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How and why to do a PhD in Heidelberg?

Dr. Helke Hillebrand

Director Graduate Academy
Heidelberg University

Heidelberg, July 2025

Who are we?

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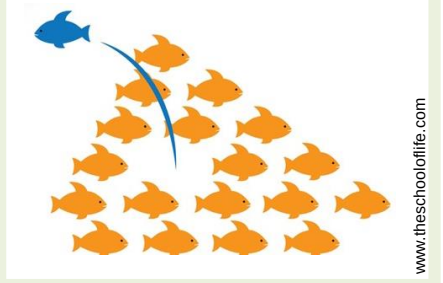
Graduate Academy is the central **point of contact** for early career researchers (ECR) and their mentors contributing to **excellent framework conditions** for ECR and supporting **career orientation** and **development** towards ambitious career paths **inside and outside of academia**

• seminars • workshops • service on demand • lectures • e-learning tools • digital resources • language support • text production support • individual advice • visa support • 1-o-1 meetings • ombudsprogram • cotutelles • fellowships • heiDOCS2.0 • events • welcome pack • brochure kiosk • bulletin board • newsletter • instagram • working space • media room & training•

ORIENTATION

INDIVIDUALISATION



NETWORKING

Who are we? (about 66%)

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Our mission

Metadisciplinary skills!

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Cornerstones of the PhD lifecycle…

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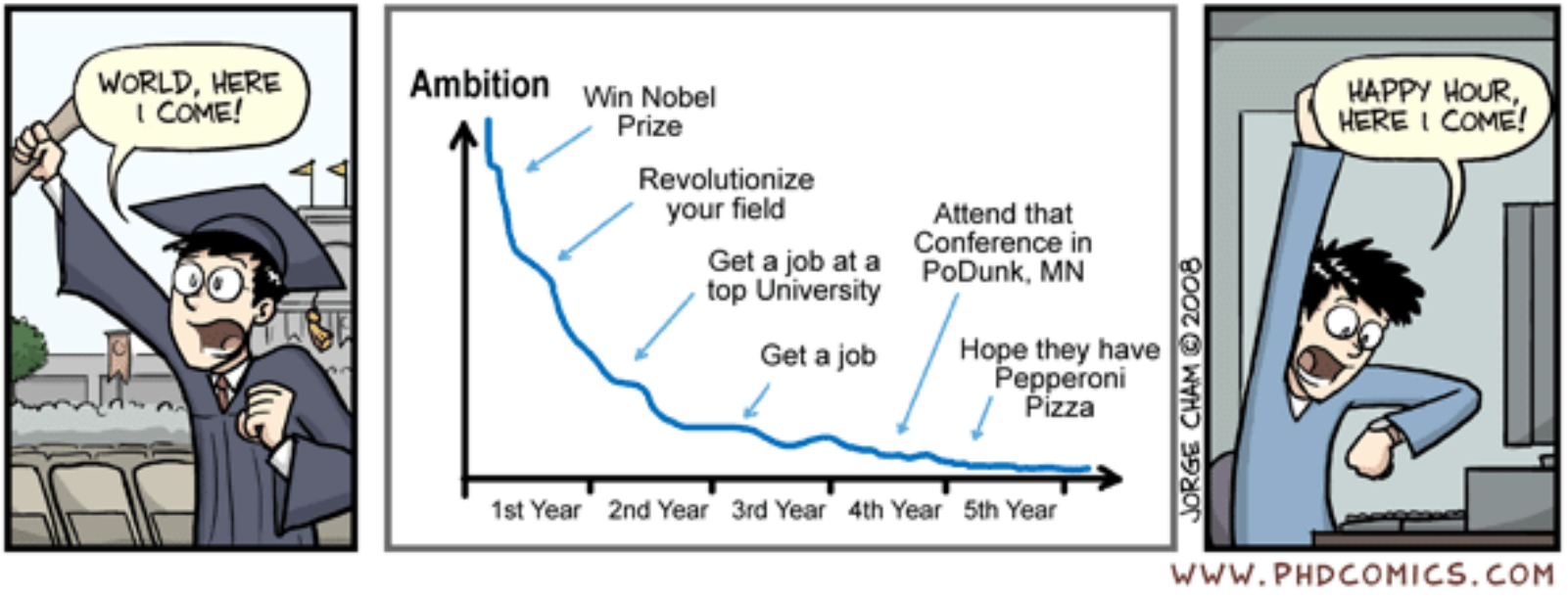
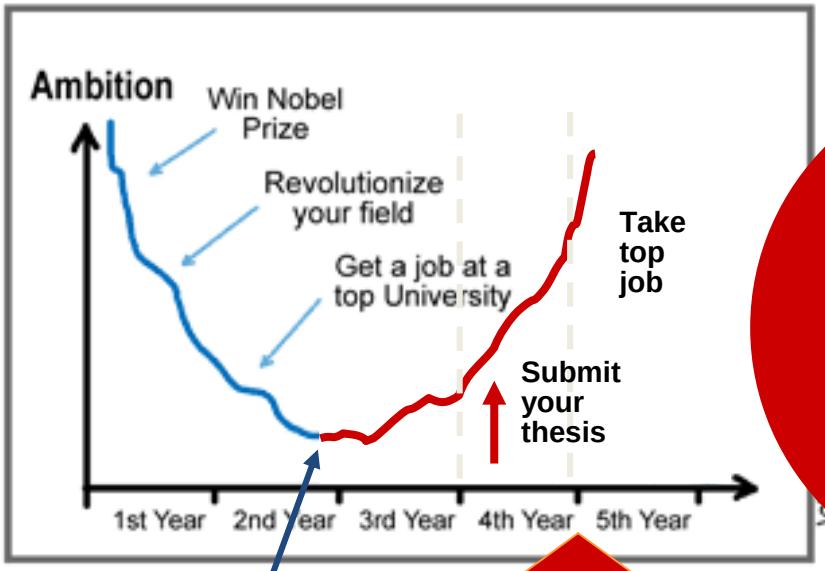


