

RTG 2408

SUMMER SCHOOL



AUGUST 17–20, 2026
MAGDEBURG



PREFACE

WHAT DO I NEED TO KNOW?

Welcome to this year's RTG 2408 Summer School!

Over the next four days, our program combines learning, practical skills, and interactive formats. Highlights of this year's agenda include a workshop on intercultural communication, practical courses on data visualization in both Python and R, and round tables focusing on peer review and grant applications.

We are also pleased to feature a translational section organized by the Clinic of Nephrology, which includes insights into blood pressure management, diabetes, and a guided tour of the dialysis unit.

Alongside the academic sessions, we have prepared several team activities to bring everyone together. This year's social program features three main events: the Create and Capture the Flag challenge, our PowerPoint Battle, and the Media Challenge, which will conclude with a media screening and awards ceremony on the final evening.

Important reminders:

- Please ensure you sign the attendance list each day; this is crucial for the event's invoicing.
- We will be taking photos throughout the Summer School. These images may be used for RTG 2408's public relations activities.
- To minimize our environmental footprint, we are not providing a printed version of this booklet. Please use this digital version.
- You must bring a laptop for the practical courses on Days 2 and 4.

We look forward to spending time together!

Organizing committee

Nina Lindemann | Shivani Singh | Michael Naumann | Sandra Dittrich

17
AUG

Day 1

9:00	Workshop Diversity Navigating Expectations: Intercultural Communication, Collaboration, and Boundary Negotiation in Academic Research Rosi Kern & Imke Wulfmeyer	H22 seminar room 3
12:30	Lunch Break	H22 seminar room 2
13:30	Continuation Workshop End at 18:00	H22 seminar room 3

Day 2

9:00	Welcome Michael Naumann	H22 seminar room 3
9:10	Practical Course Code Your Research: Python for Data Analysis & Visualization Andreas Jeron	H22 seminar room 3
11:00	Team Event RTG Media Challenge: Intro + Create the Flag	H22 seminar room 3
12:15	Lunch Break	H22 seminar room 2
13:15	Guest Lecture Visualizations: Improving Your Figures, Charts and Graphs Vladislav Nachev	H22 seminar room 3
14:30	Practical Course Code Your Research: Python for Data Analysis & Visualization Andreas Jeron	H22 seminar room 3
18:00	Social Evening PowerPoint Battle	Deck 13

18
AUG

Day 3

9:00	Practical Blood Pressure Management Peter Mertens	KNEP H60b, 2715
9:50	Guided Tour Dialysis Jan Schiefer	KNEP H60b, 2715
11:00	Diabetes: Innovation in a Widespread Disease Juliane Peters	KNEP H60b, 2715
12:00	Lunch Break	H22 seminar room 2
12:45	Team Event Capture the Flag	H22 seminar room 1 + on campus
14:00	Team Event RTG Media Challenge: Creating Content	on campus

Day 4

8:30	Round Tables Decoding Peer Review & Grant Application Sascha Kahlfuss & Anne Dudeck	IKIZ H26, 251A
10:30	Practical Course Single-cell RNA Sequencing and Data Analysis in R Sandra Freier & Nouria Jantz	IKIZ H26, 251A
12:00	Lunch Break	IKIZ H26, 251A
13:00	Practical Course Single-cell RNA Sequencing and Data Analysis in R Sandra Freier & Nouria Jantz	IKIZ H26, 251A
14:00	Team Event RTG Media Challenge: Creating Content	on campus
18:00	Social Evening RTG Media Challenge: Screening + Awards	Mäuseturm

19
AUG

20
AUG

DIVERSITY SKILLS

INTERCULTURAL COMMUNICATION

WORKSHOP

Day 1 | Aug 17, 2026

Navigating Expectations: Intercultural Communication, Collaboration, and Boundary Negotiation in Academic Research

Working in international research environments requires more than intercultural awareness. Researchers navigate complex relationships shaped by hierarchy, dependency, changing priorities, and diverse communication norms. At the same time, many experience pressure to constantly demonstrate commitment, avoid disappointing others, and solve problems independently before asking for support.

