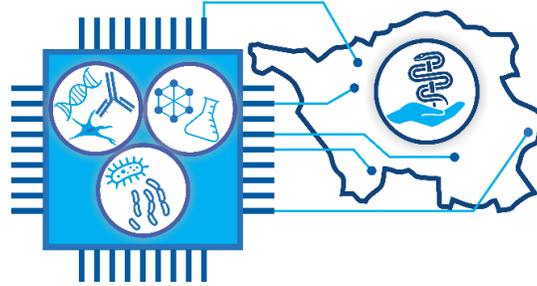


Guide for Applicants



TALENTS

“**T**Training **AL**liance**E** for **N**ovel
Microbiome-Modulating
Therapie**S**”

is a Graduate School of
Saarland University



Co-funded by
the European Union



UNIVERSITÄT
DES
SAARLANDES

HIPS HELMHOLTZ
Institute for Pharmaceutical Research Saarland



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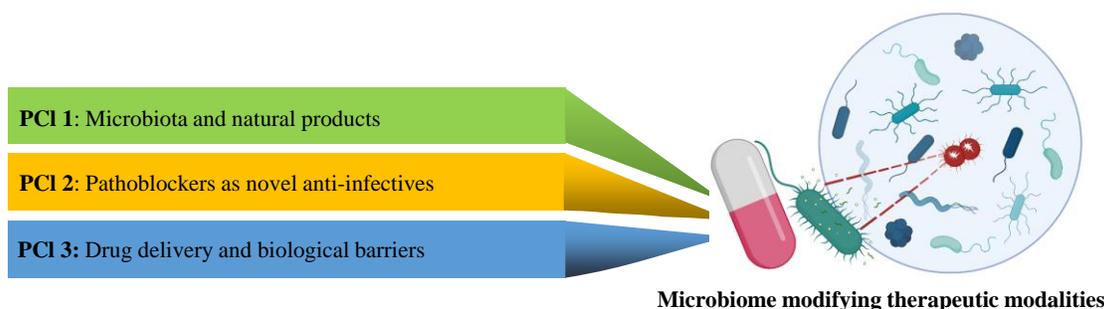
1. Introduction

1.1 What is the TALENTS programme?

TALENTS is a PhD MSCA Cofund programme of Saarland University (USAAR) for 15 PhD students. It brings together pharmacy, chemistry, medicine and bioinformatics in an interdisciplinary training network aiming to investigate and exploit the human microbiota to fight diseases. The graduate school is located in Saarland, Germany and bridges the main campus Saarbücken with the medical campus and university hospital Homburg.

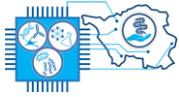
All doctoral projects are in the field of microbiome and infection research, aiming at a better understanding of the microbial community defining or occurring in diverse diseases and possibilities to interfere with therapies or drugs in a targeted modulation of them. The fields of pharmaceutical, bioinformatics and drug research are challenged to use the growing knowledge of microbiome research especially from the clinic, and in collaboration with the clinic, to develop chemotherapeutics and treatment modalities avoiding problems of current drugs (e.g., resistance development, neglected microbial metabolism, unintended microbiota alterations). Exploitation of microbiota research in and for drug discovery and development holds potential for new prophylactic or therapeutic interventions against chronic inflammatory and infective diseases. Both the pharmaceutical industry and basic research require a new generation of well-trained scientists with the capability to work interdisciplinarily.

For organizational reasons, the programme is structured in three project clusters as depicted below.



Created with Biorender.com

Each project cluster contains 4-6 PhD projects, which are described in detail on the TALENTS website (<https://talents-gradschool.eu>). The project description also contains for each project the supervisor team and secondment.



1.2 TALENTS consortium

Principal investigators

The TALENTS partners are 29 principal investigators from Saarland University, Saarland University Hospital and Helmholtz Institute for Pharmaceutical Research Saarland with a common interest in microbiota and drug research.

We are a mixed group of experienced and young PIs from the disciplines Medicine, (Micro)biology, Pharmacy, Chemistry, Natural Products, Drug Delivery and Bioinformatics.

Each academic partner has the expertise and equipped laboratories for the research projects. Links to the homepages of the PIs are found on the [website](#) and the respective PhD project descriptions.

Associated partners

Associated partners are from industry, hospitals, governmental agency or international academia (in Austria, Belgium and United Kingdom). They were selected to host PhD secondments fitting in to the context of the respective PhD project and complementing skills.

The mostly regional character of this training alliance facilitates networking and exchange among the PhD students and projects.



The logos depict our associated partners. On the TALENTS webpage the logos are equipped with links to the respective institutional or department homepage. The PhD project descriptions contain the secondment plan.

1.3 What is in for doctoral candidates?

Research environment

Saarland University is well-known for the competencies in the fields of natural products, pharmacy and drug development, general NanoBioMed research and bioinformatics with growing collaborative research network.





Our PhD projects provide the opportunity to perform research at excellent equipped institutions, in inspiring interdisciplinary training network and under the supervision/mentoring of mixed experts' team. You can profit from a research environment providing plenty of opportunities to conduct high-level research with state-of-the-art equipment. The departments of the 29 PIs together cover the full range of relevant scientific disciplines, own laboratories and equipment satisfying almost every request.

