

## Press release

### Hermann von Helmholtz-Gemeinschaft Deutscher Forschungszentren

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Cooperation agreements, Miscellaneous scientific news/publications  
Biology, Chemistry, Environment / ecology, Nutrition / healthcare / nursing, Social studies  
transregional, national

HELMHOLTZ SPITZENFORSCHUNG FÜR  
GROSSE HERAUSFORDERUNGEN

## Helmholtz to Fund International Partnerships in Health and Matter Research

The new “Helmholtz International Labs” program will fund research projects covering new medicines for infections, the effects of environmental impacts on health, and unique insights into the structure of matter. These international labs will receive up to 300,000 euros annually for an initial period of five years. This will increase collaboration between the Helmholtz Association and excellent research institutions worldwide, as part of the Association’s internationalization strategy.

“I congratulate the three selected labs,” says Otmar D. Wiestler, President of the Helmholtz Association. “They proved themselves in a highly competitive contest and are now backed by considerable financial support and international partnerships to advance socially relevant issues.” According to Wiestler, the funded projects now have the best conditions for achieving substantial progress in the field of health and matter research.

Helmholtz International Labs primarily serve to expand or intensify existing or new collaborations with renowned partners abroad. The use of large-scale research infrastructure plays an important role in this program. The ‘International Labs’ will be developed jointly at the international partner’s location. . The funding provided is up to 300,000 euros per year. The participating Centers and the respective foreign partner also contribute a corresponding share. The projects will initially be funded for five years, with the possibility of a three-year extension if they pass an interim evaluation.

During the first round of applications, the first three Helmholtz International Labs were selected for funding at a selection meeting with an international panel of reviewers. A total of three rounds of applications are planned by 2020. The second round is expected to begin at the end of 2018.

The following three projects were selected:

Deutsches Elektronen-Synchrotron (DESY): CAS-Helmholtz International Laboratory on Free-Electron Laser Science and Technology (CHILFEL)

CHILFEL addresses so-called free-electron lasers (FEL) that are dedicated particle accelerators generating extremely intense X-rays flashes and enabling unprecedented insights into the structure of matter. They allow, for instance, to solve the structure of biomolecules, to film chemical reactions and to create conditions like those within stars and planets. The project aims to push key technologies and instrumentation for existing and future FELs in Hamburg & Shanghai and develops and sets up joint FEL instrumentation and test installations.

Partner China: ShanghaiTech University, Shanghai Institute for Applied Physics / SINAP (Chinese Academy of Sciences)  
Contact: Prof. Dr. Wilfried Wurth, Tel.: 040 89 98 26 21, E-Mail: [wilfried.wurth@desy.de](mailto:wilfried.wurth@desy.de)

Helmholtz Zentrum München – Deutsches Forschungszentrum für Gesundheit und Umwelt and Forschungszentrum Jülich: Impact of Atmospheric Aerosols on Human Health (AeroHEALTH)

Air pollution is one of the largest environmental health risks. More than 90 percent of the world population live in places where WHO air quality guidelines are not met. However, there is a substantial knowledge gap regarding the drivers and underlying mechanisms of the health effects. There is also a lack of data that can be used for burden assessment and mitigation policies. With the international cooperation Aerohealth, the Helmholtz Zentrum München, Forschungszentrum Jülich and the Israel based Weizmann-Institute join forces to better understand the biological and health effects of atmospheric aerosols mechanistically. Further rationales are the joint training of young researchers and the development of science-based strategies and guidelines for policymakers.

Partnerland Israel: Weizmann Institute

Contact: Prof. Dr. Ralf Zimmermann, Helmholtz Zentrum München, Tel.: 089 31 87 45 44, E-Mail: [ralf.zimmermann@helmholtz-muenchen.de](mailto:ralf.zimmermann@helmholtz-muenchen.de)

Helmholtz Centre for Infection Research (HZI): Novel drug candidate for the treatment of bacterial and viral infections with unmet medical need

In cooperation with the Chinese Shandong University an interdisciplinary research team at the Helmholtz International Lab will work on the development of antibacterial and antiviral strategies that should ultimately lead to innovative drug candidates. The research will be conducted in four therapeutic areas: “Drug resistant Gram-negative bacterial infections”, “Tuberculosis”, “Hand, foot and mouth disease caused by EV-A71” and “Bronchiolitis caused by Respiratory Syncytial Virus”. The cooperation aims to bring new active substances to the clinical proof-of-concept stage.

Partner China: Shandong University

Contact: Prof. Dr. Rolf Müller, E-Mail: [rolf.mueller@helmholtz-hzi.de](mailto:rolf.mueller@helmholtz-hzi.de)

The Helmholtz Association contributes to solving great, pressing questions facing society, science, and business with top scientific performances in six research fields: Energy; Earth and Environment; Health; Key Technologies; Matter; and Aeronautics, Space, and Transport. With more than 39,000 employees at 18 Research Centers and an annual budget of € 4.5 billion, the Helmholtz Association is Germany's largest science organization. Its work follows the tradition of the great natural scientist Hermann von Helmholtz (1821-1894).

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