How and why to do a PhD in Heidelberg?

Dr. Helke Hillebrand

Director Graduate Academy
Heidelberg University

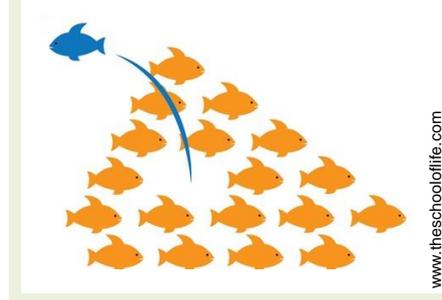Heidelberg, July 2024

Who are we?

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

http://www.thebusinessclinic.org

INDIVIDUALISATION

www.theschooloflife.com

NETWORKING

https://uberflip.cdntwrk.com

Who are we? (about 66%)

Our mission

metadisciplinary skills!

Serving excellent PhD candidates

carefully attended to

by 13 different faculties

across campus !

Support for early-career researchers
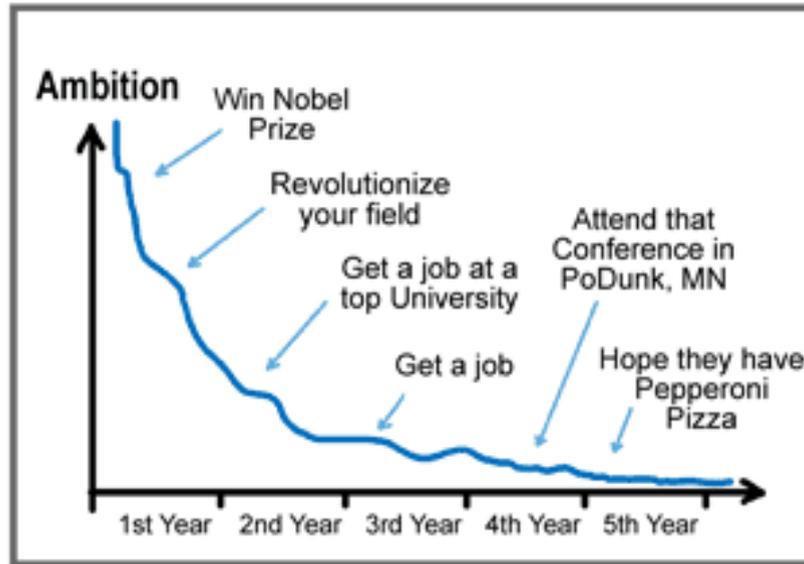## Unterstützung für junge Karrieren

Cornerstones of the PhD lifecycle…

Cornerstones of the PhD lifecycle…
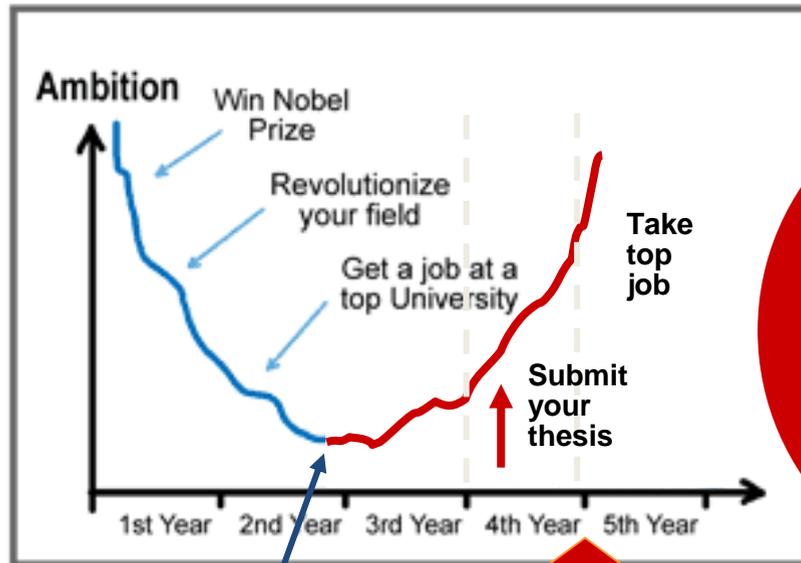
Our target audiences in numbers

