

Heidelberg Mannheim Health and Life Science Alliance

Against the background of a social and economic structural transformation that is increasingly marked by digitisation and the pursuit of sustainability, the life sciences and their applications in patient care, healthcare management and new technologies are an important engine of innovation and growth for the state of Baden-Württemberg and beyond. With the establishment of the

Heidelberg Mannheim Health and Life Science Alliance

Baden-Württemberg can take its place at the forefront of this development – that is the firm belief of the research institutions and university hospitals of the Rhine-Neckar region. The overall objective is to establish an outstanding university medical and life science centre whose critical comprehensiveness and focused expertise will set in motion a self-reinforcing process with enough momentum to lift the centre's research performance in medicine and the life sciences to the top of the international competition. To achieve this goal, the alliance wants to establish a national and European champion in the life sciences for the state of Baden-Württemberg that will act as an innovator and gravitational centre in the Rhine-Neckar region, ensuring top-level healthcare for a large catchment area and establishing a strong innovation-driven ecosystem for the health economy of the future.

With the Excellence University Heidelberg, its two medical faculties, and outstanding national and international research centres such as the DKFZ, the EMBL, the Max Planck Institute for Medical Research and the ZI, the region boasts a unique, internationally visible research and development network for medicine and the health sector. This network is situated in an urban environment with an excellent economic structure that comprises a major corporation and a multitude of small and medium enterprises in the fields of life sciences, medical technology and digitisation.

In light of the highly dynamic developments in the field of medicine, the alliance aims to enhance and enlarge this innovation-driven ecosystem, not only to ensure its success on the German market, but to increase its competitiveness in Europe and the world. To this end, the university hospitals and life science institutions of Heidelberg University, with facilities in Heidelberg and Mannheim, want to join forces with the DKFZ, EMBL, MPI for Medical Research and with the ZI in a new, strong research alliance.

On request of the Ministry of Science, Research and the Arts, these partner institutions have developed a **strategic concept** since 13 July 2020, which they now submit to the policymakers of the state of Baden-Württemberg. The research institutions propose the following measures to the state government:

1. Mannheim University Hospital is to be **operated** by the state of Baden-Württemberg instead of by the city of Mannheim.
2. The two university hospitals, which are already closely associated with Heidelberg University, are to be merged to form the **Heidelberg University Hospital with a Mannheim Campus and a Heidelberg Campus**.
3. The two medical faculties in Heidelberg and Mannheim are already an integral part of Heidelberg University. After a transition period, they are to be merged to form the **Medical Faculty of Heidelberg University**.
4. The proposed Heidelberg Mannheim Health and Life Science Alliance is to include the institutions of the university hospitals. The alliance is to be given a legal structure and develop new joint initiatives for the University's institutions and the **four non-university life science institutions (DKFZ, EMBL, MPI-mF, ZI)**. The aim is to generate the kind of added value that can only be achieved through synergism. This would permit joint appointments of top scientists, strengthen existing fields of excellence through dedicated platforms and programmes, promote junior scientists with cross-institutional teaching and research programmes and help identify new subjects that might be developed into fields of excellence in the medium term.
5. To accelerate the **translation** of research results into top-level healthcare and intensify the **transfer** of findings into technical applications by businesses and industry, the alliance has been conceived as an open structure that will bring together additional scientific institutions and companies of various sizes and orientations for specific projects, thus extending its reach far beyond the core field of the life sciences.

The alliance will tie in with existing **cooperative structures** such as the Molecular Medicine Partnership Unit (MMPU) between the EMBL and Heidelberg University and the National Center for Tumor Diseases (NCT), which is operated jointly by the DKFZ and Heidelberg University Hospital. Furthermore, the city of Mannheim is already creating new infrastructure designed to help generate innovations on the Mannheim Medical Technology Campus (MMT), with medicine and the life sciences as technology drivers, and to promote the new leading industry of the future. Additional cooperative projects, particularly with industrial partners, are supported by BioRN e.V., Metropolregion Rhein-Neckar e.V. and others. These initiatives are in line with the continued development of molecular systems engineering and scientific computing (HeiCOMACS centre) at Heidelberg University. In addition to expanding research, the alliance wants to 'map' the exploitation of basic research, up to and including clinical applications and industrial technical applications, at the local level and establish international networks dedicated to this task.

