



Paul Ehrlich Graduate School for Tumor Biology - PEGS



version 1.1 - 05.10.2022

(subject to regular updates based on feedback from PEGS researchers)



History of changes

Version	Publication date	Changes
1.0	01.08.2022	Initial version (internal)
1.1	05.10.2022	Introduced history of changes and updated contact page Repaginated Annexes

Contributors - Concept developed by researchers in the Georg-Speyer-Haus in Frankfurt am Main, Germany with valuable feedback and inspiration from other graduate schools in Germany. Thanks to all past and future contributors of PEGS, together everyone achieves more.

Contact - Dr. Alina Jurcoane a.jurcoane@georg-speyer-haus.de

Sources of images in this document – GSH or <https://unsplash.com/>

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PEGS Paul Ehrlich Graduate School for Tumor Biology

A mandatory framework for GSH Doctoral Researchers starting on/after 01.08.2022 and open for all others.

The Paul Ehrlich Graduate School for Tumor Biology (PEGS) is the structured Graduate Program of the Georg-Speyer-Haus, Institute for Tumor Biology and Experimental Therapy (GSH) in Frankfurt am Main, Germany. The interdisciplinary, international orientation of the GSH and its strong cooperation with the Goethe University in Frankfurt offers an attractive research environment at the interface between basic and clinical cancer research.

This is the concept of PEGS, a document regularly updated according to feedback from GSH researchers.

Goals

The goal of PEGS is to recognize individual potentials and to provide knowledge, skills and qualifications preparing for a successful professional career. Within the framework of the PEGS, a **mutual responsibility** is established between the Doctoral Researcher and their supervisor for all phases of **qualification leading to the doctorate** and the **development of a personal career plan**.

On the day of starting their employment at GSH, Doctorate Researchers will be automatically enrolled in PEGS. A separate application is not required. The Program is mandatory for GSH Doctoral Researchers starting on/after 01.08.2022 regardless of which university they are/will be enrolled in. The PEGS forms the basis for a structured progression of the doctoral work and study, it issues a certificate of completion but does not issue degrees.

PEGS is open to but not mandatory for other researchers (Doctoral Researchers that started before 01.08.2022, postdoctoral, master and trainee researchers) in the GSH.

Within the program, researchers will receive a wide range of technical and scientific support as well as personal assistance. The support and assistance aim to foster young scientists by promoting scientific excellence and personal competence.

General Information

The PEGS program consists of original and independent **research leading to a doctoral thesis, supervision and guidance by a PI and a thesis advisory committee** and a **catalogue of additional activities** documented in a **Study Record Book**. The purpose is to build skills needed for the completion of the doctoral project and develop professional and transferrable skills relevant for the future career of the Doctoral Researchers. Based on the Study Record Book and the corresponding credit points (CP), PEGS may issue a certificate of completion, but this does not replace the degree awarded by the university.



In Germany, only universities can award doctoral degrees. PEGS Doctoral Researchers **must therefore enroll in a German university, no later than 6 months after enrollment in PEGS.** Usually this is done at a faculty at one university in the Rhein-Main area, for instance (but not limited to):



- Goethe University - Faculties 14 - [Biochemie, Chemie und Pharmazie](#) and 15 – [Biowissenschaften](#) (Dr. rer. nat./Dr.phil.nat.) or 16 – [Medizin](#) (Dr. med. - Dr. med. dent. - Dr. rer. med., MD-PhD / PhD). More info on [Doctorates](#) and [Application procedures](#) at Goethe University can be found on the links. Very useful [information](#) is also offered by GRADE, Goethe Research Academy for Early Career Researchers.
- TU Darmstadt (Biologie, Chemie – [info here](#))
- Johannes Gutenberg University Mainz (Faculties 10 – Biology – [Dr.rer.nat.](#) or [PhD, MD/PhD](#) in Translational Biomedicine (also for Faculty 4 - Medicine)).

The universities award a large palette of doctoral degrees depending on previous undergraduate studies of Doctoral Researcher (Dr.phil.nat, Dr.rer.nat., PhD, MD, etc). The graduation criteria of the universities are laid down in the doctorate regulations of the respective faculty and are applied to their full extent.

