FAroGels

MSCA Doctoral Network

DOCTORAL CANDIDATE POSITION

DC[6] – Hybrid Aerogel-Microencapsulation for Nutraceutical Stability and Delivery

Position	DC6: Hybrid Aerogel-Microencapsulation for Nutraceutical Stability and Delivery
Project	FAroGels – Food-Grade Aerogels for Sustainable Food Systems
Funding programme	Horizon Europe – Marie Skłodowska-Curie Actions Doctoral Networks (HORIZON-MSCA-2025-DN-01-01)
Grant Agreement number	101312450
Recruiting/Host organisation	MyBiotech GmbH, Research & Development, Überherrn, Germany
PhD awarding institution	Saarland University, Biopharmaceutics and Pharmaceutical Technology, Saarbrücken, Germany
Type of contract	Fixed-term employment contract, 36 months
Job status	Full-time (100%)
Application deadline	09 December 2026, 23:59 (CET)
Expected start date	March 2027 (earliest)

About FAroGels

FAroGels – Food-Grade Aerogels for Sustainable Food Systems is a Marie Skłodowska-Curie Actions Doctoral Network funded by the European Union under Horizon Europe. The network brings together academic and non-academic partners with complementary expertise in food science and technology, materials science, biopolymer science, biotechnology, process engineering, analytical characterization, packaging and sustainable innovation. **FAroGels** aims to develop, characterize and validate food-grade, bio-based and biodegradable aerogels for sustainable food systems. The network will investigate how these highly porous materials can support more efficient food processing, improved food quality and safety, nutritional and sensory functionality, protection and delivery of bioactive compounds, and sustainable packaging solutions.

Position Description

This position forms part of the **FAroGels** research program on food-grade, bio-based, and biodegradable aerogels and their application in sustainable food systems. The selected candidate will be employed by MyBiotech GmbH and will be required to enroll as a PhD student Saarland University, in accordance with the relevant admission and enrolment requirements.

The doctoral project will focus on developing **hybrid biopolymer aerogels** based on food-compatible materials such as chitosan, alginate and xanthan as multifunctional carriers for nutraceuticals. The project will design aerogels with **tunable porosity and tailored surface chemistry** to improve nutraceutical encapsulation and stability, mask off-flavours and enable controlled release under digestion-relevant conditions. Food-grade purification, processing and bench-scale fabrication workflows will also be optimised to support future industrial translation.

The performance of the developed systems will be evaluated by quantifying **encapsulation efficiency, oxidative stability and release kinetics**. Promising formulations will subsequently be evaluated in practical formats, including capsules, dry blends and nutraceutical-enriched foods. Within **FAroGels**, DC6 will provide a validated hybrid aerogel platform for stabilising and delivering selected nutraceuticals, together with quantitative performance datasets, structure–function maps and bench-scale fabrication and evaluation protocols.

The position will involve laboratory-based research, data analysis, scientific communication and close collaboration with other FAroGels Doctoral Candidates, supervisors and partner organizations.

Supervisory Team

The Doctoral Candidate will be supervised by a team combining academic and non-academic expertise:

Role	Name	Organisation	Country
Main supervisor	Dr. Nazende Günday-Türeli Prof. Marc Schneider	MyBiotech GmbH (MyB) Universitat des Saarlandes (USAAR)	Germany
Academic co-supervisor	Dr. Akif Emre Türeli	MyBiotech GmbH (MyB)	Germany
Industry supervisor	Main supervisor is non-academic.		

Planned Secondments

As part of the training programme, the Doctoral Candidate will complete planned secondments at FAroGels partner organisations:

Host organisation	Sector	Country	Duration
Universita degli Studi di Udine (UNIUD)	Academic	Italy	2 months
Middle East Technical University (METU)	Academic	Türkiye	1 month
Pard Mühendislik ve Otomasyon Sanayi Ticaret Limited Sirketi (Superex)	Non-academic	Türkiye	1 month
BKEA LTD. (BKEA)	Non-academic	Malta	1 month
Gurok Turizm ve Madencilik A.S. (AVOYA)	Non-academic	Türkiye	1 month
Agencia Estatal Consejo Superior de Investigaciones Científicas, M.P. (Spanish National Research Council, CSIC)	Academic	Spain	1 month

