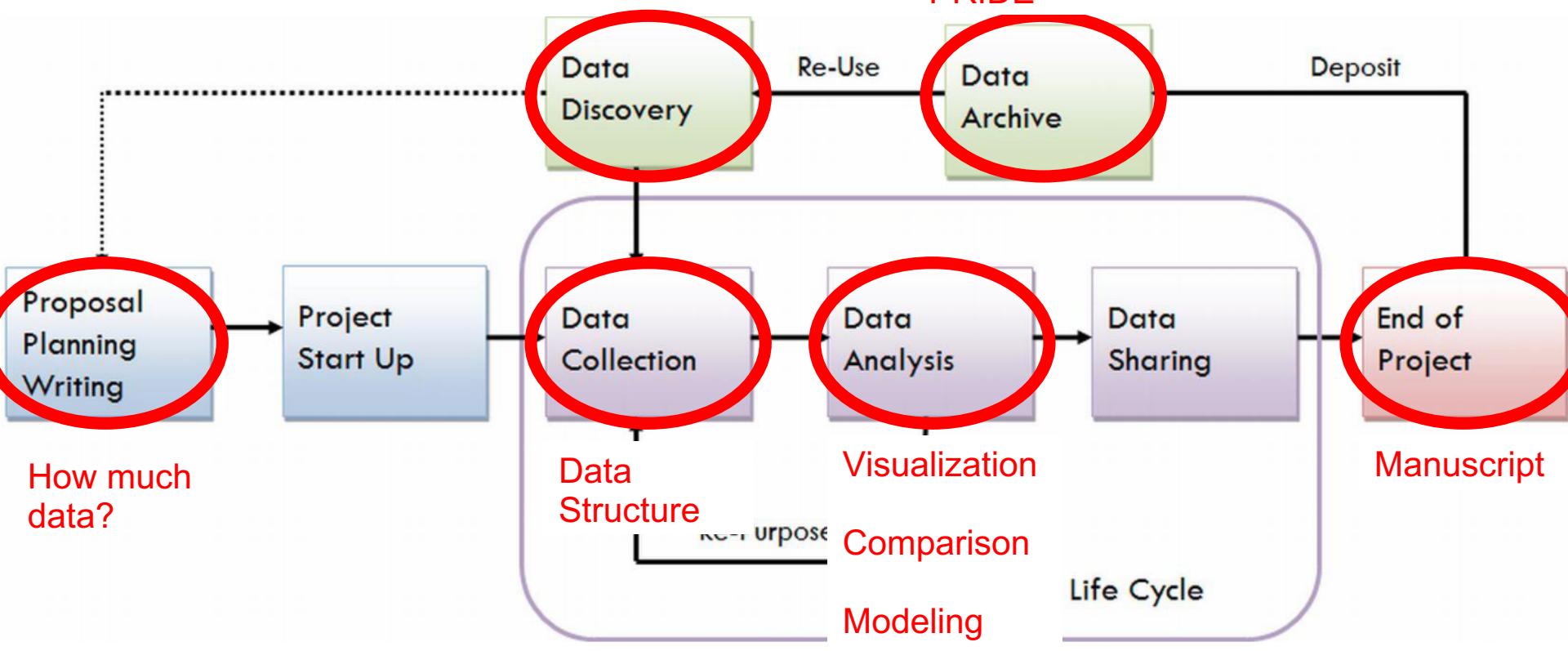
Dr. Andreas Leha



Public  
Repositories  
(e.g. TCGA)

