

# Aligning Translational Infection Research in Germany

DZIF Main Office

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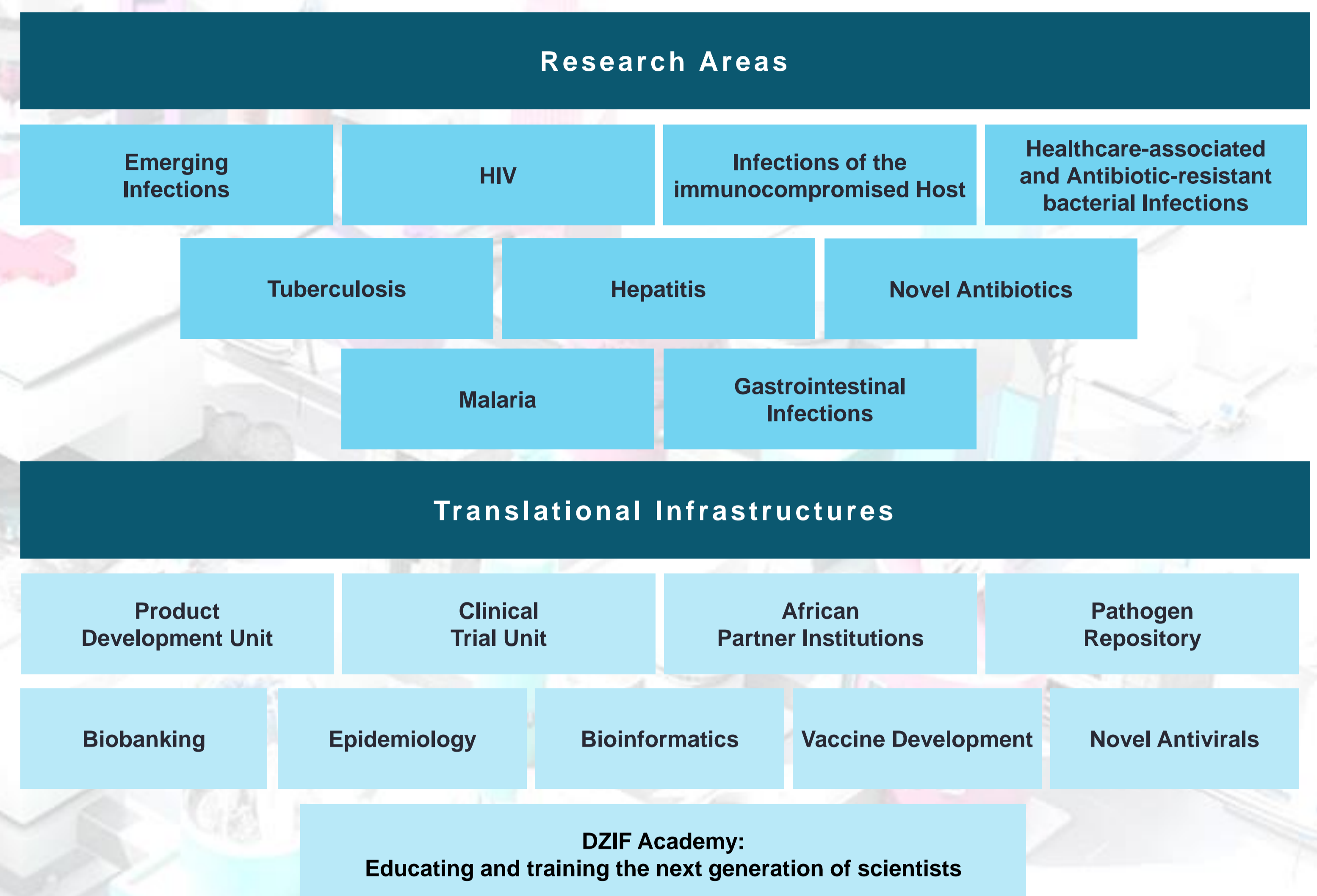


## German Center for Infection Research – Numbers and Facts

The **German Center for Infection Research (DZIF)** was established in 2012 as an **extensive collaborative network** of researchers and clinicians. DZIF's **mission** is to **support** scientists in driving the **development** of biomedical discoveries to **novel** preventive, diagnostic and therapeutic methods for treating infectious diseases.

