

Stayfit Nutrisupplies has a vacancy for a position as

PhD candidate in experimental soft matter science related to food applications, starting January 1st 2022.

It is well known that small particles can get trapped at the interface between two fluids. This effect can be used to coat droplets with micro or nano-scale particles, and thereby stabilize emulsions without the use of surfactant molecules, known as Pickering emulsions.

Would you like to start your career in a European training network of leading research universities and professionals from the industry? Then you might be interested in this PhD position, which will enable you to join the PICKFOOD project. PICKFOOD is a top-level interdisciplinary training and research programme involving 15 PhD positions across physics, physical chemistry and food science. PICKFOOD aims to create at European level a network of next generation young scientists trained in novel methodologies within Pickering emulsions research enabling the development of safe, healthy and functional foods, and at the same time minimizing food waste due to lipid oxidation.

This network is detailed on the site www.pickfood.eu

In the PICKFOOD project Stayfit Nutrisupplies has one PhD vacancy working in the area of experimental soft matter science. The 14 other PICKFOOD positions are advertised through the EURAXESS portal ([link here](#)).

About PICKFOOD position #15 located at Stayfit Nutrisupplies:

Title: Pickering emulsions from Moringa oleifera tree.

This PhD project will explore Pickering emulsions based on food-grade oil and edible nanoparticles all extracted from the Moringa oleifera tree. The emulsion formation and stability using selected extracts from the Moringa oleifera tree, will be investigated under various conditions such as imposed flow.

This position has a duration of 3 years.

The PhD candidate will enroll in and follow the PhD program at the Department of Physics, Faculty of Natural Sciences, Norwegian University of Science and Technology – NTNU in Trondheim Norway, meaning that NTNU will be the PhD awarding university.

Up to 6 months of the employment period will be spent in the Soft and Complex Matter Lab located at the Department of Physics, Faculty of Natural Sciences, Norwegian University of Science and Technology – NTNU in Trondheim. Also, up to 3 months of the employment period will be spent at the Department of Chemistry, at the Uppsala University.

The remaining period (i.e. 27 months) will be spent at Stayfit Nutrisupplies in Dar es Salaam, Tanzania.

Experimental methods that will be utilized in the project are mainly microscopy (optical, atomic force - AFM, electron (SEM, TEM)) and microfluidic methods. Custom made experiments, such as special purpose sample cells, may be designed and built for instance using 3D printing and with the active help of the laboratories' (Stayfit, NTNU, Uppsala) technical staffs. The project teams at NTNU and Uppsala will perform X-ray scattering characterization (wide- or small-angle, i.e., WAXS or SAXS) either in the Soft and Complex Matter Lab at NTNU, at Uppsala or at international synchrotron X-ray facilities. Neutron scattering experiments (SANS or spectroscopy) may be performed by the team at international neutron facilities, such as ISIS UK.

Some sample preparation that involves physical chemistry for nano-/micro-particle functionalization will be supervised by and partly performed by the experienced laboratory staff at Stayfit Nutrisupplies, NTNU and Uppsala.

The first possible starting date for employment in the position is January 1, 2022.

Professor Jon Otto Fossum will be the main supervisor of the PhD candidate, whereas, the co-supervisors will be Researcher Matti Knaapila (Department of Physics at NTNU), Professor Adrian Rennie (Uppsala University), and Dr.-Ing. Leonard Rweyemamu (Stayfit Nutrisupplies).

Information about eligibility:

The applicant shall, at the time of recruitment by Stayfit Nutrisupplies, be in the first four years (full-time equivalent research experience) of their research careers and not yet have been awarded a doctoral degree. Full-time equivalent research experience is measured from the date when a researcher obtained the degree which would formally entitle him or her to embark on a doctorate, either in the country in which the degree was obtained or in the country in which the researcher is recruited.

The applicant is required to undertake transnational mobility (i.e. move from one country to another) when taking up his/her appointment. At the time of recruitment by Stayfit Nutrisupplies, the applicant must not have resided or carried out his/her main activity (work, studies, etc.) in the country of their host beneficiary for more than 12 months in the 3 years immediately prior to the reference date. Note that the mobility rule applies to Tanzania, where the researcher is recruited, and not to co-hosting research groups to which the researcher is sent or seconded.

Required selection criteria

The PhD candidate position's main objective is to qualify for work in research positions. The qualification requirement is that you at the start of your appointment have completed a master's degree or second degree (equivalent to 120 credits) with a strong academic background in physics, nanotechnology, materials science, food engineering, or another relevant field with sufficient physics contents or equivalent education with a grade of B or better in terms of [NTNU's grading scale](#). If you do not have letter grades from previous studies, you must have an equally good academic foundation. If you are unable to meet these criteria you may be considered only if you can document that you are particularly suitable for education leading to a PhD degree.

Applicants must agree to participate in organized doctoral study programs within the period of the appointment and have to be qualified for the PhD-study.

The appointment is to be made in accordance with the regulations in force concerning State Employees and Civil Servants and [Regulations concerning the degrees of Philosophiae Doctor \(PhD\) and Philosodophiae Doctor \(PhD\) in artistic research national guidelines for appointment as PhD, post doctor and research assistant](#).