GEO / SRA

PRIDE



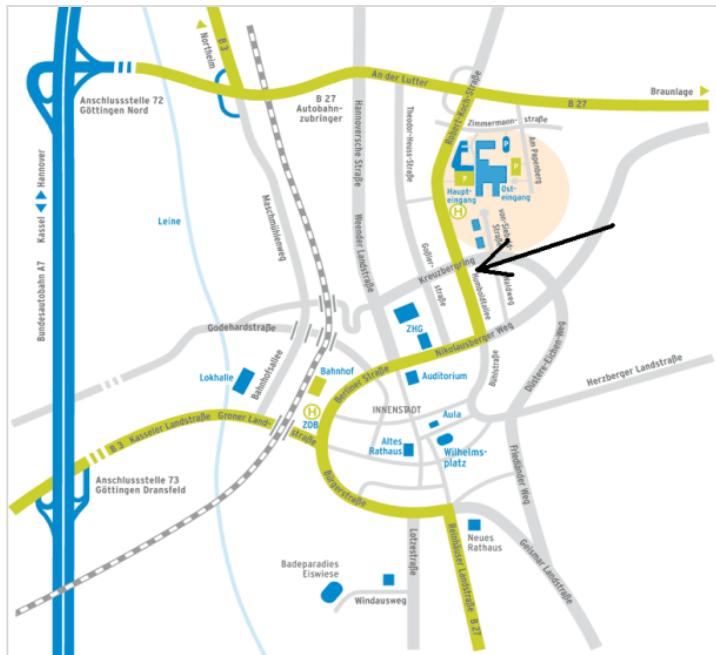
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Courtesy of University of Virginia Library <https://data.library.virginia.edu/files/Research-Life-Cycle-LG>

# 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 / 39-4987 **Phone**  
0551 / 39-4995 **Fax**

[service.biometry.bioinformatics@med.uni-goettingen.de](mailto:service.biometry.bioinformatics@med.uni-goettingen.de) **E-Mail**  
[www.ams.med.uni-goettingen.de/service-en.shtml](http://www.ams.med.uni-goettingen.de/service-en.shtml) **Website**

# Core Facility

## *Medical Biometry and Statistical Bioinformatics*

### Short consulting

- ▶ Help with short questions concerning biostatistical or bioinformatical methods



- ▶ **Tuesday, 1pm – 3pm**  
at the Department of Medical Statistics, Humboldtallee 32  
currently **online via video conference**

- ▶ Can be visited without prior appointment



# Core Facility

## ***Medical Biometry and Statistical Bioinformatics***

### **Coached working**

- ▶ Assistance with statistics- and bioinformatics-software
- ▶ Location:
  - ▶ CIP-pool of the Department of Medical Statistics
  - ▶ Learning Ressource Center (Medical Library)
  - ▶ currently **online via video conference**
- ▶ No prior appointment necessary
- ▶ Time schedule available at the departments website