Cornerstones of the PhD lifecycle…



Successfully fight your 2nd year depression

Our target audiences in numbers

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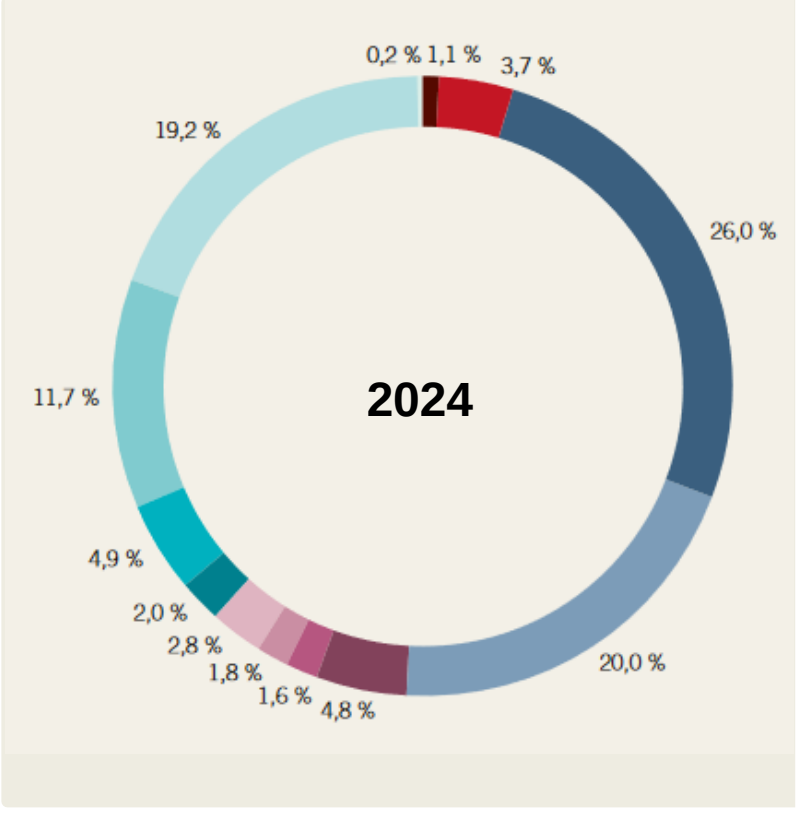
- On average, about 1200 doctorates per year
  - Diversity matters: About 30% international PhD researchers
  - Gender balance: About 50% female and male graduates
- It takes on average 4.3 years to complete a Doctorate (w/o Dr.med.)



Fakultät	
Theologische Fakultät	11
Juristische Fakultät	36
Medizinische Fakultät Heidelberg	253
Medizinische Fakultät Mannheim	195
Philosophische Fakultät	47
Neuphilologische Fakultät	16
Fakultät für Wirtschafts- und Sozialwissenschaften	18
Fakultät für Verhaltens- und Empirische Kulturwissenschaften	27
Fakultät für Mathematik und Informatik	19
Fakultät für Chemie und Geowissenschaften	48
Fakultät für Physik und Astronomie	114
Fakultät für Biowissenschaften	187
Fakultät für Ingenieurwissenschaften	2
Summe	973

©: Universität Heidelberg Jahresbericht 2022

Doctoral community Heidelberg University

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- About 9000 doctoral candidates steady state (incl. Dr. med.)
- Heidelberg doctoral community is the largest in Germany
- Four major Graduate Schools
  (Life Sciences, Mathematics, Physics, Humanities & Social Sciences)
- More than 40 structured PhD Programs
  (DFG, Excellence Cluster, EU-ITN, LGFG (MWK), participation in IMPRSs and Helmholtz International Graduate Schools, else)

Heidelberg University in international comparison

http://www.uni-heidelberg.de/university/rankings/

Heidelberg University ranks 3rd in Germany - Shanghai Ranking 2024
University ranks 50th worldwide and 14th in Europe (August 15, 2024)

Heidelberg University ranks 3rd in Germany - QS World University Ranking 2025/6
University ranks 80th worldwide and 27th in Europe (June 19, 2025)

Ruperto Carola among the world's top 50 - THE Ranking 2025
University ranks 47th worldwide, 13th in Europe and 3rd in Germany (January 22, 2025)

Heidelberg University ranks 5th in Germany – THE Global University Employability Ranking 2025
University ranks 69th worldwide and 29th in Europe (November 14, 2024)

Graduate Academy in context

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Vice-Rector Quality Development & Sustainability

Advising & Support	Academic program & Professional orientation	Sponsorship programs	Events	Council for Graduate Studies
Information & Networking	Service on demand	Projects & Partnerships	Infrastructure KLF*	heiDOCS Committee

• supporting the advancement of excellent PhD framework conditions •

* **K**äthe **L**eichter **F**orum, **KLF** (https://www.graduateacademy.uni-heidelberg.de/klfzentrum/index_en.html)

Who are YOU?

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Where are you from?

What are you passionate about?

What do you most enjoy doing?

What is your way to enjoy academia?

What is your career dream?

What do you expect from doing/gaining a PhD?

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What's in for you?

1. Graduate Academy services
2. Managing a PhD

Graduate Academy offerings (I)

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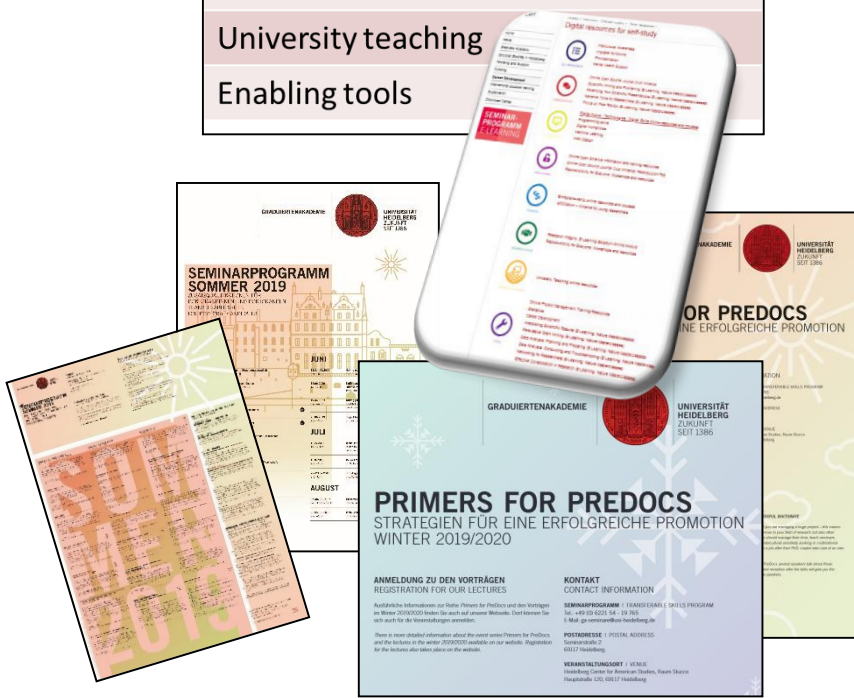
- Consultations

