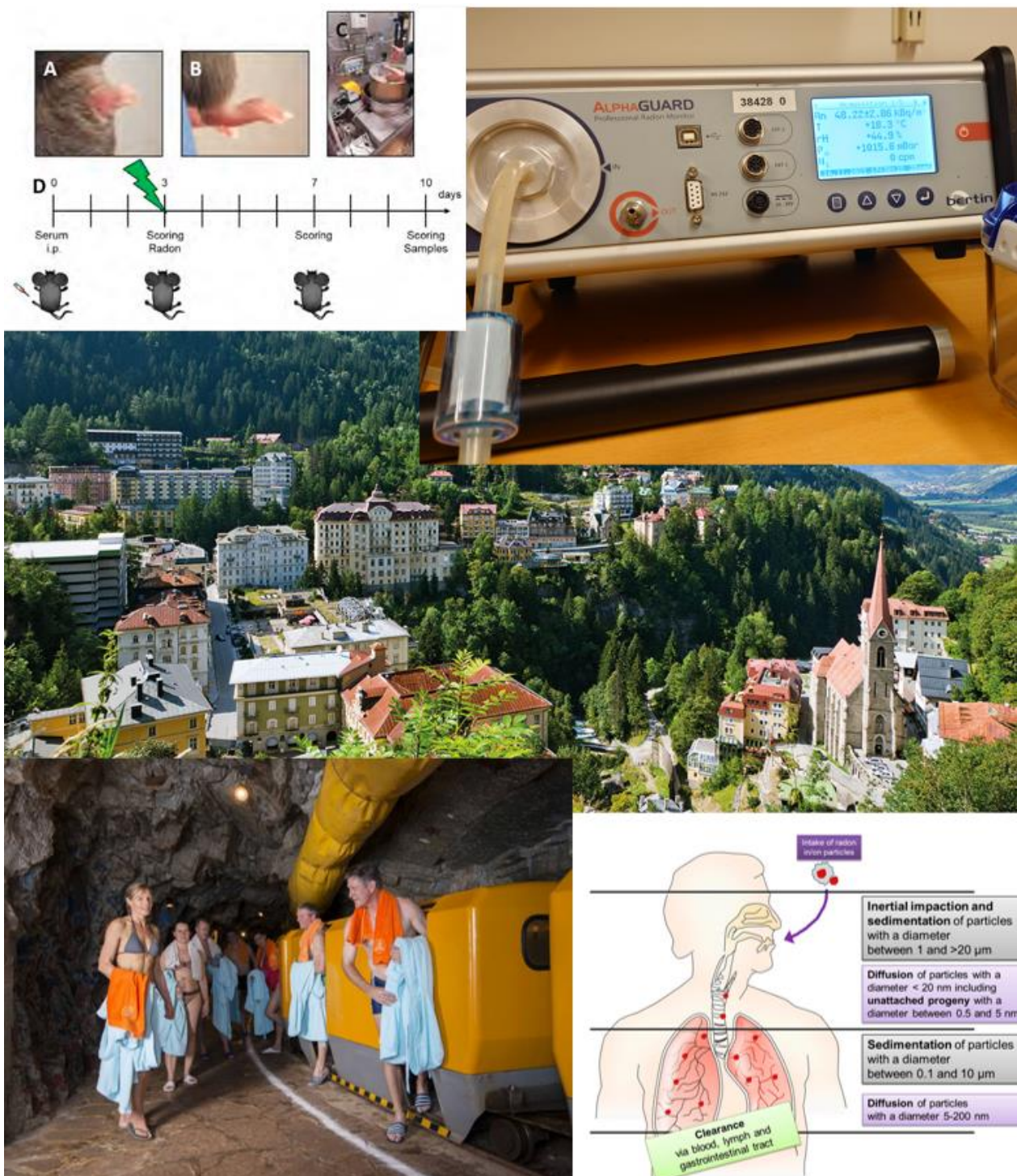


RadoNorm training course

Radon therapy: theory and practice, benefits and health risks - RATH
7-11 April 2025, Ludwig Maximilian University (LMU), München, Germany

Organised by Andrzej Wojcik, Balázs Madas and Lisa Deloch



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Course description

The RadoNorm project aims at improved understanding of effects and risks from radon and NORM exposure situations to assure effective radiation protection based on improved scientific evidence and social considerations. However, radon is also a clinically approved treatment modality for a number of non-cancer diseases. What is the relationship between health risk and benefit when it is used as medication? The aim of the course is to look into this question and thus provide participants with a broader view of the impact of radon exposure on human health.