This workshop supports participants in developing the self-awareness and communication skills needed to navigate these challenges. Rather than focusing on national stereotypes or communication "scripts," the workshop develops cultural intelligence by exploring how different assumptions, experiences, and contexts shape communication and collaboration.

A particular focus is placed on moving from automatic people-pleasing patterns toward more intentional strategies for negotiating expectations, communicating workload and uncertainty, asking for help, and maintaining constructive professional relationships.

The workshop combines experiential, embodied, and highly interactive learning with short conceptual inputs and reflection.



ROSI KERN

- 5 years with the UN World Food Program as an analyst, trainer and facilitator
- 6 years with the World Bank Group as a mediator, facilitator and trainer
- Founder and former leader of an international INGO called Unlimited Partnership e.V.
- Lived and worked in 8 countries, short-term work projects in all continents and been to 88 countries

DIVERSITY SKILLS

INTERCULTURAL COMMUNICATION

WORKSHOP

Day 1 | Aug 17, 2026

By the end of the workshop, participants will:

- Increase awareness of how stress, hierarchy, dependency, and cultural backgrounds influence communication.
- Recognize people pleasing and overcommitment as adaptive responses that often emerge in high-performance research environments, and develop practical strategies to respond more intentionally.
- Identify the unwritten expectations and assumptions that shape communication and collaboration in academia.
- Develop greater confidence in discussing challenges, uncertainty, workload, and competing priorities with supervisors.
- Learn approaches for negotiating expectations rather than silently absorbing additional work or feeling they must simply "set boundaries."
- Strengthen their ability to ask for help, communicate transparently, and collaborate effectively in highly interdependent research environments.
- Develop cultural intelligence by becoming more aware of how different assumptions and experiences influence behavior and communication.
- Leave with practical ideas they can immediately apply in conversations with supervisors and colleagues.

IMKE WULFMEYER

- 1985–1990: Trained nursing assistant, German Red Cross
- 1995–2001: Attorney at leading commercial law firms in Rotterdam, Hamburg, New York, and Stuttgart
- Since 2004: certified and licensed (family) mediator and attorney in private practice
- Since 2016: Project manager/research assistant, University of Hohenheim
- Since 2019: Mediator trainer, Consensus Campus



PRACTICAL COURSE

Day 2 | Aug 18, 2026

Code Your Research: Python for Data Analysis & Visualization

Analyzing and visualizing research data reproducibly is key to good scientific practice, making programming skills essential for students at all levels. While Python is widely used in science, its initial learning curve can be steep for beginners moving away from graphical interfaces. The main goal of this workshop is to flatten this curve through a practical "learning by doing" approach.

We cover local setup and Google Colab, followed by core concepts: data types, variable assignments, loops, conditionals, and functions. Moving from basics to real-world application, participants will analyze self-generated and scientific datasets to answer specific questions.

We will use key tools like Pandas (DataFrames and Series), NumPy, Matplotlib and Seaborn for plotting, and SciPy and Pingouin for statistics. Hands-on scripting challenges will be solved in small buzz groups (2–3 people).

Requirements: Participants must bring a WIFI-capable laptop with administrative rights to install software. A setup guide will be provided in advance.

GUEST LECTURE

VLADISLAV NACHEV

BERLIN INSTITUTE OF HEALTH AT CHARITÉ

Day 2 | Aug 18, 2026

Visualizations: Improving Your Figures, Charts and Graphs

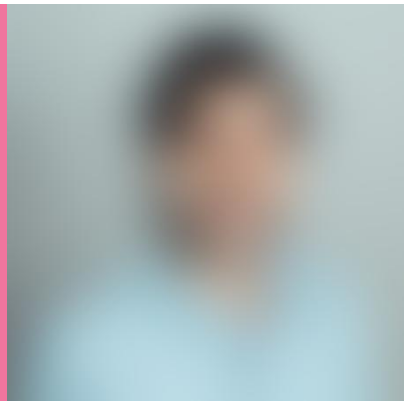
How can you best communicate your research visually?