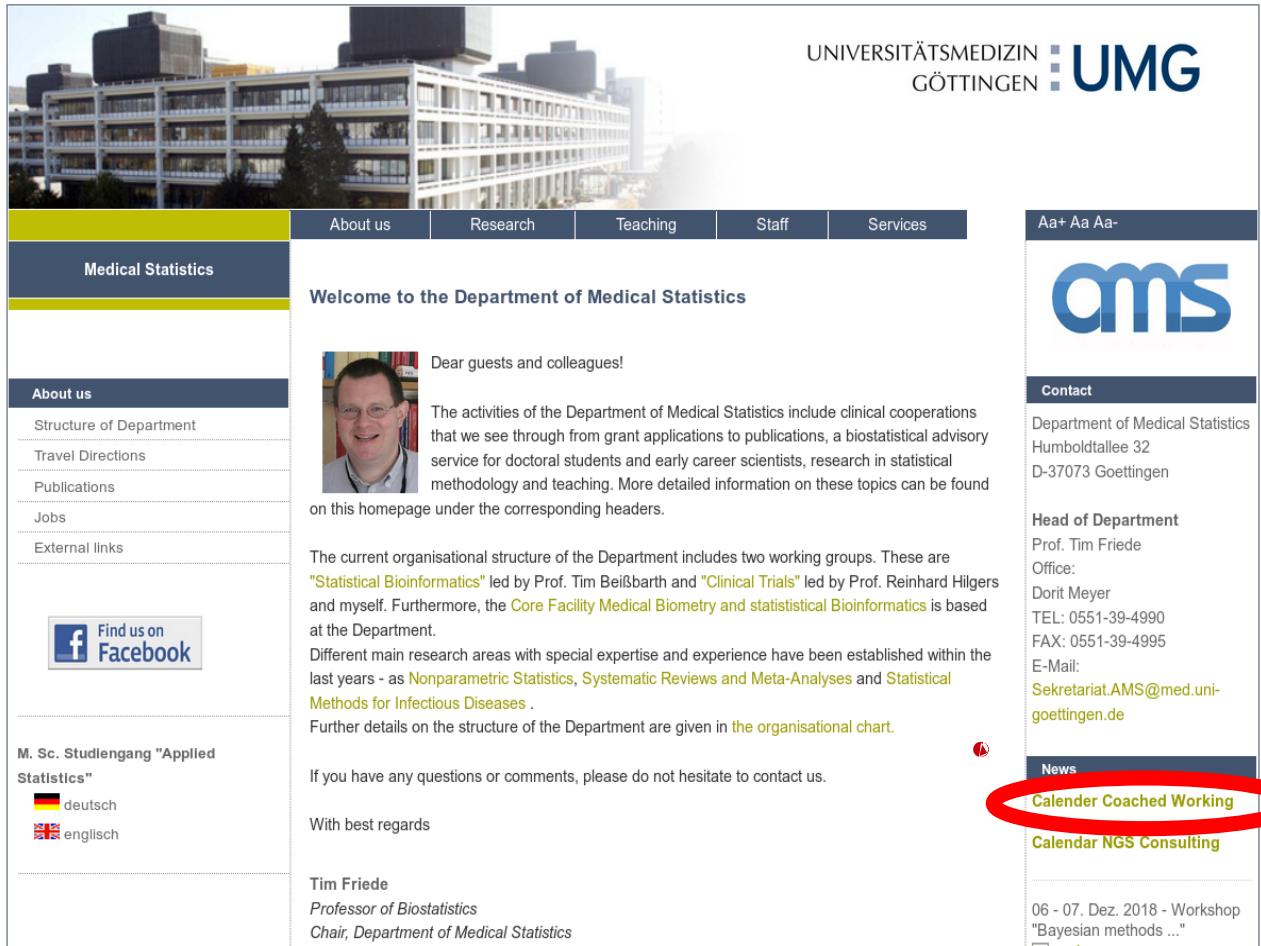
# Core Facility

## *Medical Biometry and Statistical Bioinformatics*

[www.ams.med.uni-goettingen.de](http://www.ams.med.uni-goettingen.de)

[Home](#)  [German](#) [Sitemap](#) [Disclaimer \(German\)](#)

### ► Coached working



The screenshot shows the homepage of the Department of Medical Statistics. At the top right is the UMG logo. Below it is a large image of a modern, multi-story building. A horizontal navigation bar with links for 'About us', 'Research', 'Teaching', 'Staff', and 'Services' is positioned above a main content area. The main content area features a welcome message from Prof. Tim Friede, a photo of him, and text about the department's activities. On the left side, there is a sidebar with links for 'Medical Statistics', 'About us' (Structure of Department, Travel Directions, Publications, Jobs, External links), and a 'Facebook' link. At the bottom of the sidebar, there is information about the M. Sc. Studiengang "Applied Statistics" in German and English. The right side of the page contains a sidebar with links for 'Contact', 'Head of Department' (Prof. Tim Friede's details), 'News' (with a red circle around the 'Calender Coached Working' link), and 'Calendar NGS Consulting'. The footer at the bottom right includes a date and a link.

