



10th PhD-course 'In vivo NMR'

June 28 – July 8, 2011

Biomedical MR Imaging and Spectroscopy Group, Image Sciences Institute
University Medical Center Utrecht, Utrecht, The Netherlands

Scope of the course

The aim of this 9-day course is to provide PhD students, post-docs and other scientists with a solid background in the principles of modern *in vivo* NMR imaging (MRI) and spectroscopy (MRS) as applied to living systems in biomedical and biological research.

The course will consist of lectures by experts in the field, as well as theoretical and practical exercises and demonstrations. Topics to be covered include basic NMR imaging and spectroscopy, advanced MRS, MR contrast mechanisms, diffusion and perfusion MRI, functional MRI, interventional MRI, cellular and molecular MRI, MR data processing and analysis, MR hardware, etc.

Organizers

Dr. Henk van As (Wageningen University)

Dr. Rick M. Dijkhuizen (University Medical Center Utrecht)

Prof. dr. Arend Heerschap (Radboud University Nijmegen Medical Center)

Prof. dr. Klaas Nicolay (Eindhoven University of Technology)

Tentative program

The first part of the course will cover the principles of NMR imaging and spectroscopy. During the morning sessions (start at 9:30 AM) the theoretical basis will be introduced. In the afternoon, the theory will be illustrated by problem solving and practicals on NMR and MRI systems.

Tue, June 28 : Principles of NMR; Guided Tour

Wed, June 29 : Fourier Transform NMR; Exercises & Practical (MR Systems)

Thu, June 30 : Principles of MRI; Exercises & Practical (MR Systems)

Fri, July 1 : Basic MRI: k-space; Basic MRI: Pulse Sequences and Contrast Mechanisms; Exercises & Practical (MR Systems)

Mon, July 4 : Presentations by Participants; MR Hardware; Practical (RF Coils)

Tue, July 5 : Basic and Advanced MRS; MRS Applications; Exercises

Wed, July 6 : Rapid MRI; Perfusion MRI; Interventional MRI; High-Field MRI

Thu, July 7 : Functional MRI; Diffusion MRI; Multiparametric MRI Analysis

Fri, July 8 : MRI Contrast Agents; Cardiac MR; MR Safety Issues

Location

The course will be held at the Image Sciences Institute (ISI) of the University Medical Center Utrecht. Lectures will be given in the Van Peperzeel zaal (Q-Building; room number Q.0S.3.01). Information on how to get to the ISI can be found on <http://www.isi.uu.nl/Contact>.

Costs and registration

Registration fees are € 300 for PhD students and postdoctoral researchers affiliated with one of the organizing academic institutions, € 600 for other academic participants and medical physicists, and € 1,200 for participants from industry, and private and governmental institutes. Fees cover course documentation (including handouts of the lectures), attendance to lectures, workshops and practicals, as well as lunch and coffee/tea throughout the course. Arrangements for payments will be announced later.

Participants should:

- register before May 28, 2011, by e-mail to secr@isi.uu.nl;
- include name, full postal and e-mail address;
- provide a brief description of background and current research activities.

The number of participants will be limited to 30.

Auspices

The course will be organized under the auspices of the Benelux Chapter of the International Society of Magnetic Resonance in Medicine (ISMRM) (<http://www.benelux-ismrm.org/>).

Contact

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