Study Record Book

Each Doctoral Researcher keeps a Study Record Book to provide evidence of their mandatory attendance of the lectures, courses, workshops, or other activities within the PEGS Program. A (preferably electronic) copy of the Study Record Book should also be kept and updated by the PEGS coordination office. **The Supervision Agreement, the Research Project and Personal Development Plan, the Annual Progress Reports and the Catalogue of Activities are integral parts of the Study Record Book** (see Annexes 1 - 4). Therefore, each Doctoral Researcher is advised to keep a part of the Study Record Book as an electronic file, while a hard copy is required for those parts/pages of the Study Record Book that need to be approved and signed.

Any activities (lectures/workshops) required by the faculty issuing the degree or other graduate programs that the Doctoral Researcher may be enrolled in, will also be considered in the Study Record Book of the PEGS program.

Doctoral thesis and supervision

On the day of starting their employment at GSH, Doctorate Researchers will be automatically enrolled in PEGS. A separate application is not required. **Within six months the Doctoral Researcher must enroll at the faculty of choice and establish a Thesis Advisory Committee (TAC).** The TAC is composed of the PI, another senior scientist from a different research group associated with PEGS, and at least one other independent scientist from the faculty or elsewhere. The members of the TAC are jointly chosen by the Doctoral Researcher and their PI and may include the supervisors declared upon enrolling as a Doctoral Researcher at the faculty of the chosen University.

The purpose of the TAC is to monitor the Doctoral Researcher's work progress and advise them regarding the development of their research project. When asked by the Doctoral Researcher, they should read and

comment on manuscript drafts, where relevant, and help in building the Doctoral Researcher's academic network. In addition, the TAC members are requested to assist the Doctoral Researcher in all aspects of career planning.

Supervision Agreement (1 CP) – Deliverable D1

Within six months from becoming a member of PEGS, the Doctoral Researcher and the members of the TAC must complete a written **Supervision Agreement** that is to be submitted by the Doctoral Researcher to the PEGS coordination office within two weeks from its signing.



The template is provided in Annex 1: Supervision agreement PEGS Paul Ehrlich Graduate School for Tumor Biology

The Research Project and Personal Development Plan (PDP) (1 CP) – Deliverable D2

Within six months from becoming a member of PEGS, the Doctoral Researcher should organize a kick-off meeting with TAC. The purpose of this meeting is to develop and agree on the **Research Project and Personal Development Plan (PDP)**. The PDP should be filled in before and finalized during the kick-off meeting and be submitted by the Doctoral Researcher to the PEGS coordination office within two weeks from the meeting.



The PDP is meant to help the Doctoral Researchers to assess their goals, strengths, weaknesses, values, and plans for future career. It communicates these to TAC and PEGS coordination office and ensures that current activities prepare appropriately for fulfilling these goals. It should cover both **short-term objectives** (1-2 years) including anticipated research results (in terms of publications or events participation), research skills and techniques, plans for fellowship or funding applications, beyond research professional skills training, and anticipated networking activities and **long-term career objectives** (over 4 years) including long term goals and research activities/training required to attain these goals.

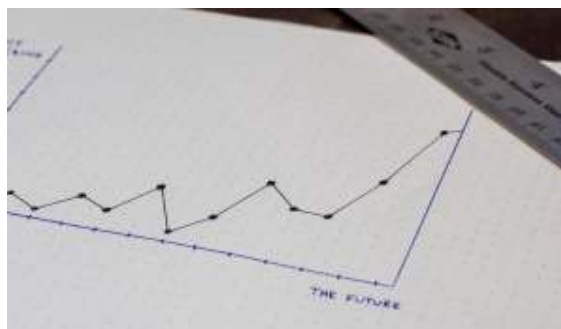
Benefits of PDP:

- Promotes thinking and reflection on own strengths, weaknesses, and career planning.
- Evaluates success and challenges from the previous year and anticipates any successes and challenges in the coming year(s).
- Communicates intentions and needs to others including supervisors, which can lead to helpful advice and resources.
- Ensures expectations are clearly outlined and aligned to avoid surprises at the end of training.
- Increases career success and satisfaction in the current challenging job market.

The template is provided in Annex 2: Research Project and Personal Development Plan.

Progress Reports (1 CP each) – Deliverable D3.1-D3.Y

At least once a year, the Doctoral Researcher organizes a meeting with the TAC. At latest, two weeks before each meeting, the Doctoral Researcher will fill out **the Progress Report** and submit it to the members of the TAC as well as the PEGS coordination office. At the meeting, the Doctoral Researcher typically gives a short presentation, followed by discussion on the topics included in the Progress Report. The Research Proposal and Personal Development Plan for the next period should be adjusted during the Progress Meetings. Following the meeting, the Doctoral Researcher is expected to revise relevant parts of the Progress Report, collect the signatures or email approval of the TAC members, and submit the final document together with the updated Catalogue of Activities to PEGS coordination office within one month from the meeting. The template is provided in Annex 3: Annual Progress Report.