One of the oldest and most famous radon spas in the world is in Bad Gastein in Austria and one of the leading centres in research on the medical use of radon is the University Clinics in Erlangen. Participants of the course will learn why and how radon is used for pain reduction and treatment of auto-immune diseases. What are the benefits and what are the risks? The course will include a series of relevant lectures held at LMU, München, a visit of the Bad Gastein radon spa where patients are treated for various non-cancer diseases. There, the participants will experience a radon-treatment session. Finally, participants will visit the University Clinics Erlangen where basic and clinical research on radon therapy and effects of alpha particles is carried out. Radon measurements will be carried out in the Bad Gastein spa. Water and soil samples will also be collected and analysed for activity and content of radionuclides.

There is no course fee and the following costs will be covered:

- travelling between München, Bad Gastein and Erlangen by minivans,
- accommodation costs (one night) in Bad Gastein
- catering in München

Participants must cover travel costs to München, accommodation in München and catering in Bad Gastein and Erlangen.

The maximum number of participants is 14. The course is intended for PhD students and early career researchers.

People wishing to apply should submit by mail the following documents to Andrzej Wojcik at andrzej.wojcik@su.se:

1. A letter of application
2. A CV with a description of the scientific career
3. A supporting letter from the supervisor/head of laboratory

The **deadline for applications is 14th February 2025**. Information confirming the acceptance will be sent before Friday 21st February 2025. A certificate of attendance will be issued to each participant after the course.

Those that are accepted are reminded to bring with them a bathing suit and a towel for the Bad Gastein Spa visit.

A program of the course is shown overleaf.

Lokalisation in München:

LMU Klinikum, Campus Großhadern , Marchioninistraße 15, 81377 München

Day and place	Detailed program
Monday 7 April 2025 Place: LMU, München	09:00-10:30 History of radon therapy and intro to the course (Andrzej Wojcik) – 1.5h 10:30-12:00 Biological effects of high-LET radiation (Anna Friedl) 1.5h 12:00-13:00 Lunch 13:00-14:30 Biological basis of radon therapy – pre-clinical data (Lisa Deloch) 1.5h 14:30-16:00 Radon and lung cancer risk (Nora Fenske) 1.5h 16:00-16:30 Coffee break 16:30 -18:00 Lung dose and effective dose from radon exposure (Vladimir Spielmann) 1.5h
Tuesday 8 April 2025 Place: LMU, München and Bad Gastein	09:00-10:30 Radon dosimetry (Balázs Madas) 1.5h 10:30-12:00 The Bad Gastein, Bad Kreuznach and Bad Steben spas (Lisa Deloch) 1.5h 12:00-13:00 Lunch 13:00-17:00 Travel to Bad Gastein T: 4h
Wednesday 9 April 2025 Place: Bad Gastein	1) Brief information about the radon treatments and radiation protection measures given by the Managing Director 2) Visit of the Radon Spa gallery A mandatory, initial medical check-up of the participants; all participants will receive a questionnaire with medical information to be filled out. The visit inside the mountain will include the Therapy Station 1, duration: 30 min (this is done in bathing outfits that participants will need to bring themselves). This is followed by a 30 min resting period. 3) Visit of the springs with the warm radon water coming directly from the mountain. Collection of water samples. 4) Guided tour of the “Dunstbad” at “Kurzentrums Hofgastein” (20 to 30 min walk from the springs) and collection of additional water samples. Afternoon: Travel back to Munich (3-4h)
Thursday 10 April 2025 Place University Clinics, Erlangen	08:00 – 10:00 Travel to Erlangen (2h) 10:00-10:30 Coffee break 10:30-12:00 Radon Therapy today – biological challenges and clinical trials (Udo Gaipl and Anna Donaubauer) 1.5h 12:00-13:00 Lunch 13:00-16:00 Visiting laboratories in Erlangen (Lisa Deloch) 3h 16:00-18:00 Travel back to Munich (2h)
Friday 11 April 2025 LMU, München	09:00-10:30 Measuring rock and water samples, summary of the course (all available lecturers) 10:30-11:00 Coffee break 11:00-12:00 Short presentations by students 12:00-13:00 Lunch End of course