- On average, about 1200 doctorates per year
  - <u>Diversity matters</u>: About 30% international PhD researchers
  - <u>Gender balance</u>: About 50% female and male graduates
- It takes on average 4.3 years to complete a Doctorate (w/o Dr.med.)
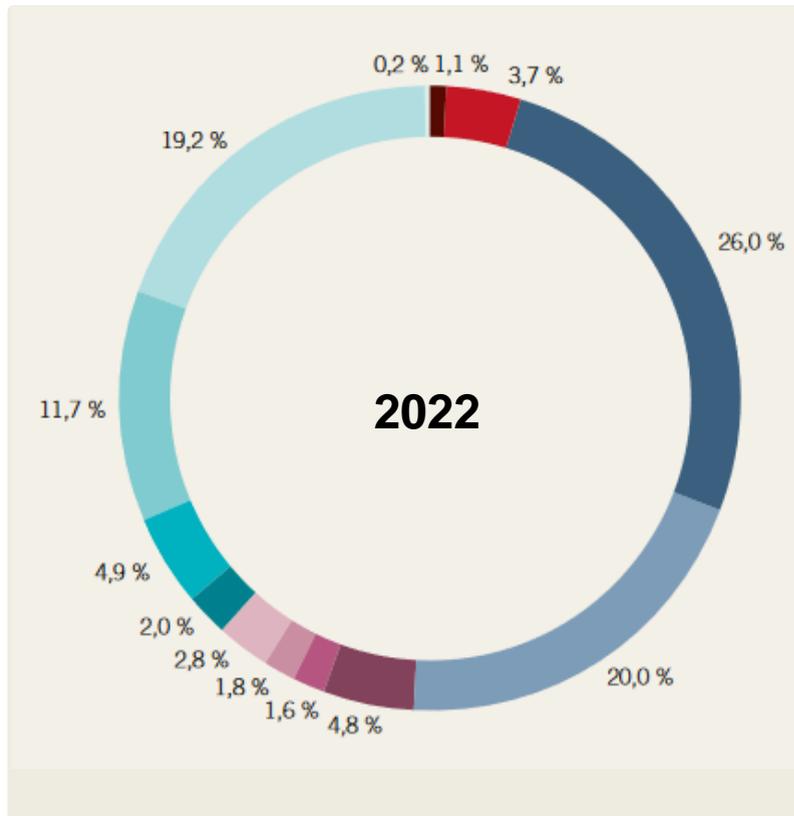
	Fakultät	
0,2 % 1,1 % 3,7 %	11	Theologische Fakultät
26,0 %	36	Juristische Fakultät
19,2 %	253	Medizinische Fakultät Heidelberg
	195	Medizinische Fakultät Mannheim
	47	Philosophische Fakultät
	16	Neuphilologische Fakultät
11,7 %	18	Fakultät für Wirtschafts- und Sozialwissenschaften
	27	Fakultät für Verhaltens- und Empirische Kulturwissenschaften
4,9 %	19	Fakultät für Mathematik und Informatik
2,0 %	48	Fakultät für Chemie und Geowissenschaften
2,8 %	114	Fakultät für Physik und Astronomie
1,8 %	187	Fakultät für Biowissenschaften
1,6 % 4,8 % 20,0 %	2	Fakultät für Ingenieurwissenschaften
	973	Summe

Doctoral community Heidelberg University

- 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 1st in Germany - Shanghai Ranking 2023
University ranks 55th worldwide and 16th in Europe (August 15, 2023)

Heidelberg University ranks 3rd in Germany - QS World University Ranking 2024
University ranks 87th worldwide and 31st in Europe (June 27, 2023)

Ruperto Carola among the world's top 50 - THE Ranking 2024
University ranks 47th worldwide, 14th in Europe and 3rd in Germany (October 16, 2023)

Heidelberg University ranks 5th in Germany – THE Global University Employability Ranking 2024
University ranks 70th worldwide and 31st in Europe (November 23, 2023)

Graduate Academy in context

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

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

Who are YOU?

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?

What's in for you?