Preferred selection criteria:

- The position requires a strong interest in developing experimental skills.
- Experience with, or courses in soft or condensed matter experimental physics, such as in using some of the methods listed above, may be considered as an advantage.

- It may be considered an advantage if the applicant has data-analysis skills in e.g. Matlab or Python.
- Good written and oral English.

Personal characteristics

- Creative, with a strong ability to work goal oriented.
- Good skills to deliver oral and written presentations of research results.
- He/she should also enjoy interdisciplinary research and take keen interest in learning and working in teams, which is of particular importance in this collaborative project.

We offer

- Exciting and stimulating tasks in a strong international academic environment.
- An open and [inclusive work environment](#) with dedicated colleagues.

Salary and conditions

Successful candidates will receive a salary/fellowship in accordance with the MSCA regulations for Early Stage Researchers. The exact salary/fellowship will be confirmed upon appointment and will amount to:

Living allowance: € 3,270.00 per month (before employer and employee deductions), corrected by the country correction coefficient (CCC). An additional taxable monthly mobility allowance of € 600.00. If applicable an additional taxable monthly family allowance of € 500.00 subject to the family status of the appointee.

The period of employment is **3** years.

Appointment to a PhD position requires that you are admitted to the PhD programme in Physics (<https://www.ntnu.edu/studies/phfy>) at NTNU within three months of employment, and that you participate in an organized PhD programme at NTNU during the employment period. The PhD programme at NTNU requires that you complete courses corresponding to 30 ECTS during the 3 years of PhD employment at Stayfit Nutrisupplies.

 The engagement is to be made in accordance with the regulations in force concerning State Employees and Civil Servants, and the acts relating to Employment and Labour Relations Act of 2007, and research clearance and permits from Tanzania Commission for Science and Technology. Candidates who by assessment of the application and attachment are seen to conflict with the criteria in the latter laws will be prohibited from recruitment to Stayfit Nutrisupplies. After the appointment, you must assume that there may be changes in the area of work.

It is a prerequisite you can be present at and accessible to the institution on a daily basis, with the exception of the time for planned research missions to the collaborating laboratories described above.

About the application

The application and supporting documentation to be used as the basis for the assessment must be in English.

Publications and other scientific work must follow the application. Please note that applications are only evaluated based on the information available on the application deadline. You should ensure that your application shows clearly how your skills and experience meet the criteria which are set out above.

The application must include:

- An application letter that shows clearly how your skills and experience meet the specific criteria and general research approach which are set out above, as well as your motivation.
- CV, certificates and diplomas/degrees.
- Academic works - published or unpublished - that you would like to be considered in the assessment.
- Name and address of three referees

Joint works will be considered. If it is difficult to identify your contribution to joint works, you must attach a brief description of your participation.

In the evaluation of which candidate is best qualified, emphasis will be placed on education, experience and personal and interpersonal qualities. Motivation, ambitions, and potential will also count in the assessment of the candidates.

Stayfit Nutrisupplies is committed to following evaluation criteria for research quality according to [The San Francisco Declaration on Research Assessment - DORA](#).

General information

[Working at Stayfit Nutrisupplies and NTNU](#)

A good work environment is characterized by diversity. We encourage qualified candidates to apply, regardless of their gender, functional capacity or cultural background.

Dar es Salaam, a major city and commercial port on Tanzania's Indian Ocean coast, is currently Africa's fifth most populous city. It's projected to grow from six million people today to 13.4 million by 2035, crossing the "megacity" threshold of 10 million people sometime before 2030. Educational facilities include the [University of Dar es Salaam](#) (1961), several libraries, technical and research institutes, and the National Museum. With its picturesque harbour, beautiful beaches, and thriving nightlife, the city has become a popular tourist destination.

The city of Trondheim is a modern European city with a rich cultural scene. Trondheim is the innovation capital of Norway with a population of 200,000. The Norwegian welfare state, including healthcare, schools, kindergartens and overall equality, is probably the best of its kind in the world. Professional subsidized day-care for children is easily available. Furthermore, Trondheim offers great opportunities for education (including international schools) and possibilities to enjoy nature, culture and family life and has low crime rates and clean air quality.

As an employee at Stayfit Nutrisupplies, you must at all times adhere to the changes that the development in the subject entails and the organizational changes that are adopted.

Information Act (Offentleglova), your name, age, position and municipality may be made public even if you have requested not to have your name entered on the list of applicants.

If you have any questions about the position, please contact Dr.-Ing. Leonard Rweyemamu at Stayfit Nutrisupplies, stayfit.foods@gmail.com or Professor Jon Otto Fossum at NTNU, email jon.fossum@ntnu.no.

Please submit your application electronically via leonard.rweyemamu@udsm.ac.tz with your CV, diplomas/degrees and certificates. Applications submitted elsewhere will not be considered. Diploma Supplement is required to attach for European Master Diplomas outside Norway. Chinese applicants are required to provide confirmation of Master Diploma from [China Credentials Verification \(CHSI\)](#).

If you are invited for interview you must include certified copies of transcripts and reference letters.

Application deadline: 25 November 2021

Stayfit Nutrisupplies – healthy foods for happy life

Stayfit Nutrisupplies creates healthy food products to make people of all ages live happy life.

NTNU – knowledge for a better world

The Norwegian University of Science and Technology (NTNU) creates knowledge for a better world and solutions that can change everyday life.