



GUIDELINES

FOR THE POSTDOC
STAGE IN THE
MAX PLANCK SOCIETY

CAREER CONDITIONS
FOR POSTDOCS

PREAMBLE

Postdocs make a major contribution to the research performance of the Max Planck Society as an organization dedicated to basic research.

Postdocs conduct research independently under the leadership of their superiors¹ yet without extensive administrative or personnel management duties. They can use this freedom to identify a field of science in which they can distinguish themselves internationally through original contributions. Postdocs exhibit particularly high commitment and dedication as this phase is decisive for their future careers. During this period of time, many of them also start families. Thus, they face major challenges in these areas of life.

The Institutes (MPI) of the Max Planck Society provide postdocs with excellent working conditions, thus providing optimal conditions for the development of their scientific profiles. However, the postdoc phase is limited in time, and only a minority will eventually attain leading academic positions. Therefore, this career stage generally entails a high degree of career uncertainty, which can lead to promising talent opting for positions outside of academic research. Among these are many more females than males, resulting in a preferential drop-out of highly qualified female scientists from academic careers.

The Max Planck Society is firmly committed to providing strong support to its junior scientists in advancing their qualifications. Particular emphasis is placed on the postdoc's personal scientific development, e.g. by supporting independent research and conferring responsibilities. It is equally important during this career stage to clearly communicate expectations regarding research performance, to support the postdocs in reaching their personal goals for further qualification, and to provide regular career advice. Such advice should also include counseling on the diverse spectrum of job opportunities outside the realm of academic research.

There is a great diversity of research cultures and traditions within the Max Planck Society. The following guidelines are to be seen and applied in light of this diversity. They provide a foundation for greater transparency and reliability during a career stage with little structure to date. The employment relationships, however, need to be tailored individually. They are based on various legal provisions, as the postdoc stage is not adequately covered by the provisions of Civil Service legislation.

1. CONCEPT AND PURPOSE OF THE POSTDOC STAGE

Postdocs² are scientists who have obtained their doctorates and who, after doing so, initially remain in research and usually pursue a career in science. The postdoc phase serves to develop a scientific profile and to acquire additional qualifications, aiming for the ability to conduct independent research.

The postdoc phase is time-limited, with different periods of time being customary in various disciplines. The Max Planck Society employs postdocs by means of temporary contracts, which are funded either by internal Institute budgets or by project-specific grants. In addition, some postdocs have procured their own funding (e.g. fellowships, or grants that may include funding for the own position).

¹ In the case of scholarship holders or guests under the leadership of the supervisor.

² The text does not apply to so-called "wrap-up postdocs," who continue for some months at the same institution upon finishing their PhD in order to complete and publish their dissertation work.

Postdocs conduct independent research under the direction of their superiors within the thematic realm of the Institute's research programme.³ This includes scientific cooperation from which joint publications may be produced.⁴ The degree of independence depends on the discipline, field of research and level of individual experience. It usually increases with seniority and may include application for own external funding. In certain disciplines, postdocs are expected to change institutions upon completing their doctorate. This allows them to clearly separate themselves from their doctoral training period, to expand their scientific network, to acquire new methods and procedures, and to experience a different research culture.

The purpose of the postdoc phase is also to clarify the future career path. While most postdocs initially aim for an academic career, many decide later to pursue different career paths, e.g. in industry, science management, scientific infrastructure, politics, or as entrepreneurs by establishing their own company. Such re-orientation often develops gradually, and it is not always well-planned and reflected.

2. THE COMMITTEE'S RECOMMENDATIONS IN DETAIL

2.1 Selection of postdocs

Group Leaders or Directors autonomously decide whether a potential candidate/applicant should be offered a postdoc position. Nevertheless, they are advised to obtain the views of colleagues and team members. Particular attention should be paid to attracting more qualified women to such positions when selecting postdocs in view of the *leaky pipeline*.⁵

2.2 Research and qualifications

The following guidelines apply regardless of whether postdocs are funded through a fixed-term contract of employment under the Academic Fixed-Term Contract Act (Wissenschaftszeitvertragsgesetz, WissZeitVG) or the Part-Time and Temporary Employment Act (Teilzeit- und Befristungsgesetz, TzBfG). They apply to scholarship holders *mutatis mutandis* unless this conflicts with the type of scholarship involved.

Before the postdoc phase begins, superiors/supervisors and postdocs usually meet for a discussion in which the main components of the postdoctoral period within the Max Planck Society are clarified by mutual agreement.