Themes
Personal skills / Self management
Communication skills
Digital future – technologies - skills
Open Science
Transfer & Entrepreneurship
Research Ethics
University teaching
Enabling tools

- Welcome events & welcome packs
- Seminar and workshop program (ca. 60 courses p.a. in D & E)
- Primers for Predocs
- Digital (e-learning) resources
- Language and text production support
- Guided writing groups
- Media room
- Working space



GRADUIERTEN AKADEMIE

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Digital learning environment GA

- Digitale Resourcen (*constantly optimizing*)
- Epigeum (OUP/SAGE) „Research Integrity“ *(since 2018; renewal & migration to Moodle 2023)*
- Epigeum (OUP/SAGE) „Advancing your Research Career“ *(since June 2022)*
- Epigeum (OUP/SAGE) Avoiding Plagiarism *(NEW!)*
- Epigeum (OUP/SAGE) „Statistics“ *(since January 2025)*
- Epigeum (OUP/SAGE) „Mastering mentoring“ *(coming soon)*

plus quick self-test for easy orientation

- Nature Master Classes *(since October 2022; now 21 stand-alone modules)*

Digital resources

GRADUATE ACADEMY

Contact | Deutsch

University > Institutions > Graduate Academy > Career Development >

Digital resources for self-study

- Home
- News
- Graduate Academy
- Doctoral Studies in Heidelberg
- Advising and Support
- Funding
- **Career Development**
- International doctoral training
- Supervision
- Download Center

SEMINAR-PROGRAMM E-LEARNING

SELF-MANAGEMENT

- Intercultural Awareness
- Imposter Syndrome
- Procrastination
- Mental Health Support

TRANSFER

- Entrepreneurship online resources and courses
- eDOCation – Initiative for young researchers

COMMUNICATION

- Online Open Source Journal Club Initiative
- Scientific Writing and Publishing (E-Learning: Nature
- Advancing Your Scientific Presentations (E-Learning
- Narrative Tools for Researchers (E-Learning: Nature
- Focus on Peer Review (E-Learning: Nature Masterc

RESEARCH ETHICS

- Research Integrity: E-Learning Epigeum Online Module
- Reproducibility for Everyone: Workshops and resources

DIGITAL SKILLS

- Digital Future / Technologies / Digital Skills online re
- Programming skills
- Digital Humanities
- Machine Learning
- Web Design

UNIVERSITY TEACHING

- University Teaching online resources

OPEN SCIENCE

- Online Open Science information and training resou
- Online Open Source Journal Club Initiative: Reprodu
- Reproducibility for Everyone: Workshops and resou

TOOLS

- Online Project Management Training-Resources
- Statistics
- Career Development
- Interpreting Scientific Results (E-Learning: Nature Masterclasses)
- Persuasive Grant Writing (E-Learning: Nature Masterclasses)
- Data Analysis: Planning and Preparing (E-Learning: Nature Masterclasses)
- Data Analysis: Conducting and Troubleshooting (E-Learning: Nature Masterclasses)
- Networking for Researchers (E-Learning: Nature Masterclasses)
- Effective Collaboration in Research (E-Learning: Nature Masterclasses)

https://www.graduateacademy.uni-heidelberg.de/karriere/digitale_weiterbildung/digitale_ressourcen_selbststudium_en.html

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Nature Master Classes on-line (NMO)

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Full catalogue of courses covering the whole research pipeline

Design research	Secure funding	Experiment and analyse	Write and publish	Share and disseminate	Develop your career	Work with others
Experiments: From idea to design	Persuasive grant writing	Managing research data to unlock its full potential	Writing a Research Paper*	Narrative tools for researchers	Getting an academic research position	Networking for researchers
	Finding funding opportunities	Data analysis: Planning and preparing	Publishing a Research Paper*	Advancing your scientific presentations		Introduction to collaboration
		Data analysis: Conducting and troubleshooting	Writing and Publishing a Review Paper*	Effective science communication		Participating in a collaboration
		Interpreting scientific results	Focus on peer review	Creating successful research posters		Leading a collaboration
			Research Integrity: Publication Ethics			

See quick selftest for easy orientation

https://www.graduateacademy.uni-heidelberg.de/karriere/digitale_weiterbildung/e-learning_en.html

GRADUIERTEN AKADEMIE

Media Room INF 370

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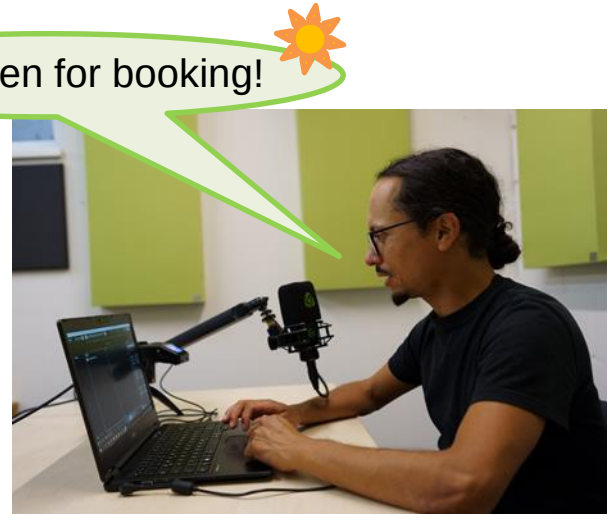
- Equipped for the production of high-quality audio and video for working on topics related to academic life, scholarship, and research, e.g.
  - ✓ creating a **podcast**
  - ✓ recording a **voice-over** for a ***ppt*-presentation** to be made available online
  - ✓ Conducting / documenting **interviews** with colleagues or visiting scholars
  - ✓ Producing **videos** to share scientific knowledge with a wider public
- Booking is free of charge for Heidelberg University doctoral and postdoctoral researchers, faculty and staff; go to the online booking system
- For first time users:
  please, take an appointment with GA-staff to receive instructions on the use of the space and its equipment

(https://www.graduateacademy.uni-heidelberg.de/karriere/medienraum_en.html)



Graduate Academy offerings (II)

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- Cotutelles: Negotiating contracts for dual affiliations incl. supervision with international partners
- Brochure Kiosk – see http://www.graduateacademy.uni-heidelberg.de/downloads/ (Graduate Academy downloads)
- Newsletter (please subscribe on our homepage)
- Instagramm www.instagram.com/ga_uniheidelberg
- Bulletin board (seeking partners for research, scientific or language co-operations; https://www.graduateacademy.uni-heidelberg.de/aktuelles/index_en.html#board)
- Jour fixe Doktorandenkonvent
- Coordinating the Ombudsprogram for doctoral candidates

NEW!

