

Ideas for cooperation with Ilia State University (ISU)

- Student exchange and joint projects in the areas of
 - **Bioengineering & Radiopharmacy**
 - **Diagnostics with low field MRI and PET**
 - **Bioinformatics & bigdata**
 - **Astrophysics/Geophysics/Atmospheric and near Space Science**
- Courses on innovation and technology transfer
- Joint applications to HORIZON-EU calls
- Experiments at HZDR facilities (e.g., accelerator mass spectrometry) with possible relation to environmental research



DRESDEN
concept



In line with the main spirit of GGSB — connecting scientists from Georgian and Germany via common research projects and supporting students and young researchers via education and exchange programs — we assist talented students from Georgia to come to HZDR for carrying out masters or PhD research projects as well as organize conferences and workshops



Our first GGSB event at HZDR:
QUALI-Start-Up Lectures, 19-23 August 2025

GGSB speaker at HZDR:
Prof. Christian Richter

GGSB coordinators at HZDR:
Dr. Sandra Hamann
Dr. George Mamatsashvili

Opportunities for students at HZDR

Master and PhD projects

Summer student program

Internships



Georgian-German Joint Programme for Masters and PhD students funded by **Rustaveli National Science Foundation of Georgia** by **HZDR**



Calls in October-December each year

Interested candidates should first contact GGSB coordinators at HZDR to agree on the possible topic and project

Coordinators will support and guide through the application process



Institute of Fluid Dynamics (HZDR)

Departments



Magnetohydrodynamics in Geo- and Astrophysics

Computational Fluid Dynamics

Process Diagnostics

Thermal Energy and Process Technology

Water and Environmental Technologies

Fluid Dynamics of Resource Technology Processes

Institute of Radiopharmaceutical Cancer Research (HZDR)

Departments



Medicinal Radiochemistry

Radiopharmaceutical and Chemical Biology

Positron Emission Tomography

Radioimmunology

Nano-Microsystems for Life Sciences

Experimental Neurooncological Radiopharmacy

Targetry, Target Chemistry and Radiopharmacy

Institute of Radiopharmaceutical Cancer Research

Departments



Medicinal Radiochemistry

Radiopharmaceutical and Chemical Biology

Positron Emission Tomography

Radioimmunology

Nano-Microsystems for Life Sciences

Experimental Neurooncological Radiopharmacy

Targetry, Target Chemistry and Radiopharmacy



Radionuclide production

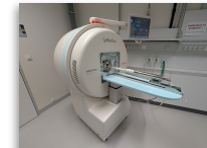
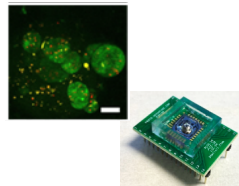
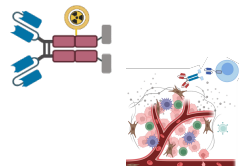
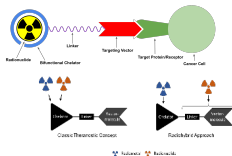
Radiochemistry

Development of Radiopharmaceuticals

Innovative Test Systems and Models

GMP

Innovative Test Systems and Models



GGSB – Internship at HZDR

Successful case

In March-April 2026 **Mariam Kenkadze** worked on the project

“Cyclotron Production and Radiolabeling Studies with ^{135}La for PSMA radioligands”



$^{130}_{57}\text{La}$ 8.7 min	$^{131}_{57}\text{La}$ 59 min	$^{132}_{57}\text{La}$ 4.8 h	$^{133}_{57}\text{La}$ 1.912 h	$^{134}_{57}\text{La}$ 6.45 min	$^{135}_{57}\text{La}$ 19.5 h	$^{136}_{57}\text{La}$ 9.87 min	$^{137}_{57}\text{La}$ 6E+4 y	$^{138}_{57}\text{La}$		
	$^{130}_{56}\text{Ba}$	$^{131}_{56}\text{Ba}$ 11.5 d	$^{132}_{56}\text{Ba}$	$^{134}_{56}\text{Ba}$ 10.55 y	$^{135}_{56}\text{Ba}$	$^{136}_{56}\text{Ba}$	$^{137}_{56}\text{Ba}$	$^{138}_{56}\text{Ba}$		
		$^{130}_{55}\text{Cs}$ 29.2 min	$^{131}_{55}\text{Cs}$ 9.689 d	$^{132}_{55}\text{Cs}$ 6.480 d	$^{133}_{55}\text{Cs}$	$^{134}_{55}\text{Cs}$ 2.065 d	$^{135}_{55}\text{Cs}$ 2.3E+6 y	$^{136}_{55}\text{Cs}$ 13.04 d	$^{137}_{55}\text{Cs}$ 30.08 y	$^{138}_{55}\text{Cs}$ 33.4 min

Scheme of the $^{136}\text{Ba}(p,2n)^{135}\text{La}$ nuclear reaction

Results from Mariam’s internship were included in the article that is going to be published soon

Production of ^{135}La via the $^{136}\text{Ba}(p,2n)^{135}\text{La}$ reaction and its DNA-damaging properties as a low-energy Auger electron emitter

Santiago Andrés Brühlmann^{1,*}, Kristof Zarschler^{1,*}, Mariam Kenkadze¹, Nadiya Zhutova¹, Sven Stadlbauer¹, Klaus Kopka^{1,2,3,4}, Constantin Mamat^{1,2}, Martin Walther¹ and Martin Kreller¹

HZDR – Summer Student Program



Project and Lectures

Matching between applications and research projects
Lecture series provides insight into research at HZDR
(accommodation and flights are covered)

Who can apply?

All advanced undergraduate or master students of
natural sciences (physical and life sciences) or related
areas

When?

6 weeks in July - September 2027

Applications

Until February 2027

Notification of acceptance: April 2027

Contact

Yvonne Matthes - summer@hzdr.de

More

<https://www.hzdr.de/summer>



Students at HZDR within GGSB since 2025 jointly funded by HZDR and Rustaveli National Science Foundation of Georgia

3 PhD students:

Luka Burdiladze (TSU, ABAO) — MHD turbulence in shear flows: non-ideal MHD effects

Daviti Kobaidze (TSU, ABAO) — Magnetic dynamo in astrophysical disks

Mariami Kavtaradze (TSU, ABAO) — MHD turbulence in the Solar Wind: effects of velocity shear

1 Masters student:

Luka Tsulukidze (TSU) — Shear-driven dynamos in liquid cores of the Earth

2 Internship students:

Mariam Kenkadze (FUT) — Radiopharmaceutical Cancer Research

Nika Chakhunashvili (ISU) — Radiation Physics

Geo- and Astrophysical Magnetohydrodynamics at HZDR

If you are interested in an internship, masters or PhD programs contact **Dr. George Mamatsashvili** (g.mamatsashvili@hzdr.de)



Radiopharmacy at HZDR

If you are interested in an internship, masters or PhD programs contact **Dr. Nadiya Zhutova** (n.zhutova@hzdr.de) or LinkedIn