Main Responsibilities

The Doctoral Candidate will be expected to:

- Conduct research on the design, development and characterisation of hybrid biopolymer aerogels for the encapsulation, stabilisation and controlled release of selected nutraceuticals.
- Plan, perform, document and analyse experimental work using relevant laboratory, analytical, processing and/or modelling methods.
- Participate actively in FAroGels network meetings, workshops, training schools, seminars and transferable-skills activities.
- Undertake planned secondments at FAroGels partner organisations, as specified for the DC project.
- Work collaboratively with academic and non-academic partners across the FAroGels network.
- Prepare scientific reports, project deliverables, presentations, publications and, where relevant, other dissemination or exploitation-related outputs.

Requirements

- **Educational Background**: Master's degree (or equivalent) in life science (included but not limited to chemistry, pharmacy, biotechnology, etc) or related field.
- **Skills**: Strong laboratory and analytical skills in biopolymer processing, encapsulation, physicochemical characterisation, spectroscopy, and data analysis.
- **Languages**: Proficiency in English (written and spoken) is required.
- Strong motivation to pursue doctoral research in an international and interdisciplinary environment.
- Ability to work independently while contributing effectively to collaborative research activities.
- Good organization, communication and problem-solving skills.
- Willingness to travel for planned secondments, network meetings and training activities.

MSCA Doctoral Network Eligibility Criteria

Applicants of any nationality are welcome to apply. At the date of recruitment, applicants must meet the following MSCA Doctoral Network requirements:

- **Doctoral candidate status:** Applicants must not already hold a doctoral degree. Applicants who have successfully defended their doctoral thesis but have not yet been formally awarded the doctoral degree are not eligible.
- **Mobility rule:** Applicants must not have resided or carried out their main activity (work, studies, etc.) in Germany for more than 12 months in the 36 months immediately before the recruitment date. Compulsory national service, short stays such as holidays, and time spent as part of a procedure for obtaining refugee status under the Geneva Convention or EU temporary protection are not taken into account. **Compliance is verified before the start of employment, on the basis of the candidate's passport and, where necessary, other documents.**

- **PhD enrolment:** Doctoral Candidates must be enrolled in a doctoral programme leading to the award of a doctoral degree in at least one EU Member State or Horizon Europe Associated Country. For this position, this is the doctoral programme at Saarland University, applicants must therefore meet its admission requirements.
- **Institution-specific requirements:** Basic knowledge of data analysis and proficiency in Microsoft Office. German knowledge is a plus.

→ **Visa and residence permit:** a visa or residence/work permit is not required at the application stage and is not a selection criterion. Where needed, it will be arranged after selection and before the start of employment, with the support of the recruiting organisation. Candidates from non-EU countries are equally welcome to apply.

What FAroGels Offers

- A full-time doctoral position funded through the **FAroGels** MSCA Doctoral Network.
- A fixed-term employment contract for 36 months at MyBiotech GmbH.
- A competitive salary and employment conditions in accordance with the MSCA Doctoral Networks funding provisions, applicable national legislation and the policies of MyB.
- Social-security coverage and other employment-related benefits in accordance with the applicable national and institutional framework.
- A Personal Career Development Plan (PCDP), prepared with the supervisory team and reviewed and updated during the project.
- Access to research facilities, infrastructure, training and support services at the Host Institution and within the FAroGels network.
- Participation in a structured doctoral training programme including scientific and technical training, transferable skills, career development and innovation-oriented activities.
- Planned secondments at FAroGels partner organizations, offering complementary scientific, technical and cross-sectoral experience.
- An international research environment and opportunities to build a professional network across academia and non-academic organizations.

Salary and Financial Package

This position is funded by the FAroGels MSCA Doctoral Network (HORIZON-MSCA-2025-DN-01-01, Grant Agreement No. 101312450). The salary is based on the following monthly MSCA allowances:

- **Living allowance:** EUR 4,010, adjusted **by the country correction coefficient** of the country of the recruiting organisation to ensure equal treatment and comparable purchasing power for all researchers.
- **Mobility allowance:** EUR 710, contributing to mobility-related costs such as relocation and travel.
- **Family allowance (if applicable):** EUR 660, paid for the months in which the Doctoral Candidate has a family during the project, including where family obligations arise after recruitment. 'Family' means persons linked to the researcher by marriage (or a relationship with equivalent status recognised by the legislation of the country where it was formalised) or dependent children actually being maintained by the researcher. The allowance is paid in accordance with the rules of the recruiting organisation, and supporting documents may be requested.