Catalogue of Activities – Deliverable D4.Y

Besides their own scientific research culminating in the doctoral thesis and degree, Doctoral Researchers of the GSH are required to complete additional activities in three domains, for a minimum of 25 Credit Points (CPs):

1. Scientific Education (at least 8 CPs),
2. Scientific Communication and Meetings, and (at least 8 CPs)
3. Transferable Skills (at least 4 CPs).

The purpose of the additional activities is to broaden the horizon of the Doctoral Researchers within the field of tumor biology research, improve their scientific and personal skills, foster research collaborations and personal networks, enhance integration at PEGS, and allow active peer support and exchange of experiences among the Doctoral Researchers.

Researchers are encouraged to select courses, seminars, workshops, and other activities offered free of charge by the PEGS and the collaborating graduate schools and training programs. Activities offered by other scientific/educational institutions may also be selected but require prior consent of the PEGS coordination office. Should any costs be attached to an activity, the Doctoral Researcher is responsible for providing/obtaining own, PI or third-party necessary funding, PEGS cannot currently cover any costs for attendance.

The participation to activities must be documented through certificates of attendance signed by activity organizer/provider or screen captures in case of externally organized online lectures. A certificate of attendance should include "[Name of activity]", "[Name of Doctoral Researcher]", a short report (only in case of internships), place, date (or dates in case of series) and signature(s) of the organizer/provider.

The participation to activities must be recorded and submitted yearly by the Doctoral Researcher in Annex 4: Catalogue of Activities

Scientific Education (at least 8 CPs) – Deliverable D4.Y

Lectures and Seminars

The GSH Research Meeting, as well as Scientific Discussion Clubs on various scientific foci, are platforms for project discussion and optimization, and for networking. The Doctoral Researcher and TAC should agree on at least one appropriate Scientific Discussion Club, where the Doctoral Researchers present and discuss their doctoral project on a regular basis. Doctoral Researchers are also encouraged to attend the GSH Seminar Series, GSH/FCI Lectures, Frankfurt Cancer Conference and other lectures advertised by various scientists in the GSH through the GSH Mailing List.



Lab meetings

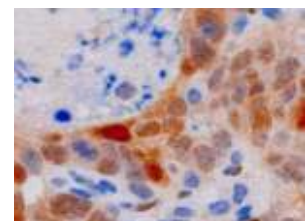
Research groups at the GSH usually hold a weekly informal lab meeting. Within these meetings methodical and organizational issues and questions which may arise during your lab routine will be discussed. A regular participation is expected, and confirmation of attendance should be done annually by lab group leader by signature and acknowledgement in the Personal Development Plan.

Practical courses/workshops/internships

Within the PEGS program, practical courses/workshops/internships of variable length may be given by (advanced) **researchers** in the GSH to promote methodological skills and background knowledge. Some trainings are more readily accessible than others, researchers or members of core facilities may announce the organization of such activities through the GSH mailing list but Doctoral Researchers are encouraged to approach the group or core facility leaders to inquire about or trigger the organization of such activities on topics of individual interest, final decision lying with the respective leaders.

Research methods available in the GSH (the list is not complete and decision if and under which conditions a training can be obtained is subject to the respective laboratory/core facility):

- Animal work
 - Mouse models of colorectal cancers
 - Colonoscopy, Orthotopic Tumor Injections, Splenic
 - Mouse models of brain metastasis, xenograft and syngeneic
 - Intra-cardial and intra-cranial injections
 - Tissue (brain) slice assays
 - Live imaging on tissue slices, primary mouse cell culture (spleen, bone marrow, brain cells)
 - MRI, bioluminescence imaging, radiation of mice and cells
 - Mouse model development and transgenesis techniques
- Cell
 - Flow Cytometry and Cell Sorting
 - Microscopy
 - 3D-culture/techniques - organoids (Colorectal cancer, Head and Neck Squamous Cell Carcinoma, Mammary)
 - T cell co-cultures
 - Mouse embryonic stem cell culture
 - Gene editing: CRISPR/ Cas9



