

The Capital Region of Denmark

REGION

# Global Excellence

– in Health **2010**



**The Capital Region of Denmark**

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# Foreword

Healthcare is one of the strongest cards that the Capital Region of Denmark can play to compete internationally. This strength applies to the many talented individuals and great potential that lie within healthcare research, commercialisation, patient treatment and training.

Due to the ongoing effect of globalisation, the region faces steadily increasing competition. Thus, continuous development of our potential is vital for retaining a position of strength in healthcare and for offering high-quality patient diagnosis and treatment.

To acknowledge and make our many world-class hospital and university environments more visible, the Regional Council launched the Global Excellence - In Health award. This completely unique award was established in close collaboration with the University of Copenhagen and the Technical University of Denmark to recognise and promote first-rate specialist environments at the region's hospitals and universities.

Providing patient treatment of the highest order is only possible through a combined effort that unceasingly strives to offer the best possible training of healthcare personnel; provides dedicated healthcare research environments to attract the best national and international researchers; and turns our knowledge and skills into new and better products and treatment methods.

These goals require working to provide not only broad support to all environments, but also recognition of those outstanding knowledge environments that showcase cutting-edge developments and superlative prevention, diagnosis and treatment. With these environments of high international standard we demonstrate to others that we are attractive collaborating partners, making it easier for us to attract, retain, and nurture the best staff and researchers for our hospitals and universities.

In 2010, the Capital Region of Denmark is presenting ten Global Excellence awards to departments and units at the region's universities and/or hospitals, each representing Global Excellence - In Health.

An international assessment panel chose ten awardees from among twenty-nine fiercely competitive applicants representing a multitude of exceedingly strong university and hospital environments in the region. Granted for a five-year period, each Global Excellence award is accompanied by DKK 1.5 million to be used to attract e.g.

international researchers and practitioners, or arrange international symposiums.

On the following pages, we proudly present the first ten Global Excellence awardees and the ways in which they, with great dedication, skill and knowledge, work for better healthcare to the benefit of the patients and people in the region.

We look forward to adding even more Global Excellence award winners to our list of world-class environments in the years to come. The potential is certainly there!

Sincerely



Vibeke Storm Rasmussen



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**In order to compete successfully and in order to be able to provide patients with the very best treatment, high quality and continuous innovation must be at the very heart of health care services. With the appointment of these ten Global Excellence hospital and university units, the Capital Region of Denmark is rightly promoting highly qualified professional environments of international standard to serve as important pioneers in the region.**

Lord Darzi of Denham PC, KBE, Professor of Surgery, Imperial College London  
Member of the Global Excellence assessment panel

# Recipients of the Global Excellence awards

- 7 Copenhagen HIV Programme, University of Copenhagen and Rigshospitalet
  - 9 Department of Clinical Physiology and Nuclear Medicine and PET, Rigshospitalet
  - 11 Respiratory Section, Hvidovre Hospital
  - 13 Molecular Neurobiology of Aging Unit, Center for Healthy Aging, University of Copenhagen
  - 15 Department of Radiation Oncology, Rigshospitalet
  - 17 Department of Growth and Reproduction, Rigshospitalet
  - 19 Danish Headache Centre, Glostrup Hospital
  - 21 Gynaecologic Clinic, Rigshospitalet
  - 23 Danish Dementia Research Centre, Rigshospitalet
  - 25 Danish Allergy Centre, Gentofte Hospital
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The Copenhagen HIV Programme conducts world-class HIV research.  
Pictured: University of Copenhagen Professor Jens Lundgren, D.M.Sc.

# On the hunt for a better HIV treatment

The Copenhagen HIV Programme (CHIP) at the University of Copenhagen and Rigshospitalet carries out research into HIV and other infectious diseases. CHIP director Jens Lundgren, D.M.Sc., who is also a professor at the University of Copenhagen, explains how the Danish research unit strives to improve HIV treatment throughout the world.

## What is the importance of your work – and which patient groups benefit from it?

At CHIP we work to improve the treatment of patients with HIV and other infectious diseases – for example by clarifying the advantages and disadvantages of various medical treatments. But we also study whether it may be advantageous to use existing treatment methods in a new way.

## How do you work – and who are your collaborators?

At CHIP we initiate and co-ordinate research projects carried out within an international network built up over the past 20 years. Today, this network is made up of more than 200 hospitals from around the world.

Our collaborating partners comprise hospital departments treating patients with HIV and other infectious diseases and other specialist research groups. We also work with the European Centre for Disease Control, the World Health Organization and the federal research institute of the United States, the National Institutes of Health.

## What are some of the important results of CHIP's work in recent years?

We have confirmed that contemporary HIV treatment has been effective for more than ten years. However, we have also demonstrated that it is injurious to HIV patients to take a break in their medication.

Additionally, we discovered that some forms of HIV treatment increase the risk of cardio-vascular disease and kidney disease – especially in patients with an increased risk of developing these diseases. Finally, we have shown that a stressed immune system increases the risk of developing traditional age-related diseases such as cardio-vascular disease, heart and kidney diseases and cancer. This means there are perspectives for novel ways of approaching and treating such widespread diseases, as we now have an understanding of how they arise.

## What are the perspectives of your work?

Currently, we are working to determine whether HIV medicine should be given earlier in the treatment of the disease than is the case today. And, in addition to studying the extent to which HIV patients who take HIV medicine infect their sexual partners, we are also trying to improve the strategies for identifying HIV-positive patients earlier in the course of their illness than previously.

Moreover, we are seeking to improve the treatment options for HIV-positive patients in Eastern Europe: many of them do not get the HIV medicine they need; at the same time, a high incidence of tuberculosis and hepatitis has contributed to a multitude of avoidable deaths. In the same arena, we are working to clarify the interaction between tuberculosis and hepatitis on the one hand and HIV on the other. Overall, we also try to improve the dissemination of our research results to practitioners around the world – including in developing countries – so as many patients as possible across the globe benefit from the latest advances in knowledge and potential treatment options.

