Leading Science to Health

As German Research Center for Environmental Health, Helmholtz Zentrum München pursues the goal of developing personalized medical approaches for the prevention and therapy of major common diseases such as diabetes, chronic lung diseases and allergies.

Environmental Health serves as leitmotif – through the cooperation of various disciplines the center investigates how common diseases develop individually in the context of genetic predisposition, environmental factors and lifestyle. Excellence in research, training, and infrastructure as well as cooperation with world’s leading scientists lay the cornerstone for success in translation and technology transfer: To foster efficient development of basic research into applications Helmholtz Zentrum München has a successful translational research and technology transfer strategy leading to the goal of creating benefits for society.

Expertise at Helmholtz Zentrum München

• Diabetes Research Department: 5 Institutes, 2 Clinical Cooperations Groups, Treatment Center for Diabetes Preventions Studies, biobank Munich Diabetes Bioresource and other clinical trials, coordination of the Helmholtz alliance “ICEMED: Imaging and Curing Environmental Metabolic Diseases”, Alexander-von-Humboldt-Professorship
  • Partner in the German Center of Diabetes Research
  • Diabetes Information Service Munich
• Lung research: Comprehensive Pneumology Center
  • Partner in the German Center of Lung Research
  • Lung Information Service
• Epidemiology: KORA cohort study (25 000 participants, routinely examined since 1985)
• Genomics, proteomics, metabolomics: identification and validation of risk genes and biomarkers
• Stem cell research, cell therapy: approaches for regenerative medicine and cell therapy with direct access to clinics
• Structural biology, imaging: development of new methods for medical diagnostics and for elucidating biological mechanisms
• German Mouse Clinic: standardized phenotyping of mouse models for human diseases
• HELENA Helmholtz Graduate School Environmental Health: PhD training for gene environment interactions with internationally unique focus
• Targeted development (translation) of research results to medical application, to create use for society
  • Central scientific units as service platforms →

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Research programs at Helmholtz Zentrum München

The Environmental Health Program

**Goal:** to develop new effective strategies for the prevention, early detection and therapy of chronic diseases with focus on lung diseases, allergies

The Systemic Analysis of Multifactorial Diseases Program

**Goal:** to gain insight into processes in the healthy organism and into the pathogenesis of complex diseases in all organ systems with focus on diabetes mellitus, neuropsychiatric disease

The Terrestrial Environment Program

**Goal:** to understand the mechanisms and influential factors in the ecosystems of water, soil, plants

Facts and Figures

1. Helmholtz Zentrum München is the German Research Center for Environmental Health
2. It is part of all six German Centers of Health Research doing science for diabetes mellitus, lung diseases, infections, neurodegeneration, cardiovascular diseases, cancer
3. The head office of Helmholtz Zentrum München is located in Neuherberg to the north of Munich
4. Helmholtz Zentrum München is a member of Germany’s largest scientific organization, the Helmholtz Association. It has 18 legally independent research centers with approximately 34,000 employees and a total annual budget of 3.4 billion euros
5. Total number of employees: 2053 (as of July 31, 2012)
6. Total budget 2011: € 196 m, Basic financing: € 131 m (Federal Government and Free State of Bavaria at a ratio of 90:10 as of April 26, 2012: annual closure 2011)
7. [www.helmholtz-muenchen.de](http://www.helmholtz-muenchen.de)

Our working model

Translational Research and Technology Transfer as Basis for Use in Society

- To foster efficient further development of basic research into applications, Helmholtz Zentrum München has a successful translational research and technology transfer strategy:
  - 14 spin-offs/joint ventures with 350 employees total
  - Approved in spring 2009, the therapeutic antibody Removab® is based on research at Helmholtz Zentrum München
- Translational research: to advance knowledge further to achieve medical progress and to benefit society – close cooperation and strategic partnerships between basic and clinical research (12 clinical cooperation groups at 4 hospitals, 3 translational centers for diabetes, lung diseases and allergy)
- Clinical Cooperation groups working on the focus areas diabetes research, pathomechanisms and therapeutic targets, innovative therapies