

Curriculum Vitae

Personal information **Aline Skof-Velotti**

Work experience

12/2023 – Present

AGES (Austrian Federal Office for Safety in Healthcare), Vienna, Austria
GMDP Inspector

- Conduct inspections to ensure compliance with Good Manufacturing and Distribution Practices (GMDP)
 - Evaluate pharmaceutical manufacturing and distribution processes against regulatory standards
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09/2023 – 11/2023

Microbiology Department, Fresenius Kabi Austria GmbH, Graz

- Execution and coordination of qualification activities in clean rooms and isolators (microbiological and physical measurements)
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01/2022 – 11/2023

Qualification Specialist, Fresenius Kabi Austria GmbH, Graz

- Qualification of clean rooms and HVAC systems
 - Coordination and planning of new construction and renovation projects
 - Preparation of qualification documentation
 - Execution of qualification activities
 - Temperature and humidity measurements in rooms
 - Evaluation of results
 - Close cross-departmental collaboration
 - Presentations as SPE during regulatory and customer audits
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05/2018 – 01/2022

Quality Assurance Specialist, Genericon Pharma GmbH, Graz, Austria

- Processing and coordination of deviations
 - Preparation and review of Product Quality Reviews (PQR)
 - Drafting and reviewing SOPs and work instructions
 - Transport monitoring and data logger qualification
 - Responsible for dietary supplements and HACCP concept
 - Risk analyses (QRA), regulatory reports
 - Internal audits, SPE in regulatory inspections, external supplier audit experience
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12/2017 – 05/2018

Microbiology Technician, Hygienicum Institute for Microbiology and Hygiene Consulting, Graz, Austria

- Sterile work in a microbiological laboratory (including laminar flow) for food and water analysis
 - Sterile filtration of water samples
 - Inoculation of culture media (spread plate, pour plate, streaking techniques)
 - Preparation of primary and decimal dilutions
 - Counting colony-forming units (CFU)
 - Microbial differentiation (microscopy, Gram staining, biochemical reactions, VITEK, API)
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12/2016 – 09/2017

Master's Thesis and Student Assistant, Medical University of Graz, Institute of Hygiene, Microbiology and Environmental Medicine, Austria

- Microbiological and molecular biological analysis techniques (PCR, gel electrophoresis)
 - Bioscreen and evaluation of growth curves
 - Preparation of antibiograms (EUCAST Disc Diffusion Test), CLSI test
 - Conjugation assays
 - Literature research and scientific writing
 - Poster presentation (How Dead is Dead Symposium 2017, Vienna)
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11/2014 – 11/2016

Microbiology Technician, Hygienicum Institute for Microbiology and Hygiene Consulting, Graz, Austria

Job Description see upper experience at the same company

Education and training

12/2023 - Present

Training Programm GMDP Inspector of the Austrian Agency

10/2015 – 11/2017

University of Graz (Karl-Franzens-Universität), Austria
Master of Science in Molecular Microbiology

- GPA: 1.4
- Master's Thesis: *Phenotypic and genotypic characterization of antibiotic-resistant Escherichia coli isolates from river water*

10/2008 – 06/2015

University of Graz (Karl-Franzens-Universität), Austria
Bachelor of Science in Molecular Biology

- GPA: 2.7

09/2003 – 06/2008

Business Academy (Handelsakademie), Leibnitz, Austria

Additional information

Publications

Comparison of the Antibiotic Resistance of *Escherichia coli* Populations from Water and Biofilm in River Environments, Skof et. al. 2024

<https://doi.org/10.3390/pathogens13020171>

Abstract Antibiotic-resistant, facultative pathogenic bacteria are commonly found in surface water; however, the factors influencing the spread and stabilization of antibiotic resistance in this habitat, particularly the role of biofilms, are not fully understood. The extent to which bacterial populations in biofilms or sediments exacerbate the problem for specific antibiotic classes or more broadly remains unanswered. In this study, we investigated the differences between the bacterial populations found in the surface water and sediment/biofilm of the Mur River and the Drava River in Austria. Samples of *Escherichia coli* were collected from both the water and sediment at two locations per river: upstream and downstream of urban areas that included a sewage treatment plant. The isolates were subjected to antimicrobial susceptibility testing against 21 antibiotics belonging to seven distinct classes. Additionally, isolates exhibiting either extended-spectrum beta-lactamase (ESBL) or carbapenemase phenotypes were further analyzed for specific antimicrobial resistance genes. *E. coli* isolates collected from all locations exhibited resistance to at least one of the tested antibiotics; on average, isolates from the Mur and Drava rivers showed 25.85% and 23.66% resistance, respectively. The most prevalent resistance observed was to ampicillin, amoxicillin-clavulanic acid, tetracycline, and nalidixic acid. Surprisingly, there was a similar proportion of resistant bacteria observed in both open water and sediment samples. The difference in resistance levels between the samples collected upstream and downstream of the cities was minimal. Out of all 831 isolates examined, 13 were identified as carrying ESBL genes, with 1 of these isolates also containing the gene for the KPC-2 carbapenemase. There were no significant differences between the biofilm (sediment) and open water samples in the occurrence of antibiotic resistance. For the *E. coli* populations in the examined rivers, the different factors in water and the sediment do not appear to influence the stability of resistance. No significant differences in antimicrobial resistance were observed between the bacterial populations collected from the biofilm (sediment) and open-water samples in either river. The different factors in water and the sediment do not appear to influence the stability of resistance. The minimal differences observed upstream and downstream of the cities could indicate that the river population already exhibits generalized resistance.

Keywords:

biofilm; ESBL; KPC-2; wastewater treatment plant; phenotyping

Projects

Memberships

Other Relevant Information