

PhD scholarship in the Environmental Microbiology of Antimicrobial Resistance

Introduction:

The Department of Environmental Engineering at the Technical University of Denmark (DTU Environment) advertises a fully funded 3-year PhD position to study the ecology of antimicrobial resistance genes and antimicrobial resistant bacteria in the urban water cycle. This research effort is part of a nationally funded project, involves collaboration with the University of Copenhagen, and links to other ongoing projects at DTU Environment on the ecology of antimicrobial resistance and horizontal gene flow in the environment (see metlab.rt.env.dtu.dk)

Responsibilities and tasks

- The successful candidate will plan and conduct research in collaboration with partners and under supervision
- Research activities will include sampling at various water treatment systems, laboratory experimentation (molecular microbiology, advanced microscopy, etc), data analysis and bioinformatics
- The successful candidate will contribute to teaching and to BSc/MSc student supervision
- The successful candidate will have a strong background in environmental microbiology, microbial ecology or related fields
- Experience in bioinformatics for the analysis of microbial systems is highly desirable
- Direct experience studying gene mobility or horizontal gene transfer is a plus
- A high degree of motivation and the ability to work independently in an interdisciplinary field are essential
- Excellent skills in English (oral and written) are a requisite.

Qualifications

Candidates should have a master's degree in engineering or a similar degree with an academic level equivalent to the master's degree in engineering.

Approval and Enrolment

The scholarships for the PhD degree are subject to academic approval, and the candidates will be enrolled in one of the general degree programmes of DTU. For information about the general requirements for enrolment and the general planning of the scholarship studies, please see the [DTU PhD Guide](#).

Assessment

The assessment of the applicants will be made by Prof. B. F. Smets and Senior Researcher A. Dechesne.

We offer

We offer an interesting and challenging job in an international environment focusing on education, research, scientific advice and innovation, which contribute to enhancing the economy and improving social welfare. We strive for academic excellence, collegial respect and freedom tempered by responsibility. The Technical University of Denmark (DTU) is a leading technical university in northern Europe and benchmarks with the best universities in the world.

Salary and appointment terms

The salary and appointment terms are consistent with the current rules for PhD degree students. The period of employment is 3 years.

Workplace

- DTU Lyngby Campus

Further information

Further information may be obtained from Prof. B. F. Smets, bfsm@env.dtu.dk

You can read more about the Department of Environmental Engineering on www.env.dtu.dk

Application

Please submit your online application no later than **September 15th, 2017**. Apply online at www.career.dtu.dk.

Applications must be submitted as **one pdf file** containing all materials to be given consideration. To apply, please open the link "Apply online," fill in the online application form, and attach **all your materials in English in one pdf file**. The file must include:

- A letter motivating the application (cover letter)
- Curriculum vitae
- Grade transcripts and BSc/MSc diploma
- Excel sheet with translation of grades to the Danish grading system (see guidelines and [excel spreadsheet here](#))

Candidates may apply prior to obtaining their master's degree, but cannot begin before having received it.

All interested candidates irrespective of age, gender, race, disability, religion or ethnic background are encouraged to apply.

DTU Environment is one of the largest academic departments specializing in Environmental Engineering in Europe. DTU was recently ranked #7 worldwide in the Shanghai Rankings in *Environmental Science & Engineering*. DTU Environment conducts research and development, and provides educational programs and service to society in the area of engineering of water in natural, urban and industrial contexts, processing and recovery of residual resources, environmental risk assessment and chemical risk reduction. The aim is to develop new environmentally friendly and sustainable technologies, and to disseminate this knowledge to society and to a new generation of engineers. The Department has approximately 190 staff from more than 30 nationalities.

DTU is a technical university providing internationally leading research, education, innovation and scientific advice. Our staff of 5,800 advance science and technology to create innovative solutions that meet the demands of society; and our 10,300 students are being educated to address the technological challenges of the future. DTU is an independent academic university collaborating globally with business, industry, government, and public agencies.