The results of the discussion are recorded in mutually agreed minutes⁶.

If it is not yet possible to precisely define the future research project, qualification requirements and timeframe at the beginning of the postdoc phase, a one-time orientation phase⁷ of up to six months can be initially agreed. During the orientation phase an agreement on the main components can be reached and needs to be recorded in minutes before any further contract is concluded.

The following points will be clarified in the discussions:

- a) the duration of the postdoc phase: the parties will agree on a reasonable time frame required for successfully conducting the research project.

3 In the case of scholarship holders or guests under the direction of the supervisor.

4 Cf. the Rules of Good Scientific Practice https://www.mpg.de/229457/Regeln_guter_wiss_Praxis__Volltext-Dokument_.pdf

5 While the percentage of women among Max Planck doctoral students is 40.9 % (as of 1.1.2015), it has fallen among postdocs to 31.3 %.

6 In the event that a fixed-term employment relationship is concluded, the minutes, together with the note on the fixed term, must be produced before the contract is concluded.

7 The instructions in the appendix "Qualifications in the postdoc orientation period" are to be observed.

- b) the research topic and surrounding conditions: topic; if applicable: methodology, team, supervision, collaborations, organization of events, support from supervisor, degree of independence, particularly in publishing their work, authorships.
- c) the qualifications that the postdoc plans to acquire and that are mutually agreed. This may include: developing a scientific profile, acquiring techniques, gaining teaching experience, active participation in conferences, experience in staff management, training in “professional skills”, habilitation (required in some countries as qualification for a professorship) or other qualifications for a professorship.

Both the definition of the research topic and the agreement on qualification steps can be refined at any time by mutual agreement. The minutes must be modified accordingly. This can also be done as part of the annual status discussion.⁸

2.3 Time limit

The postdoc phase is time-limited, but with reasonable contract durations and without a fixed upper limit. In many disciplines, the duration usually does not exceed 4 years. If there are strong reasons for extending this phase beyond 6 years, the decision regarding the extension⁹ requires agreement between several independent assessors and needs to be justified. The Institutes are advised to develop procedures on this process.

The overarching aim of the Max Planck Society is to only recruit the best at every career stage in accordance with the Harnack principle. Conversely, that means there are no regular transitions for postdocs towards advanced, possibly unlimited (tenure-track) positions within the Max-Planck Society. As is standard practice internationally, postdocs are required to orient themselves elsewhere upon completion of the postdoc phase at an MPI. Postdocs should be informed of this at the beginning of their work.

All time lines given above refer only to the time periods allotted to research. Time limits may be extended due to parental leave, chronic illness etc.

2.4 Status review and career development

A status review has to be carried out for postdocs in the fourth year after the commencement of the first postdoc position at the latest. Goal of this review is to realistically assess the researcher’s own development and prospects of success in relation to the career objectives and to develop alternative career prospects, if necessary. If it is planned for a postdoc to work in a time-limited position for longer than four years after commencement of their first postdoc position, the review is mandatory.

This status review shall include the following components:

- (1) a detailed consultation with the supervisor, which should focus on a comparative appraisal of past research performance and the perspective for future development. In addition, it needs to be discussed what is required for reaching the next career step. Highly qualified scientists – especially women – should be encouraged to continue pursuing an academic career.
- (2) a consultation with an experienced scientist who has been selected by the postdoc, who is independent of the supervisor, and who is able to give qualified feedback on the prospects for a successful career in science.

⁸ If the minutes were the basis for fixing the term of the employment relationship, any modifications must always keep within the time frame and substantive framework defined in the note on the fixed term contract.

⁹ Statutory regulations governing the imposition of time limits on employment relationships must be observed. In particular, according to § 2, para. 1 Academic Fixed-Term Contract Act (WissZeitVG), it is only possible to establish a term of over six years for employment relationships in the 2nd qualification phase in exceptional circumstances.

- (3) (optional) a consultation with an external coach intended to assist in the self-assessment of the postdoc's own strengths and weaknesses regarding various career paths. This consultation should be made available at the request and initiative of the postdoc.¹⁰
- (4) (optional) consultation with a recognized consulting company specialized in professional career advice. This consultation should be commissioned by Administrative Headquarters and serve to outline attractive career options outside of science. This consultation shall be offered at the request of the postdoc.

The individual consultations shall be supported by other measures such as career fairs or talks by alumni or industry representatives.