UNIVERSITÄTSMEDIZIN  
GÖTTINGEN **UMG**

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GÖTTINGEN **UMG**

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**ams**

**Contact**  
Department of Medical Statistics  
Humboldtallee 32  
D-37073 Goettingen

**Head of Department**  
Prof. Tim Friede  
Office:  
Dorit Meyer  
TEL: 0551-39-4990  
FAX: 0551-39-4995  
E-Mail:  
[Sekretariat.AMS@med.uni-goettingen.de](mailto:Sekretariat.AMS@med.uni-goettingen.de)

**News**  
**Calender Coached Working** 

**Calendar NGS Consulting**

06 - 07. Dez. 2018 - Workshop  
"Bayesian methods ..."

Welcome to the Department of Medical Statistics

Dear guests and colleagues!

The activities of the Department of Medical Statistics include clinical cooperations that we see through from grant applications to publications, a biostatistical advisory service for doctoral students and early career scientists, research in statistical methodology and teaching. More detailed information on these topics can be found on this homepage under the corresponding headers.

The current organisational structure of the Department includes two working groups. These are "Statistical Bioinformatics" led by Prof. Tim Beißbarth and "Clinical Trials" led by Prof. Reinhard Hilgers and myself. Furthermore, the Core Facility Medical Biometry and statistical Bioinformatics is based at the Department.

Different main research areas with special expertise and experience have been established within the last years - as Nonparametric Statistics, Systematic Reviews and Meta-Analyses and Statistical Methods for Infectious Diseases .

Further details on the structure of the Department are given in the [organisational chart](#).

If you have any questions or comments, please do not hesitate to contact us.

With best regards

Tim Friede  
Professor of Biostatistics  
Chair, Department of Medical Statistics

M. Sc. Studiengang "Applied Statistics"  
deutsch  
englisch

Find us on Facebook

Department of Medical Statistics

# Core Facility

## *Medical Biometry and Statistical Bioinformatics*

### ► Coached working

Unser Service „Betreutes Arbeiten“ dient der direkten Unterstützung am Computer bei der Auswertung Ihrer medizinischen und experimentellen Daten. Das „Betreute Arbeiten“ findet entweder im CIP-Raum des Instituts für Medizinische Statistik oder im LRC in der Bereichsbibliothek Medizin statt (siehe aktueller Plan).

[Bearbeiten](#)