Please, do follow us!

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GRADUATE ACADEMY

Subscribe to our NEWSLETTER

Stay up-to-date and receive regular updates about fellowships, doctoral programs etc.

GRADUATE ACADEMY

www.instagram.com/ga_uniheidelberg/

Sponsorship for doctoral candidates

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- Fellowships for doctoral candidates (Landesgraduiertenförderung; LGF)
  - Individual 3-year fellowships
  - Completion fellowships (3-6 month)
- Short term fellowships (heiDOCS 2.0; else)
  - Travel grants (courses, conferences, collaborations, field trips)
  - Bridging grants
  - Publication & project grants (contribution)
  - Doctoral initiatives
  - https://www.graduateacademy.uni-heidelberg.de/foerderung/heidocs_main_en.html

- Support towards identification of suitable (external) fellowships for (international) doctoral candidates

- Support towards establishing a meaningful application/ exposé writing

heiDOCS 2.0

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I. Travel grants

Are you a doctoral candidate at Heidelberg University in need for financial support to **participate in a conference** or to **carry out a research trip**?

More information ...

II. Bridging grants

Are you in the **early stages of your doctoral or postdoctoral project** or are you close to **finishing your doctoral thesis*** but lack the necessary financial resources to cover these **transitional phases**?

More information ...

III. Publication grants and project grants

Are you looking for funding to **publish your dissertation as a book** or do you need financial support for the **professional proofreading of a publication**?

Do you have to purchase **data sets** for your doctoral project or is it particularly important in your research field that you have an **external (international) evaluator** for your thesis, whose travel expenses you need to cover?

More information ...

IV. Doctoral initiatives

Do you intend to organize a **conference or workshop with other doctoral candidates** at Heidelberg University but you lack the necessary funds to carry out the event?

More information ...

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How to manage a PhD?

What is a PhD?

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Philosophy Doctor

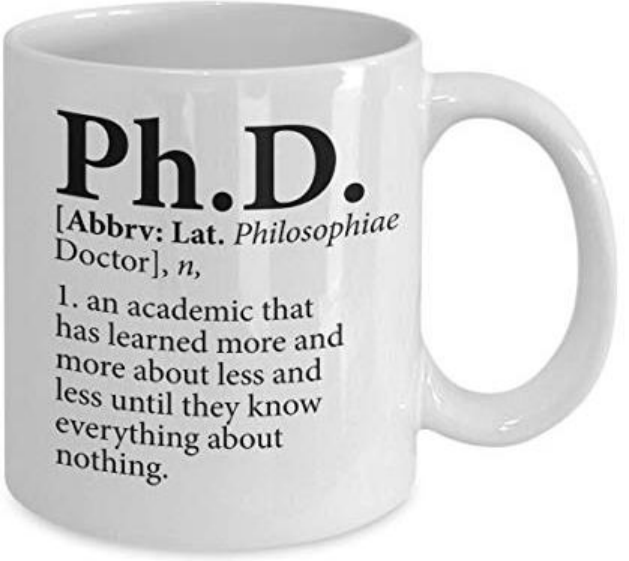
Doctor of philosophy
doctor philosophiae

PhD / Ph.D. / Dphil / Doctorate

BR *AM* *Latin* *Germanism*

Doctor of philosophy - Definition

- **Oxford Dictionary**: the highest college or university degree, or someone who has this.
- **Wikipedia**: is the highest university degree that is conferred after a course of study by universities in most English-speaking countries.
- **Amazon.de**:



How much of an academic career do I want?

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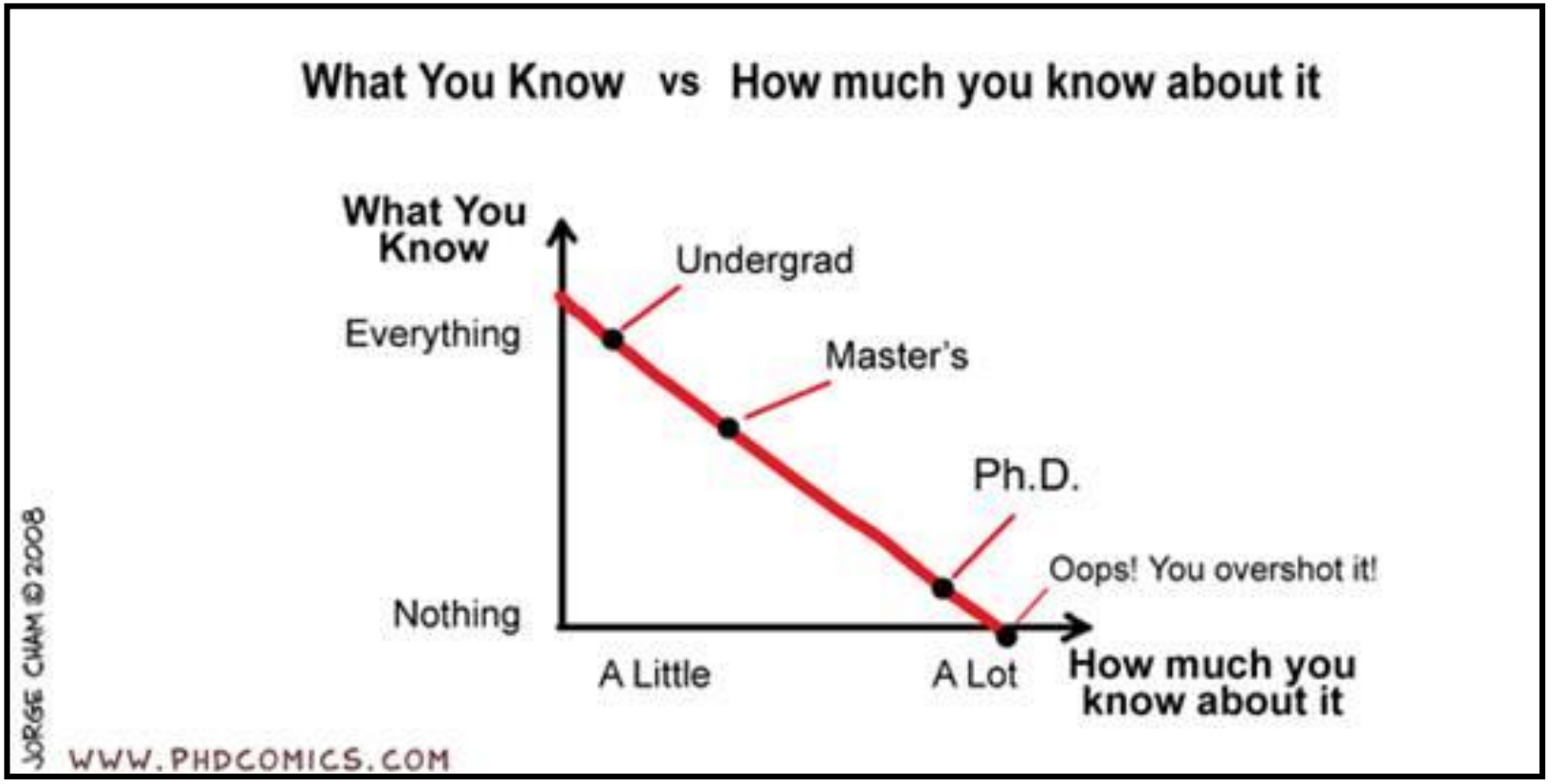