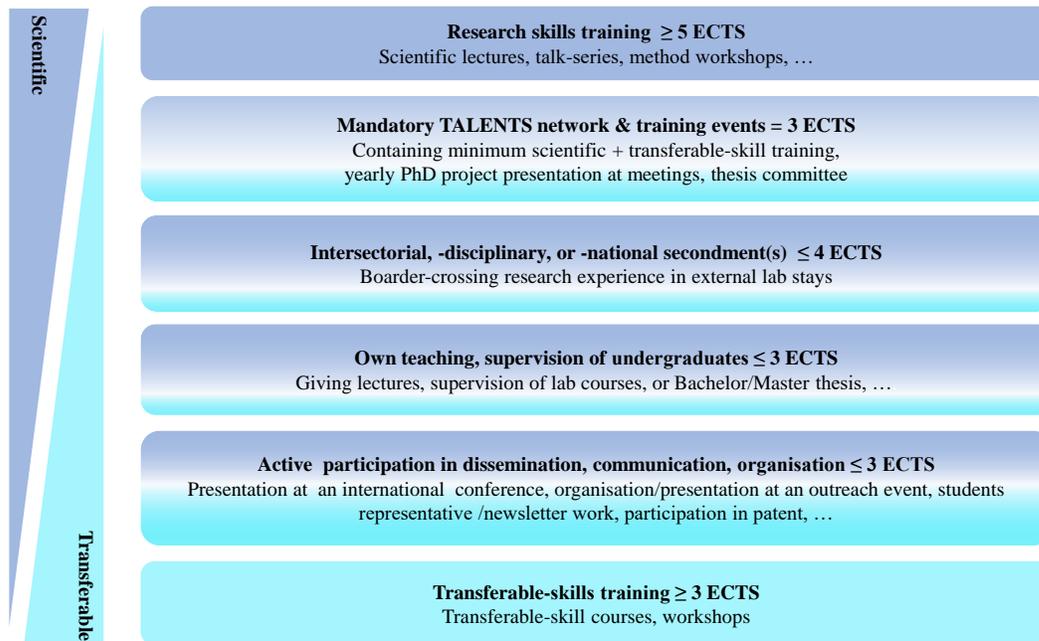
This regional network is complemented by the international research networks of the collaborating PI's as well as their involvement in regional networks with industry partners (e.g., NanoPharmNet), spanning from SMEs to larger pharmaceutical companies (e.g., MyBiotech, PharmBioTech, Pharmacelsus, Ursapharm, which also participate in TALENTS as associated partners).

The TALENTS PIs are involved in larger networks at national and international level in their respective research communities. You may experience this by participating in research collaborations, knowledge exchange, attending some of our regular organized in lecture series of international top-class speakers (e.g., HIPS talks, INM research seminars, DPhG talks and GDCh talks) or conferences/congresses (organized in Saarland or participating in international meetings of diverse scientific communities and research networks).

TALENTS training programme and contribution to career development for Doctoral candidates (DCs)

The training programme builds on the curriculum for doctoral studies of the USAAR faculties, which includes an agreement on structuring the PhD thesis by setting up a doctoral committee of at least one supervisor and a mentor, requiring a study plan and some agreement on recommended courses/training. The TALENTS programme sets a minimum requirement of training of 18 ECTS and contains a balance between scientific and transferable-skill elements of the selectable modules as depicted in the Figure below. Minimum and maximum ECTS per module ensure appropriate representation of both aspects, while providing flexibility and choice for the DCs to personalise the training towards their interests and career plan. Interdisciplinarity of training will be recommended in the individual supervising committees of the DCs.





The programme is designed for interdisciplinarity by appointing each student with a supervisor team (of 2 or 3 PIs) from different scientific disciplines.

Each DC has a thesis committee comprising the main contact PI, the co-PI, an internal mentor, who must also be professor at the same faculty, but ideally in a complementary discipline, as well as an external expert as career mentor. The thesis committee helps the DC to design the individual training programme in accordance with the selected career goal and formalized in an individual **career development plan**.

TALENTS organizes a range of scientific courses on relevant topics and project meetings twice a year.

For intersectorial/international experience, each PhD project contains a secondment, mostly intersectorial (please refer to the project description specifying the secondement and content).

The PhD and experiences gained in the programme will equip the DCs with skills and competences for their preferred career track in either industry or academic sector.

Saarland University runs as well other graduate schools (TANDEM graduate school, Wirkstoffgraduerten Schule, GradUS) and mutual recognition of courses allows to profit from a more diverse offer.





Terms & Conditions of Employment

Amounts provided for the researcher: Each DC will get an **employment contract** from USAAR. The monthly gross salary is 2.840,- € independent of residency and financial status of the fellow. Expenses for visa applications for DCs requiring this (e.g., citizens outside the European Area) will be covered. The TALENTS programme will cover the USAAR semester fee, which includes Saarland-wide free public transport. An individual budget for travel and training of 100 €/fellow month allows the complementation of the TALENTS training with selected external training and international conference attendance for dissemination and networking.

