

# Life Science Nord - Northern Germany's Life Science Cluster

The Life Science Cluster of Northern Germany provides a number of distinctive features to entrepreneurs and scientists that are unique. A high concentration of expertise, constant development and initiation of special support programs offer a broad range to a lot of Life Science activities.

Life Science Nord offers several quality characteristics: for example, simple and rapid access to thematic networks, proximity to the scientific community and availability of highly qualified staff. In addition, the north offers an industrial structure with outstanding networks and development instruments that have been thought through – all underpinned by significant political support. Since the Life Science Nord Cluster was founded, the governments in Schleswig-Holstein and Hamburg have cooperated with great commitment to establish North Germany as a life science location and create excellent conditions for entrepreneurs and scientists – also in comparison with competing regions.

### Industry

Life Science Nord operates in a commercially promising high-growth area. The market for innovative medicine is worth several 100 billion euros, and is growing at double-digit rates. All areas of research – from development to production and marketing – are occupied by cluster layers from the fields of medical technology, biotechnology, and pharmaceuticals.

In Hamburg and Schleswig-Holstein, important areas of application are in therapy, diagnostics, imaging techniques, laboratory equipment, implantology, and operating technologies. However, oncology, neuroscience, and research into inflammation and infections are the dominant fields. Life Science Nord has developed innovative medical products with the help of selected cooperation agreements and technology transfer.

## **Companies and Organizations**

Many of the companies of Life Science Nord, such as Dräger Medical, Philips, Olympus, and Eppendorf, are global players with a long history. But internationally recognized scientific institutions such as the Research Center Borstel and the Bernhard-Nocht-Institute as well as the university clinics of Schleswig-Holstein and Hamburg also shape Life Science Nord.

## **Medical Technology**

Virtually no other region can boast such a well-developed business structure in medical research and development. Medical technology is the main sector. In the Life Science Nord region, large companies such as Olympus Surgical Technologies Europe, Philips Healthcare, Dräger Medical, and Johnson & Johnson Medical develop and produce highly successful solutions for the global medical market. However, small and mid-sized firms, which account for most of the approximately 200 companies, are also very well positioned in this sector. Particular areas of competence are medical imaging and operating technologies.



### **Biotechnology and Pharmacy**

Biotechnology in the Life Science Nord region is characterized by a broad corporate base. Companies from the pharmaceutical industry also are present in the region. In both states, the main focus is on red (medical) biotechnology, pharmacy, and medicines are the principal applications. There are core competencies in the fields of drug research, molecular diagnostics, and enabling technologies.

Pharmacy is inextricably linked to life sciences. In Hamburg and Schleswig-Holstein, significant drug manufacturers and larger trading companies have a presence. Some of the major international pharmaceutical companies maintain research and production facilities in the region. AstraZeneca, GlaxoSmithKline, Medac, and the Ferring Group develop and sell innovative, biopharmaceutical products in and from Schleswig-Holstein and Hamburg.

In Schleswig-Holstein, marine biotechnology is gaining importance. The opportunities in this discipline are only just beginning to be exploited. To tap this potential, marine infrastructure is being extended. At the same time, scientific findings are being translated into applied science. At the GEOMAR I Helmholtz Centre for Ocean Research Kiel isolation of biological active substances from marine microorganisms for the development of new therapies and drugs is promoted. The Fraunhofer Research Institution for Marine Biotechnology (EMB) also focuses on the potential offered by the seas for biomedicine.

#### **Research and Universities**

Medical research is also broadly based and well networked. The close collaboration between universities and research institutions, which is characteristic for the Life Science Nord region, play a major role in the success.

Nine universities and technical colleges like for example the University Medical Center Hamburg Eppendorf (UKE) or the University Medical Center Schleswig-Holstein (UKSH) form the basis for science and research in Hamburg and Schleswig-Holstein. In the Life Science Nord region, both basic and applied research covers all sub-sectors. Conditions in North Germany are therefore ideal for life science researchers and entrepreneurs. An interdisciplinary approach is becoming an increasingly important feature of life sciences. Consistently aligning training to the needs of the job market, interdisciplinary learning, and introducing students to research and technology at an early stage – all these aspects are already being extensively put into practice in life sciences in the North.

With their university clinics, numerous other clinics, special institutes and service companies, Hamburg and Schleswig-Holstein also offer ideal conditions for the implementation of clinical trials, for example in special indications such as chronic inflammatory diseases and various tumor entities, backed by extensive clinical expertise. One of the key organizations in the field of clinical trials is the Clinical Trial Center North (CTC North), an institute at the University Medical Center Hamburg-Eppendorf (UKE). The CTC North operates a modern station for phase I and II trials and works on behalf of the pharmaceutical and biotechnology industries.



### Support and Development of the LSN-Cluster

The Life Science Nord Management GmbH is the service agency of Hamburg and the Federal State of Schleswig-Holstein, established to support life science activities in Northern Germany. "Life Science Nord" is the umbrella association, in which the agency connects life science activities for different stakeholder groups to set up an internationally competitive cluster. As a central gateway, it enforces and supports projects concerning biotechnology, medical technology, and pharmaceutical industry. We initiate strategic activities and assist business-promotion for scientists and institutions that contribute to raising the profile of Hamburg and Schleswig-Holstein. As cluster manager, it networks the business and research communities in Northern Germany. Hamburg is the gateway to the Nordic region, and as an important life science hub rich with talent. Located between the North Sea, the Baltic Sea, and the river Elbe, Life Science Nord is home to

- about 500 companies in Biotech, Pharma and MedTech
- 2 University Medical Centers and more than 150 clinics
- 5 Universities with Life Science courses
- 14 technology parks and incubators with focus on Life Sciences

### For further information about Life Science Nord please contact:

Life Science Nord Management GmbH Simone Hauck Management & Communication Falkenried 88 D-20251 Hamburg P +49.40.471 96 - 423 F +49.40.471 96 - 444 hauck@lifesciencenord.de www.lifesciencenord.de