What does a PhD entail?

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The degree is conferred for producing **independent, original research** that expands the limits of current knowledge (can be published in a peer-reviewed journal).

- Identifying a **supervisor** and a PhD-worthy **research question**
- Pursuing original independent **research**
- Writing a **dissertation** (thesis) about the new findings
- **Submitting** the dissertation
- **Defending** the thesis (against experts in the field)
- **Publishing** the findings
- Being **promoted** to PhD (award of the title)
- Using the **title** Doctor (as awarded!!!)
  - In non-English-speaking countries, variants such as "Dr. phil.“, “Dr. rer. nat.”, “Dr. med.” are in use.
  - In English spoken countries often abbreviated "Dr" or "Dr." or with post-nominal letters such as "Ph.D.", "PhD", or "DPhil" (depending on the awarding institution).
  - Never use both, the title and post-nominals, at the same time!

The proper etiquette associated with this usage of the doctoral degree may also be subject to the professional ethics of the own scholarly field, culture, or society

What is special about doing a PhD?

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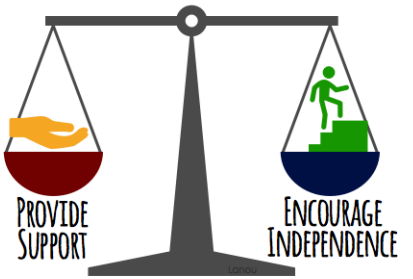
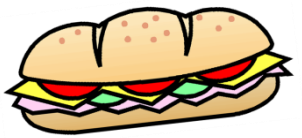
- You are not a student any more
- At Heidelberg University: PhD research is the first phase of a professional research experience and NOT(!) a third cycle of studies
- Independence (various degrees of)



Sova.pitt.edu

- Life in a sandwich position



- Preparing for growth and leadership

What is expected from me when entering into PhD research?

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Exhausted or ready for taking off?

What is expected from me when doing PhD research?

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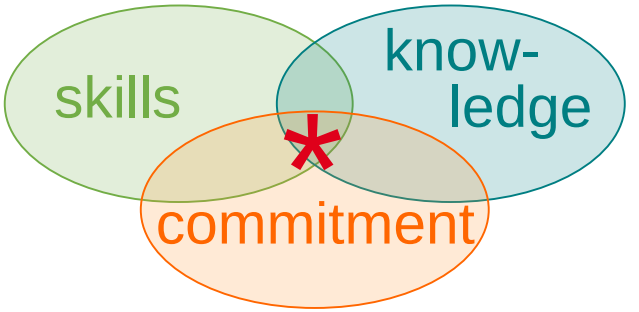
- Passion to perform ✓
- Taking pleasure in (interdisciplinary) thinking, in writing and in contributing
- A profile matching a supervisor‘s / mentor‘s expectations regarding the requirements of a specific project
- Enthusiasm, curiosity, dedication, creativity, diligence ...
- Becoming a valuable team member!



* where excellence originates ...

Why to do a PhD?

Good reasons (not) to do a PhD…

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- Excited about learning and solving problems
- In love with thinking, writing & freedom of thought
- Enthusiastic about doing research
- Genuinely interested in the subject area
- Want to set the stage for life-long learning
- Want the title
- Deemed important for my career aspirations
- Want to become a professor

!

- Interested in the training programme
- Admire my supervisor
- Curious about the university doings

!?

- I was always a successful & diligent student
- No better job in sight

?

How to prepare for a PhD? (I)

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- Talk and listen to your peers
  - https://www.nature.com/articles/d41586-018-07332-x
    Article by recent PhD graduate Lucy A. Taylor sharing the advice she and her colleagues wish they had received (06/11/2018): Twenty things I wish I'd known when I started my PhD.

npg nature publishing group

- Test your abilities (validated tests only!)
  - https://www.academics.de/angebote/promotion-test-soll-ich-promovieren *Academics* in collaboration with Heidelberg University (Institute for Psychology) developed a test for assessing personality traits, skills and qualifications relevant for a successful PhD (*see also link on GA-web*).

academics

  - https://myidp.sciencecareers.org/ A free, web-based career-planning tool that was created to help PhD candidates and postdocs in the sciences define and pursue their career goals.

my IDP INDIVIDUAL DEVELOPMENT PLAN Science Careers

  - https://www.bachelorprint.de/promotion
    Checklists by Schneider & Molitor (on-line or book) - basis for the 2004 nation-wide THESIS-Study)

- Talk to your previous academic advisor(s) & mentor(s)

How to prepare for a PhD? (II)

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- What is the subject area/research question you are interested in? ✓
- Identify your “doctor father” or “doctor mother” ✓
- Agree on a PhD-worthy research topic ✓
- Set-up your personal funding plan
- Get a copy of your faculty’s “Promotionsordnung” – become acquainted with the specific rules and regulations
- Sign a “supervision agreement”
- Register with heiDOCS – and create your personal copy of the on-line PhD file
- Apply for admission as a PhD candidate with your faculty
- Register with Heidelberg University as a PhD-candidate (Immatriculation for PhD candidates)
- Focus on your research and your skills portfolio!

How to finance a PhD?