Employment conditions: Appointed DCs will get a **full employment contract with Saarland University**, fully in line with the German labour laws.

The working hours per week are 39.5 and annual leave is 30 days. The contract will be issued for 36 months. Contracts include health and social security insurance (i.e., unemployment, accident, long-term care and pension) according to German standards. USAAR strongly advocates family friendliness and inclusion in terms of diversity and disabilities.

Saarland Universities Welcome center and international office can assist with information in first organizational issues related to registration, visa/work permission, the German insurance system, recommendations for housing, and practical info for the first steps (registration, bank account, enrolment, etc.).

Appointed DCs can profit from an internal and external network of supporting clubs and activities, e.g., USAARs Family Office offers consultation in German, English, French on reconciliation of family and care responsibilities and work as well as information events and childcare support. The Contact Point for Studying with Disabilities supports teachers in dealing with students with disability and/or chronic diseases, including a “Diversity Room”. USAAR’s Inclusion Officer is responsible contact person for questions and complaints.

2. Application

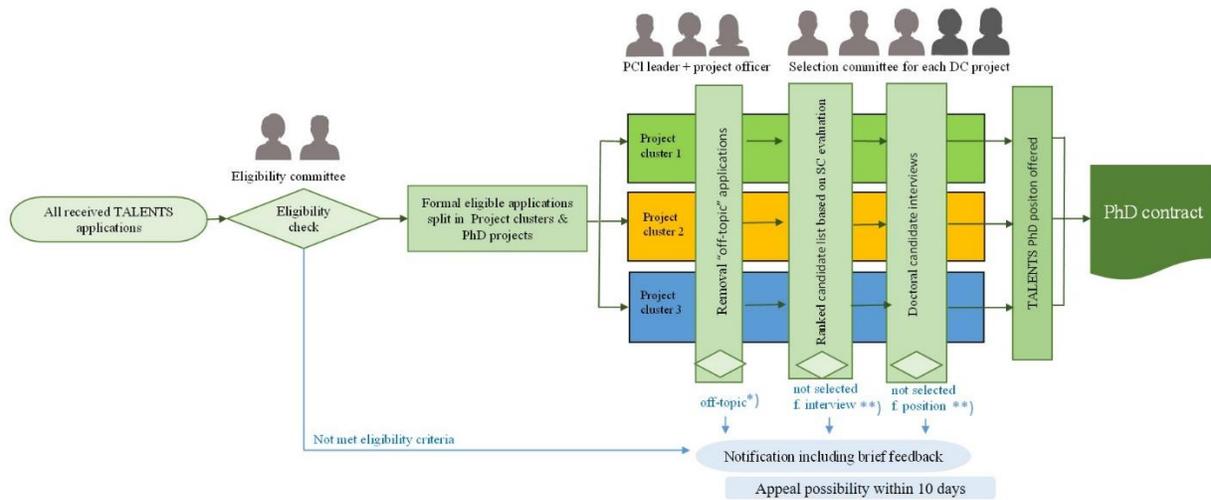
TALENTS is looking for highly motivated doctoral candidates in the areas of natural sciences (pharmaceutics, chemistry, biotechnology, biology, nanotechnology), medical





sciences, or bioinformatics who possess or are about to finalise some European Master’s degree or equivalent as needed for enrolment as USAAR PhD student.

The following scheme depicts the application and selection process for transparency and detailed information on the application documents (including illustrative examples in the annex), their evaluation with defined scoring system, conditions of the interview and redress possibilities are described in detail in the following sections.



*) application from other discipline, not meeting specified education and skill requirements

**) reserve list of few candidates is kept

Year 2023										
Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	call open*)									
			application assessment							
				job interviews**)						
						contracts issued				
								DCs start their contract (lastest 1.1.2024)		

*) call opening 25. Feb. 2023; call deadline 15. May 2023, 20:00 CET

***) scheduled days for the interviews (for each position) are announced on the website

TALENTS recruitment time plan

Online portal





Our dedicated [online submission portal](#) is the only accepted way for application. Only applications completed at the call deadline of May 15th, at 20:00 CET are considered in our evaluation and selection process.

Following the registration with your first and last name, e-mail and a password you will be able to Log in and start the application.



Start here

- 1 Register an account.
- 2 Start your application (save it in progress).
- 3 Submit your application to be reviewed.

Best of luck!

For any questions, please contact talents@helmholtz-hips.de

Register

First name

Last name

Email

Password
Must be at least 12 characters, including a number, an upper- and a lower-case letter and a special character.

Confirm password

I have read and agree to the [privacy policy](#), [cookie policy](#) and [terms of service](#).

I agree to receive notification and communication emails or SMSs from TALENTS. You may withdraw your consent at any time.

Register

Log in

Email or mobile

Password

Remember me

Log in

[Forgot password](#)

or log in with

Registration window of the online application portal.

Candidates wishing to apply for more than one project, have to submit an application for each of the project they apply for. Applications can be copied in the online portal and adapted only in some documents (e.g. letter of motivation, project proposal). The





selection committee is informed about candidates applying for multiple projects. However, evaluation is independent by the respective SC committee for the PhD position.

