

How to become a JSMC Doctoral Researcher



A guide to the Jena School for Microbial Communication

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1.A A brief introduction to JSMC

JSMC history in brief

- **2006:** Foundation as umbrella organization of three Research Training Groups and as Model Graduate School within the Jena Graduate Academy at the Friedrich Schiller University
- **Nov 2007:** The JSMC concept is awarded funding for 5 years within the prestigious and highly competitive German Excellence Initiative
- **June 2012:** The JSMC renewal proposal was successfully evaluated, resulting in an extension of funding for another five years (2nd phase of the German Excellence Initiative)
- **2019:** The JSMC is funded by the Carl Zeiss Foundation as part of the *Jena Alliance Life in Focus*.

More info about the German Excellence Initiative:

[German Research Foundation \(DFG\)](#)

[Excellence Strategy Portal](#)

[Carl Zeiss Foundation](#)

The three aspects of JSMC

Graduate School

JSMC provides a comprehensive training program to early career researchers working on one of the multiple facets of 'Microbial Communication'. This includes a **scientific mentoring program** and an extensive **pool of state-of-the art methods courses**. In conjunction with the Jena Graduate Academy, a broad **study program on transferable skills** for scientists is offered. JSMC aims to prepare early career scientists for both a successful career in academia and in industry.

JSMC offers different grant schemes to provide support in the phase after earning the PhD, summarized under the '**JSMC Career Orientation Grants**'.

Scientific Network

The JSMC network comprises:

- 15 university institutes within 5 Faculties of the Friedrich Schiller University
- 2 clinics at the University Hospital Jena
- 6 non-university research institutions
- 12 biotech partner companies

What is more, JSMC serves as a **crystallization point for numerous, innovative major projects**.

Umbrella Organization

The JSMC has its origin as umbrella organization of three **Research Training Groups** in Jena. These are/were

- the International Leibniz Research School for Microbial and Biomolecular Interactions (ILRS Jena)
- the International Max Planck Research School (IMPRS) on "The Exploration of Ecological Interactions with Molecular and Chemical Techniques"
- the DFG Research Training Group GRK 1257 "Alteration and Element Mobility at Microbe-Mineral Interfaces"

JSMC conceptually unites the different research areas of these three groups (microbial communities, interactions with plant, animal and human hosts, and environmental interactions) into a comprehensive picture of microbial communication. One of the aims of this integration is to use scientific and educational resources jointly in order to enhance their efficiency.

More information about JSMC can be found
on the JSMC homepage: www.jsmc-phd.de

2. Regulations for JSMC admission

There are three ways of how to become a 'JSMC Doctoral Researcher' (and, with this, being eligible to the services listed in **section 3** and being subject to the expectations in **section 4**)

a) **By successful participation in a JSMC Recruitment**

Candidates who applied directly for a JSMC Doctoral Researcher Position offered within a JSMC Recruitment Call and got invited to a JSMC Recruitment Meeting are selected for admission to the Graduate School by the JSMC Faculty represented in the recruitment selection committee. For details on the recruitment process, see www.jsmc-phd.de/jsmc-recruitments.html

b) **By application, backed up by the PhD supervisors (after having successfully passed a JSMC Research Training Group recruitment)**

The qualification criteria of all Research Training Groups embedded in the JSMC have been standardized and, thus, are almost identical to those of the umbrella Graduate School JSMC. Therefore, admission to the JSMC after having successfully passed a recruitment of one of these groups is very straightforward. It requires a short cover letter, a CV and a supervision agreement (see application form *A.1.* in **section 6A** or supervision agreement for the university). Admission is granted after confirmation by the JSMC Office that the formal admission criteria are fulfilled.

c) **By application, backed up by at least two JSMC Faculty members (without having passed a recruitment)**

Doctoral researchers who have not participated in a recruitment meeting by the JSMC or one of its affiliated Research Training Groups can nevertheless apply for admission. To assure equivalency to the procedures required by the a) and b), a letter of support from at least two JSMC Faculty members is required as well as a letter of motivation from the candidate. The JSMC Executive Board decides about these applications for admission (see application form A.2. in **section 6A**).