### Aktueller Belegungsplan

Belegungsplan CIP-Raum folgende Woche & LRC

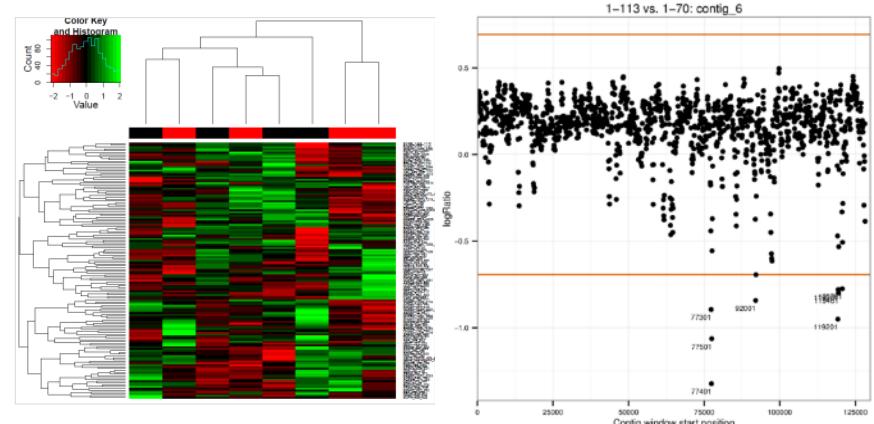


# Core Facility

## *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

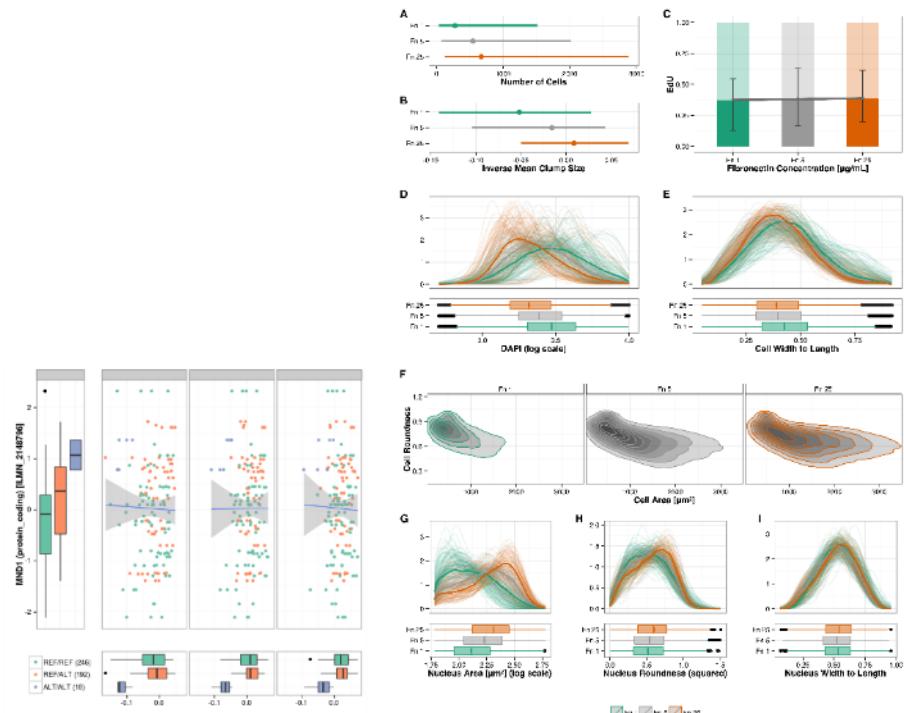


# Core Facility

## *Medical Biometry and Statistical Bioinformatics*

### Project-related support

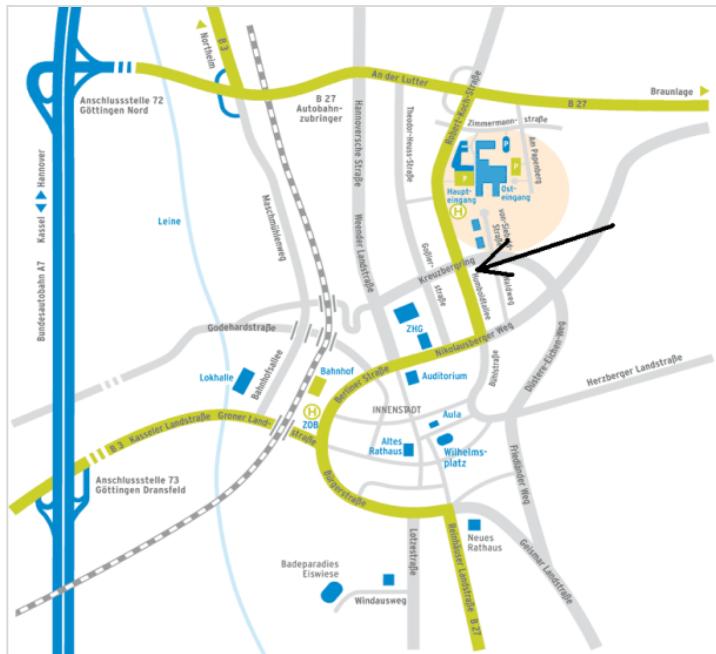
- ▶ We recommend early involvement (i.e. already in the planning phase)
- ▶ Appointment via our web form preferred (department homepage)
- ▶ There will be an invoice
  1. Discussion of project
  2. Cost estimate based on time effort
  3. Service request



# 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 / 39-4987 **Phone**  
0551 / 39-4995 **Fax**

[service.biometry.bioinformatics@med.uni-goettingen.de](mailto:service.biometry.bioinformatics@med.uni-goettingen.de) **E-Mail**  
[www.ams.med.uni-goettingen.de/service-en.shtml](http://www.ams.med.uni-goettingen.de/service-en.shtml) **Website**

