

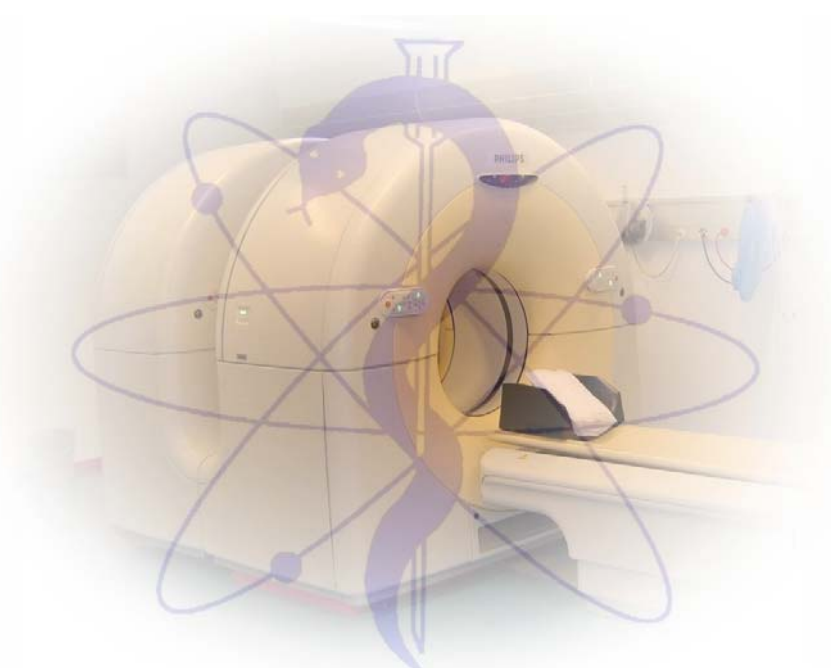
**Education:** The department provides formal teaching and training of nuclear medicine residents, technicians, secretaries and medical students. We receive national and international colleagues for specialist training (especially in PET-CT)

**Research:**

The role of PET-CT in various cancer diseases (diagnosis and treatment evaluation).  
Clinical evaluation of myocardial perfusion imaging.  
Clinical evaluation of side effects of chemotherapy.  
Bone density adjacent to joint arthroplasties. Bone density and physical activity/inactivity.  
Renal function in hypertension, diabetes and after transplantation. Regulatory mechanisms.  
Physical activity and health.  
Diagnostics in sports medicine.  
Hypoxia (acute hypobaric hypoxia) and organ function.

**Future:** We have the experience and facilities to initiate the development of new diagnostic procedures and carry them through clinical practice. In 2009 we will have a cyclotron and radiochemistry facilities for production of positron-labelled pharmaceuticals. A new department with 4 (-8) PET/CT and 1 PET/MR is to be planned.

# Department of Clinical Physiology and Nuclear Medicine at Herlev Hospital, University of Copenhagen.



Contact :Head of Department Inge-Lis Kanstrup, Ass. Professor, MD, D.M.Sc.  
E-mail: [ilka@hch.regionh.dk](mailto:ilka@hch.regionh.dk)  
Tel.: +45 44 88 34 04

## Herlev Hospital, University of Copenhagen

is situated in the northern Copenhagen area.

The hospital houses 711 inpatient beds, performs 16.000 operations, and takes care of 350.000 ambulatory visits and treats 100.000 patients per year (2006).

Being one of the five oncological centres in Denmark the main focus of the hospital is on cancer: Diagnostics, treatment and research. In the departments of oncology and haematology new therapeutic agents are evaluated. The department of abdominal surgery is very active in testing new treatments for hepatic metastases (resections, US-guided RFA, regional chemotherapy). Another focus is on nephro-urology with a.o. kidney transplantations. The hospital also houses departments of cardiology, rheumatology, gastroenterology, plastic and orthopaedic surgery, gynaecology and obstetrics, and radiology.

## The department of clinical physiology and nuclear medicine

is situated in the periphery of the large "treatment and diagnostics building". It covers an area of approximately 1200 m<sup>2</sup>. We perform a great number of examinations in nuclear medicine including dedicated PET-CT, but also physiological investigations such as pulmonary function tests, exercise-ECG, and measurement of blood pressure in legs, toes and fingers. Besides, we have a great number of osteoporosis evaluations with DXA scanning.

We have a cyclotron (IBA 18/9) and a radiochemical laboratory with 3 hot cell rooms for F-18, C-11 and I-124 chemistry among others, finished in 2009.

## Staff

51 full-time nominations (2009):

- 5 specialists in clinical physiology & nuclear medicine
- 4 residents in nuclear medicine
- 4 engineers/physicists/data-experts
- 2 radiochemists
- 2 electromechnics
- 26 technologists
- 3 assistants
- 5 secretaries

## Examinations

In 2008 we performed a total of **22.000 examinations**.

The main fields were:

Bone scintigraphy (total body, regional etc.)	2000
Renography (MAG3, ACE-inhibitor, diuresis etc.)	3200
Myocardial scintigraphy (rest, stress on separate days, total)	360
Cardiography (MUGA, total)	925
Thyroid scintigraphy	660
Lung scintigraphy (perfusion and ventilation with Krypton)	630
Lymph scintigraphy (sentinel node, mammacancer, malign.melanoma etc)	870
PET scans (18F-FDG for tumour diagnostics)	250*
PET-CT scans (18F-FDG, incl 55 for radiation planning)	1750*
Osteodensitometry (number of patients)	2050
Renal function (51Cr-EDTA clearance)	1950
Blood pressure (ankles, toes, fingers, cold stimulation, skin perfusion)	640
Pulmonary function test (spirometry before/after stimulation, diffusion)	510
Stress tests (pharmacological or exercise ECG)	280
Wholebody scintigraphy I-131 therapy patients	105

\*We perform PET (with low-dose CT for anatomical mapping and attenuation correction) or PET-CT (with a diagnostic CT with iv. or peroral contrast) with 18F-FDG.

## Equipment

Single head (Meridian)	2003
Dual head (Skylight)	2003
Dual head cardiology (Cardio MD)	2001
Single head (cardiology) (Mediso TH33)	2005
2 x single head (renography) (Mediso Xring)	2005+08
SPECT/CT (Presedence)	2008
Dual head (Forte)	1998
PET-CT (Gemini 2-slice)	2003
2 DEXA scanners (Prodigy, Lunar)	2001
SPECT dual head (Brightview)	2007
PET/CT (TF 16 slices)	2007