

**ANTibioticS and mobile resistance elements in WastEwater Reuse  
applications: risks and innovative solutions**

**H2020-MSCA-ITN-2015/675530 - ANSWER**



**Dissemination Activity:  
“Dresden Science Night”**

**ESR 3: Aparna Chandrasekar**

**Institute for Hydrobiology, Technische Universität Dresden**



“This project has received funding from the European Union’s Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 675530”

## Description

- Participation in the “Lange Nacht der Wissenschaft” (Long night of Science) organized by all the universities in Dresden
- Date of the event: *15<sup>th</sup> June 2018*
- Place where the event took place: Bergstrasse 66, 01069 Dresden
- Audience Details: The event was open to the public. There were people from all over Dresden from various age groups and gender who participated in the event. In our demonstration point we estimate that we talked to 50-60 people.
- Description of the topic of your presentation: The topic of our presentation included the main objectives of the ANSWER-ITN project and ESR3 and ESR4 scientific work in the framework of the project. To captivate the audience attention, we showed a protocol which enables DNA extraction using only daily household materials (shampoo, salt, water, coffee filter and ethanol). The specific experiment was also made to show the basics of Molecular Biology and transfer this basic knowledge simplified to non-scientific audience. Due to the danger that bacteria pose to the public (and the ugly odor they produce) banana tissue was chosen for the show. When we stimulated the attention of the audience, we explained that we are participating in the ANSWER project and mainly we apply the DNA extraction (using commercial kits) in environmental matrixes (e.g. wastewater, soil and groundwater) to isolate bacterial DNA and detect antibiotic resistance genes (ARGs). We explained that the ANSWER project goal is to investigate the impact of wastewater irrigation in the dissemination of antibiotic resistance and to improve wastewater treatment. We also informed the public of the multi-disciplinary of our project which includes research in microbiology, modeling, analytical chemistry and environmental engineering.

## Announcement of the event

- *The event was announced primarily through flyers, facebook event (<https://www.facebook.com/events/2029411597300373/>), and an event page that was publically available*
- *Furthermore, there were many posters flyers, were available throughout the city of Dresden*

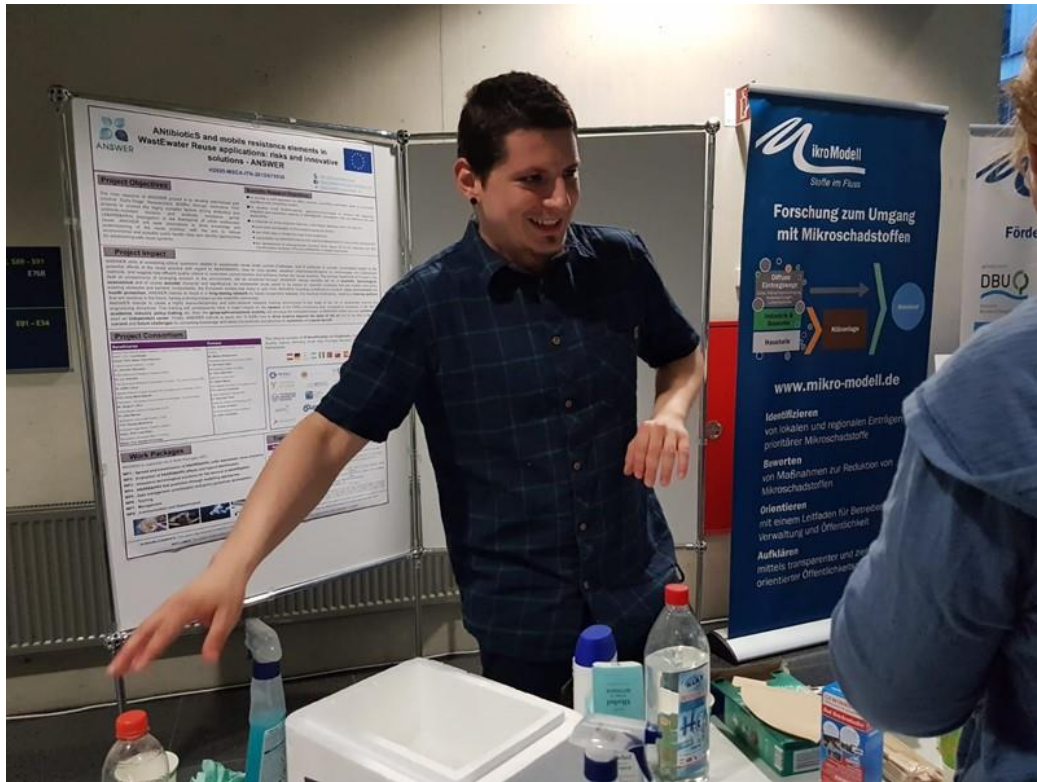
## Dissemination material distributed during the event

- The ANSWER poster was presented to the public during the event



Photos of the event





## Final Remarks

---

- The event lasted for 6 hours, where small attractive experiments were demonstrated to the audience whilst explaining to them about the danger of antibiotics use and the associated risk of unwanted use of antibiotics in the environment.



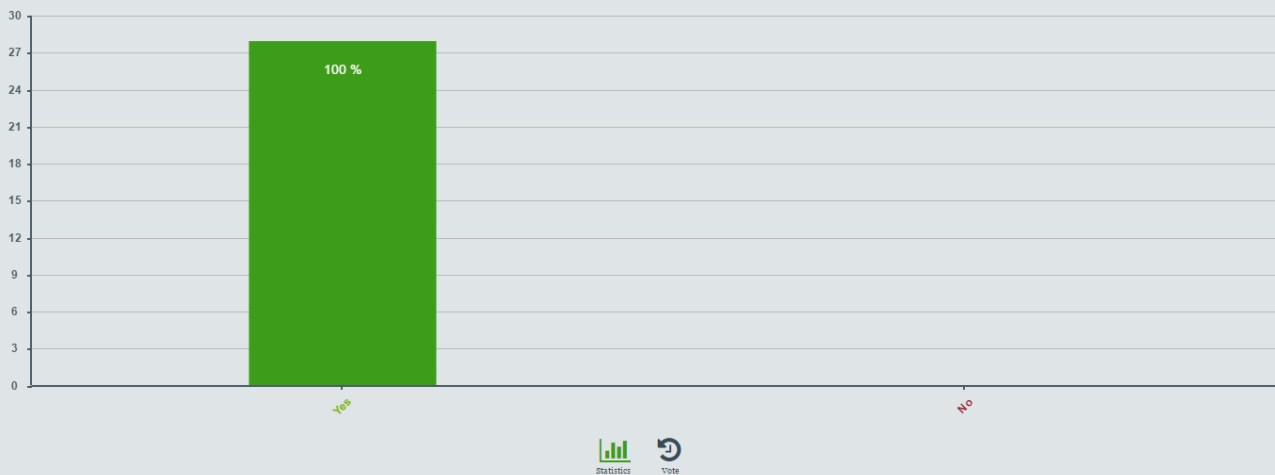
Back Quiz: How much do you know about antibiotic resistance? 30 Answers ✓ Export

I can help tackle antibiotic resistance if I:



Back Quiz: How much do you know about antibiotic resistance? 28 Answers ✓ Export

A bacteria becoming resistant to an antibiotic is a natural phenomena. However, abusive use of antibiotics, is accelerating the emergence and spread of antibiotic resistance in the environment.



Back Quiz: How much do you know about antibiotic resistance? 27 Answers ✓ Export

The process by which bacteria "hug" each other and exchange plasmids is called:

