

# AHMED TLILI

## Curriculum Vitae

### PERSONAL DATA

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**Group leader (Tenure Track) - Aquatic Biofilms**

Department of Environmental Toxicology  
Eawag, Swiss Federal Institute of Aquatic Science and Technology

📍 Überlandstrasse 133, 8600 Dübendorf, Switzerland

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### EDUCATION

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- 2007-2010 **PhD in Microbial Ecology and Ecotoxicology** at IRSTEA and University of Claude Bernard, Lyon, France.
- 2005-2007 **M.Sc. in Microbial Ecology** at IRSTEA and University of Claude Bernard, Lyon, France.
- 2003-2005 **B.Sc. in Biochemistry** at University of Claude Bernard, Lyon, France.
- 1999-2002 **Diploma in Industrial Biotechnology (DUT)** at the Institute of applied Sciences & Technologies, Tunis, Tunisia.

### EMPLOYMENT HISTORY

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- 2017-present **Tenure-Track Group leader** at Eawag, Aquatic Biofilms group, Department of Environmental Toxicology, Dübendorf, Switzerland
- 2013-2017 **Postdoc position at Eawag**, Department of Environmental Toxicology, Dübendorf, Switzerland
- 2011-2013 **Postdoc position at IGB**, Leibniz Institute for Aquatic Ecology and Inland Fisheries, Dept. of Experimental Limnology, Berlin, Germany
- 2001-2002 **Research assistant at the Pasteur Institute**, Dept. of Immunology, Tunis, Tunisia

### INSTITUTIONAL RESPONSIBILITIES

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- 2021-present **Deputy Head** of Department of Environmental Toxicology
- 2017-present **Main responsible** of the Biofilms Facility at Eawag
- 2017-present **Co-responsible** of the Radioactivity and Nanoparticles Labs at Eawag

## APPROVED RESEARCH PROJECTS

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- **European partnership for the assessment of risks from chemicals (PARC) (2022-2030)**
  - PI of a subproject in WP5.b “Phototrophic benthic microbiomes as a model system to assess chemical impacts in freshwater ecosystems”
  - Funding source: European Commission – Horizon 2022
  - Total budget of PARC ~206M CHF - Own received budget ~550k CHF
  - Personnel: Research Assistant (NN)
  
- **Mechanistic insights into the bioavailability and toxicity of tire and road wear particles (TirInFish) (2022-2024)**
  - Co-PI. Responsible for a WP on accumulation, trophic transfer and effects of particles in a benthic food chain
  - Funding source: World Business Council for Sustainable Development – Tire Industry Project
  - Total budget of TirInFish~1.2M CHF - Own received budget ~ 154k CHF
  - Personnel: Postdoc (NN)
  
- **Benthic diatoms as indicators for pesticide pollution in the Swiss watercourses (DIpest-CH) (2021-2025)**
  - PI
  - Funding source: Swiss Federal Office for the Environment
  - Total budget ~335k CHF
  - Personnel: PhD student (Sarah Descloux)
  
- **Linking toxicity and adaptive molecular responses to herbicides in stream biofilms with functional and structural alterations (ToxAdapt) (2019-2021)**
  - PI
  - Funding source: Competitive grant program at Eawag
  - Total budget ~255k CHF
  - Personnel: Postdoc (Olga Lamprecht)
  
- **Impacts of advanced wastewater treatments on tolerance of stream periphyton to micropollutants (EcoImpact 2.0) (2019-2022)**
  - Co-PI. Co-supervisor of the research of the postdoc and research assistant who are responsible for the execution of the experimental work on stream biofilms.
  - Funding source: Competitive grant program at Eawag
  - Total budget ~1160k CHF
  - Personnel: Postdoc (Louis Carles) and research assistant (Simon Wullschleger)

## SUPERVISION OF GRADUATE AND POSTGRADUTE RESEARCHERS

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### Postdoctoral fellows

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|--------------|---------------------------|--|
| 2019-present | <b>Dr. Louis Carles</b>   | Impacts of wastewater on aquatic biofilms      |
|              | <b>Dr. Olga Lamprecht</b> | Establishment of a synthetic biofilm community |

### PhD students (including participation in PhD committees as an advisor):

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|--------------|---|--|
| 2021-present | <b>Sarah Descloux</b> (ETH Zürich, Switzerland) | Main supervisor; Effects of pesticides on aquatic biofilms |
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- 2022-2023 **Jian Zhao** (Guest PhD student, Beijing Normal University, China) (CSC fellowship for one year)  
Main supervisor during stay in my group on: Impacts of plastic pollution on aquatic biofilms (main PhD supervisor in China: Dr. Yang Li)
- Xinjie Wang** (Guest PhD student, Beijing Normal University, China) (CSC fellowship for one year)  
Main supervisor during stay in my group on: Data base development for microplastic identification (main PhD supervisor: Dr. Yang Li)
- 2017-2021 **Werner Desiante** (ETH Zürich, Switzerland)  
Advisor in PhD committee on aquatic biofilms ecology and ecotoxicology (main supervisor: Prof. Kathrin Fenner, Eawag)
- 2012-2016 **Daniela Batista** (University of Braga, Portugal)  
Co-supervision; Nanoparticle characterisation and metal quantification (main supervisors: Prof. Fernanda Cassio, Portugal)
- 2011-2015 **Carmen Gil-Allué** (EPF Lausanne, Switzerland)  
Co-supervision; Aquatic biofilms ecology and Nanotoxicology (main supervisor: Renata Behra, Eawag)