## Award for Global Excellence

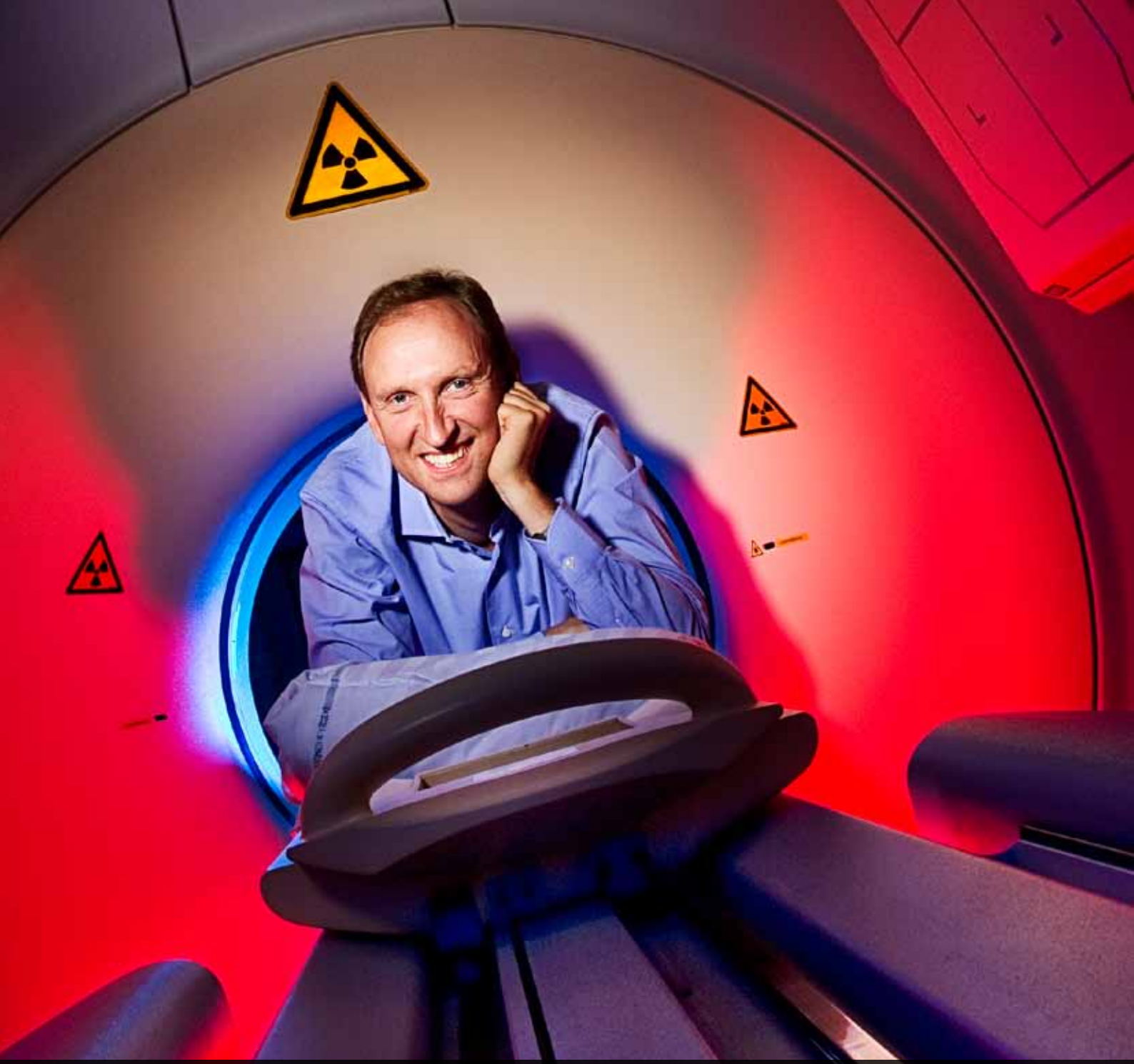
The Copenhagen HIV Programme (CHIP) is awarded Global Excellence because it is a recognised centre for exceptional, world-class international HIV research. For many years, CHIP has been active in the dissemination of results, training and patient treatment methods. CHIP has an especially strong standing because it has cultivated strong collaborations with clinical departments. The quality of CHIP's work is further reinforced by having staff at both the University of Copenhagen and Rigshospitalet. In addition, CHIP's innovative work and extensive international network have proven to be useful in connection with the treatment of other infectious diseases and viruses, such as influenza preparedness during the H1N1 outbreak.

## Facts

Copenhagen HIV Programme (CHIP) is an independent research institution. CHIP's main office is located at the University of Copenhagen and it has approx. 40 employees.

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The Department of Clinical Physiology and Nuclear Medicine and PET is a forerunner in research activity and high quality, patient-centred treatment.  
Pictured: Andreas Kjær, D.M.Sc., and professor at the University of Copenhagen.

# Image-based diagnostics at molecular level

Andreas Kjær, D.M.Sc., at the Department of Clinical Physiology and Nuclear Medicine and PET at Rigshospitalet and a professor at the University of Copenhagen, says that his research team is working to develop new methods of scanning cancer patients, so the patient may be diagnosed at molecular level. This is an important step on the path towards individualised cancer treatment.

## What is the importance of your work – and which patient groups benefit from it?

In the first instance our research will lead to better diagnosis and treatment of patients with a specific form of cancerous brain tumour. In the longer term, our methods will also inform treatment of other forms of cancer, benefiting an even larger group of patients. The methods are expected to find multiple practical applications within a few years. For instance, we recently developed a new PET scanning method that is already in use in our everyday work.

