IPA

Institut für Prävention und Arbeitsmedizin
der Deutschen Gesetzlichen Unfallversicherung
Institut der Ruhr-Universität Bochum

Research – Advice
Analytics – Teaching

...for the health protection of
65 million insured persons

The IPA

The Institute for Prevention and Occupational Medicine (IPA) conducts research into occupational diseases and work-related illnesses. The institute develops procedures for workplace prevention and for scientifically sound medical diagnoses. Hereby, the IPA supports the statutory accident insurance institutions in fulfilling their legal research mandate according to the German Social Security Code SGB VII.

Core areas of research, consulting, analytics and training are tailored to the specific needs of the social accident insurance institutions, ensuring a strong practical focus.

The IPA is organized in four competence centers: Medicine, Toxicology/ Molecular Medicine, Allergology/ Immunology and Epidemiology, which closely collaborate in an interdisciplinary manner.

Through continuous dialog with the accident insurance institutions, the IPA addresses issues of prevention and occupational disease in workplaces and educational institutions.

As an institute of the Ruhr-University Bochum, the IPA is also responsible for teaching and research in the field of occupational medicine.

Contact
Director of the Institute, Prof. Dr. Thomas Brüning, MD
thomas.bruening@dguv.de

Competence Center

Medicine

Sections

- Outpatient Clinic, Occupational Diseases and Consulting
- Experimental Occupational Medicine
- Occupational Dermatology

The competence center focuses on occupational respiratory diseases, occupational skin diseases and cancer. In these research areas, non-invasive diagnostic methods for prevention and compensation are developed and validated.

The Occupational Dermatology section carries out examinations of occupational skin diseases. Here, knowledge of occupational dermatology and allergology are combined with analytical toxicological expertise.

The section of Experimental Occupational Medicine studies the health risks associated with exposure to hazardous substances. Methods range from cell culture tests to experimental human studies in the exposure laboratory (ExpoLab).

In the Outpatient Clinic, patients and insured persons with possible occupational diseases are examined. A wide range of modern medical diagnostic procedures are available for this purpose. The focus is on providing expert guidance to accident insurance institutions on occupational health risks and diseases. Companies receive guidance in occupational medical care and their employees benefit from preventive occupational health services provided by the Competence Center Medicine.

Contact

Dr. Christian Eisenhawer, MD
christian.eisenhawer@dguv.de

Prof. Dr. Julia Krabbe, MD
julia.krabbe@dguv.de

Competence Center

Toxicology / Molecular Medicine

Sections

- Human Biomonitoring
- Effect Monitoring and Toxicological Advice
- Molecular Medicine and Early Detection of Cancer

The focus is on biomarker research. For this purpose, biomarkers are used to investigate the dose-response relationships between exposures to hazardous substances and disease outcomes. For example, blood and urine samples are analyzed for the presence of hazardous substances in humans (human biomonitoring). In addition, the effects of hazardous substances are investigated on the cellular level (effect monitoring) in both, humans and cell cultures. Non-invasive or minimally invasive methods are used for early detecting and diagnosing diseases that are associated with exposures to hazardous substances.

Carcinogenic, mutagenic and reproductive toxicants and on cancers of the lung, pleura and urogenital tract are also in focus. Neurotoxic hazards, their effects, and related diseases are also studied.

The results are used to develop and apply primary and secondary preventive measures. For example, biomarker tests for early detecting cancers are developed and implemented in follow-up care programs to monitor individuals that have been formerly exposed to carcinogenic substances at the workplace.

The scientific expertise is used both to advise occupational and company physicians, the accident insurance institutions and other healthcare providers.

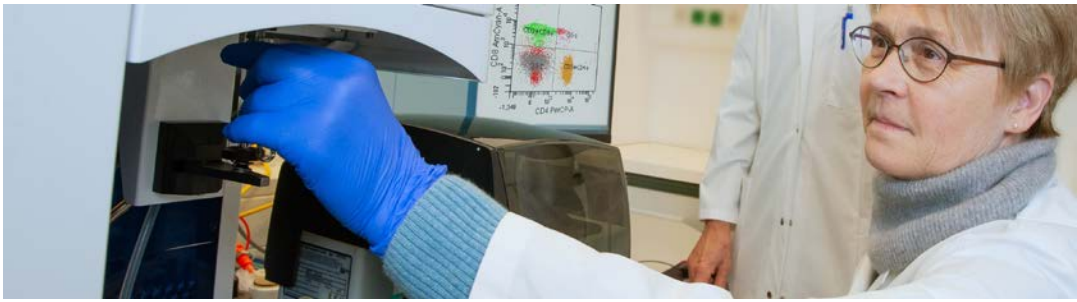
Contact

Dr. Heiko Käfferlein
heiko.kaefferlein@dguv.de

Dr. Georg Johnen
georg.johnen@dguv.de

Competence Center

Allergology / Immunology



Sections

- Allergology
- Immunology
- Allergology and Immunological Advice and Diagnostics

Research focuses on pathomechanisms contributing to the development of diseases affecting the upper and lower respiratory tract driven by occupational allergens and hazardous chemical or biological substances. The spectrum of agents includes flours, enzymes, mites, insects, molds, isocyanates, and wood dusts.