Applicants need to

1. fill the questionnaire about personal data, contact data, and education
2. clear the confirmations for meeting the requirements in academic entry degree, mobility rule, First stage researcher status and ethic commitment (see eligibility requirements section 2.2 for details and definitions).
3. Upload of the following documents is mandatory:
 - Curriculum vitae (provided template can be used, however is not mandatory)
 - Copy 1st page of passport (=as proof of identity)
 - Degree certificate (MSc or equivalent)
 - Transcript of records (with translation)
 - Letter of motivation (guidance document + example in the annex)
 - English language certificate, (for non-native speakers)

Applicants may

4. Upload some the following *optional* but recommended documents:
 - Project proposal (guidance document + example in the annex)
 - Reference letters (max. 2 letters per application)
 - Severe handicap pass (if applicable)
 - Other qualifications (maximum 2 documents, e.g., award certificates, front page of a scientific paper; scientific poster, document proofing social activity/engagement, creativity, etc.....) may be added

All documents for upload are required to be in **pdf format** and a technical **size limit of 5MB** for each single document applies.

Important notes:





All applications must be submitted via the online submission portal. Please do NOT send your application by e-mail or mail to any of the contact e-mails or the respective supervisors.

Only complete applications received via the official application via the online portal by the procedure outlined in this guide will be considered for evaluation. All applications must be submitted before the call deadline of May 15th, 2023 at 20:00 CET. Late applications are not accepted.

Applicants can apply for a **maximum of 3 projects**, by submitting an application for each of their projects of interest.

2.1 Eligibility criteria

All applicants to the programme must meet the following eligibility criteria at May 15th 2023, which is the closing date of the call.

- **be First Stage Researchers (R1)**
- **meet the Mobility Rule**
- **fulfilling Doctoral Candidate status**
- **confirm ethics commitment**

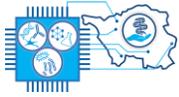
Applicants require a European **master degree** or equivalent as required for enrolment at Saarland University (please have a look at <https://anabin.kmk.org/> to ensure you degree is listed as “gleichwertig”). Master degree is finalized at the starting date of their contract (latest December, 31 2023).

First Stage Researchers (R1) are in the initial phase of their research activity (in the first four years of their research careers full time equivalent research experience) and have not yet reached a PhD.

Mobility Rule requires that applicants may not have resided or having their main activity (working/studying) for more than 12 months in Germany for the past 36 month immediately before the call deadline (15/05/2023, at 20:00 CET). This requirement is matching the MSCA definition. Applicants of all Nationalities are welcome. Time spent as part of a procedure for obtaining refugee status under the Geneva Convention, compulsory national service and/or short stays such as holidays are not taken into account.

Doctoral Candidates (DCs) have no doctoral degree at the call deadline (15/05/2023). Researchers who have successfully defended their doctoral thesis but who have not yet formally been awarded the doctoral degree will NOT be considered eligible.





Ethic Commitment asks confirmation of your commitment to the Horizon Europe ethical principles, the [European Code of Conduct for Research Integrity](#) and the EC document [Ethics for Researchers](#).

The eligibility check will look for:

- **Application received before the call deadline**
- **Containing of all mandatory application documents listed in section 2.2**
- **Fulfilling all three eligibility criteria listed above**

2.2 Application documents

Mandatory documents for application

1. **Questionnaire of personal information** filled and signed within the online portal
2. **Form declaring the eligibility criteria** (academic entering degree with according transcripts, R1 research career stage, mobility rule, and ethic commitment confirmed in the online portal) and according documents of proof; proof of English Language skills (e.g. Certificate)
3. **Curriculum vitae** you may use the provided template (upload as pdf)
4. **Copy first page of passport** (upload pdf)
5. **Letter of Motivation** (upload as pdf). Assistance “how to write” a motivation letter and a project proposal are available in the annex as well as examples.

Recommended or optional documents for application

- **Short proposal(s)** depicting your estimation/suggestion of the PhD project of your interest are highly recommended. Please upload the proposal(s) as pdf. When applying for up to three PhD projects, the uploading similar number of proposals is accepted. Guidance on their content and examples are available in the annex.
- **Recommendation letter(s)** e.g. by supervisor(s) of you master thesis, previous or current employer, hosts of internships etc. are highly welcome. Please upload them as pdf-file.
- **Any other document** e.g. award certificate, proof of disability status, ...(as pdf file(s))





3. Evaluation and selection process

3.1 Scoring for the Selection process (written application + interview)

The selection committees will be briefed to take into consideration the whole range of experience of the candidates. While focusing on their overall potential as researchers, their creativity and level of independence will be also considered. The criteria, scoring and threshold used in TALENTS are listed in Table below, reflect the whole range of experience for the selection. Each selection committee (SC) member will fill a candidate evaluation sheet for each applicant to identify the best fit between excellent candidates with appropriate background and the available research position.

TALENTS selection criteria with weighting and threshold values.