IMPORTANT:

*Applications for JSMC admission (with regard to the above sections b) and c)) have to be submitted to the JSMC Office **within three months after acceptance by the Faculty** (in singular exceptions acceptance to the JSMC Program within six months after starting the doctorate project is possible). For details, please contact office@jsmc.info. Please provide confirmation from the faculty.*

*Please only send a **complete** application as a single PDF file including a short cover letter, a separate motivation letter (stating clearly what you expect to achieve, why you want to join the JSMC, etc.), your CV including your master's degree (or equivalent), the signed supervision agreement form and recommendation letters! (see all documents in **section 6A**)*

3. Services for 'JSMC Doctoral Researchers' – the benefits of being a JSMC member

*A brief overview of benefits and services offered to doctoral researchers admitted to the Graduate School JSMC based on the regulations described in **section 2**.*

Career training and general support

- JSMC PhD Certificate: certified list of accomplishments after successful completion of the JSMC Training Program
- Administrative and organizational support by the JSMC Office
- Joint course pool together with the JSMC Research Training Groups (all courses are open for all members of these groups) including centralized course evaluations
- JSMC Events (see also **sections 4b-4d** for more info):
 - 'MiCom' - the international doctoral researchers' conference (including the opportunity to participate in the conference organization)
 - Early Career Research Exchange Seminar
 - Microbial Communication Colloquium MiCoCo Stars (including the opportunity to invite guest speakers for this colloquium series)
 - JSMC Symposia & Retreats
 - Joint Workshops with partner organizations
 - Numerous seminar series within the JSMC network
 - Alternative Careers in Science seminars
 - Social events
 - ...

Grant schemes for career & networking support

- JSMC Career Orientation Grants (application is possible anytime)
 - Travel grants for international lab visits
 - 6-month postdoctoral orientation phase fellowships
- Additional support for active conference participation (accepted presentation) or research stays (each JSMC Doctoral Researcher is eligible to apply annually for up to 1.000 € from JSMC funds to support scientific travel activities), after successful application, the doctoral candidate is expected to acknowledge the JSMC funding during their presentation (poster or talk), the funding can be partially granted depending on the applicant's participation at the JSMC; applications accepted anytime

For more information, please contact office@jsmc.info

Networking services

- JSMC mailing list (for communication among doctoral researchers, e.g. on experimental issues, joint social events, etc.)
- Personal CV/project description/list of publications on the JSMC website
- JSMC Alumni Network

See [section 6E](#) for more info

Participation in decision-making in JSMC through candidature or election

- Doctoral Researchers are represented by their speakers at the JSMC Executive Board meetings
- The Doctoral *Speakers* coordinate activities within the JSMC Community and communicate ideas, input, and concerns with the JSMC Management

For more information, please contact jsmc-speakers@uni-jena.de or jsmc_speakers@listserv.dfn.de

Informational resources

- JSMC Newsletter (JSMC Community news & events, career opportunities, features of informative scientific resources) ([link to Newsletter on our website](#))
- JSMC Website Event Calendar covering all seminars, courses, symposia etc. within the JSMC network ([link to Event Calendar](#))

4. What is expected from JSMC Doctoral Researchers?

a) The JSMC PhD Training Program / JSMC Credit Points

First and foremost, JSMC Doctoral Researchers are expected to invest great efforts in their research project, striving to build up a publication record that makes them internationally competitive for their subsequent career steps. Next, they are expected to participate in the JSMC PhD Training program to further strengthen their career opportunities. This program consists of three areas:

- Scientific program (e.g. participation in methods courses, summer schools and conferences, research stays abroad or in the industry)
- Mentoring Program (e.g. thesis committee meetings, participation in workgroup seminars and school symposia)
- Transferrable skills program (e.g. advanced training in communication and management skills, teaching activities, public relations, and networking activities)

JSMC provides a pool of opportunities to allow each Doctoral Researcher to individually design his/her career training geared toward personal career plans. Activities beneficial to the career or to JSMC are flexibly rewarded with credit points (cp) to secure the JSMC career support standards. The JSMC Certificate will be awarded if a total of 30 cp are gained within a 3.5-year doctorate (see JSMC Credit Point Key in [section 6C](#)).

Requirements for doctoral researchers affiliated with a JSMC Research Training Group

Usually, activities/achievements within the programs of the Research Training Groups embedded in JSMC can straightforwardly be transferred into JSMC credit points. The JSMC Office strives to keep the doctoral researchers' bureaucratic efforts required for this at a minimum.

b) Activities within the JSMC Community

JSMC Doctoral Researchers are expected to integrate and actively participate in the JSMC Community. There are numerous different possibilities to do this. Some examples:

- utilizing the JSMC network for access to analytical facilities in the JSMC-associated institutes
- seeking collaborations with or input from other JSMC researchers
- participating in the organization of the international JSMC conference '**MiCom**'
- participating in and organizing **Microverse JSMC Early Career Exchange Seminar** (for informal exchange between the doctoral researchers; see [section 6E](#))
- joining JSMC social events (e.g. canoeing, JSMC Stammtisch, soccer, city visits, beach volleyball...)
- giving presentations at a **JSMC Symposium** or **JSMC Retreat**
- inviting guest speakers to the **MiCo Colloquium**
- using opportunities for participation in decision-making within JSMC
- posting questions, opinions, ideas, or constructive criticism to the JSMC mailing list or making suggestions for the JSMC Newsletter
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c) The Microbial Communication Colloquium (MiCoCo)

MiCoCo is a bi-annual seminar series with invited guest speakers aimed to cover all disciplinary facets of 'Microbial Communication'. It is coordinated by the JSMC Doctoral Researcher Speakers with assistance from the JSMC Office. All JSMC members are encouraged to suggest MiCoCo guests (by email to speakers@jsmc.info).