A particular focus lies on the characterization and development of detection systems for allergens and bioaerosol components, as well as on diagnostic approaches. The impact of climate change and adaptation on occupational allergic and inflammatory diseases is also being investigated. Additionally, the effects of various workplace substances, irritants, and bioaerosols on the respiratory tract are also studied using non-invasive methods and biomarkers.

Cellular systems are developed to better understand the effects of occupational and environmental substances and to establish biomarkers, particularly for the early detection of occupational diseases.

These findings are integrated into standardized diagnosis for allergic and inflammatory respiratory diseases. Furthermore, detection methods for exposure monitoring are developed and implemented for workplace risk assessment.

Contact

Prof. Dr. Monika Raulf
monika.raulf@dguv.de

Competence Center

Epidemiology

Sections

- Epidemiology and Advice
- Medical Statistics
- Biobank

The competence center Epidemiology ensures rigorous planning, quality-assured data collection, and robust statistical analysis of research projects, particularly in exposure quantification and the application of complex statistical models.

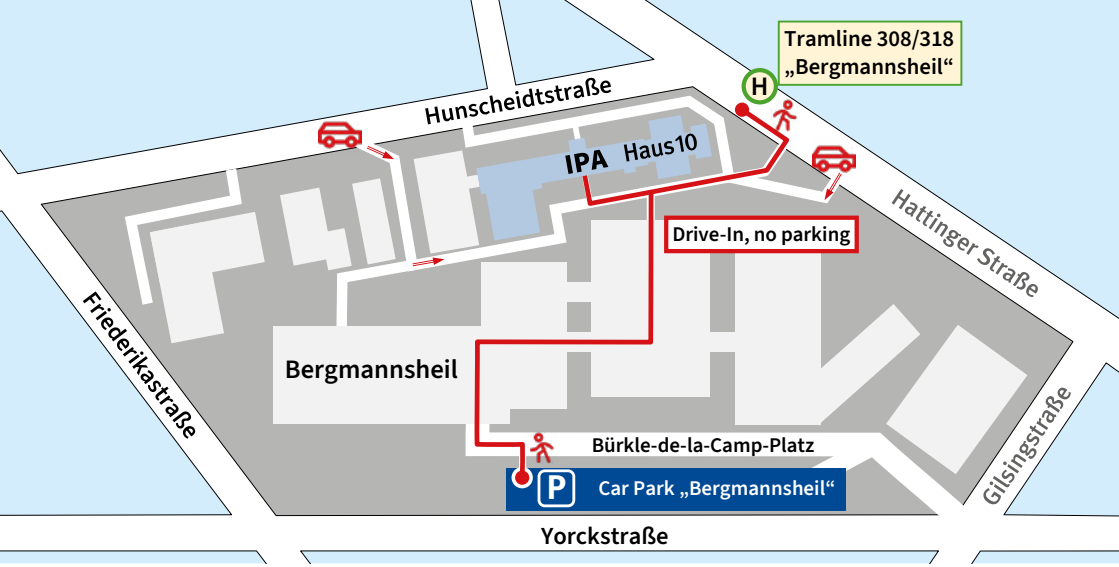
Research focuses on the carcinogenicity of hazardous substances and their interaction in cancer development, including health effects of shift work, and occupational health risks faced by firefighters. In addition, the competence center investigates health consequences of social changes, for example those driven by the pandemic, climate change, or social inequality. To identify and validate biomarkers for early cancer detection, biological samples are collected in the institute-wide biobank. The competence center's expertise ensures that emerging issues in workplace safety and health are addressed quickly and efficiently through new research projects.

Another focus of the competence center is providing scientific advice on occupational medicine and epidemiology to accident insurance institutions and public regulatory committees.

Contact

Prof. Dr. Thomas Behrens, MD
thomas.behrens@dguv.de

Dr. Dirk Taeger
dirk.taeger@dguv.de



How to reach the Institute

Our institute is located in the south-west of Bochum, on the campus of the University Hospital “Bergmannsheil”.

By plane:
Düsseldorf - International Airport (DUS)
Frankfurt/Main - International Airport (FRA)
From these airports train-connections lead to Bochum Central Station directly.

By public transport:
Take tram no. 308/318 from Bochum Central station, direction Hattingen/Dahlhausen and get off at “Bergmannsheil”

Contact

IPA
Bürkle-de-la-Camp-Platz 1
D-44789 Bochum, Germany

Phone +49 30 13001-4000
E-Mail: ipa@dguv.de
Internet: https://www.dguv.de/ipa/index-2.jsp

GPS - Coordinates