## How do you work – and who are your collaborators?

When we carry out a PET scan, the patient is injected with a radioactive tracer element prior to the scan. Through the development of new tracer elements, we work to transfer the results from the laboratory directly to the clinic.

Successful development of these new methods requires both cross-disciplinary collaboration and the use of many different competencies. In addition to our own clinic, we collaborate with a number of departments at Rigshospitalet, including the gastric surgery and cancer departments as well as institutes at the University of Copenhagen and the Technical University of Denmark.

## What are some of the important results from your research team in recent years?

We have established and expanded a research platform for developing and testing new PET tracer elements from the laboratory to the patients at our clinic. Likewise, we have developed and introduced a new and improved PET scanning method for patients with a specific form of brain cancer and, finally, we have been named a European Centre of Excellence for our work with a specific form of cancerous brain tumours.

## What are the perspectives of your work?

These can best be illustrated through a number of examples of our predictions of how these newly developed methods of x-raying and scanning down to the molecular level will benefit patients:

- A few hours after a test dose of chemotherapy, a patient scan can predict whether the treatment will work. Especially in the event of no effect, another course of treatment may be initiated immediately.
- The selection of patients suitable for a course of treatment to inhibit the vascular growth that is needed for cancerous tumours to grow will be based on a scan that shows that the patients actually have this vascular growth. The patient will only be treated if treatment is seen as necessary – and it is expected to result in a higher success rate.

With the aid of a special PET scan, we can determine whether the cancerous tumour will spread. This assists in choosing the best course of treatment for the patient. In addition, the chosen treatment can be targeted to the areas where the spread is predicted to be particularly aggressive.

## Award for Global Excellence

The Department of Clinical Physiology and Nuclear Medicine and PET is awarded Global Excellence as a forerunner in research activity and high quality, patient-centred treatment. The department is recognised as a European Centre of Excellence for developing new techniques for improving diagnostics and tailoring treatment of cancer patients with tumours. The department's unique cross-disciplinary expertise in the field includes collaboration with industry and also demonstrates great potential for achieving new, pioneering research results that will benefit cancer patients.

## Facts

Department of Clinical Physiology and Nuclear Medicine and PET is part of the Centre of Diagnostic Investigation at Rigshospitalet and has 90 employees.

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The Respiratory Section is a national and international pioneer in research on chronic obstructive pulmonary disease (COPD).  
Pictured: Jørgen Vestbo, D.M.Sc., and professor at the University of Copenhagen and two participants from his research project.

# Better quality of life for COPD patients

Jørgen Vestbo, D.M.Sc. is a professor of respiratory medicine at both the University of Copenhagen and the University of Manchester, illustrating the distinct international collaboration that the researchers at the Respiratory Section at Hvidovre Hospital, Copenhagen, take part in when carrying out their research on chronic obstructive pulmonary disease (COPD).

## What is the importance of your work – and which patient groups benefit from it?

We work with COPD – primarily, we carry out research into the disease, but we also work to draw on the results of our research in the treatment of the 430,000 Danish COPD patients. Finally, we also work on disseminating knowledge about COPD.

## How do you work – and who are your collaborators?

We take part at various levels in studies of genetics and COPD. We carry out medical treatment and rehabilitation. We are also deeply involved in disseminating knowledge about COPD in Denmark as well as globally, including evidence-based treatment guidelines for COPD. We also participate actively in the development of new drugs that can help patients with COPD.

“We” in this context are a handful of specialists in respiratory medicine, PhD students, research nurses, nurses and physiotherapists who work with COPD patients daily.

Active in international networks, we have partners in Manchester, Cambridge, Edinburgh, Maastricht, Barcelona, Boston, Omaha and Vancouver.

## What are some of the important results of your research in recent years?

We participated in the largest clinical study of COPD thus far – the TORCH study. Simultaneously, our interest in varying levels of patient treatment adherence led to a broader research project supported by a Danish foundation called TrygFonden, the Ministry of the Interior and Health and the Danish Lung Association.

Finally, I would like to mention the ECLIPSE study, which aims to achieve an improved understanding of COPD; we have just begun to publish the first results.

## What are the perspectives of your work?

Our overall objective is improving and maintaining the quality of life of COPD patients. This is primarily a matter of reaching a more refined understanding of COPD and its treatment options. Such knowledge should make it possible for us to develop superior treatment methods, offering patients novel treatments developed as a result of our research.

## Award for Global Excellence

The Respiratory Section is awarded Global Excellence as a national and international pioneer in research on chronic obstructive pulmonary disease (COPD). The department collaborates broadly with other clinics and is a strong contributor to the development of COPD treatment guidelines. The department has developed and implemented rehabilitation as part of respiratory medicinal treatment. Covering the whole spectrum from basic research, patient treatment and the implementation of research results to training, information and collaboration with industry, the Respiratory Section plays a prominent role in putting focus on COPD knowledge and treatment, which is vital because COPD is expected to become a more widespread disease in the future.

## Facts

The Respiratory Section is part of the Department of Cardiology and Respiratory Medicine at Hvidovre Hospital and has approx. 60 employees.

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The Molecular Neurobiology of Aging Unit, Center for Healthy Aging, University of Copenhagen has a strong position in both innovative research and education. Pictured: University of Copenhagen Professor Albert Gjedde, D.M.Sc.

# Longer life for the brain's cells

Professor Albert Gjedde, D.M.Sc., is active in the Molecular Neurobiology of Aging Unit, Center for Healthy Aging, University of Copenhagen. The unit carries out research into age-related diseases of the brain, for example Alzheimer's disease.