- CHIP (chromatin immunoprecipitation)
- State-of-the-art 3D Human Organotypic Marrow Environments (3D HOMEs)
- Patient-derived xenografts
- Primary cells cultures from patient biopsies
- In vitro assays (T cell activation, MTS, Transmigration (Blood brain barrier) assay)
- Lentiviral gene transfer in lymphocytes
- In vitro and in vivo evaluation of cellular cancer immunotherapies
- Cytotoxicity assays, degranulation assay, mixed lymphocyte reaction (MLR), ADCC
- Molecular
 - Immunohistochemistry staining
 - DNA/RNA/protein extraction, RT-PCR, Sequencing, RNAscope
 - Western Blot (SDS-page and capillary)
 - Metabolic analysis
 - Drug screens
 - Mnase Digestion Protocol
 - Immunofluorescence on thin and thick tissue sections
 - Bioplex
 - Bispecific antibody design and production as recombinant proteins, purification
 - Chimeric antigen receptor (CAR) design
- Data analysis and statistics



Clinical practice

In agreement with the TAC, clinical internships, participation in clinical trials, patient management or meetings with clinicians related to the thesis topic could be organized and recognized as CP towards Scientific Education.

The participation to Scientific Education activities must be recorded by the Doctoral Researcher in Annex 4: Catalogue of Activities

Scientific Communication and Meetings (at least 8 CPs) – Deliverable D4.Y

Conferences & International Meetings

Each Doctoral Researcher must participate **actively** and at least two times in meetings and conferences with international speakers. In a poster or oral presentation, the Doctoral Researcher must communicate and discuss the results of their own scientific work (project).

The Doctoral Researchers are encouraged to apply at least once for own funding for travel and conference attendance from the conference organizer or from the DFG. Travel grants may occasionally be available to apply for from the GSH.



GRADE Research Day, UCT Science Day, Rhein-Main Cancer Retreat and similar events - Research days and retreats provide excellent opportunities of scientific exchange and networking with researchers from other disciplines, scientists in cancer research and clinicians. Updated information can be found on the homepages of [GRADE](#), [Frankfurt Cancer Institute](#) and [University Cancer Center](#).

Doctoral meetings and retreats

Currently, the Doctoral Researchers at the GSH meet regularly, organize social events and elect representatives for the relation with institute's decision-making bodies. However, there is still place for a better exchange within the house and networking with other Doctoral Researchers of cancer biology in the area. To improve this aspect as well as PEGS implementation, PEGS coordination team will regularly participate at the student meetings (at least once in three months) to discuss general and administrative issues and gather input for the further development of PEGS concept, which will be regularly updated.

A regular Spring or Summer School outside of GSH should be organized by the PEGS members themselves once a year to discuss their projects' progress (talks and posters) and to interact with external speakers and spend time together at social events to strengthen interaction and team spirit. Funding for such events may be available from charitable foundations and should be discussed well in advance with PEGS coordination office. Every two years, this may be held on GSH premises if staffing and financial resources do not allow for an externally located event.

Proactivity

Documented proactive behavior of the Doctoral Researcher towards organizing/providing activities that benefit other researchers or the community, e.g., teaching courses/workshops, organizing & actively coordinating projects like lecture series, doctoral meetings, retreats, workshops, networks of researchers, public communication, or other activities related to science, training or communication will be rewarded with credit points for the Scientific Communication and Meetings domain. Number of hours invested, and brief description of effort and activity are to be documented by the Doctoral Researcher in the Catalogue of Activities (self-evaluation). The organization of the activities should be communicated in advance to the PEGS coordination office so that the information can be shared internally and, if the activities are of interest outside GSH, externally through GRADE and other graduate schools in the region.

The active participation in any type of Scientific Communication and Meetings must be recorded by the Doctoral Researcher in Annex 4: Catalogue of Activities

Transferable Skills (at least 4 CPs) – Deliverable D4.Y

Auxiliary non-scientific activities

In addition to professional and methodological competences, the PEGS Program assists Doctoral Researchers in developing personal competences and professional competencies that can be transferred from one workplace situation to another. They can serve as a bridge from study to work and from one career to another, as they enable subject and research related skills to be applied and effectively developed in different work environments.



Within the PEGS program, courses will be offered by [GRADE](#) but the Doctoral Researchers can also attend other offers after prior consent by the PEGS coordination office. The choice of activities shall be individually tailored.

