# **Medical Physics**

### The research projects are focused under the following themes:

- **➤ Dosimetry in diagnostics and treatments.**
- ➤ Medical imaging applications (MRI,CT, US, PET, SPECT, etc.).
- ➤ Mathematical modeling of physiological systems in clinical studies.
- >Emerging solutions for dose and quality assurance in radiology.

## In addition to academic research, we are engaged in:

- Practical training of specializing hospital physicists (HP).
- > Lectures and teaching in medical physics and radiation protection.
- ➤ Management of research projects in medical physics and applications at Helsinki University Hospital (HUH).
- > Developing clinical physics support services.

Majority of the PhD students get their scientific training parallel to their professional training for a HP degree. Due to the well recognized and appreciated profession of HPs, the RC is able to recruit talented young candidates and guide them also to research.

<u>Medical Physics</u> research is conducted by dedicated researchers consisting of physicists, chemists, engineers and physicians from the

✓ University of Helsinki (UH)

Department of Physics

Department of Chemistry and

Centre for Drug Research (CDR)

√ Helsinki University Hospital (HUH)

HUS Helsinki Imaging Center

**Department of Oncology** 

✓ STUK - Radiation and Nuclear Safety Authority
Radiation Metrology Laboratory

✓ Consulting hospital physicists from private health care companies

#### LuK – ja gradu- sekä vk-ohjaus

Prof. Sauli Savolainen

Fysiikan osaston lääketieteellisen fysiikan dosentteja (mm.), jotka voivat ohjata alan opinnäytetöitä:

- Aki Kangasmäki, Doctares syöpäsairaala
- Paula Toroi, STUK
- Liisa Porra, HUS
- Mika Kortesniemi, HUS
- Outi Sipilä, HUS
- Jaana Perkola, HUS
- Touko Kaasalainen, HUS
- Jani Keryliläinen, TYKS

#### ja tohtoreita (mm.)

- Tiina Seppälä, HUS
- Marjut Timonen, HUS
- Linda Kuusela, HUS
- Jouni Uusi-Simola, HUS
- Juha Peltonen, HUS
- Anne-Mari Vitikainen, HUS
- Lauri Lehmonen, HUS