## What is the importance of your work – and which patient groups benefit from it?

Our work is decisive for understanding and delaying the ageing processes in the brain. This applies in particular to the large groups of patients with Alzheimer's or Parkinson's diseases.

We examine the changes in the brain that arise with age, focusing on the connections between brain energy metabolism and communication between the different parts of the brain using the hormone dopamine. We compare this with patient behaviour and lifestyle in relation to the advancing ageing processes.

Brain energy metabolism and the communication between the different parts of the brain are closely related. Both parts are altered by the ageing process, but at different speeds in different areas of the brain. These changes are due to decay and connected to diseases like Alzheimer's and Parkinson's.

## How do you work – and who are your collaborators?

We work by measuring brain energy metabolism and communication in the various parts of the brain by scanning living brains and by studying the brain activity of research animals. This takes place in collaboration between the universities at Copenhagen, Aarhus, Oslo and Stockholm and the US federal research institute, the National Institutes of Health in Washington D.C.

## What are some of the important results of your research in recent years?

We have demonstrated the importance of behaviour and lifestyle for the amount of dopamine in the brain – and thus for communication between brain cells. We have also studied the importance of an insufficient oxygen supply for the accumulation of waste products in the brain and the importance of the energy exchange for the “motors” inside the brain cells and for such motors' decay with age.

## What are the perspectives of your work?

With the knowledge that we gain, delaying the decay of brain cells will one day be possible. This means that the brain will not fail prematurely – which will naturally be of great benefit for patients, their relatives and society as a whole.

## Award for Global Excellence

The Molecular Neurobiology of Aging Unit, Center for Healthy Aging is awarded Global Excellence for its strong position in innovative research, education, collaboration with industry and dissemination of information. There will be an increasing number of elderly in our society, and the number of elderly with e.g. Alzheimer's disease will rise accordingly. Meeting the treatment and care needs of this group of people demands better diagnostics, prevention and therapeutic tools. The research unit focuses on the insight into the causes and mechanisms of the diseases that is an essential prerequisite for the promotion of healthy ageing and a reduced impact on the healthcare sector, the patients, their relatives and society as a whole. These are the reasons why many international researchers seek collaboration with this awardee.

## Facts

The Molecular Neurobiology of Aging Unit, Center for Healthy Aging is part of the University of Copenhagen and has approx. 120 employees.

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The Department of Radiation Oncology is one of the technologically most advanced clinics in the world.  
Pictured: Lena Specht, D.M.Sc., and professor at the University of Copenhagen.

# Optimised radiation therapy at Rigshospitalet

The Department of Radiation Oncology works with radiotherapy for cancerous diseases, both by treating patients and performing research. Lena Specht, D.M.Sc., and professor of oncology at the University of Copenhagen, describes the department's research and the ways in which the unit implements the latest developments.

## What is the importance of your work – and which patient groups benefit from it?

Our work means that more patients can be cured of cancer with fewer side effects. By developing and optimising radiation therapy, we can now target tumourous areas with great precision, exposing the surrounding tissue with far less radiation.

We have introduced improvements in treating a number of types of cancerous tumours in the past five to ten years – including breast cancer, cancer of the lymph gland, prostate cancer, lung cancer, uterine cancer, brain tumours and head and neck cancer.

## How do you work – and who are your collaborators?

The clinical and research work is conducted in collaboration with medical specialists and physicists, engineers and radiographers. We co-operate closely with the Department of Clinical Physiology and Nuclear Medicine and PET at Rigshospitalet, the University of Copenhagen, the Technical University of Denmark (DTU) and the Niels Bohr Institute. In addition, we collaborate with Lund University, the Netherlands Cancer Institute, the Institute Gustave-Roussy in Paris, Stanford University and the National Cancer Institute, among others.

## What are some of the important results of your research in recent years?

We have demonstrated that, by synchronising the radiation therapy of breast cancer in the left breast with the patient's breathing, we can almost avoid irradiation of the heart and left coronary artery. In this way we are able to reduce or remove the risk of patients dying from heart disease that arises in connection with such treatment.

In collaboration with the Institute Gustave-Roussy, the department has developed precision radiation therapy for patients with cancer of the lymph gland. Consequently, we can now treat the diseased area with radiation therapy very precisely, avoiding irradiation of healthy parts of the body. This has considerably reduced the risk of prolonged or chronic side effects.

In the year 2000, as the first clinic of its kind in Scandinavia, we introduced high-precision radiation therapy of several cancer types. As the first clinic of its kind in the world, in early 2010, we introduced even more advanced forms of radiation therapy, in which the radiation apparatus moves around the patient during the radiation therapy.

## What are the perspectives of your work?

We will soon start testing a new scanning method to determine how tumourous tissue behaves. This will render even more precise radiation therapy possible, enabling the differentiation of dosage inside the tumour. We are also working to develop a method for observing cancerous tumours during treatment. In this way, the radiation field will be able to follow tumours if they relocate – for example, due to breathing. Finally, jointly with DTU, we are developing new methods that make the location and imaging of tumours easier and the images more precise.

## Award of Global Excellence

The Department of Radiation Oncology is awarded Global Excellence as one of the most technologically advanced clinics of its kind in the world. At the same time, it is one of the largest radiation therapy clinics in Europe in terms of the number of patients treated. The clinic was among the first in the world to offer a special type of treatment to breast cancer patients and is among the clinics with the greatest experience with this treatment type. The clinic is also leading in other forms of radiation therapy. On the whole, the department is characterised by considerable innovation in high-precision radiation therapy and by synergy between research, training, treatment in the department and collaboration with industry.

## Facts

The Department of Radiation Oncology is part of the Finsen Centre at Rigshospitalet and has approx. 206 employees.