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- Your PhD is financed by integration into your (university) supervisor's team:
  - Departmental position, (most likely) integrated in research and teaching at your department
  - Third party funding available to your supervisor
  - You pursue an "external" PhD
- You are pursuing a job outside of your PhD project
  - You hold a contract somewhere within the university (e.g. "Geprüfte Wissenschaftliche Hilfskraft")
  - You have a job elsewhere
- You hold a fellowship/ you are preparing to apply/ applying for a fellowship
- You are naturally born rich ☺

How to structure a PhD?

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Individual PhD → **Structured PhD**

Typical characteristics

- Single supervisor
- Thesis subject solely agreed upon with supervisor; may or may not be embedded in broader context
- No obligatory course work
- No formal definition for time-to-submission

co-tutelles, research abroad;
conferences &
summer schools;
meta-disciplinary skills training &
Graduate Academy

Typical characteristics

- Multiple supervisors/mentors (thesis advisory committee (TAC)
- Research topic is embedded in a doctoral program [Promotionskolleg (*5-10*), Graduiertenkolleg (*up to 25)*, Graduiertenschule (≥ *100*)]
- Requires formal application/admission
- Overarching funding/funding rules
- Programs define (disciplinary) training curricula
- Programs are set for 3-4 years of PhD research until submission
- Regular performance reviews

Heidelberg University‘s big 4

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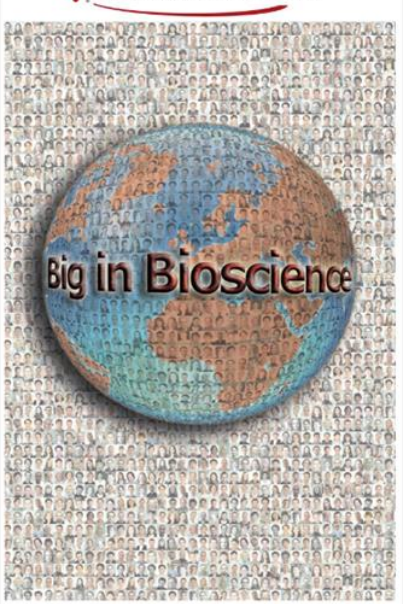
Biosciences

HBIGS
Heidelberg Biosciences International Graduate School



Math/Comp

HGS MathComp

Physics

HGSFP

Humanities & Social Sciences

For an overview on all structured doctoral programmes go to:
https://www.graduateacademy.uni-heidelberg.de/promovieren/promotionsprogramme.html

How to manage a PhD?

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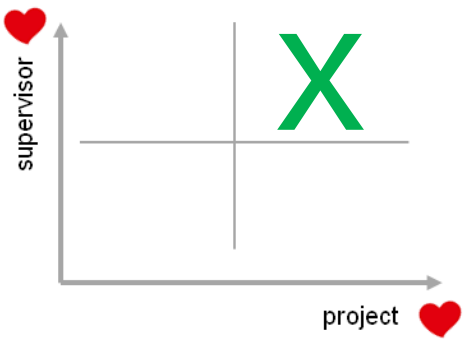
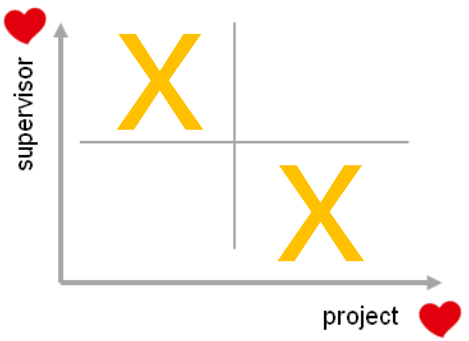
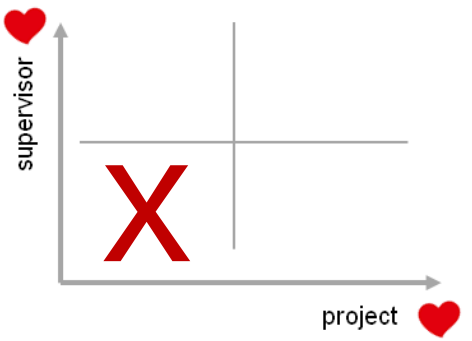
Happiness, satisfaction, resilience, work-life balance



Great –
- keep going,
- nurture
- and enjoy!



Fix it –
- talk to people
- identify sinks
- keep observing!



Drastic change is much needed –
- talk to people
- think about plan B!

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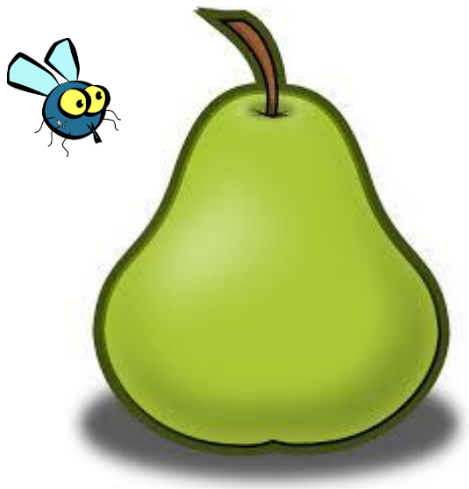
Whom to contact if anything goes pear-shaped?



Avoid the fly

turning into a big white elefant…

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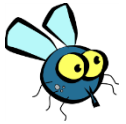
… communication is key!

Avoid the fly turning into a big white elefant…



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Talk (*selectively!*) to

- your supervisor
- your 2nd supervisor/mentor/TAC members
- your peers or the postdoc you work with
- the student representative(s)
- the PhD program coordinator
- **us – contact the Graduate Academy**
- the department head / Dean of Graduate Studies
- the equal opportunity office (UNIFY/Gleichstellungsbüro)
- the ombudsperson PhD

… and start talking early on; communication is key!

How do I know I am ready to graduate?