Scoring: 5= exceptional in all sub-criteria; 4= above average; 3= average; 2= below average, 1= unsatisfactory or not addressed

Evaluation criteria	Weighting (in %)	Required threshold
1.educational background, prior work experience and technical qualification/experience in resp. field	30	3.5
2. Creativity, initiative, and level of independence	35	3.5
3.English proficiency, verbal communication, presentation, time management	20	3.5
4. Merits: - scientific merits: achieved prizes, funding, publications, or patents - non-scientific merits: previous mobility, teamwork, interpersonal skills, teaching/supervision, communication to public, sensibility towards diversity	15	Not applicable

First evaluation criteria are the educational background, prior work experience and technical qualification/experience in a field fitting with the chosen PhD project. This criterion will be evaluated based on CV, letter of motivation, transcripts, and recommendation letters, if available.

Second criterion is the potential as researcher looking at the creativity, initiative, and level of independence of the applicants. This criterion will be evaluated based on the letter of motivation, short proposal and certain interview elements. Submission of a short proposal is seen as a sign of your eagerness to study the subject. Elaboration, methodological soundness, identification of critical aspects, and level of novelty will be used for judgment of candidates' proposals. Authorship and background knowledge of the short project proposal will be assessed in the discussion during the interview. The





spontaneity and repartee of the applicant will be challenged by a surprising off-topic interview question. Applicants will be asked for their career ambition.

Third criterion is the English language proficiency in the writing and verbal communication as well as presentation and time management during the interview. Applicants' notifying an impairment (e.g., speech impediment) will receive compensation (e.g., extra time, break).

Fourth criterion: Extra scoring will be dedicated for outstanding merits (achieved prizes, funding, publications, or patents) or important non-scientific achievements (previous mobility, demonstrated teamwork, interpersonal skills, teaching/supervision, communication to public, etc.).

All criteria will be touched in the evaluation of the written documents as well as in the interview. Therefore, the four selection criteria detailed in the above table will be applied for the ranking of the written applications as well as for the interviews.

All SC members, including the external experts, will score each criterion with 5-1 points. The average of all evaluation sheets will be used to calculate the final score applying the weighting factor and result in a final score used for candidate ranking. In case of one candidate being the top-ranked for two PhD projects, it is the candidate's choice for the project.

3.2 Organisation and content of the interview

The interviews with the doctoral candidates will be organised as videoconference for practical reasons and equal opportunities for applicants of all parts of the world. Only in case of insufficient internet connection, telephone interviews are used as fall-back option and with given accessibility (e.g., no language impairment). The interviews will all follow the same one-hour schedule: 5 min introduction of the SC participants, a prepared 10 min presentation (max. 10 slides) by the DC of his/her research background and experience, and a short Q&A session on the presentation and research skills. Submitted research proposals are discussed. This is followed by questions on the motivation to apply for a TALENTS project and the career goals. Questions will be predefined and in the same order for each applicant. The final few minutes give the applicant the opportunity to ask questions.

After the official interview, each candidate may talk in a non-formal setting with a current PhD student of the department of the main PI supervisor. This allows asking questions on the daily life in the lab and Saarland as a place to live, students support, experiences in the respective group.





Each DC is asked to provide a short feedback by email within two working days after the interview about the ongoing enthusiasm for the project. The SC members do the final ranking according to the interviews using the scoring described below.

3.3 Equal opportunities

Selection committees are briefed before the selection about unconscious affinity bias related to ethics, national, social, or economic conditions and non-discrimination against sexual orientation, religion or disability.

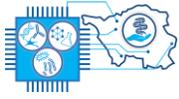
Persons with a career break or second career in science are evaluated equal to the other candidates.

Gender balance: The selection committees under the supervision of the TALENTS management team will seek to achieve gender balance among the recruited DCs. Although providing career development coaching to all fellows, special attention will be paid herein to females, since the drop in gender balance typically occurs at the postdoc level. Female PIs and supervisors in the TALENTS consortium will serve as role models and will provide advice in a specific mentoring programme for female DCs. The project will have a Gender Equality Plan guiding all processes with gender dimension e.g., gender balance for the recruited DCs and project management, laboratory health gender issues, equal working conditions of access, promotion, professional development; sensibilisation on communication and respectful behaviour, harassment/violence, but also research topics with a gender aspect. A conciliation officer will be set in place to deal with gender, but also other discrimination.

4. Appeals and redress

Appeals process: Should an applicant experience any shortcoming in the evaluation process of their application they can contact the TALENTS programme officer [Brigitta Loretz](#) with an appeal request. Such appeal must be made **within 10 days** of the date from sending the respective decision the applicant aims to appeal. Appeals must be submitted in written form by e-mail from the concerned applicant. The appeal must clearly and succinctly set out the grounds for the complaint. The appeal will be reviewed by a dedicated appeal/redress board and only will review procedural appeals not the experts' scientific and technical opinions and scores. Only one appeal per application will be considered.

All appeals will be dealt by the respective board under confidence. In case the board finds the appeal request justified, the respective application will be dealt like follows:



- appeal for “non eligibility” or “off-topic” – the application will be included in the remote assessment process.
- appeal for “remote evaluation and scoring” – a second remote review by different evaluators will be organized
- appeal for the job interview – a second interview will be organized with a panel including the appeal board to assess if the scoring of the interview is in scale.

The decision of the board after the described reevaluation is final.

Contracts will only be issued when the 10 days potential appeal period has passed.