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The Department of Growth and Reproduction is internationally recognised for its work.  
Pictured: Anders Juul, D.M.Sc., and professor at the University of Copenhagen.

# Haywire hormones

No one knows why the number of hormone-dependent diseases – such as reduced sperm quality – is becoming more and more widespread. But this is something that Anders Juul, D.M.Sc., and professor at the University of Copenhagen, and his team of researchers at the Department of Growth and Reproduction at Rigshospitalet are working to change.

## What is the importance of your work – and which patient groups benefit from it?

We are trying to become better at explaining and treating patients with disturbances related to growth and puberty, hormonal diseases in children, deformed genitalia, poor testicle function and other hormone-dependent diseases.

In addition, our research will improve our understanding of why these diseases arise, whether they have genetic or environmental causes, and why we see more and more incidences of them – whether they are due to lifestyles changes and/or environmental effects.

## How do you work – and who are your collaborators?

We are a clinical department that treats patients in tandem with our laboratory research. New questions arise constantly during patient treatment and these can then be researched right away in our laboratories next door.

This makes it possible to introduce our research results directly without delay during the diagnosis and treatment of patients. Department academic staff is comprised of doctors, biologists, molecular biologists, epidemiologists and chemists, working closely together.

The department also collaborates closely with the cancer and paediatric departments as well as the fertility clinic here at Rigshospitalet. In addition, we collaborate with a large number of national and international clinical and research partners.

## What are some of the important results of your research in recent years?

In recent years, the department has demonstrated that age at the onset of puberty has fallen dramatically in Denmark: breast development in girls now begins 12 months earlier than it did just 15 years ago. The cause of this is currently being studied.

In addition, we have shown that the occurrence of deformed genitals among Danish boys is at a record-high level. We have now discovered a potential connection with the boys' exposure to chemicals with negative effects on hormones.

We have also documented a disturbingly low sperm quality among Danish men, showing 40 percent or more of Danish men with potential fertility problems. And, finally, we are in process of developing a screening method for testicular cancer.

## What are the perspectives of your work?

We are getting better at diagnosing and treating patients with hormonally sensitive growth and reproduction problems. We will also be in a position to identify lifestyle and/or environmental factors involved in the increasing occurrence of growth and reproduction problems; thus the potential to prevent them exists.

## Award of Global Excellence

The Department of Growth and Reproduction is awarded Global Excellence. Recognised internationally, the department is experiencing a rise in the number of patients with disturbances in puberty, growth and male infertility. In addition to its focus on the dissemination of information, the department also constantly strives to maintain treatment, research and training at the highest international level. The Department of Growth and Reproduction is a model of translational work, where bridges are built between basic research and patients, placing the department in a leading position globally.

## Facts

The Department of Growth and Reproduction is part of the Juliane Marie Centre at Rigshospitalet and has 94 employees.

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The Danish Headache Centre is internationally recognised as leading in its field.  
Pictured: Jes Olesen, D.M.Sc., and professor at the University of Copenhagen.

# Leading in headache research

Denmark's largest neurological department is located at Glostrup Hospital, also home to the Danish Headache Centre, which employs leading Danish and international headache experts. Jes Olesen, D.M.Sc., and professor of neurology at the University of Copenhagen, founded the centre.

## What is the importance of your work – and which patient groups benefit from it?

About ten percent of Denmark's population suffers from headaches once a week or more frequently; many almost crippled by their headache pain. There are many different headache diagnoses, but the best known are migraine and tension headaches. The majority of patients are either treated by a primary care physician doctor, or referred to a neurologist. The Danish Headache Centre works with patients with rare headache forms or with difficult to treat headaches. Our department treats 1,000 new patients a year, also following 2,500 outpatients. In our experience, we are able to help the great majority of our patients – even when others have given up.

## How do you work – and who are your collaborators?

All of the patients at our centre are outpatients, but about 100 are treated over a 14-day period in a structured, hospitalised process. A specialised neurologist treats all of our patients, with many also receiving cross-disciplinary treatment from other specialists involving a physiotherapist, psychologist, specialist nurse, dentist, neurosurgeon or psychiatrist. Our patients are followed at three-month intervals until a satisfactory result is reached. On average, the patients are seen six times.

## What are some of the important results of your research in recent years?

It has been possible to develop the centre into one of the world's three leading headache centres.

Scientifically, we have demonstrated new migraine mechanisms, contributing to the development of completely new treatment methods. In addition, we have identified new targets for the development of medicines not yet been adopted by the pharmaceutical industry. Finally, we have contributed to the understanding of the hereditary factors of migraines; most recently in work published in Nature Genetics, showing a genetic variant that increases the risk of migraine headaches.

## What are the perspectives of your work?

The centre is a place of learning for doctors from around the world, a position and function we seek to expand. We would also like to receive a much greater number of patients from abroad.

In the coming years, we will continue our research efforts in terms of health service research, population studies, mechanistic clinical studies, animal experiment studies and genetic studies.

Finally, we also want to develop a combined concept, together with neurosurgeons, for treating neuralgia in the large tactile nerve of the face and for treating headaches caused by increased pressure in the cranium.

## Award of Global Excellence

The Danish Headache Centre is awarded Global Excellence because of its position as internationally leading in its field. The centre puts weight on diagnostics and cross-disciplinary treatment and is at the forefront of new diagnostic and treatment methods. The Danish Headache Centre is part of the largest Danish neurological department with strong ties to the University of Copenhagen. In addition to extensive collaboration with the pharmaceutical industry, the centre has established its own biotech company. The centre focuses on migraine, tension headaches and other headache types, as well as on a large number of rare diagnoses. It has been able to develop research initiatives for managing and treating this frequently occurring problem.

## Facts

The Danish Headache Centre is part of the Department of Neurology at Glostrup Hospital and has 30 employees.