**Master students** (main supervisor)

- 2020 **Emera Forni** (ETH Zürich, Switzerland)  
Impacts of nanoplastics on aquatic biofilms
- Clarissa von Au** (Technical University of Vienna, Austria)  
Toxicity of Tire Wear Particles to aquatic microbial phototrophic species
- Lena Bakker** (ETH Zürich, Switzerland)  
Sensitivity of aquatic algal species to herbicides
- 2018-2019 **Manuel Holzer** (ETH Zürich, Switzerland)  
impacts of particulate plastics on a biofilm-grazer system
- 2013 **Marina Kuburic** (University of Coimbra, Portugal)  
Tolerance of microbial decomposers to silver nanoparticles and antibiotics
- 2010 **Marjorie Maréchal** (University of Claude Bernard Lyon 1, France)  
Co-tolerance of aquatic biofilms to heavy metals

**Bachelor students** (main supervisor)

- 2018 **Isabelle Gerhardt** (ETH Zürich, Switzerland)  
Comparative sensitivity of single algal species to four model herbicides
- 2017 **Melanie Ridoli** (ETH Zürich, Switzerland)  
Impacts of copper and silver, singly and in mixture, on aquatic biofilms
- 2009 **Marjorie Maréchal** (University of Claude Bernard Lyon 1, France)  
Use of the MicroResp method with aquatic biofilms

## PARTICIPATION IN PhD DEFENCE COMMITTEES

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Nov. 2021	<b>Vincent Laderriere</b> (University of Québec, Canada) Impacts of metallic pollution on aquatic biofilms
Sept. 2019	<b>Teofana Chonova</b> (University of Innsbruck, Austria) Impacts of hospital wastewater on aquatic biofilms
May 2019	<b>Clement Coclet</b> (University of Toulon, France) Impacts of metallic pollution on aquatic microbial communities
Dec. 2018	<b>Betty Chaumet</b> (University of Bordeaux, France) Toxicokinetics and toxicodynamics of diuron in aquatic biofilms

## TEACHING ACTIVITIES

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2014-present	<b>Advanced Ecotoxicology course</b> (ETH Zürich, M.Sc. and PhD., ~ 8 class hours) <b>Chemistry of Aquatic systems course</b> (ETH Zürich, B.Sc., ~2 class hours)
2017	<b>PEAK course on multiple stressors in the environment</b> (Ecotox Centre, Eawag, Dübendorf) invited lecture on pollution-induced community tolerance
2016	<b>Summer School “SaferNanoDesign”</b> , (LabEx SERENADE, Archamps France, ~16 class hours)
2015	<b>Ecotoxicology course</b> (EPF Lausanne, B.Sc., ~3 class hours)
2015	<b>PEAK course on Nanotoxicology</b> (Department of Environmental Toxicology, Eawag, Dübendorf) invited lecture on Toxicology of nanomaterials to microbial communities
2014-2015	<b>Molecular Ecotoxicology course</b> (Eawag, M.Sc., lab course, ~8 class hours)

## EDITORIAL AND REVIEWING ACTIVITIES

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**Editorial Board member** of the open access journal *Toxics* (since October 2020)

**Guest editor** in *Freshwater Biology* for a Special Issue - Ecological principles in ecotoxicology to assess effects of chemical contaminants on fresh waters (2016)

**Grant reviewer** for the French National Research Agency (ANR, 2019) and the German Research Foundation (DFG, 2020)

**Frequent reviewer for journals such as:** *Environmental Toxicology*, *Environmental Toxicology and Chemistry*, *Environmental Pollution*, *Environmental Science and Technology*, *Environmental Science: Nano*, *Nanotoxicology*, *Freshwater Biology*, *Science of the Total Environment*, *Toxicology*, *Water Research*

## MEMBERSHIPS IN SCIENTIFIC SOCIETIES AND BOARDS

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Since 2020	Plastics in Biofilms consortium (founding member)
Since 2018	Expert Advisory Group on the Modular stepwise Procedure of the Federal Office for the Environment: provide guidance to improve the methods for investigating

and assessing surface water quality in Switzerland. My specific expertise is on the ecotoxicological aspect.

- Since 2013 Society of Environmental Toxicology and Chemistry; SETAC
- Since 2012 European Network for Aquatic Biofilms (founding member)

## ORGANISATION OF CONFERENCES AND WORKSHOPS

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- 2020 **Organizer of the 6<sup>th</sup> European Workshop on Aquatic Biofilms** (Eawag, Dübendorf Switzerland):  
*Aquatic biofilms in effect-based monitoring and risk evaluation programs*
- 2018 **Session chair** at SETAC (Rome, Italy):  
*Microbial community ecotoxicology in environmental risk assessment and ecosystem monitoring*
- 2015 **Session chair** at the Symposium of European Freshwater Sciences; SEFS (Geneva, Switzerland):  
*Causality in environmental risk assessment of micropollutants*
- 2013 **Session chair** at the Symposium of European Freshwater Sciences; SEFS (Münster, Germany):  
*Using ecological principles to assess xenobiotic effects on freshwater communities and ecosystem functions*
- 2012 **Co-organizer of the 2<sup>nd</sup> European Workshop on Aquatic Biofilms** (Eawag, Dübendorf Switzerland):  
*Field applications of pollution induced community tolerance*

## PRIZES, AWARDS AND FELLOWSHIPS

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- 2011 **Price for the best PhD thesis in aquatic ecosystems** from the French Scientific and Technical Society for the Water and Environment (ASTEE), France (5000 EUR)
- 2009 **Explora'doc fellowship** for European Mobility from the Rhône-Alpes region (France) in collaboration with the University of Girona in Spain (10000 EUR)