Key subjects, include but are not limited to:

- Good scientific practice and research integrity



- Experimental design, quantitative and qualitative methods, research methodologies, data capture, statistics
- Critical analysis and evaluation of one's findings and those of others
- Scientific writing (e.g. paper writing, grant proposal writing)
- Presentation techniques and communication skills
- Supervision of undergraduate students
- Assistance/teaching in practical course
- Original, independent, and critical thinking
- Teamwork and team building
- Leadership skills
- Management of own career progression and ways to develop employability through awareness
- Foresight and technology transfer, grasp of ethics and appreciation of IPPR.
- Funding for personal and team research
- Project management skills relating to proposals and tenders work programming, supervision, deadlines and delivery, negotiation with funders, financial planning, and resource management
- Public communication

The participation in such non-scientific courses shall take place around the same time as the exploitation and/or use of the obtained information, knowledge, and competencies.

Industry connection

To explore potential developments for the postdoc phase, future collaboration and funding opportunities, Doctoral Researchers may consider establishing contacts with industry partners (for instance BioNTech, Sanofi, Merck, Eurofins, etc.) and pursue short internships in industry. Internships must be organized by the Doctoral Researcher through individual contacts or recommendations from the supervisors and the TAC must agree on the internship which should be thematically linked to the doctoral thesis, thus increasing the innovation and translational potential of their research. The internship should not last longer than four weeks. Internships will be acknowledged with CPs if documented through a short report and recorded in the catalogue of activities.



GRADE Career Talks - GRADE offers the opportunity to explore individual careers or companies and non-profit organizations as potential employers. Participants will gain insights into various career paths, enabling them to make the best possible decisions concerning the future career. Besides gaining these fascinating insights, one can establish contact with participants in similar situations and exchange expectations and wishes in a relaxed atmosphere. [Link to series.](#)

GSH Alumni Talks is a planned series of presentations given by former researchers in the GSH that are invited to share their career development pathway and experience outside academia. The organization of the series – maintaining the list of and contact to guest speakers, invitations, announcements, organization of meetings and moderation - should be taken over by Doctoral Researchers and would be recognized as credit points.

The participation in auxiliary non-scientific activities or internships, must be documented in Annex 4: Catalogue of Activities

Credits and time horizon

The **credit point (CP)** system of the PEGS equivalates 45 minutes of attendance to 0.1 CP and one day of training to 1 CP.

Doctoral Researchers are required to collect at least 25 CPs in total. The Supervision Agreement, the Personal Development Plan and Progress Reports are each acknowledged with 1 CP. In addition, a minimum of 8 CP must be gained from Scientific Education, a minimum of 8 CP from Scientific Communication and Meetings and a minimum of 4 CP from Transferable Skills. The Catalogue of Activities (Annex 4) is to be submitted to the PEGS coordination office at least once a year. However, to avoid misunderstandings and to improve recognition of activities, Doctoral Researchers are encouraged to submit available evidence of activities to and discuss them with the coordination office during the year.

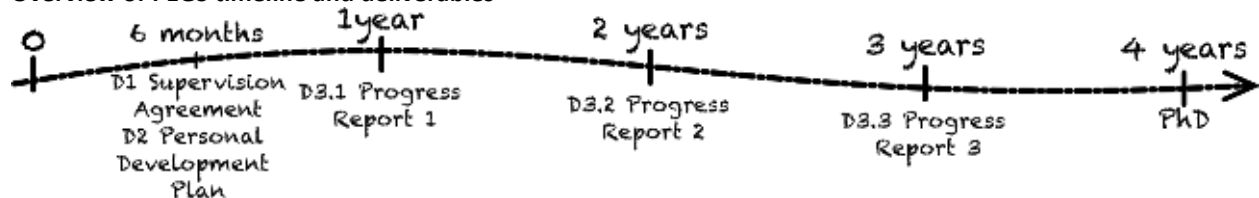


Consideration of individual needs

The modular concept allows participants to select those modules from the range of offerings from which they benefit most depending on their personal background, their specific interests, or concrete everyday work and future career plans.