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The Gynaecologic Clinic at Rigshospitalet covers all disciplines in gynaecological cancer at an international level.  
Pictured: Bent Ottesen, D.M.Sc., and professor at the University of Copenhagen.

# Fighting gynaecological cancer

At the Gynaecologic Clinic at Rigshospitalet, research and development are an integral part of the work carried out to improve the survival of women with abdominal cancer. This requires a high professional standard and good collaboration, explains Bent Ottesen, D.M.Sc., and professor at the University of Copenhagen.

## What is the importance of your work – and which patient groups benefit from it?

Abdominal cancer is often accompanied by a high degree of morbidity and mortality; the chances for survival depend completely on providing the right treatment. In recent years, the clinic has concentrated on research and training focused on making surgeons even better at operating – and this has led to an eight to ten per cent increase in the survival of women with ovarian cancer.

For women with cervical cancer, the clinic has developed milder surgical techniques allowing younger women to retain their fertility and have the children they want. With the introduction of robotic surgery, these gentler surgical techniques are being further developed at the clinic.

Cancer of the uterus and vagina occur most frequently in older women. The clinic is among the leading clinics in the world in terms of diagnosing and treating these diseases, leading to fewer complications and better survival rates.

## How do you work – and who are your collaborators?

Our work is divided into three closely integrated pillars: 1) diagnosis, treatment and care; 2) research and quality development; and 3) training. By integrating these three pillars into our everyday work, we achieve treatment results of the highest international standard, as well as high patient and staff satisfaction.

Our cancer group comprises gynaecologists, gastrointestinal surgeons, cancer surgeons, pathologists, radiologists and nurses. In addition, we collaborate with national and international experts with the same skills or with specialised skills in laboratory-based research.

## What are some of the important results of your research in recent years?

Our researchers have demonstrated a connection between a virus infection (HPV) and the development of cervical cancer. This finding has contributed to the development and introduction of a broadly adopted vaccination programme against the HPV virus, helping to eradicate cervical cancer and saving the lives of many women.

The clinic has introduced an especially mild operation method for cervical cancer, which also ensures that women retain their fertility. As the first clinic in Denmark, we have just embarked on a promising method in robotic surgery that will allow us to further refine this particular operating method.

## What are the perspectives of your work?

Our efforts in research, quality development and training at the expert level mean that we can move treatment boundaries. We have already seen the first results in the form of higher patient survival rates. The centre has brought together a motivated and highly qualified staff committed to accelerating this positive development.

## Award of Global Excellence

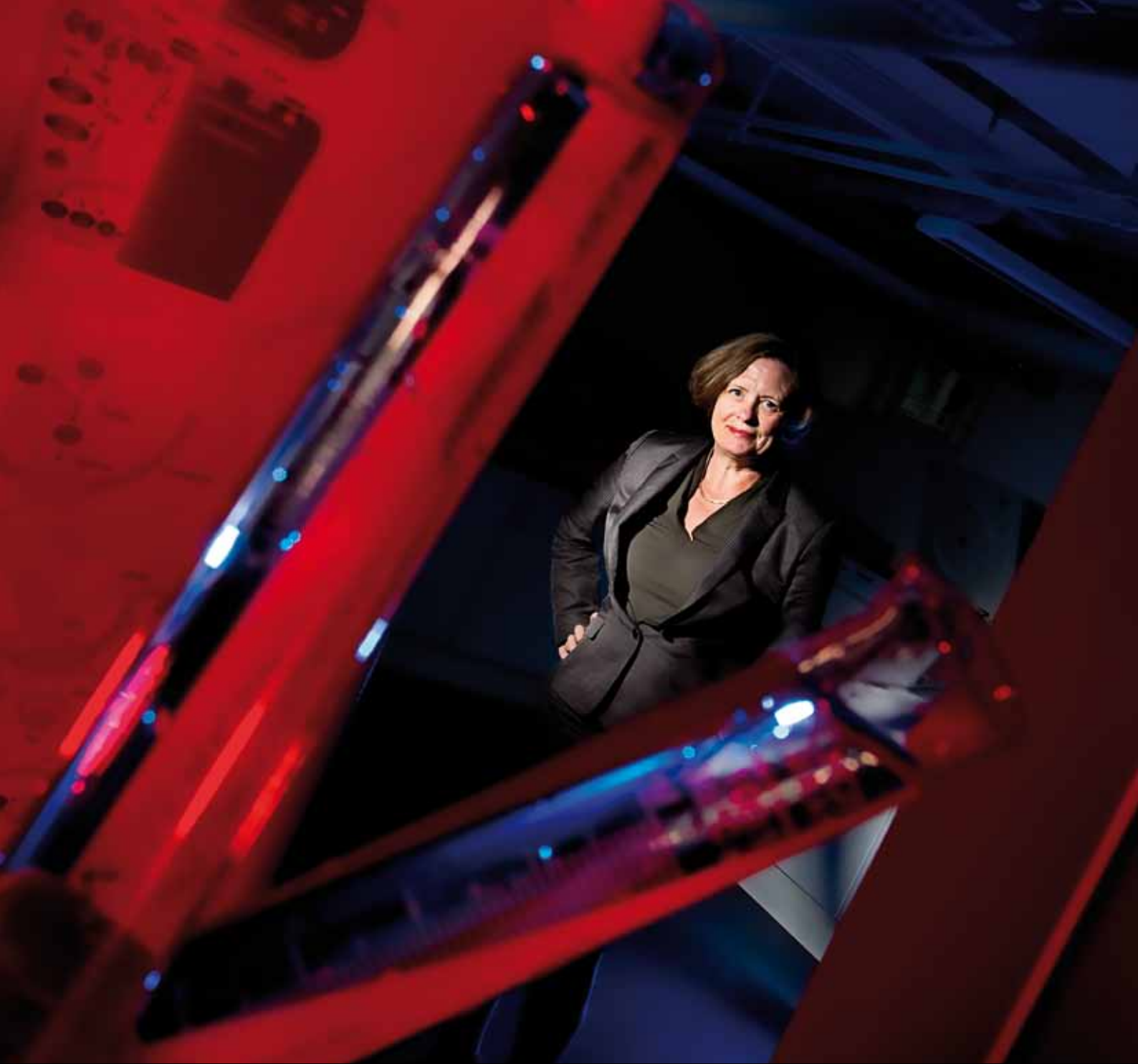
The Gynaecologic Clinic is awarded Global Excellence for covering all disciplines in gynaecological cancer at an international level. The clinic boasts a highly qualified staff and a broad scope. Scientifically, the clinic is responsible for a wide spectrum of research and its cross-disciplinary competencies ensure the highest treatment standards. The clinic seeks to strengthen the training aspect further in the future, not just to maintain its international position, but also to cement the clinic as a European centre for patient treatment and development in the field of gynaecological cancer.

