

Thibaut Maeyens

Bioscience Engineer, Researcher

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EDUCATION

- OCT 2023 - PRESENT **PhD in Bioscience Engineering**
University of Antwerp, Belgium
- SEP 2021 - JUL 2023 **M.Sc. in Bioscience Engineering: Cell and Gene Biotechnology**
Ghent University, Belgium
Major: BIOMEDICAL | *Magna cum laude*, top 7%
- SEP 2017 - JUL 2021 **B.Sc. in Bioscience Engineering: Cell and Gene Biotechnology**
University of Antwerp, Belgium

RESEARCH EXPERIENCE

- OCT 2023 - PRESENT **PhD student**, lab of Applied Microbiology and Biotechnology
Full-time research position at the University of Antwerp. I am working on multiple projects and publications involving the molecular mechanisms of action and discovery of novel antimicrobials.
- JUL 2023 - AUG 2023 **Research Assistant**, University of Antwerp
I conducted experiments for and co-authored a publication (see below).
- SEP 2022 - JUN 2023 **Graduate Dissertation**, Ghent University, UAntwerp and KU Leuven
Full-time research (40+ hours/week) in preparation for thesis manuscript, involved collaboration across three universities (3 labs). Using bioinformatics, genetic engineering, molecular biology, and microbiology, I obtained novel antipathogenic compounds and live biotherapeutics as alternatives to antibiotics. | GRADE: 18/20, top 5%
- SEP 2019 - JUN 2020 **Undergraduate Dissertation**, University of Antwerp
I led a study at the Lab of Environmental and Urban Ecology to optimize bacterial colonization on plant leaves. I developed four new methods, and conducted a randomized controlled trial with 60 plants to assess their effectiveness.

WORK AND TEACHING EXPERIENCE

- OCT 2023 - PRESENT **Mentor**, University of Antwerp
Guiding and evaluating a group of four final-year bachelor students (bio-engineering) in their dissertation project, providing lab mentorship and feedback.
Mentoring high school seniors in a **biology of aging** dissertation project, involving experimental setup, data analysis, and manuscript preparation, focusing on the effect of caloric restriction on the lifespan of *Drosophila melanogaster*.
- FEB 2023 - APR 2023 **Science media coordinator**, University of Antwerp
I independently produced and edited a promotional video for a new master's program, Sustainable Urban Bioscience Engineering.
- 2015 - 2023 **Chef**, Noël et Moi - Restaurant (BE)
To finance my education, I served as the sole chef during weekends and holidays at a high-paced restaurant.

AWARDS AND CERTIFICATES

- 29 NOV 2023 **Best Poster Award**, 10th Beneficial Microbes Conference Amsterdam (NL)
Secured first place among 50 research posters for excellence in content and presentation
- 17 FEB 2023 **Python 3**, Programming Hub
Completed course with highest score; data types, variables, loops, functions, etc.
- 11 FEB 2023 **Laboratory Animal Science**, FELASA (EU)
I am allowed to direct animal experiments, 80-hour course

LANGUAGES

DUTCH:	Native language
ENGLISH:	University education and daily communication in English, TOEFL: 116/120
FRENCH:	I was raised bilingual and can navigate conversations and reading

COMPUTER SKILLS

RSTUDIO	Data analysis: statistics, RNA sequencing, ggplot, lab measurements, etc.
PYTHON (BIO)	Sequence databases, interpreting genotypes, functions to automate tasks, etc.
LATEX	I use this to compose large manuscripts, documents, slides, etc.
BENCHLING	Designing genetic constructs and primers, Sanger sequencing data, etc.
DAVINCI RESOLVE	Video Editing software I use to create video content

LABORATORY SKILLS

GENETIC ENG.	Restrictions, ligations, Gibson assemblies, gene knock-outs/ins, transformations in bacteria/plants/animals (heat shock, natural competence systems, electroporation, microinjection), <i>E. coli</i> , Sanger sequencing
MOLECULAR BIOL.	DNA/RNA extractions, Nanopore sequencing, chemical extractions, (q)PCR, protein purification (AKTA affinity chromatography), gel electrophoresis, PAGE, Western blotting, HPLC, LC-MS, SEM, freeze-drying
MICROBIOLOGY	Working with BSL-2 pathogens, bacteria, and fungi, cell culture, culturing, sterile work, <i>Galleria melanogaster</i> larvae toxicity assays, immunological assays, spectrometry, microscopy (light and fluorescence)
MODEL SYSTEMS	Hands-on experience with <i>Drosophila</i> , <i>Xenopus</i> , and mice

EXTRACURRICULAR ACTIVITIES

SPORTS	I hold a brown belt in Wing Revolution (youngest person in Belgium), I won the high-school PE prize upon graduation in my senior year, I secured first place in our university squashing tournament, I compete in local bouldering competitions for fun (level: V6).
YOUTUBE	I founded a science YouTube channel during COVID, creating educational content on a range of personal interests – explaining scientific concepts, conducting experiments, building ecosystems, DIY projects, etc.
OTHER INTERESTS	I recently completed my first Rubik's cube competition with the WCA, I am an amateur chess player with an Elo rating of 1850 on Lichess, I am a volunteer at Belgium's annual Science festival, I practice speed reading (800 wpm).

PUBLICATIONS

Dillen, J., **Maeyens, T.**, Erreygers, I., Eilers, T., Ahannach, S., Condori, S., Allonsius, C., Masschelein, J., and Lebeer, S. (2023). Protective effects of *Lactobacillus crispatus* against vaginal pathogens exerted by a combination of pore-forming class IV lanthibiotics. **Nature Microbiology**. – In Preparation

Maeyens, T., Dillen, J., Cauwenberghs, E., and Lebeer, S. (2023). Discovery of Novel Antimicrobial Compounds by Investigating the Genetic Potential of Lactic Acid Bacteria. Poster presented at 10th Beneficial Microbes Conference, Amsterdam (NL). – Received **Best Poster Award**