5. TALENTS contact details

Talents office and Brigitta Loretz as programme officer are the contact for enquires regarding the overall programme and application process.

Please consult also the [FAQ section](#) on the website, which may already have an answer to your question.

Specific questions on the respective PhD positions should be sent to the office and will then be forwarded to the relevant supervisors.

Office

✉: talents@helmholtz-hips.de

Programme officer:

Dr. Brigitta Loretz, ✉: Brigitta.Loretz@helmholtz-hips.de;

Scientific coordinator:

Prof. Claus-Michael Lehr, ✉ Claus-Michael.Lehr@helmholtz-hips.de





6. General Data Protection Regulation

Saarland University as beneficiary and host of the TALENTS programme is responsible for data managing. The HIPS as HZI institution and partner within this project is empowered to conduct the recruitment and selection procedure. Personal data will only be collected as required for the purpose to assess and score the applicants with respect to the open position.

For what purposes do we process personal data and on what legal basis?

We collect personal data only with applicants consent. We use the management software AWARD FORCE (www.awardforce.com), which is in compliance with GDPR rules, as service provider to collect personal data from the applicants for the vacant PhD positions to carry out the application and selection process.

Personal data is processed in accordance with Article 6 Paragraph 1 Letter b of the General Data Protection Regulation (GDPR) in conjunction with Section 2 of the Federal Data Protection Act (BDSG). This personal data processing in the meaning of Art. 4 No. 2 DSGVO takes place to operate the selection process with regard to the open 15 PhD positions. If an application is successful, we also process the personal data for the upcoming employment contract.

Which personal data do we process?

We collect and use only the personal data that is required within our personnel recruitment processes and the contact enabling us to inform the applicant.

Specifically, this is the following data of the applicant:

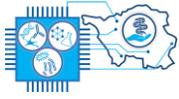
- identification data, e.g. surname, first name; copy 1st page of the passport
- Contact information, e.g. postal address, e-mail address, telephone number;
- Application documents (curriculum vitae, references, certificates, transcripts etc.);
- if applicable, information on severe disabilities or equal opportunities

Who and how do we share the personal data with?

All the personal data mentioned above is hosted on trusted, licenced servers by our service provider AWARD FORCE (ISO 27001 certificate and PCI-DSS attestation).

Within the Saarland University and Helmholtz Institute for Pharmaceutical Sciences Saarland (HIPS) only those persons that need the data to carry out the selection





process, or to carry out any employment relationship and to defend against asserted legal claims from the selection process will have access to the data.

The selection process involves an external expert for each selection committee. These persons will first sign a confidentiality agreement including instructions on data protection measures. Only the required persons of the respective committee will get access to each applicant's personal data via the online review process of the AWARD FORCE management software.

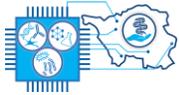
Results and statistical analysis of the application process is also reported to the European Commission as funding body of this graduate school.

In case an application is successful, we process the personal data for the upcoming employment with Saarland University.

How long is the data archived?

Applicant's personal data will be deleted 6 months after the end of the application process or after the purpose of the processing no longer applies or on the applicants request for data deletion.





7. Annex

Template CV

(download possible from the website)

First name(s) Last name(s)

Email address
Phone number
Post address

Summary

Short description of you as candidate.

Education & Training

year University, location, subject, final degree

year University

Reverse-chronologic, most recent on top
Exact date required for the master degree, only.

Work experience & Intenship(s)

Time Employer, location, position

07.-09. 2021 Erasmus stay at the University of

06.-08. 2020 Internship at company xx

Chronologic, current or most recent one on top.
Exact start/end dates are required for positions accounting to the limitations for contracts according to the Act on Fixed-Term Employment Contracts in Academia

Skills

- Technical skills
- Social skills
- Xx
- Language skills
-

Scientific output

- Scholarship for ...
- Poster presentation at the xxx conference
- scientific paper with your contribution (highlighting you in the author list)

Any achievement like prizes, grants, conference participations, publications, etc. you want to mention

Interests & Hobbies

- Sport(s)
- Membership in society
- Engagement for
- Hobby

Others

-
-

Optional: Any other thing you feel is important to add to get to know you as person.





Example CV

Lena Marie Musterfrau

Lena.Mustermann@gmx.de
+43 660 922 43721
Hauptstraße 18, 5020 Salzburg, Austria

Summary

I am an ambitious pharmacist with practical laboratory experience from my master thesis at the University of Vienna. As highly motivated and open-minded individual, I enjoy working in an interdisciplinary team. My analytical skills help me to solve complex problems.