## Facts

The Gynaecologic Clinic is part of the Juliane Marie Centre at Rigshospitalet and has approx. 100 employees.

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The Danish Dementia Research Centre has an international position for its work on dementia.  
Pictured: Gunhild Waldemar, D.M.Sc., and professor at the University of Copenhagen.

# Better treatment for dementia sufferers

The Danish Dementia Research Centre (DDRC) is located at Rigshospitalet, where Gunhild Waldemar, D.M.Sc., and professor at the University of Copenhagen, along with other clinical staff, work to improve the quality of life for the approximately 80,000 people in Denmark suffering from dementia, as well as their relatives and loved ones.

## What is the importance of your work – and which patient groups benefit from it?

The vision of DDRC is to create a Danish centre with a high international standard for treating patients, research and the dissemination of information – a centre which will work to prevent and treat dementia, creating better quality of life for people with dementia as well as for their relatives.

The diagnosis and treatment provided must be more uniform and the quality must match that of the diagnosis and treatment offered for other chronic medical diseases. Both aspects contribute to a necessary destigmatisation of diseases and an increased recognition of dementia.

## How do you work – and who are your collaborators?

A memory clinic was set up at Rigshospitalet in 1995, and the DDRC was established in 2007 as a development project associated with the clinic and its research unit. Today, DDRC boasts collaboration between a special clinic, a research unit and a nationwide training and information unit for dementia diseases.

The Memory Clinic receives more than 700 referrals a year and has highly specialised functions, some of them for rare and hereditary diseases. Ongoing quality development, patient satisfaction and initiatives aimed at patients' relatives and carers have high priority.

DDRC has established a network for dementia clinics throughout Denmark, a network for dementia ambassadors from all local authorities, and the Danish Dementia Biobank. DDRC collaborates with the two national dementia research centres in Norway and Sweden, is a member of the European Alzheimer's Disease Consortium, and collaborates with both Danish and international research groups.

## What are some of the important results of the DDRC's research in recent years?

We have established a cross-disciplinary network for Danish dementia clinics, a network for municipal dementia ambassadors and cross-disciplinary courses throughout the country.

In addition we have mapped hereditary dementia diseases in Denmark, identifying new mutations of the disease. Finally, we have studied how early psycho-social support can help patients with Alzheimer's disease and their relatives.

## What are the perspectives of your work?

Denmark must play an innovative and active role in the international work on dementia. DDRC must therefore strengthen the quality of Danish patient treatment and research, contributing to increasing Denmark's possibilities for leading and taking part in new, broader international efforts in the field for the benefit of Danish patients.

## Award of Global Excellence

The Danish Dementia Research Centre is awarded Global Excellence for its international standing within the study and treatment of dementia diseases. The clinic has highly specialised functions and a high degree of collaboration with the pharmaceutical industry in the development of drug therapies. DDRC carries out world-class research, especially in clinical and translational dementia research. At the same time, the centre excels in disseminating information and knowledge about dementia. DDRC has also established the Danish Dementia Biobank, a national network for dementia clinics, and a national network of dementia ambassadors. A network of global researchers is being established and the centre's international position is constantly being strengthened.