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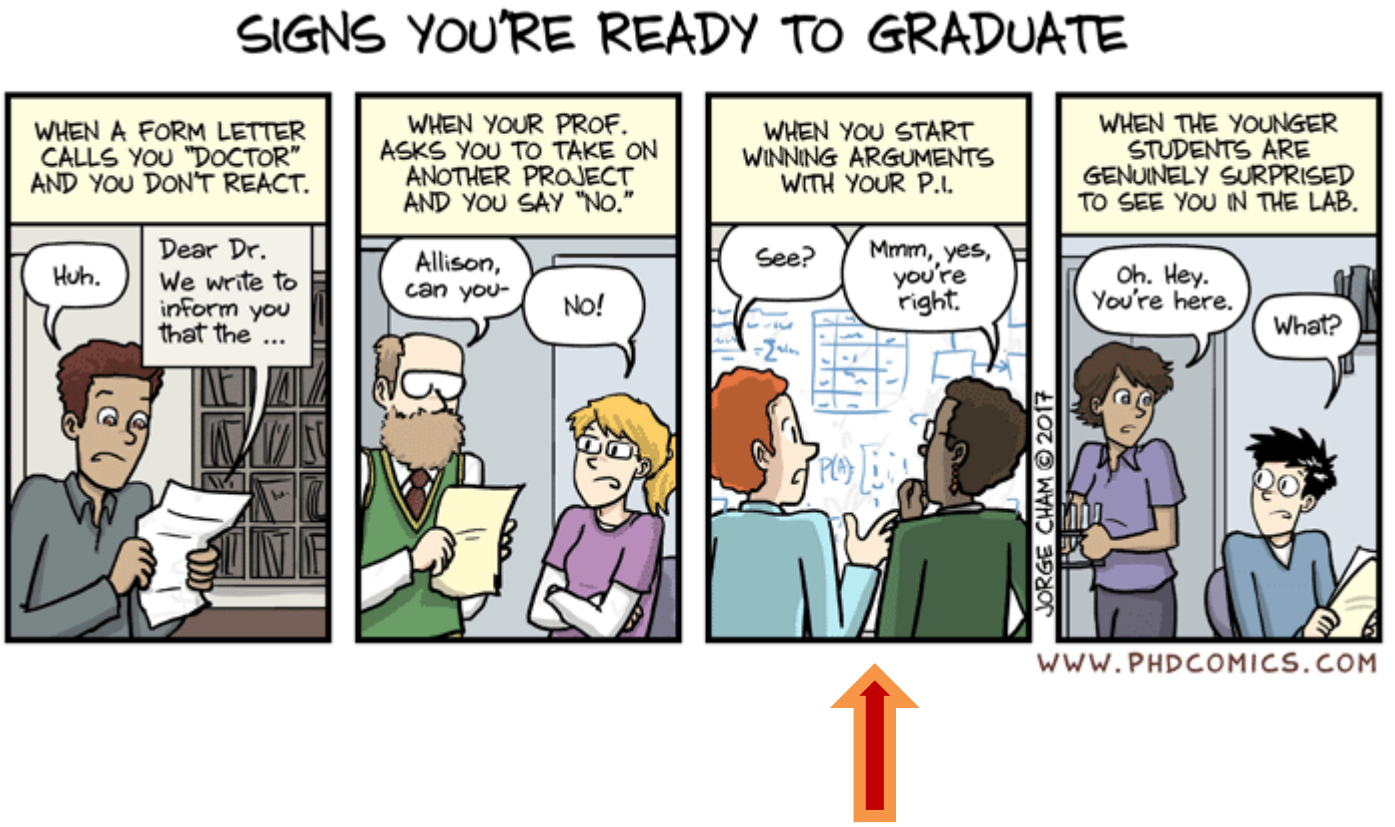

What is expected from me after the PhD?

What is a PhD good for?

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What will you gain?

Resilience

Endurance

Critical thinking

Self esteem

Intrinsic motivation

Can do-attitude

Courage

Leadership skills

Respect

Friends for life

…

What will society expect from you?

Resilience

Endurance

Critical thinking

Initiative

Motivation and advice

Accountability

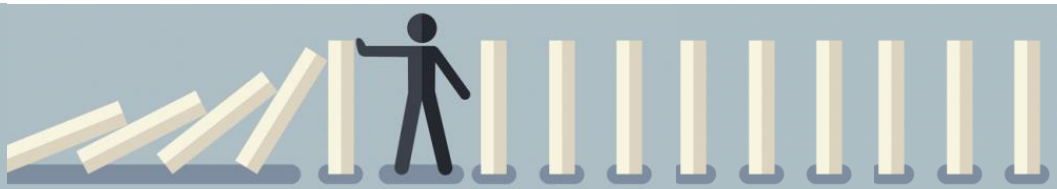
Courage

Insightfulness

Trustworthiness

…

DON'T QUIT !



Entering the labor market with a PhD

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What will be easier ?

- Avoiding routine
- Life long learning
- Work-life integration
- Freedom of thought
- Taking responsibility
- Visibility
- Securing leadership positions
- …

What will be harder ?

- Securing your first position
- Over qualification risk
- Work-life balance
- Higher expectations
- Visibility
- You follow the job market
- …

What are myths ?

- Making more money
- Broader choice of jobs
- Job security
- …

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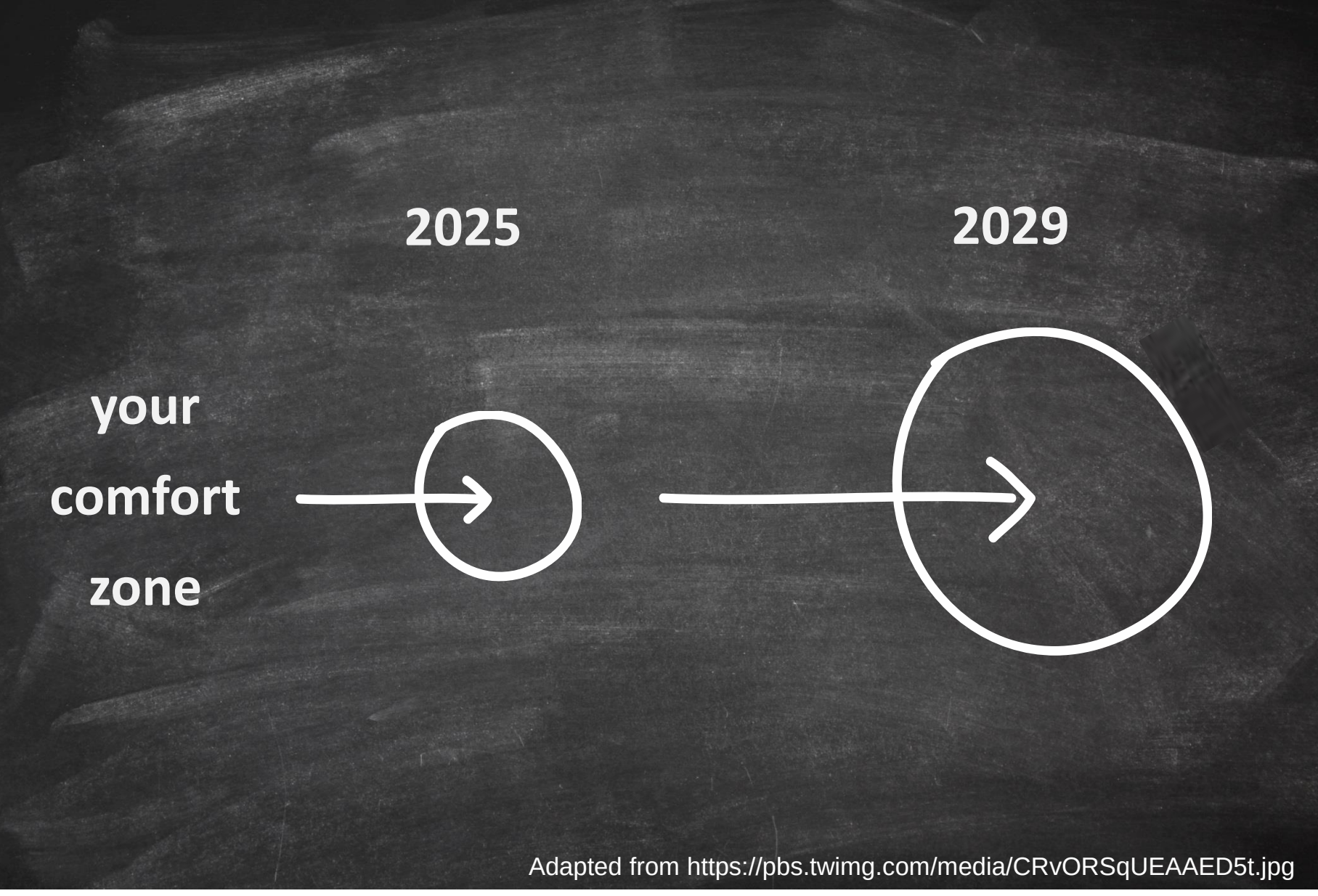
What is a PhD?