Monthly MSCA allowances for this position

Component	Calculation (per month)
Living allowance	EUR 4,010 × [country correction coefficient = 101.2%] (see guidance below)
Mobility allowance	Fixed amount = EUR 710.00
Total without family allowance	Living + mobility allowance
Total with family allowance	Living + mobility + EUR 660

Please note: *the amounts above represent the total employment cost, from which the employer's and the employee's compulsory social-security contributions and taxes are deducted in accordance with national law. Unless the recruiting organisation provides additional funding, the gross salary paid to the Doctoral Candidate is therefore lower than these amounts, and the net salary depends on personal circumstances.*

Country correction coefficients of the FAroGels beneficiaries

Country	CCC	Living allowance	+ mobility (EUR 710)	+ family (EUR 660)
Türkiye	64.5%	2,586.45	3,296.45	3,956.45
Poland	74.1%	2,971.41	3,681.41	4,341.41
Italy	95.3%	3,821.53	4,531.53	5,191.53
Spain	95.6%	3,833.56	4,543.56	5,203.56

Country	CCC	Living allowance	+ mobility (EUR 710)	+ family (EUR 660)
Germany	101.2%	4,058.12	4,768.12	5,428.12
Finland	118.0%	4,731.80	5,441.80	6,101.80
United Kingdom	141.7%	5,682.17	6,392.17	7,052.17

Employment conditions: the Doctoral Candidate will be hired full-time (100%) by the recruiting organisation on a 36-month employment contract, with social-security coverage under national law that continues during secondments.

Funding Duration and PhD Completion

- This Doctoral Candidate position is funded by the FAroGels MSCA Doctoral Network for a maximum period of 36 months.
- The overall period required to complete a PhD degree may, depending on the regulations of the PhD awarding institution and applicable national requirements, extend beyond the 36-month FAroGels funding period.

Please note: *any employment, scholarship or other financial support beyond the 36-month FAroGels funding period is not covered or guaranteed by FAroGels. Any potential continuation of employment or funding would need to be considered separately between the relevant institution and the Doctoral Candidate, subject to institutional regulations and the availability of funds.*

About the Host and PhD Awarding Institution(s)/Organizations

For further information about MyBiotech GmbH please visit www.mybiotech.de .
The successful candidate must fulfil the admission and enrolment requirements of USAAR.

Item	Information
Relevant faculty / department	Faculty of Natural Sciences and Technology, Department of Pharmacy, Biopharmacy and Pharmaceutical Technology
PhD admission and enrolment requirements	Recognised Master of Science degree (normally corresponding to at least 300 ECTS credits obtained through Bachelor's and Master's studies). For international degrees, the awarding institution should ideally have H+ status in the anabin database or be otherwise recognised as equivalent to a German university. The programme should include a research-oriented curriculum, practical/research experience, and a Master's thesis comparable to the standards of a German Master's thesis. Final eligibility is subject to approval by the faculty at Saarland University.
Official PhD admission / enrolment webpage	Doctoral research and PhD programmes | Universität des Saarlandes / Enrolling or registering as a doctoral research student | Early Career Office | Universität des Saarlandes
Separate PhD application or enrolment procedure	**Yes.** Applicants must submit a short project proposal (approximately 2 pages, including a preliminary timeline), the required application forms signed by the applicant, the PhD supervisor, and a second faculty supervisor. In addition, an evaluation letter from the Master's thesis supervisor is required to assess the equivalence of the Master's degree and thesis. There are no fixed application deadlines; applications can be submitted throughout the year. The process is managed by the faculty/doctoral office.
Recognition of foreign qualifications	Please check anabin: Information portal on foreign educational qualifications
Additional requirements	Proof of English language proficiency may be required if the applicant does not possess sufficient German language skills or if requested by the faculty. Applicants must provide certified copies of their academic documents and present the original documents for verification during enrolment. Health insurance is required for enrolment. Doctoral candidates who choose to enrol as students must pay the semester fee (please check Fees | Universität des Saarlandes). There are enrolment and re-registration deadlines each semester; however, doctoral candidates may alternatively register as a doctoral researcher without full student enrolment. A combined doctoral registration/enrolment option ("Freemover") is available and may involve an additional administrative fee.