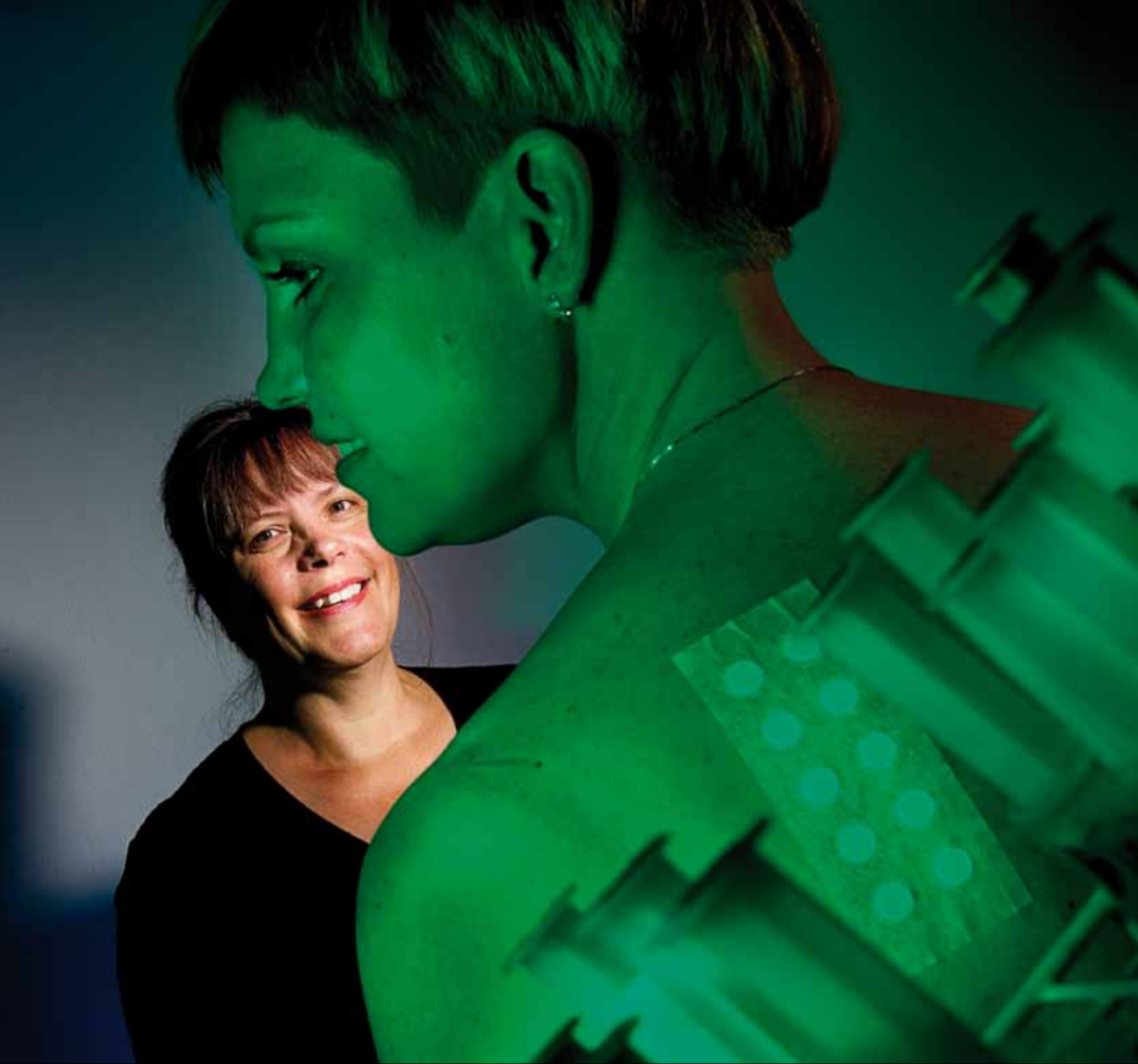
## Facts

The Danish Dementia Research Centre is part of the Neuroscience Centre at Rigshospitalet and has 45 employees.

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The Danish Allergy Centre is awarded Global Excellence for its strong international position in allergy research.  
Pictured: Jeanne Duus Johansen, D.M.Sc., and professor at the University of Copenhagen.

# The shortest route from allergy research to treatment

Heredity and the environment both have significance for patients with asthma, allergies and eczema. As a result both of these aspects are the subject of research at the Danish Allergy Centre at Gentofte Hospital, a unit that also houses the country's largest centre for work-related eczema, says Jeanne Duus Johansen, D.M.Sc., and professor at the University of Copenhagen.

## What is the importance of your work – and which patient groups benefit from it?

As a centre for patients with complicated allergy illnesses, we receive patients from throughout Denmark – for example people who have had life-threatening allergic reactions during anaesthesia. We help many patients who discover that they cannot tolerate certain foods to find out why and advise them about which foods they can eat. We are also the largest centre in the country for work-related eczema, while a special unit is involved in research on infantile asthma and eczema.

## How do you work – and who are your collaborators?

We have gathered allergy experts with various specialities in one centre with clinics treating many patients and research units involved in all aspects of the diseases. In this way, the knowledge generated benefits patients quickly.

We also collaborate closely with patient associations, employers, trade unions and relevant authorities. Thus, we are able to rapidly turn new knowledge into information, recommendations and legislation for the prevention of allergies.

In terms of research, we collaborate closely with the University of Copenhagen, the Technical University of Denmark and various national and international networks in allergy, asthma and eczema.

## What are some of the important results of your centre's work in recent years?

Our group contributed to the discovery of a mutation in a gene of great significance to the development of eczema, allergy and asthma. The mutation is found in eight per cent of the population and, through collaboration with the Department of Clinical Biochemistry here at this hospital, we are now able to test all patients for this mutation.

Our group is also an important partner in the development of a new allergy vaccine in tablet form, which is now available to patients with grass allergy.

Finally, we have generated the knowledge that forms the basis for European legislation on nickel, which has resulted in a fall in the frequency of nickel allergy among women, from 20 to 10 per cent.

## What are the perspectives of your work?

In the future we will be able to make a profile of individuals at risk of developing allergic diseases due to hereditary or environmental causes. This may be used to treat patients earlier and for prevention, and also to develop individualised treatments and information.

The coming years will provide us with more knowledge about the importance of circumstances in the embryonic stage and in the first years of life for the development of asthma, allergies and eczema. This will also result in completely new treatment and prevention options.

## Award of Global Excellence

The Danish Allergy Centre is awarded Global Excellence for its strong international position in allergy research. Based on the fundamental idea of bridging basic research and patient care, the centre is in itself an innovation. The centre is able to turn new knowledge into practice to benefit patients with allergies, an area of illness that is becoming increasingly common. Both the centre's work in knowledge dissemination about allergy diseases and its patient satisfaction are exceptional. Strong collaboration with industry, along with a sharp focus on training, ensures that the centre has the ability to compete internationally.

## Facts

The Danish Allergy Centre is part of the Department of Dermato-allergology at Gentofte Hospital and has approx. 60 employees.

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All ten award winners receive a unique glass bowl specially designed for the Global Excellence – In Health awards. The glass bowls are produced by the recognised glass artist Jacob Lungholt.



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