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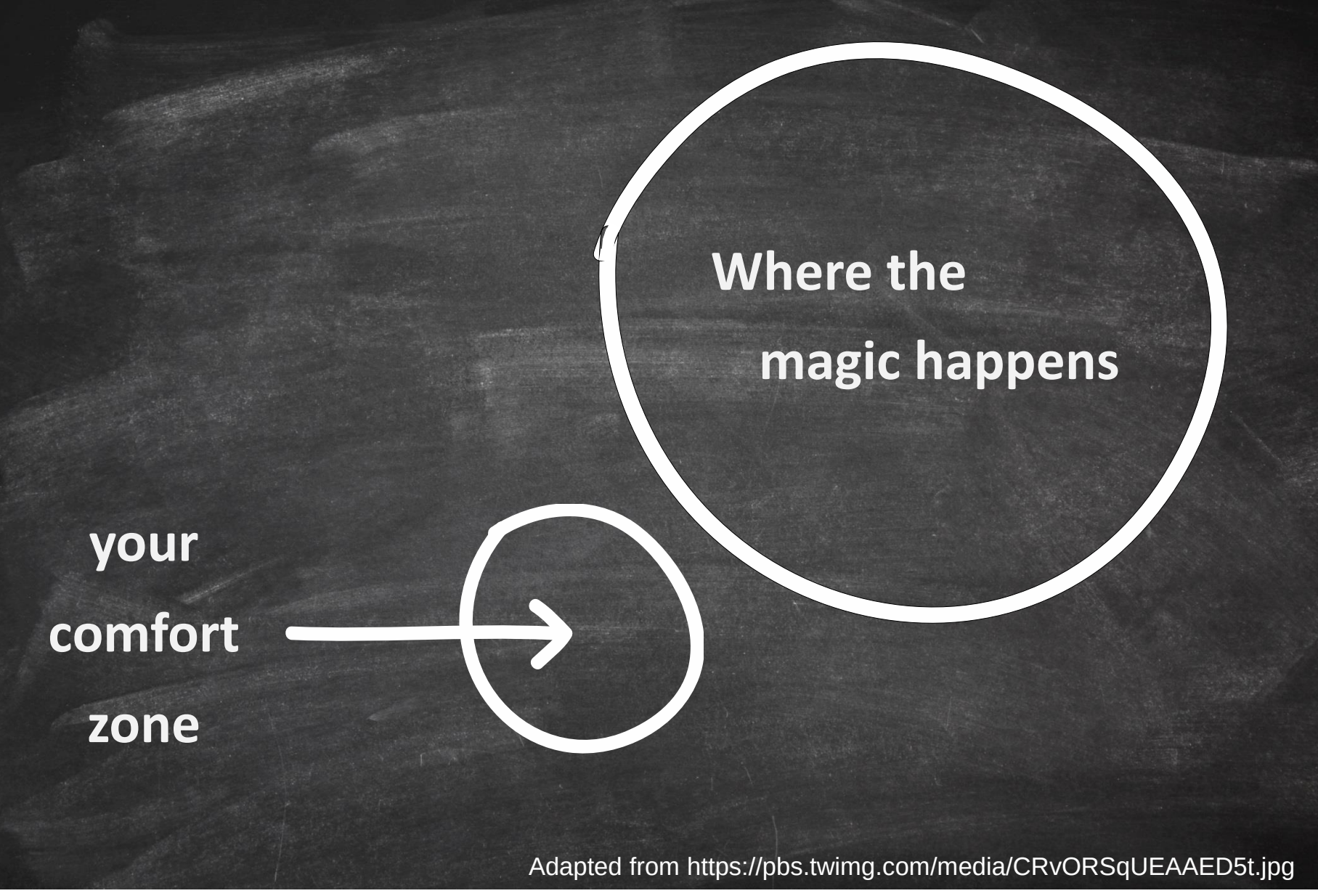

Adapted from https://pbs.twimg.com/media/CRvORSqUEAAED5t.jpg

Get in touch – stay in touch!

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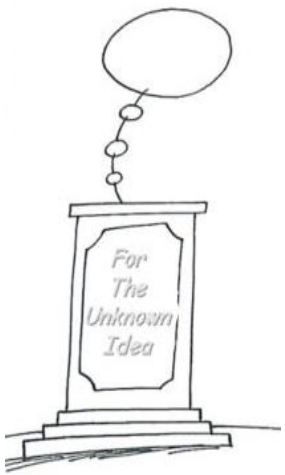
There is always
space for YOUR ideas:



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To PhD or not to PhD ?

–

if this is the question, please, do not hesitate to take an appointment!

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