2.5 Further scientific consultation

Counseling of postdocs on scientific and career matters is an important instrument in supporting their future careers. The Institute or the supervisor shall offer the necessary guidance, and they shall also provide information where expertise about specific aspects can be obtained (e.g. for research applications to the German Research Foundation or to the European Research Council). Postdocs shall also be encouraged to find outside experts who can give professional advice.

Surveys indicate that young women, despite equally good performance levels, have more doubts than young men about their ability to have a successful scientific career. Superiors should therefore make explicit and intensive efforts to encourage qualified female postdocs to pursue this career path and to enable them to do so. They should ensure that women become just as eager as men to shape their scientific profile and to present their research results at conferences and congresses. *Minerva-FemmeNet* provides a Max-Planck-wide mentoring program for female postdocs. It arranges contact with experienced female mentors who provide mentees with advice on individual career planning and their future career path. Superiors should make female postdocs aware of this programme.

2.6 Personnel management skills

The Institute should offer training for postdocs to acquire skills in personnel management. Suitable postdocs can be involved in the supervision of bachelor and master students, doctoral students and/or technical assistants, or other staff.

2.7 Promotion of scientific activity organized by the postdoc

In many disciplines it is expected from postdocs as part of their qualification that they take on tasks for the scientific community outside of their own project, and that they gain organizational experience. Such activities should be adequately supported. Examples include: conducting seminars, inviting and attending to outside speakers, offering scientific courses or know-how transfer, organizing retreats and other measures designed to help establish networks and to benefit from the reciprocal exchange of information.

Initiatives by postdocs to organize themselves at the institutional level (e.g. through postdoc associations, postdoc programs, postdoc representatives) should be encouraged, endorsed and, if necessary, supported logistically and financially.

¹⁰ Several external and professionally trained coaches are available who have specialized in the transition from a career in research into the non-academic employment market. The work of external coaches is clearly distinct from the scientific supervision at the Institutes and the mentoring.

2.8 Advanced training in professional skills

Postdocs should have access to advanced training sessions on professional skills and career-related topics, which are specifically targeted to postdocs. Institutes should advertise the advanced training events which are offered by Administrative Headquarters. Postdocs should also be given the opportunity to gain teaching experience.

2.9 Reconciliation of career and family life

Reconciling the start of a family with a scientific position in the postdoc phase, which is crucial to subsequent career development, poses a major challenge for parents. Every Institute should undertake measures to enable an early and flexible return to research for postdocs after the birth of children. In particular, these include flexible and family-friendly working hours instead of rigid mandatory attendance times. Such a flexible approach is easier to implement in research than in other professions. Working hours at home should also be recognized, and if necessary, with relevant adjustments to the employment contracts.

Further measures include the family-friendly scheduling of events and meetings, as well as support from technical staff. Assistance with childcare (e.g. by securing slots at childcare centers or by providing childcare during events and research or conference-related trips) should be improved beyond the Max Planck Society's existing family services both centrally and at Institute level.

3. IMPLEMENTATION OF THE GUIDELINES

The Scientific Advisory Boards are to explicitly address the question of the supervision of postdocs in their regular evaluation of research facilities, and they should do so taking into account the guidelines for the postdoc phase in the Max Planck Society.

ANNEX

QUALIFICATIONS IN THE POSTDOC ORIENTATION PERIOD

If it is not yet possible to precisely define the future research project and qualification requirements when the postdoc stage starts, a one-time orientation period of up to six months can be initially agreed.¹¹ This is appropriate in particular if the start of the postdoc stage also involves a change of research field and a change of Working Group. If the postdoc remains in the same Working Group or moves to one with which they are already very familiar (e.g. same Institute, cooperation partner), there will not generally be an orientation period, or otherwise separate justification is required. The orientation period enables postdocs to familiarize themselves with a new scientific topic within a defined period, to acquaint themselves with new methodological and experimental techniques and to develop an initial concept for ongoing research work.

The orientation period therefore pursues two objectives. Firstly, a viable research plan is drawn up in close cooperation with the superior/supervisor which is acceptable to both parties. Secondly, this period allows the postdocs to become so familiar with a new topic and new methods that subsequently productive research work can be carried out and new research topics can be developed independently. These qualifications are particularly important immediately after the doctorate as it is often not easy to tackle a new topic after the usually high degree of specialization during the doctorate. This broadens specialist horizons and provides an opportunity to acquire skills that are transferable to other topics and that also provide qualifications for careers outside of research. International experience shows that a period of up to six months is generally appropriate for such orientation.

¹¹ In the event of an orientation period, the minutes, together with the note on the fixed term, must be produced before a further contract is concluded.