

STRONG TOGETHER- AGAINST INFECTIONS

InfectControl prevents infections by

- 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.

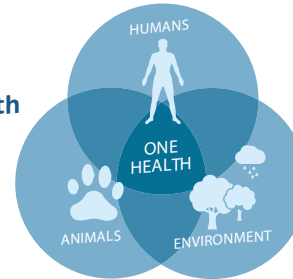
ABOUT INFECTCONTROL

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**



✉ info@infectcontrol.de

📍 www.infectcontrol.de

🐦 @InfectControlDE

📺 InfectControl 2020

SPONSORED BY THE



INFECT CONTROL

THE GLOBAL THREAT OF ANTIBIOTIC RESISTANCE

Public development of drugs
as a path out of the crisis

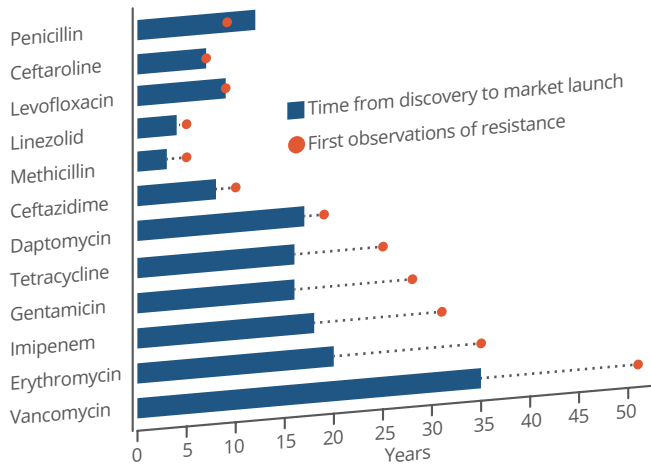
THE NEW TUBERCULOSIS
ANTIBIOTIC BTZ-043 AS AN EXAMPLE

STATUS QUO

Resistances have always been observed within a few years after an antibiotic has been launched on the market.

The development of such antimicrobial resistances is a natural evolutionary process that cannot be prevented, but only delayed through appropriate measures.

If there are sufficient alternative drugs available, the development of resistances is not critical.



Modified from Kloß and Gerbach (2018). Bundesgesundheitsbl 61:595-605.

Poor profit prospects for pharmaceutical companies, a shortage of experts in the field and long development periods for new antibiotics lead to the current antibiotic crisis.



EFFECTIVE MEASURES

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

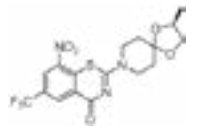
Strengthening the funding landscape through specific drug development programs, to

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



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

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 IIa

Funding:

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