In this interactive workshop topics may include general techniques for making your figures accessible to a broad audience, learning to identify and fix common visualization errors in small sample size studies (bar graphs of continuous data, creating flow charts to track inclusion/exclusion, color-blind accessible visualizations, using semi-transparency) and creating effective image-based figures (microscopy, electron microscopy, photographs, etc.).

(Visualizations for big data will not be addressed.)

VLADISLAV NACHEV

- Data scientist at Berlin Institute of Health (BIH) QUEST Center at Charité, Berlin.
- Background in behavioral biology and neurobiology.
- Programs automated screening tools and dashboards with metrics of open and responsible research.



TEAM EVENT

CREATE + CAPTURE THE FLAG

Day 2 & 3 | Aug 18/19, 2026

We will start this year's summer school team events by combining creativity and competitive athletics. This event will take place on two days:

Day 2 | Aug 18, 2026 | **Create the Flag**

Channel your inner designer and create your team's flag. We will provide materials, including colors, patches, and those shiny, glittery things that everyone loves. Use this session to design the flag you've always wanted to create.

Day 3 | Aug 19, 2026 | **Capture the Flag**

In the afternoon, it's time to face off in the arena. All teams will compete in a capture the flag game in three rounds. Do your best to emerge as the ultimate Master of Flags. The best part? You get to keep your custom flags as souvenirs from this year's summer school!

Please note: Clothing may get stained during the crafting session on Day 2. On Day 3, make sure to wear comfortable athletic gear, as you'll need to move quickly to defend your flag and capture the others!

TEAM EVENT

POWERPOINT BATTLE

Day 2 | Aug 18, 2026

The magical moment has finally arrived! Prepare for an evening of pure entertainment with our **PowerPoint Battle** during the social evening on Day 2.

As a reminder:

- You all drew your topics during our annual retreat. To prevent bias and ensure a fair competition, keep your topic a secret.
- Please prepare a 3-minute talk with 5 to 7 slides (including the title slide).
- Use mainly visuals to tell your story (no text-only slides).

Please send your presentation to grk2408@med.ovgu.de no later than **Aug 16, 2026**.

All presentations will be run on a laptop using *PowerPoint 2019*. If your presentation contains animations, sound, or music, please mention this in your email so we can test everything in advance

The presentation order will be randomly drawn upon arrival at the venue. The audience will vote on the most entertaining performance. Give it your all to contribute to a memorable night and to take home the "PowerPoint Master" trophy.

SOCIAL EVENING

PowerPoint Battle

WHEN
Aug 18, 2026 | 18:00

VENUE
Deck 13
Breiter Weg 23-26
39104 Magdeburg

FOOD & DRINKS
Mixed buffet
soft drinks | beer | wine

WEBSITE

TRANSLATIONAL PART

Day 3 | Aug 19, 2026

Practical Blood Pressure Management: How to Measure It, What Problems Arise

Blood pressure elevations are undoubtedly the most common disease worldwide. However most people do not know how to measure their blood pressure appropriately. This course will give you a first hand insight into the techniques of appropriate measurements and interpretation of results. What are confounders, what are the immediate questions when the blood pressure is increased.

(Peter Mertens)

Dialysis: Brief Visit to the Ward and Instruction on How to Use a Blood Purification Machine

Renal replacement therapy is a common procedure for Nephrologists, in other disciplines the knowledge on the procedure is scarce. In this hands-on course you will get acquainted with the technique and will get insights in to a dialysis unit.

(Jan Schiefer)

Diabetes: Innovation in a Widespread Disease

Diabetes is a common diagnosis, however most people do not know about the many innovations in this field, which range from new insulins to novel detection systems for blood glucose to drugs that reduce the body weight and may reverse diabetes. Get new ideas and insights into the field of diabetes in this course.