Education & Training

02.2021-10.2021 University of Vienna, Austria, Master thesis in Pharmacy, MSc 04.10.2021
final grade 1.2

2016-2020 University of Vienna, Pharmacy study, Vienna, Austria

Work experience & Intenship(s)

01.2022- till now Working as pharmacist, Löwenapotheke, Salzburg, Austria

11.21- 04. 2021 Pharmacist trainee in public pharmacy, Löwenapotheke, Salzburg ,
Austria

06.-08. 2019 Internship at Sandoz GmbH Kundl, Department Biosimilars, Kundl,
Austria

Skills

- Experience in chemical synthesis, compound purification and analytics (NMR, MS)
 - Course speaker 2018-2020
 - English level B2
 - Teaching experience as assoc. lecturer inorganic chemistry
-

Scientific output

- Travel grant awarded for participation at the CRS congress Virtual Meeting 2021





-
- Poster presentation at the German chapter CRS Meeting 2021 Meeting in Aachen, Germany
 - Hoffmann E, **Musterfrau LM**, et al. New Nanoparticles: Formulation, Characterization and Evaluation of Cellular Uptake. (2021) *Pharmaceutical Research*.
-

Interests & Hobbies

- Mountain biking, jogging, swimming
- Travelling
- Engagement as first aider
- Membership in student union (ÖH)

Guide for writing your motivation letter

The cover letter should tell the evaluators why you are a suitable candidate and excellent choice for the open position. Together with the CV, the motivation letter is the most important document of an application. While the CV is a structured summary of key facts, this letter is written in a paragraph style, which allows showing your personality.

Essential contents are:

- the position you are applying for
- your motivation for applying for this specified position and
- relevant experience/skills you have and make you suitable for this position
- your career objective and how you expect the position/project contributing towards it

Pay attention to its content, but keep it concise e.g., by not exceeding a 1.5 full pages. The following description aims to provide ideas and guidance for selecting the relevant content. Few specific arguments, thought and selected experience, examples, are more convincing compared to a bunch of general statements, overstatement or use pompous metaphors statements (e.g. I am highly motivated to study oncology because I want to help people. It was always my dream to pursue scientific research at the highest level. It would be an honor to be admitted to your university.).

What is it that makes this Ph.D. project / position / training programme attractive to you? Maybe also explain from where your interest for exactly these research field(s) originates. Try to explain how the previous education/training and the envisioned position fit to your career goal.



Is the topic related to your master? Do you already have skills/experience to bring in or are you motivated in learning skills/making experiences to complement your previous experience in a certain way? What are the expectations i) what you can bring in and ii) get from the PhD position and the training program?

Try to demonstrate the enthusiasm for the specific project by demonstrating that you took time, evaluation and thoughts to understand the topic. For example describe in very brief what you expect in this project to happen (You can refer here perfectly to the optional short proposal, where we invite you to exactly describe/depict your vision) and why you are keen to be the person doing it.

Include description(s) of relevant experience(s) – scientific or non-scientific - (e.g., teaching involvement; participation in completions for grants or proposals; internships; invention or entrepreneurship; involvement in any dissemination actions scientific or to general public, etc. – and how you could imagine expanding it within the Ph.D. project/training program; emphasizing the importance towards your envisioned career track. Remember that evaluators will be looking for activities/achievements proofing initiative and independent thinking.

Some small formal things are important for good over-all impression to:

Starting your letter with addressing it to the respective supervisors with their correct names + titles.

Finish your letter with some closing paragraph: e.g. emphasizing your motivation and what impact the research project could have for your career and for science or/and importance to the society.





Example Letter of Motivation

Jane Q. Bloggs

Phone: (+61) 152 04208746

238 Majoribanks Street, Mount Victoria, Wellington 6011, New Zealand

Wellington, 16. November 2022

Dear Professor Claus-Michael Lehr,

With this letter I want to express my interest in the PhD project No 07/22 for the development of nanocarriers in the context of mRNA vaccination.

This research project attracted my attention because I followed the discussions on the mRNA vaccines during the COVID Pandemic and wondered why the nanoparticles used were never mentioned. The importance of delivery vectors for unlocking the potential of nucleotide therapies is not fully realized by the public. The currently used LNPs are a first clinical success. However, I believe further investigations in delivery systems will result in a broader applicability and public acceptance of nucleotide based therapeutics.

For my master thesis, I worked on a project of genetic modification and self-assembly of virus-like particles from tobacco mosaic virus, under the supervision of Prof. Yang Oh. My task was to selectively mutate and clone the reconstructed viral genome, produce the protein and finally test the VLPs for their carrier capacity towards plasmids. The results of my master thesis contributed to a publication, where I was happy to be involved as equally contributing first author (*Pharmaceuticals* 2022; doi.org/10.3390/ph081508). I am convinced that my molecular biology and technological skills in working with nucleotides (extraction, vector construction, amplification, electrophoresis analysis) and proteins (purification by FPLC, characterization by DLS and electron microscopy) will enable me an efficient start for the PhD project.

This PhD would also allow me to complement my experimental and technical skills by learning about complex cell culture models and new techniques and analyses to investigate the impact of mucosal delivery. My research proposal outlines how I imagine to optimize the nanocarrier for nasal delivery.

I made some first experience in communicating science to school children this spring, when a class visited our laboratory. I enjoyed explaining my research to them. The courses of the graduate school will assist me in developing my communication and other important soft skills.

I am looking very much forward to experience living and working abroad for broadening my horizon. The diversity of your network would provide me a platform for an extensive professional network. The interdisciplinarity of this research study and the chance of a secondment to the immunology partner lab will provide me with a skill set suited with my envisioned career track is to become a researcher in industry.





Given the possibility to develop my scientific profile within this PhD Project, I would be proud to contribute my best to the development of next generation vaccines, which our society will need.