The research institutions of the Rhine-Neckar region are submitting this concept to the state government and the Baden-Württemberg parliament because they strongly believe that the outstanding potential of the life science research institutions and the regional healthcare facilities could – with joint activities and even closer cooperation – create the innovation boost that is required to establish a new leading industry in the state. Internal and external experts believe there are extraordinary opportunities and benefits for the state of Baden-Württemberg in actively supporting the ongoing development of healthcare, research,

teaching and knowledge transfer at the highest level in order to offer people in the region and beyond long-term employment opportunities in an innovative field of global significance. This will give the state the required **scope for action with regard to science and economic policy**, enabling it to help shape the future course of politics in the state, the country and in Europe.

Numbers, dates and facts (selection):

- Future Heidelberg University Hospital with Mannheim Campus and Heidelberg Campus:
 - o more than 3,300 beds (HD: 1,988; MA: 1,352)
 - o more than 120,000 inpatient cases (HD: 75,600; MA: 45,399)
 - o more than 18,000 employees (HD: 13,700; MA: 4,900) and roughly 1,300,000 outpatients (HD: 1,121,300; MA: 180,136) per year
 - o together with the DKFZ: National Center for Tumor Diseases (NCT) in Heidelberg and the DKFZ-Hector Cancer Institute at Mannheim University Hospital
- Heidelberg University:
 - o currently 13 CRC/TR-CRC in the life sciences/medicine
 - o seven life science centres and excellent natural sciences
 - o Medical Faculty of Heidelberg University post-merger:
 - 204 professorships
 - more than 670 places for students (per semester) and
 - more than 6,000 students of medicine in total
- German Cancer Research Center (DKFZ):
 - o largest European cancer research institution
 - o more than 3,000 employees
 - o National Center for Tumor Diseases (NCT) together with Heidelberg University Hospital and the DKFZ-Hector Cancer Institute at Mannheim University Hospital
- Central Institute of Mental Health (ZI):
 - o largest psychiatric/psychotherapeutic research institute in Germany
 - o more than 1,300 employees
 - o Hector Institute for Translational Brain Research with the DKFZ
- European Molecular Biology Laboratory (EMBL):
 - o six European locations
 - o more than 900 employees in Heidelberg
- Max Planck Institute for Medical Research (MPI-mF):
 - o four departments
 - o more than 200 employees

Latest results of Heidelberg University in the subject rankings for the life sciences and medicine

The subject rankings of the three large international ranking agencies Shanghai (ARWU), QS and THE also testify to the outstanding success of medical and life science research at Heidelberg University: In the medical subjects, the University ranks first in Germany in all three lists; in the biosciences it comes in second after LMU Munich. These top placements on the national level usually correspond to a place among the top 50 worldwide; the Shanghai ranking even sees Heidelberg University in 12th place for medical technology (1st in Germany).

Academic Ranking of World Universities (Shanghai Ranking) – Subject Ranking 2020

Medical Technology: 1st in Germany, 12th worldwide

Clinical Medicine: 1st in Germany, 16th worldwide

Public Health: 1st in Germany, 47th worldwide

Biological Sciences: 2nd in Germany, rank group 51-75 worldwide
(after LMU Munich: 1st in Germany, 46th worldwide)

Human Biological Sciences: 6th in Germany, rank group 51-75 worldwide

Pharmacy & Pharmacology: 4th in Germany, 50th worldwide

QS Subject Rankings 2020

Broad Subject Area Life Sciences and Medicine: 1st in Germany, 33rd worldwide
(with LMU Munich)

Medicine: 1st in Germany, 31st worldwide

Biological Sciences: 2nd in Germany, 37th worldwide
(after LMU Munich: 1st in Germany, 25th worldwide)

Pharmacy & Pharmacology: 2nd in Germany, 47th worldwide
(after LMU Munich: 1st in Germany, 39th worldwide)

THE Subject Ranking 2020

Clinical, Pre-Clinical and Health Sciences (sum of Medicine & Dentistry, other Health):
1st in Germany, 34th worldwide

Life Sciences (sum of Agriculture & Forestry, Biological Sciences, Sport Science, Veterinary Science): 2nd in Germany, 37th worldwide
(after LMU Munich: 1st in Germany, 31st worldwide)