DZIF scientists and clinicians are **working closely together** to overcome the **translational gap** between basic research and clinical applications in infectious diseases - **United against infections!**

Today, more than **500 researchers** from **35 member institutions** at **7 German partner sites** and **15 associated partner institutions** are working together in an integrative approach comprising **9 research areas** and **10 translational infrastructures**.



## DZIF Projects: Filling the Translational Gap

### DZIF's drug development news

#### ➤ Small molecules

Identification of **new agents**, improvement of bioavailability, **ADME studies** and screening of **natural compounds** are the main focuses of DZIF researchers in the fields of TB and Novel Antibiotics

#### ➤ New broad spectrum antibiotics

Recently discovered **myxobacterial topoisomerase inhibitors** and **biosynthetic engineered compounds** exhibit potent **antibacterial activity** and fill the **DZIF drug pipeline** with new potential drugs.

#### DZIF Principal Investigators

M. Hoelscher, Klinikum der Univ. München; C. Hölscher, Research Center Borstel; A. Hoerauf, Univ. of Bonn

R. Müller, Helmholtz Centre for Infection Research, Braunschweig

### S. aureus - Fighting the bad bug

#### ➤ Passive and active vaccination

With **humanized antibodies** and their respective epitopes DZIF scientists show a **significant protective effect** in the *S. aureus* infection model.

#### ➤ Decolonization from nasal habitats

**Bacteriophage-derived lytic proteins** are only one example for the development of specific **eradication agents** within DZIF.

#### DZIF Principal Investigators:

A. Klimka and M. Krönke, Univ. of Köln

A. Peschel, Univ. of Tübingen; K. Becker, Univ. of Münster; G. Winter, LMU München

#### Industrial Partners:

HYpharm GmbH, Bernried; Coriolis Pharma GmbH, München

### Working together internationally

#### ➤ African Partner Institutions

In close collaboration with scientists from **four renowned African research institutions** in Burkina Faso, Gabon, Ghana and Tanzania, the DZIF explores **infectious diseases** like Aids, tuberculosis, malaria and Ebola locally.

#### DZIF Coordinators:

J. May, Bernhard Nocht Institute for Tropical Medicine, Hamburg; C. Drosten, Charité – Universitätsmedizin Berlin

### The long journey to approval

#### ➤ Well supported, from idea to product

Experts from four **German Federal Research Institutions** strengthen the **DZIF key profile areas** in translational infection research.

The **Federal Institute for Drugs and Medical Devices (BfArM)** and the **Paul-Ehrlich-Institute (PEI)** cover the expertise in the field of product development. The **Federal Robert Koch Institute for Health Protection (RKI)** and the **Friedrich-Loeffler-Institute for Animal Health (FLI)** provide an important link to public health, epidemiological issues and zoonotic infectious diseases.

#### DZIF Principal Investigators:

K. Cichutek, PEI Langen; K. Broich, BfArM Bonn; L. Wieler, RKI Berlin; T. Mettenleiter, FLI Riems

### New tools for antibiotic stewardship

#### ➤ Prevention and therapy

**Healthcare-associated infections (HCAI)** and **multi-drug resistant organisms (MDRO)** often originate from hospitalized patients. To optimize **antimicrobial therapy strategies**, new measures and programs will be developed in DZIF.

#### ➤ Management of MDRO – The DZIF MDRO Network: R-Net

This **new network structure** of dedicated DZIF research groups will provide a **unique opportunity** to study questions in the field of **infection control** using the established local study infrastructure for specific experimental and clinical trials.

#### DZIF Principal Investigators:

H. Seifert and A. Hamprecht, Univ. of Köln; T. Chakraborty, Univ. of Giessen; E. Tacconelli, Univ. of Tübingen; W. Kern, Univ. of Freiburg; P. Gastmeier, Charité – Universitätsmedizin Berlin

**Ask for the Experts  
at the DZIF Booth #132**