## 8. Services of the central UMG Biobank

PD Dr. Sara Nußbeck

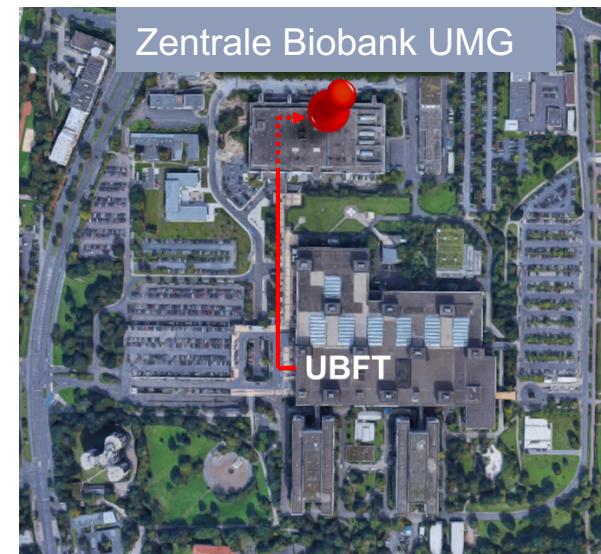
## 7. Services of the Central Core Facility UMG Biobank



PD Dr. Sara Nußbeck, Head of UMG Biobank

# Central Biobank UMG – Central Core Facility

- Facility to support the research of all institutes and clinics 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 LN<sub>2</sub>
  - at room temperature (FFPE and slides)
- Retrieval of selected biospecimen
- Cooled transport and shipping
- Founding member of the biobank excellence network



German  
Biobank Node  
[bbmri.de](http://bbmri.de)

# Infrastructure

- Sufficient structured storage capacity
- Backup-systems and equipment
  - High reliability of storage by redundancies in cooling and high and use of LN<sub>2</sub> tanks and back-up
  - Two independent temperature monitoring systems (24/7)
- Clearly marked 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