Kind regards, *Jane Q. Bloggs*

Guidance document for project proposals

Why do we invite applicants to provide a short project proposal?

The exercise to think what you would expect from the described Ph.D. position should help you to choose a best fitting project for you.

By drafting a 1-page project outline you can showcase your enthusiasm and your capability to conceptualize, articulate ideas and organize them.

Your project proposals/outlines could follow a structure like this:

1. Project title
2. Topic of the project
3. Goal(s)/Aim(s)/Objective(s) OR Central research question / Hypothesis
4. Proposed approach(es) / Method(s)
5. Brief research plan or work schedule
6. Innovation / Significance of the project / expected research contribution
7. Synopsis or Summary

It does not necessarily need all listed sections. It should fit on 1 A4-page and use font size ≥ 10 . It can use drawings. It may include few literature references but is not required.

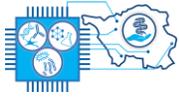
Read the project description of the PhD project of your interest to avoid proposals too far off the topic. However, the proposal are welcome to be creative rather than repeating the project description.

You feel that sounds difficult. Have a look at the provided examples!

Example project proposals

The following are two project proposal examples (without or with graphic) for the fictive project topic “Drug delivery for mRNA based vaccination”





Example 1

Title: Nasal delivery of mRNA-based vaccine

Topic of the project: mRNA vaccines made their way to clinics during the COVID pandemic and are supposed to be a valuable preventive strategy also against future viral challenges. Yet, the application route of intramuscular injection is likely not the most potent for protective antibody response.

Central research questions: Can nasal delivery improve the antibody response in comparison to intramuscular injection? Are currently used LNPs suitable for nasal application?

Hypothesis: LNPs are PEGylated and will be sufficiently muco-penetrating to provide immune response when nasally applied.

Proposed method: Comparing the immune response created by mRNA-LNP, in particular mucosal antibodies, after i.m. and i.n. application in a mouse model. In case of insufficient immune response, the addition of adjuvant or the optimization of the LNPs by variation of the PEGylation density and chain length is investigated.

Work plan:

1. Generating LNP particles and formulation for nasal application.
2. Selection of suitable mRNA and mouse model.
3. Comparison of the immune response i.m. vs i.n. route.
4. Optimization of the LNP system.

Significance of the project: Success in nasal delivery to provide a better protection against the infection would be an important improvement against the current mRNA vaccine, which protects mainly against getting the severe disease symptoms and is likely to have an essential impact on the acceptance and usability against more viral infections.

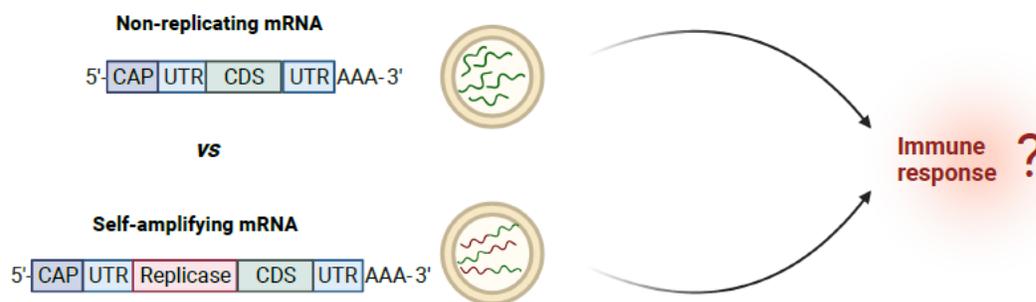
Synopsis: This project aims to widen the applicability of mRNA LNP vaccine for the non-invasive nasal route. During my master thesis, I worked with nanoparticle delivery systems for siRNA delivery and tested them in cell culture systems. Performing this project would allow me to widen my experimental skills towards in vivo testing and immunological assays. Nucleotide delivery is a current research topic and I consider it to grow further since it opens many therapeutic options e.g., for in genome editing. My envisioned industrial career track would certainly profit from this PhD project.



Example 2

Title: Comparison non-viral nanoparticle mRNA and self-amplifying mRNA in transfection efficacy and immune response

Topic of the proposal: Self-amplifying mRNA (sa-mRNA) has the advantage of yielding higher mRNA and transgene protein levels upon successful delivery, which should result in higher immune response. The challenge of sa-mRNA is the larger size complicating the delivery. The project will compare LNPs delivering conventional non-replicating mRNA with sa-mRNA analyzing if the self-amplification is strong enough to outcompete protein translation or if the easier transfection of non-replicating mRNA yields similar results.



Work plan:

1st year: Establish LNP production, characterization and loading with mRNA and sa-mRNA; Optimization of LNPs for long RNAs might be required and is anticipated to be done by Design-of-experiment.

2nd year: Comparison of transfection efficacy mRNA-LNPs vs sa-mRNA-LNPs in cell culture with particular focus on transgene expression amount and time of expression

3rd year: Comparison of immune response mRNA-LNPs vs sa-mRNA-LNPs in a mouse model

Significance of the project: The use of replicase to boost transgene expression can be a viable way to make mRNA vaccines more efficient, when the delivery challenge is solved.