

Round Table Antibiotika Freiburgstr. 3 3010 Bern

www.roundtableantibiotics.ch

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# CALL FOR ACTION FROM THE ROUND TABLE ANTIBIOTICS: A LESSON FROM COVID-19

In the global fight against the COVID-19 pandemic, another threat, which is at least as dangerous, is disappearing from the headlines: the progressive spread of antibiotic-resistant bacteria. There are important parallels between the two problems. And time is ticking away.

The discovery of antibiotics constituted one of the most revolutionary advances of modern medicine, allowing effective control of most bacterial infections and saving millions of human lives. However, the alarming number of cases of multi-drug resistant bacteria around the world has prompted the WHO to label it as a "Global Epidemic": it is estimated that more than 700'000 people die annually around the world from untreatable, antibiotic-resistant infections; moreover, unless drastic action is taken, it is forecasted that this number is going to continue to increase steadily – up to 10 million deaths in 2050 according to the well-known O'Neill report.

# **COVID-19 pandemic fuels antibiotic-resistance**

Although not a bacterial infection, the ongoing COVID-19 pandemic is comparable to the pandemic of antibiotic-resistant bacteria. While the latter is growing slower, both pandemics have been spreading at an alarming rate. Bacterial superinfection may occur and affect COVID-19 patients, e.g. through hospital-acquired, multi-resistant infections upon artificial respiration. Therefore, many patients infected with SARS-CoV-2 are treated with broad-spectrum antibiotics to control secondary, life-threatening bacterial infections. Although many aspects of the impact of the COVID-19 pandemic on antibiotic resistance have not yet been scientifically investigated, it is likely that the pandemic will encourage resistance formation as an additional factor. According to a number of studies, a concomitant microbial infection is substantially more prevalent in severe COVID-19 patients than in those who had a milder course of disease.

Antibiotics are essential for global health and an essential tool to appropriately combat infectious diseases, also in the context of pandemics like COVID-19.

Experts, stakeholder groups and institutions from Switzerland and abroad acknowledge that new antimicrobial agents, diagnostics, and therapies are urgently needed to avoid the surge of dangerous, untreatable and potentially lethal infectious diseases. Importantly, the current development pipeline of new antimicrobials is insufficient to meet the existing and anticipated need of new antibiotic substances. Among the factors that impact on the development of new antibiotic treatments, economic aspects remain paramount.

With the National Strategy against Antibiotic Resistance (StAR), the Federal Council has created an important instrument to ensure the long-term effectiveness of antibiotics and to contain the development of resistance. However, the focus on surveillance and prevention is not sufficient to meet this societal challenge in the long run. Instead, innovative financing incentives are needed to promote the sustainable development of new antibiotics. Recently, a new economic incentive was announced to address this gap: the AMR Action Fund. The Round Table Antibiotics welcomes the AMR Action Fund, which represents the clear commitment of many stakeholders – also in the biopharmaceutical industry – to provide economic support to the field by dedicating resources and investment. However, at a time when the world is made painfully aware of the economic and social risk of not preparing for emerging pandemics, it is clear that additional commitments will be necessary; in particular mechanisms that make commercialization of antibiotics more attractive, such as so-called "pull-incentives".

# Call for action

Ahead of the World Antimicrobial Awareness Week 2020, we call on the Federal Council, the National Council, the Council of States and the responsible authorities in Switzerland to take a leading role in moving toward finding – not just local, but global – solutions to the epidemic of antibiotic resistance. We ask Switzerland to lead example by implementing novel, clear, swift and determined actions contributing to the following four aspects:

1) "Pull incentives" to foster innovative antimicrobial research and development that effectively lead to new market launches are dramatically needed to preserve our performance in health care and to save lives. "Push incentives" to promote research and development are important, but insufficient: the business-prospects of commercializing antibiotics and the economic returns for maintaining them in the market, ensuring their availability and correct use whenever and wherever they are needed, must be made more attractive. Prices of antibiotics, even for new ones, are too low to compensate for high development costs and business risks. A legal framework for "pull incentives" and other innovative financing mechanisms is an absolute must. The aim of these mechanisms must be to take into account the social and health added value of antibiotics in the remuneration, e.g., through health technology assessment, and to delink sales volume and profitability.

- 2) However, a further expansion of the current "push incentives" with innovative measures to support research and development would also be helpful. The development is indeed notoriously expensive, difficult and risky. A number of these incentives are already in place, but there is further scope to expand them, for example in public-private partnerships.
- 3) Ensuring security of supply is also of crucial importance. Supply and distribution chains must be strengthened, e.g. through compulsory stockpiling, to ensure supply even in crises. The COVID-19 crisis has shown us how important it is to ensure the availability of essential medical goods. We must learn our lessons from the COVID-19 pandemic.
- 4) Sustained, long-term investment in research, development and infrastructure, for ensuring innovation in the field of antibiotic treatments, must be enhanced, thereby minimizing the risks of increasing incidence of infectious diseases that are clinically challenging or even untreatable.

# **Push and Pull incentives**

"Push incentives" aim to incentivize industry via reducing industry's costs during the research and development stages.

"Pull incentives" create incentives for private sector engagement by creating viable market demand.

Find out more on the our documents section on www.roundtableantibiotics.ch

# Access to effective antibiotic treatments

Antibiotics should be made available to everyone in need. The availability of novel, more effective antibiotics, as well as their appropriate and controlled use, is essential to healthcare globally. Solving the complex challenge of making antibiotics available in a resilient manner can only be solved with a multi-disciplinary approach. Therefore, we need engagement from the public and private sector, from clinicians and scientists, from lawyers and economists as well as from representatives from politics, authorities and civil society, working together to address antibiotic resistance.

Antibiotic-resistance concerns us all but will not be solved by a single country or stake-holder. The Round Table Antibiotics is convinced that Swiss stakeholders are in a strong position to increase efforts to tackle antibiotic resistance. The investment in new active antibiotic substances will be worthwhile for the humanity today and the future generations.

It is time for action. Now.

Marcel Tanner, as an expert of the Covid 19 Task Force of the Swiss Confederation, is at the forefront of what it means when a pandemic puts healthcare and the economy in trouble:

"We should learn our lessons from the Covid-19 crisis and take preventive measures. The increase in antibiotic resistance and the lack of antibiotic development threaten to endanger the most important achievements of modern medicine.

This is why I support the call of the Round Table Antibiotics!"

# **Prof. Marcel Tanner**

President of the Swiss Academies of Arts and Sciences and Director em. Swiss Tropical & Public Health Institute (Swiss TPH)

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#### **ABOUT:**

The **Round Table Antibiotics**, a Swiss non-profit interdisciplinary association gathering experts on antibiotics, is firmly convinced of the need in Switzerland, as well as elsewhere, to better coordinate and expand the activities aimed at introducing new antimicrobials and rapid diagnostic tests. The association promotes Switzerland's contribution to innovation, research, and development of measures against antimicrobial resistance, particularly by promoting the market introduction of new active substances, which should be available to all countries worldwide.

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