The MiCoCo is considered central to the JSMC and aims to

- provide an overview of the scope JSMC research fields and insights in current research on 'Microbial Communication' outside Jena
- provide an opportunity to personally get to know interesting researchers in the field
- regularly bring together the JSMC members
- foster early networking of the JSMC Doctoral Researchers (e.g. for future postdoc positions or collaborations)

Therefore, JSMC Doctoral Researchers are **expected to regularly attend the 1 guest lecture per semester**. Moreover, they are strongly encouraged to invite guest speakers and to look after them during their stay in Jena. Through suggesting and inviting guests, they can ensure that the MiCoCo covers aspects of their research can establish personal contacts with renowned scientists of their interest (see [section 6E](#))

Usually, the MiCoCo lecture is followed by a "Nachsitung" at the restaurant "Zur Noll" for informal discussions with the invited scientist. All JSMC members are invited to join this gathering.

d) The International Conference on Microbial Communication – MiCom

MiCom was initiated by JSMC Doctoral Researchers in 2010. The conference has since been organized annually by JSMC Doctoral researchers for doctoral researchers from all over the world (www.micom.uni-jena.de). Over the years, MiCom has grown both in international visibility and professionalism, while at the same time retaining its original concept as a lively forum for vivid discussions and personal contacts.

For the JSMC Doctoral Researchers MiCom provides a unique opportunity to gain hands-on experiences in scientific event organization and to enhance personal networks through participation in the conference organization.

Since the number of external MiCom participants has substantially increased over the past years, it is no longer possible to reserve seats for all JSMC Doctoral Researchers. Nevertheless, JSMC Doctoral Researchers are expected to support the continuous success of this 'flagship of JSMC' either by their participation or by spreading the word about the conference.

Each JSMC Doctoral Researcher is **expected to present their research to the JSMC Community at least once per year** either on the occasion of the Microverse JSMC Early Career Exchange Seminar or the MiCom or at an internal symposium/retreat of the JSMC.

5. What is expected from supervisors of JSMC Doctoral Researchers?

All mentors of the JSMC Doctoral Researchers are expected to agree to the **JSMC supervision standards** as laid down in the JSMC Supervision Agreement (see [section 6A+B](#)). The most important aspects of this agreement are the supervision by a team of at least two mentors ('**Thesis Committee**') and the annual meetings of this team with the JSMC Doctoral Researcher ('**Thesis Committee Meetings**').

Moreover, it is the responsibility of the Thesis Committee to regularly advise the mentees on the rules of **Good Scientific Practice** and to support their **integration into the scientific community**, thus promoting their career chances after earning the PhD. All JSMC mentors are strongly encouraged to participate in **JSMC Events** such as the Microverse JSMC Early Career Exchange Seminar, symposia, retreats, and the MiCo Colloquium and are expected to support the JSMC Doctoral Researchers in their activities within the JSMC Training Program and the JSMC Community.

Since the JSMC Training Program is – to a considerable extent – built on 'internal expertise', the supervisors of the JSMC Doctoral Researchers are expected to contribute to this program by organizing practical **Methods Workshops** on state-of-the-art research methodologies applied in their labs.

6. Further informational resources & forms in the context of the JSMC membership

Please **click on the links below** to access the documents; they are also available from the JSMC Office (office@jsmc.info)

A. Application for JSMC admission

- A.1. Application form (including supervision agreement) for doctoral researchers who have passed a JSMC Research Training Group recruitment
- A.2. Application form (including supervision agreement) for doctoral researchers who have not participated in a JSMC Research Training Group recruitment
- A.3. CV form for all applicants

B. Thesis committee meetings

- B.1. Supervision agreement after admission to the JSMC following a JSMC Recruitment (= protocol of the 1st Thesis Committee Meeting)
- B.2. Protocol form for subsequent Thesis Committee Meetings (for all JSMC Doctoral Researchers)

C. JSMC Training Program / Credit Points

- C.1. BatchCard sample
- C.2. Credit Point Key
- C.3. Sample Excel sheet for the credit point calculation

D. General info

- D.1. JSMC Brochure (English / Deutsch)
- D.2. JSMC Statutes in German
- D.3. JSMC Statutes (English translation)

E. Technical info

- E.1. FAQ on how to use the JSMC Mailinglist & the JSMC Discussion Forum
- E.2. FAQ on how to use the JSMC Email Address (jsmc.info)
- E.3. How to invite a guest speaker for the MiCo Colloquium
- E.4. How to prepare an Informal Meeting