Science and industry have joined forces in the Germany-wide research association InfectControl. It is funded by the Federal Ministry of Education and Research. A total of 60 partners in 35 collaborative projects aim:

- to detect infectious diseases quicker
- to fight them consistently
- and to prevent them sustainably

InfectControl is a unique collaboration in Germany involving experts from a wide range of disciplines and fields. Together, they fight infections that affect Germany and Europe in particular.

InfectControl follows a consistent One Health approach:

- Supporting awareness campaigns about the correct use of antibiotics and the benefits of vaccination
- Developing building standards for hospital construction
- Developing an infection-preventive patient room
- Developing mobile isolation areas
- Researching and developing new methods to prevent the spread of AMR through waste water

InfectControl diagnoses infections by:

- The development of new diagnostic markers and diagnostic tools for
  - Sepsis
  - Mycotic pathogens
  - Zoonotic pathogens

InfectControl treats infections by:

- The development of new vaccines
- The development of new anti-infective drugs
- The development of new T-cell based therapies

Support for antibiotics development:

InfectControl promotes the development of the new tuberculosis antibiotic BTZ-043, which is also effective against multi-resistant strains of the pathogen.

About InfectControl:

- info@infectcontrol.de
- www.infectcontrol.de
- @InfectControlIDE
- InfectControl 2020

The global threat of antibiotic resistance

Public development of drugs as a path out of the crisis

The new tuberculosis antibiotic BTZ-043 as an example
To close the innovation gap, the public sector is needed. Incentives are required to support research-based companies and academic research institutions equally in the development of antibiotics.

Effective measures would be:

Establishing dedicated public infrastructures for antibiotics identification and development in a sustainable manner

Establish antibiotics development as a pillar of the health care system through long-term public financing to achieve the following effects:

- Promotion of young scientists
- Experts must be kept in the research field
- Decoupling the supply of new antibiotics from market economy mechanisms
- Developing of infection-preventive strategies

**Establish a reward system within clinical development**

**Strengthening the funding landscape through specific drug development programs, to**

- Reduce economic, scientific and technical risks
- Guarantee the required flexibility in antimicrobial drug development

**BTZ-043**

A tuberculosis antibiotic with a novel mechanism of action

**Specific features:**
- High effectiveness, even against multi-resistant pathogens
- Highest selectivity for disease-causing bacteria
- Chemical synthesis possible
- First German tuberculosis antibiotic in clinical trials for over 50 years
- New target structure, no comparable market products
- Patented worldwide
- >90% public financing (until completion of Phase II)
- „Orphan drug designation by the EMA and FDA

**Discovery:**
Leibniz Institute for Natural Product Research and Infection Biology - Hans Knöll Institute – (Leibniz-HKI)

**State of Development (March 2020):**
Clinical phase Ila

**Funding:**
Joint initiative by InfectControl, DZIF, BMBF, EDCTP and the Free State of Thuringia

The new tuberculosis drug BTZ-043 serves a model for a publicly funded development of a new antibiotic.