Application Documents

Applicants are strongly advised to read the position description and the eligibility criteria carefully before applying. Each application must include:

- A detailed curriculum vitae (education, research experience, technical skills and relevant achievements), including the dates and countries of residence, studies and employment for the last 36 months.
- A motivation letter explaining your interest in this specific DC position, your relevant background and your suitability for the project.
- Copies of Bachelor's and Master's diplomas and academic transcripts, or evidence that the Master's degree will be completed before the recruitment date.
- Contact details of two referees and reference letters according to the requirements of MyBiotech GmbH.
- Proof of English-language proficiency, if required by the PhD awarding institution.
- Incomplete applications may not be considered.

How to Apply

Applications for this position must be submitted through **both** of the following channels:

1. send a **complete CV** and a **letter of motivation** (up to 2 pages) stating the research experience and interest and name and contact information of at least two referees providing recommendation letter to n.guenday-tuereli@mybiotech.de and Ms. Anke Wagner-Schon, Head of HR, at a.wagner-schon@mybiotech.de . Please use the formula "**FAroGels – Application DC6**" in the object of your correspondence. Additionally, **copies of diplomas** and **list of courses** taken, and grade obtained as well as proof of English level needs to be included in the application.
   Any **other information** you deem relevant for application purpose may be included in the application (e.g. pdf of a recent scientific publication, extra curriculum activities, certificates).
   Eligible applicants will undergo a pre-selection evaluation based on the CV, experience and skills. Short-listed applicants will be invited for an interview with the evaluation committee members.
2. **FAroGels online application form** – in addition, please complete the application form at https://farogels.eu/apply/ and upload the same documents there.

Indicative timeline

- **Application deadline:** 09 December 2026, 23:59 (CET)
- **Interviews:** January 2027
- **Evaluation:** February 2027
- **Selection outcome:** February 2027
- **Expected start of employment:** March 2027 (earliest)

Please note: *Applicants should ensure that all required documents are submitted before the stated deadline. Please note that a separate PhD admission and/or enrolment procedure may apply at MyB.*

Selection Process

FAroGels follows an open, transparent and merit-based recruitment process in line with the European Charter for Researchers:

- Eligibility check by the FAroGels Project Manager.
- Evaluation of the eligible applications by an Interview Committee (primary supervisor, co-supervisor(s) and a representative of a non-academic partner) with a standardised scoring matrix; the three to five best-ranked candidates are shortlisted.
- Online interview with the shortlisted candidates.
- Approval of the selection by the FAroGels Supervisory Board, after which an offer is made.

All applicants are informed of the outcome and receive feedback on request.

Equal Opportunities and Data Protection

FAroGels and MyBiotech GmbH are committed to equal opportunities, diversity and inclusion. Applications from all qualified candidates are welcome, irrespective of gender, gender identity or expression, sexual orientation, ethnic or social origin, nationality, disability, age, religion or belief.

Personal data submitted with applications will be processed by MyBiotech GmbH exclusively for recruitment purposes and in accordance with the applicable data-protection legislation and institutional privacy policies.

Contact Information

Interested candidates are strongly advised to carefully read the job description and eligibility criteria before applying.

- **For inquiries, please contact:**

Email: myb.pmt@mybiotech.de
Email object: **FAroGels – Information DC6**

- **General questions about FAroGels and the recruitment process:** FAroGels Project Management Team, Middle East Technical University (METU), Ankara, Türkiye – farogels@metu.edu.tr
- **General information on FAroGels:** https://farogels.eu/



This project is funded by the European Union's Horizon Europe programme under the Marie Skłodowska-Curie Actions Doctoral Networks, Grant Agreement No. 101312450.

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Research Executive Agency (REA). Neither the European Union nor the granting authority can be held responsible for them.