Time horizon. Participants can start the program at any time, on a part-time basis and can in principle complete the program in 4 years. If required, upon written agreement with the TAC, it can also be extended individually. However, **while PEGS offers time flexibility, some faculties do not. Please check the doctoral regulations of your faculty for maximum time allowed to completion of doctoral studies!**

Overview of PEGS timeline and deliverables



+ D4.Y Catalogue of Activities: 1. Scientific Education 2. Communication 3. Transferable Skills

Award of the certificate

The Doctoral Researcher's participation in lectures, courses and other activities must be documented in the Study Record Book and electronic copies or scans of all relevant certificates of participation must be submitted at least annually to the PEGS coordination office. After successful completion of the PEGS Program with at least 25 CP each Doctoral Researcher will be awarded a certificate issued by GSH. The certificate will contain information on all successfully completed activities but does not replace the degree awarded by the university.





PEGS Study Record Book and Annexes

Doctoral Researcher

Name:

Envisaged degree:

Work Group in GSH:

Thesis Advisory Committee

Supervisor/PI:

Co-supervisor I:

Co-supervisor II:

PEGS admission date:

Faculty enrollment date:

Doctoral thesis

Project/title:

University:

Faculty:

Reviewers:

Date of defense:

Annexes

Annex 1: Supervision agreement PEGS Paul Ehrlich Graduate School for Tumor Biology

Annex 2: Research Project and Personal Development Plan

Annex 3: Annual Progress Report

Annex 4: Catalogue of Activities



GEORG SPEYER HAUS
INSTITUT FÜR TUMORBIOLOGIE
UND EXPERIMENTELLE THERAPIE





Annex 1: Supervision agreement PEGS Paul Ehrlich Graduate School for Tumor Biology

Supervision Agreement Between

_____ (Doctoral Researcher),

and Thesis Advisory Committee

_____ (Primary Supervisor/PI),

_____ (Co-supervisor/Mentor),

_____ (Co-supervisor/Mentor).

In the interests of constructive and productive cooperation during the dissertation project, Doctoral Researcher and Supervisors agree to the following supervision agreement.

The Doctoral Researcher is member of the Paul Ehrlich Graduate School for Tumor Biology (PEGS) since _____

1. Doctoral Researcher will produce a dissertation with the (preliminary) working title

2. The completion of the doctoral studies is intended in the following time frame:
 - a. From _____ until _____ (= anticipated date for delivery of the thesis)
 - b. The period set to complete the dissertation is the predefined standard study period as stipulated within the relevant rules and regulations for doctoral studies of the respective University. This period may be extended with appropriate and documented cause.
3. This agreement and its attachments will be reviewed yearly by the Thesis Advisory Committee and Doctoral Researcher and modified if necessary.
4. The Doctoral Researcher and the Primary Supervisor commit themselves to open and cooperative collaboration for the successful realization of the doctoral studies. It is agreed upon to discuss the work status and next steps on a regular basis. The Doctoral Researcher commits themselves to the adherence of these discussions as well as to an adequate preparation of material for discussion. The Primary Supervisor commits themselves to take time for discussion of the work and render all available help for the success of the doctoral studies. The Primary Supervisor supports the introduction of the Doctoral Researcher into the academic community.
5. Both parties agree that Doctoral Researcher will participate in training courses and activities of the PEGS, as part of a general and subject-matter qualification program.
6. Each Doctoral Researcher keeps a Study Record Book to provide evidence of their attendance of the modules such as lectures, courses, or other activities within the PEGS Program. The Supervision Agreement,



Research Project and Personal Development Plan, the Annual Progress Reports and the Catalogue of Activities are integral parts of the Study Record Book.

7. It is the responsibility of each Doctoral Researcher to organize the Thesis Advisory Committee Meetings first within 6 months and then yearly after the start of the doctoral studies, as well as the reporting of these meetings.
8. In the event of a conflict, the parties involved must first contact the person responsible at the PEGS coordination office. If the supervision relationship is dissolved, the PEGS coordination office will work with the Doctoral Researcher to establish an alternative supervisory agreement which is appropriate to the subject matter of the dissertation.
9. Doctoral Researcher and Supervisors agree to comply with the rules of good scientific practice. This includes consultation on the part of Doctoral Researcher with Primary Supervisor or other trusted persons in situations or instances in which they have doubts or concerns. For Supervisors this explicitly means the obligation to respect and acknowledge the copyright rights and obligations related to texts and knowledge developed by Doctoral Researcher.

