



The Capital Region  
of Denmark



## World-class malaria research in Denmark

The Centre for Medical Parasitology is one of the world's leading centres for malaria research. Researchers from the University of Copenhagen and Rigshospitalet have now developed the first-ever malaria vaccine for pregnant women. The vaccine will be tested in clinical trials during the course of 2015 and, if effective, could be a crucial step towards prevention of a major global killer.

Each year, malaria claims the lives of up to 750,000 people. The vast majority of victims – as many as 90 percent – are poor children in Africa below the age of five, making the disease one of the world's most serious childhood infectious diseases. The Centre for Medical Parasitology investigates the basic mechanisms of the disease and studies and treats the disease in patients at field stations abroad.

Researchers at the centre participate in numerous international research collaborations, working closely, for example, with local health organisations and scientific institutions within the orbit of the field stations, to boost the level of knowledge and education in areas where malaria poses a serious threat to public health.

In recent years, researchers at the centre have vigorously examined the development of the disease in pregnant women, which has resulted in a malaria vaccine specifically for this group of patients that is being clinically tested in 2015. This is the first time ever that a team of researchers has created a vaccine of this kind and if its effectiveness proves to match expectations, it will be a big step towards solving one of the biggest health problems in the world.

In the longer term, the experiences gained with the vaccine for pregnant women can be used to develop other vaccines directed at other types of malaria, such as cerebral malaria, the most common form of malaria affecting children. Moreover the general knowledge gained about the mechanisms of this disease may well be able to be used to develop new strategies to treat and diagnose other, entirely different diseases, such as cancer or diabetes.

### Centre for Medical Parasitology in brief

The Centre for Medical Parasitology was founded in 1991 by Professors Lars Hviid and Thor Theander, who are employed by the University of Copenhagen.

The centre, a partnership between the University of Copenhagen and Rigshospitalet, is internationally renowned for malaria research and employs a staff of 75 comprising researchers and technicians from a wide spectrum of specialist fields that includes biologists, medical doctors, biochemists, engineers, human biologists and biophysicians.

CMP won a 2015 Global Excellence – in Health award.

Further information is available at [cmp.ku.dk](http://cmp.ku.dk).



Professor Lars Hviid, University of Copenhagen and Rigshospitalet

## Facts about Global Excellence – in Health

The Global Excellence programme seeks to recognise and highlight leading research and therapy environments in the field of healthcare in the hospitals and universities of the Capital Region of Denmark. Established in 2010 in close cooperation with the University of Copenhagen and the Technical University of Denmark (DTU), the programme is designed to encourage internationalisation of the region's excellent research and therapy environments with a view to attracting international partners, researchers and talented individuals, in addition to private-sector and public funding for research. One to two prizes are awarded annually and are followed up with focused support that includes, for example, consultancy services, tools, website development and conferences.

The Global Excellence award is given to hospital and university environments in the region that perform first-rate international level research leading to the development and implementation of new, pioneering healthcare services, treatment methods and products for the benefit of patients. The selected Global Excellence environments have been chosen by the regional council of the Capital Region of Denmark based on evaluations by a specialist review committee of national and international experts. The awardees are characterised by their unique efforts within one or more areas, such as the extent and quality of their research and development, teaching, examination and treatment of patients, and innovation and dissemination of the new knowledge. In addition to the Global Excellence distinction, which is valid for a period of five years, the awardees each receive a grant of EUR 200,000 to help strengthen and further their international profile.



## Facts about the Capital Region of Denmark

One of five regional administrative units in Denmark, the Capital Region of Denmark provides healthcare and mental healthcare services, in addition to carrying out research and regional development for 1.7 m people or about 30% of the population of Denmark. Besides hosting the largest healthcare system in Denmark the region is also home to one of the world's strongest life science clusters, with 70% of Denmark's biotech companies located in the area.

The Capital Region is home to a number of specialist environments at the ten university hospitals in the region that perform world-class health research and have the ability to translate new, innovative knowledge into pioneering healthcare services and treatments of the highest international standard. In order to highlight and acknowledge these environments, 26 hospital and university environments were presented with the Global Excellence – In Health award from 2010-2015.

Denmark ranks third among OECD countries for scientific publications per inhabitant, as well as for citations. Accordingly health research in the Capital Region is among the best in Europe. In close collaboration with the University of Copenhagen and the Technical University of Denmark, the Capital Region of Denmark represents frontline health science and clinical research together with high quality research in other areas relevant to the development of future healthcare. Approximately EUR 268,000,000 in external and internal funding is spent annually on health research in the region's university hospitals.

Research barometer 2013 (Danish Agency for Science, Technology and Innovation), based on data from 2008-2012.  
Research assessment 2014 (Capital Region of Denmark), based on data from 2013.

