2-Year Postdoc Position in Biocatalysis and Bioprocessing Group

A 2-year PostDoc position is available in Biocatalysis and Bioprocessing Research Group at the Biological and Chemical Engineering Section of the Department of Engineering at Aarhus University (www.eng.au.dk), Denmark. The project is financed by Novo Nordisk Foundation in the framework of “Project grants for biotechnology-based synthesis and production research”.

The position is available from 01.02.2021 or as soon as possible hereafter.

Job description/research project/research area
The project aims development of highly productive enzymatic cascade reactions for green synthesis of commodity chemicals from sustainable oil and fat resources. The main task for this position is to immobilize enzyme variants and analyze the performance of heterogeneous biocatalysts under the process conditions. The final goal is the demonstration of multiphasic photobiocatalytic synthesis in continuously operated reactors, which will be constructed within the PostDoc research. The project will be carried out in collaboration with another PostDoc researcher working in Enzyme Engineering Group (Assist. Prof. Bekir Engin Eser) for the same project. The key tasks of the PostDoc in this position will be:

- Enzyme immobilization,
- Construction of photobioreactors for continuous synthesis,
- Development of multiphasic photobiocatalytic synthesis,
- Demonstration of the optimized photobiocatalytic synthesis at larger scales.

Your profile
Applicants should hold an outstanding PhD degree in Biotechnology, Bioprocess Engineering or in a relevant program.
Competences of the successful applicant:

- Research experience in biocatalysis and process engineering for biocatalytic systems,
- Experience with reactor design and process optimization,
- Experience in analytical methods (HPLC, GC, UV, MS, etc.),
- Complex problem solving skills and critical thinking,
- Ability to work in an international team,
- Inter- and multidisciplinary thinking,
- High motivation,
- Ability to conduct her/his work in a structured and systematic manner and with a high degree of independence,
- An integrative and cooperative personality with excellent communication and social skills,
- Fluency in English – written and oral

About the Biological and Chemical Engineering Section
Biological and Chemical Engineering is a multidisciplinary research area. It includes disease and health, materials, environmental technologies, biorefining, energy technologies and food and ingredient technology. The research at the Biological and Chemical Engineering Section at Department of Engineering is based on both theoretical and experimental methods, and include the design, development, operation, monitoring, control, and optimisation of chemical, physical and biological processes. Department of Engineering holds a special position of international strength in scientific activities related to biogas energy, biorefining, agricultural emissions, lipid technology, polymer and membrane technology, protein engineering and biosynthesis. In addition, the Biological and Chemical Engineering section conducts public sector consultancy on agricultural challenges such as Air Quality Engineering and Biorefining. The Biological and Chemical Engineering Section is part of the Science and Technology Faculty Interdisciplinary Centre WATEC (water treatment technologies), CBIO (circular bioeconomy), iFOOD (food technology), iMAT (advanced materials), iLIFE (biophysics and imagining), iClimate (climate change).

The place of work is Gustav Wieds Vej 10, 8000, Aarhus C, Denmark and the area of employment is Aarhus University with related departments.

Application Deadline:
28 October 2020

Faculty:
Faculty of Technical Sciences

Institute/Faculty:
Department of Engineering

Academic contact person:
Selin Kara
Professor
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Vacant positions:
1

Hours per week:
37

Number of months:
24

Expected date of accession:
01/02/2021

For further information, please contact Assoc. Prof. Dr. Selin Kara (selin.kara@eng.au.dk).

A process has been initiated in terms of reorganizing of engineering at AU. Read more here: https://eng.au.dk/en/news-and-events/news/show/artikel/new-organisation-to-strengthen-engineering-at-aarhus-university-1/

Application procedure
Shortlisting is used. This means that after the deadline for applications – and with the assistance from the assessment committee chairman, and the appointment committee if necessary, – the head of department selects the candidates to be evaluated. All applicants will be notified whether or not their applications have been sent to an expert assessment committee for evaluation. The selected applicants will be informed about the composition of the committee, and each applicant is given the opportunity to comment on the part of the assessment that concerns him/her self. Once the recruitment process is completed a final letter of rejection is sent to the deselected applicants.

Letter of reference
If you want a referee to upload a letter of reference on your behalf, please state the referee's contact information when you submit your application. We strongly recommend that you make an agreement with the person in ques-tion before you enter the referee's contact information, and that you ensure that the referee has enough time to write the letter of reference before the application deadline.
Unfortunately, it is not possible to ensure that letters of reference received after the application deadline will be taken into consideration.

Formalities and salary range
Technical Sciences refers to the Ministerial Order on the Appointment of Academic Staff at Danish Universities under the Danish Ministry of Science, Technology and Innovation.

The application must be in English and include a curriculum vitae, degree certificate, a complete list of publications, a statement of future research plans and information about research activities, teaching portfolio and verified information on previous teaching experience (if any). Guidelines for applicants can be found here.

Appointment shall be in accordance with the collective labour agreement between the Danish Ministry of Finance and the Danish Confederation of Professional Associations. Further information on qualification requirements and job content may be found in the Memorandum on Job Structure for Academic Staff at Danish Universities.

Salary depends on seniority as agreed between the Danish Ministry of Finance and the Confederation of Professional Associations.

All interested candidates are encouraged to apply, regardless of their personal background. Research activities will be evaluated in relation to actual research time. Thus, we encourage applicants to specify periods of leave without research activities, in order to be able to subtract these periods from the span of the scientific career during the evaluation of scientific productivity.

Aarhus University offers a broad variety of services for international researchers and accompanying families, including relocation service and career counselling to expat partners. Read more here. Please find more information about entering and working in Denmark here.

Aarhus University also offers a Junior Researcher Development Programme targeted at career development for postdocs at AU. You can read more about it here.

The application must be submitted via Aarhus University's recruitment system, which can be accessed under the job advertisement on Aarhus University's website.

Aarhus University
Aarhus University is an academically diverse and research-intensive university with a strong commitment to high-quality research and education and the development of society nationally and globally. The university offers an inspiring research and teaching environment to its 38,000 students (FTEs) and 8,000 employees, and has an annual revenues of EUR 885 million. Learn more at www.international.au.dk/