(Juliane Peters)

ROUND TABLES

PEER REVIEW & GRANT APPLICATION

Day 4 | Aug 20, 2026

Decoding Peer Review: Understanding Scientific Review Processes

Peer review is a cornerstone of scientific research. In this interactive one-hour seminar including round tables, participants will explore how manuscripts are evaluated, discuss the roles and responsibilities of authors, reviewers, and editors, and examine what makes a constructive and fair review. Through practical examples and group discussion, participants will gain a better understanding of the peer review process.

(Sascha Kahlfuss)

From a Research Idea to a Research Program: Why Grant Writing Matters Beyond Funding

Securing research funding is an important step toward scientific independence, and it is never too early to start developing the skills required for successful grant writing. This lecture will provide an overview of relevant funding opportunities for early-career researchers, including fellowships and funding options for postdoctoral research in Germany and abroad. However, we will then focus more on what makes a research proposal convincing: a strong scientific question, a coherent and feasible project concept, clear communication, and a compelling presentation of both the research idea and the applicant. We will discuss grant writing as a broader scientific skill that helps researchers develop, structure, and communicate their own ideas and build them into coherent research projects and future research programs.

(Anne Dudeck)

PRACTICAL COURSE

Day 4 | Aug 20, 2026

Single-cell RNA Sequencing and Data Analysis in R

Single-cell RNA sequencing (scRNA-seq) is a powerful method that enables the analysis of gene expression at the resolution of individual cells. In contrast to bulk RNA sequencing, scRNA-seq makes it possible to capture cellular heterogeneity within complex tissues, and to identify rare cell populations, distinct cell states, and dynamic biological processes. In addition to transcriptome-wide information, scRNA-seq can also provide insights into receptor repertoires, for example, in B and T cells, making it especially valuable for signal transduction research.

The generation of scRNA-seq data is technically demanding and requires careful sample preparation, as many steps can influence data quality. In this workshop, participants will have the opportunity to pipette and process 'samples' during the first steps of sample preparation prior to sequencing, gaining hands-on insight into the experimental workflow. In a separate part, we will show how to visualize the large amount of information contained in scRNA-seq data files and how to analyze these data in R. We will also introduce basic steps for integrating two datasets to enable direct comparison between samples and to support downstream analysis.

TEAM EVENT

RTG 2408 MEDIA CHALLENGE

Day 2, 3 & 4 | Aug 18/19/20, 2026

Have you ever dreamed of being a Hollywood superstar or a famous content creator as a backup plan? If so, the **RTG 2408 Media Challenge** is your chance. Over the course of three days, you and your team will produce photos and videos based on different themes.

Timeline:

- Day 2: You will learn which specific media pieces you must create and the general rules for their production.
- Day 2-4: Use your free time with your team to create the next photographic masterpieces and blockbuster short films.
- Deadline: All media must be uploaded online by **Aug 20, 2026, at 3:00 p.m.**

On the final evening of the summer school, we will host the **RTG Media Awards Night**. Dress up for the red carpet and enjoy a screening of all your phenomenal media pieces. During a glamorous ceremony, our PI jury will decide who will receive the renowned RTG Media Awards.

SOCIAL EVENING

RTG Media Awards Night

WHEN
Aug 20, 2026 | 18:00

VENUE
Mäuseturm
Zum Mäuseturm 1
39114 Magdeburg

FOOD & DRINKS
Mixed buffet
soft drinks | beer | wine

WEBSITE

PHOTO CREDITS

Entrance University Hospital (title page): press photos UMMD: https://www.med.uni-magdeburg.de/Kommunikation+_+Presse/Presse/Pressebilder.html

Cathedral Magdeburg (title page): Ulrich Arendt, www.bilddatenbank.ovgu.de

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RTG 2408 Summer School
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<http://grk2408.ovgu.de>
grk2408@med.ovgu.de

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