Additional Agreements

Sign and Date

_____ (Doctoral Researcher)

_____ (Supervisor/PI)

_____ (Co-supervisor/Mentor)

_____ (Co-supervisor/Mentor)



Annex 2: Research Project and Personal Development Plan

(Must be submitted to the TAC and PEGS coordination office within the first six month of PEGS registration and updated with the Annual Progress Reports; it is a living document that helps with self-assessment, planning, and communication). Template modified after http://ec.europa.eu/assets/eac/msca/funded-projects/how-to-manage/funded-projects/how-to-manage/itn/career_development_plan.doc

Name of Doctoral Researcher: _____ Date: _____

Brief overview of Research Project (1 page max.). It should include (preliminary) title of doctoral thesis, summary, introduction and state of the art, questions to be addressed, project plan & experimental approach, milestones, expected results, and discussion.

Personal Development Plan

Long-term career objectives (over 4 years):

1. Goals
2. What research activity or training is needed to attain these goals?

Short-term objectives (1-2 years):

1. Research results
 - Anticipated publications:
 - Conference, workshop attendance, courses, and /or seminar presentations (anticipated):
2. Research Skills and techniques:
 - Training in specific new areas, or technical expertise etc:
3. Research management:
 - Fellowship or other funding applications planned (indicate name of award if known; include fellowships with entire funding periods, grants written/applied for/received, professional society presentation awards or travel awards, etc.)
4. Communication skills:
5. Other professional training (course work, teaching activity):
6. Anticipated networking opportunities:
7. Other activities (community, etc) with professional relevance:

Subjective perception

1. Approximate the percentage of time you expect to spend on research (own and other), training (received and given) and communication (networking, service, outreach).
2. How confident are you in your ability to complete your doctorate by the end of year 4?

Name, Sign, Date

_____ (Doctoral Researcher)
_____ (Supervisor/PI)
_____ (Co-supervisor/Mentor)
_____ (Co-supervisor/Mentor)



Annex 3: Annual Progress Report

(Must be submitted to PEGS coordination office within one month from the TAC annual meeting)

Name of Doctoral Researcher: _____ Date: _____

Brief overview of Research Progress, achievement, milestones, performance and adjustments necessary (5 pages max.). Please structure your report as follows: (Preliminary) title of doctoral thesis, theoretical background, questions to be addressed, project plan & experimental approach, milestones, summary of experiments conducted & results obtained with a short interpretation, future plan & experiments; if necessary, add a short summary of deviations from original project plan.

Updated Personal Development Plan

Subjective perception

1. Describe your level of satisfaction with your progress last year.
2. Approximate the percentage of time spent on research (own and other), training (received and given) and communication (networking, service, outreach).
3. How confident are you in your ability to complete your doctorate by the end of year 4?

Challenges

1. Unanticipated and faced in the past year and actions taken to meet them.
2. Anticipated in the next year and what can be done to reduce barriers?

Long-term career objectives (over 4 years):

1. Goals adjusted as a result of the training and challenges.
2. What further research activity or other training is needed to attain these goals?

Short-term objectives (1-2 years):

1. Research results
 - Anticipated publications:
 - Conference, workshop attendance, courses, and /or seminar presentations:
2. Research Skills and techniques:
 - Training in specific new areas, or technical expertise etc:
3. Research management:
 - Fellowship or other funding applications planned (indicate name of award if known; include fellowships with entire funding periods, grants written/applied for/received, professional society presentation awards or travel awards, etc.)
4. Communication skills:
5. Other professional training (course work, teaching activity):
6. Anticipated networking opportunities:
7. Other activities (community, etc) with professional relevance:

Name, Sign, Date

I also confirm Doctoral Researcher's
participation in the regular Lab Meetings

(Supervisor/PI)

yes/no

(Co-supervisor/Mentor)

(Co-supervisor/Mentor)

(Doctoral Researcher)



Annex 4: Catalogue of Activities

(To be continuously updated and submitted yearly to PEGS coordination office within one month from the TAC annual meeting)

Name of Doctoral Researcher: _____ **Date:** _____

Scientific Education

Please list lectures and seminars, as well as practical courses (title, organized by, date, hours per day). Please provide a list of own presentations (Seminar, title, date).

Type of activity	Title/Description	Organizer	Date	Hours

Scientific Communication and Meetings

Please list Conferences & Meetings and Student Career Days (title, national/international, date, poster/talk)

Type of activity	Title/Description	Organizer	Date	Hours

Transferable Skills

Please list auxiliary non-scientific courses (title, date, your contribution). For internships: provide a short report

Type of activity	Title/Description	Organizer	Date	Hours