# Equipment of the Central Biobank UMG



# Equipment of the Central Biobank UMG



Innenleben des Lagerroboters

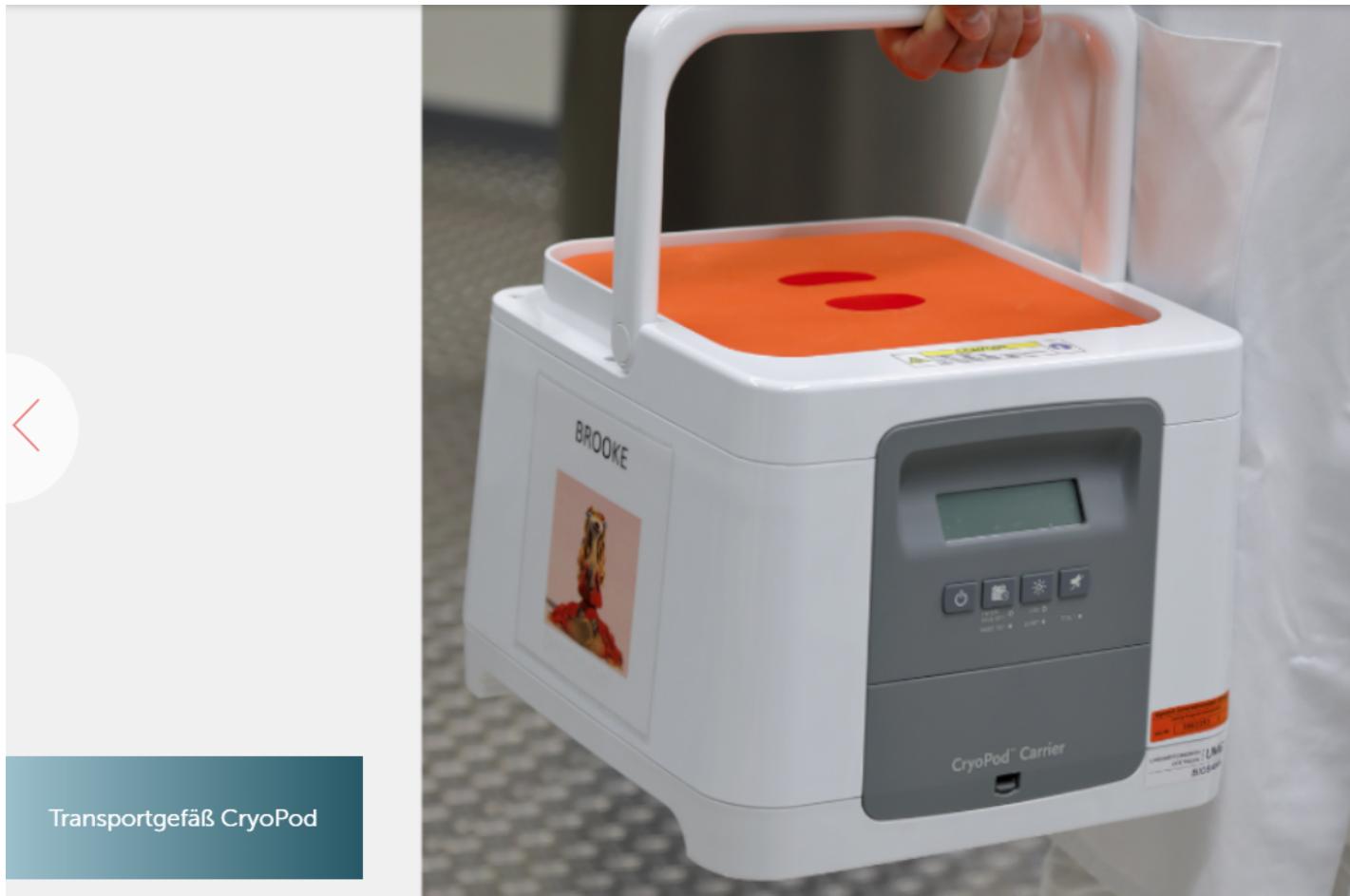
# Equipment of the Central Biobank UMG



# Equipment of the Central Biobank UMG



# Equipment of the Central Biobank UMG



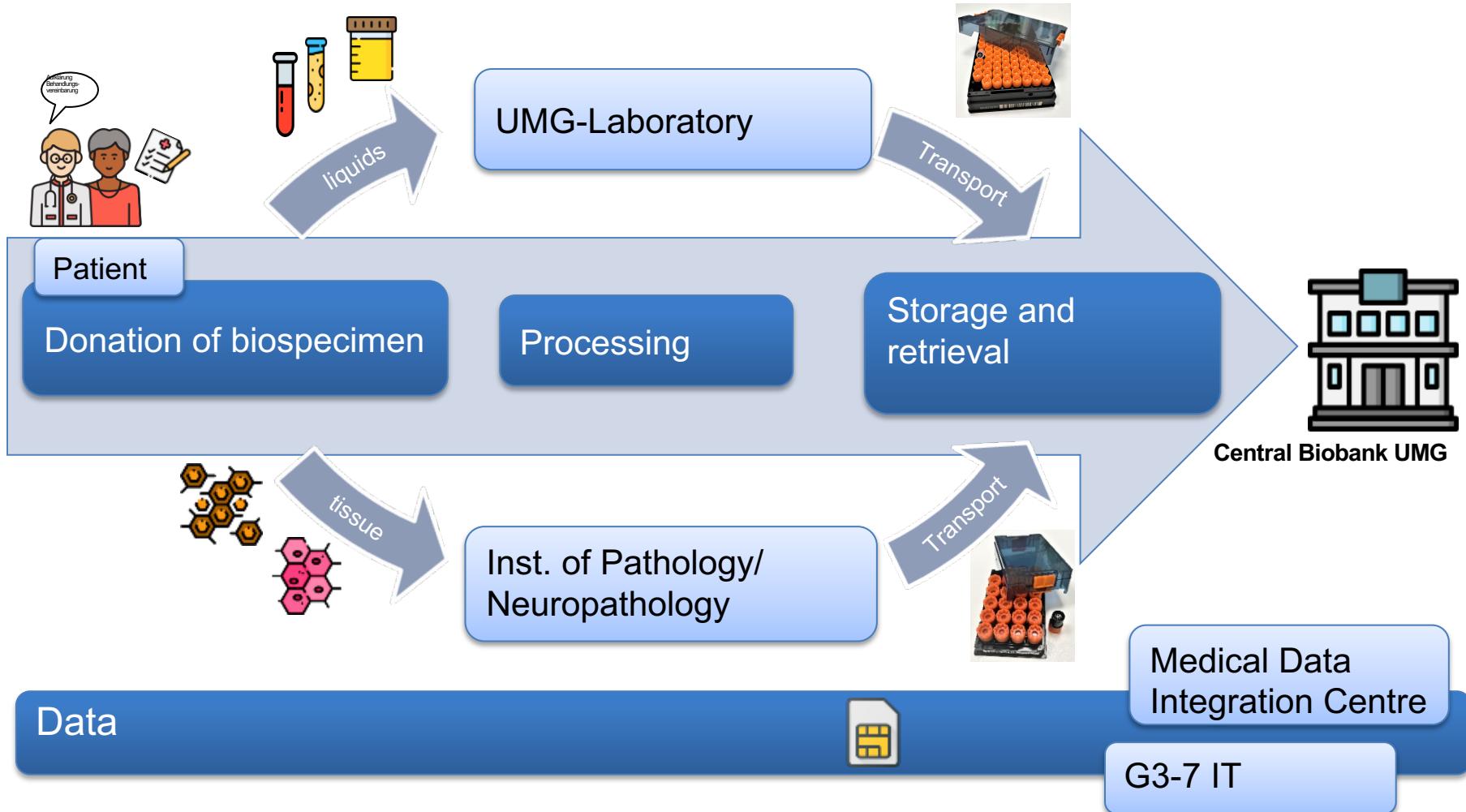
# Equipment of the Central Biobank UMG



# Additional Features of the Central Biobank UMG

- Quality assured and Qualitätsgesicherte, traceable documentation of samples and metadata (accreditation according to ISO 20387:2018 in preparation)
- Data security and privacy
- Emergency strategy in case of failure of the cooling units
- Interface management
- Terms of use including catalogue of costs and services
- Study specific services for UMG researchers
- Support in finding suitable samples also outside UMG
- Minimizing pre-analytical influences through standardization of processes

# Processes of UMG Collection



# Team of the Centrale Biobank UMG

## Is looking forward to support your research



PD Dr. Sara Nußbeck  
Head



Manuela Becker  
Technician



Jakob Keller  
Data manager



Dr. Sandra Seelke  
Dept. Head & Head of  
Laboratory



Dr. Mareike Derks  
Project manager



Jeannette Löser  
PR and Finances



Jutta Engelmayr  
Technician in UMG-  
Labor



Dr. Anne Schoneberg  
Project manager



Monique Küffer  
Technician in Inst. of  
Pathology



Tobias Zimmer  
IT Biobank in Inst. of  
Medical Informatics

<https://biobank.umg.eu>

For suggestions and questions as well as guided tours (Gruppen ab 6 Personen)

Please contact us: -65700 or [biobank@med.uni-goettingen.de](mailto:biobank@med.uni-goettingen.de)

**Thanks for your attention!  
Are there further questions?**

<http://ereresearch.uni-goettingen.de>  
[info@ereresearch.uni-goettingen.de](mailto:info@ereresearch.uni-goettingen.de)