1. Graduate Academy services
2. Managing a PhD

What do we offer today?

Core services Graduate Academy:

Advising & Support

Advising & support
(Beratung)

Sponsorship programs

Sponsorship for doctoral candidates
(Förderung)

Academic program & Professional orientation

Academic program & Professional orientation
(Akad. Programm & Karriereorientierung)

Events

Events
(Veranstaltungen)

Information & Networking

Information & Networking
(Infomaterialien & Vernetzung)

Service on demand   **Projects & Partnerships**   **Infrastructure KLF***

Supporting the advancement of excellent PhD framework conditions
Unterstützungsangebote für die Verbesserung der Rahmenbedingungen der Promotion

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Graduate Academy offerings (I)

- Consultations 👤 👤 ☎ 💻

- 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

- Events calendar

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

PRIMERS FOR PREDOCS
STRATEGIEN FÜR EINE ERFOLGREICHE PROMOTION
WINTER 2019/2020

SEMINARPROGRAMM
SOMMER 2019

Digital resources

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GRADUATE ACADEMY

University > Institutions > Graduate Academy > Career Development >

Contact | Deutsch

Digital resources for self-study

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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

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 Mastercl

DIGITAL SKILLS
Digital Future / Technologies / Digital Skills online res
Programming skills
Digital Humanities
Machine Learning
Web Design

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

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

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

UNIVERSITY TEACHING
University Teaching online resources

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

Free access to e-learning resources

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Research Integrity — UK version

Research Integrity has been comprehensively rewritten and restructured to deliver the most up-to-date training on the principles, practices, and responsibilities that apply to every researcher throughout the research lifecycle – reflecting the revised Concordat to Support Research Integrity.

www.epigeum.com

Advancing your Research Career: Strategies for Research Leadership

Support researcher career development at your institution with flexible and interactive training

Epigeum, part of Oxford University Press, creates innovative online training programmes for universities and colleges around the world. Our new course, *Advancing your Research Career: Strategies for Research Leadership*, supports early and mid-career researchers in taking a strategic and reflective approach to advancing their research career.

www.epigeum.com

via Moodle

Coming soon

Statistical Research Methods

In Development   To be published: **May 2024**   Approximately **5 hours** of Core activities

Strengthen your core skills & extend your understanding in statistics to deliver research excellence at all levels

via uni-hd e-mail

nature masterclasses

a natureresearch service

Professional development training for researchers — via online courses and workshops

Request a quote

Free access for researchers from low income countries

We've partnered with Research4Life to offer free access to researchers from low income countries.

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

Graduate Academy offerings (II)

- 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)

NEW!

- 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

Sponsorship for doctoral candidates

- ■ 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

How to manage a PhD?

What is a PhD?

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**:

Ph.D.
[Abbrv: Lat. *Philosophiae* Doctor], *n*,

1. an academic that has learned more and more about less and less until they know everything about nothing.
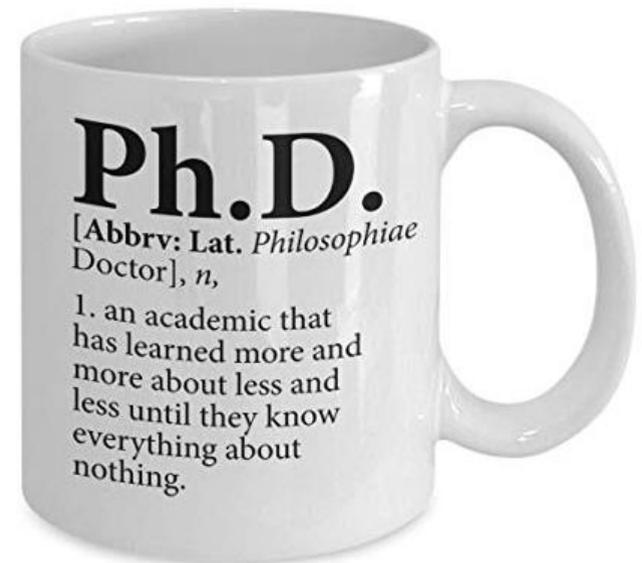
How much of an academic career do I want?
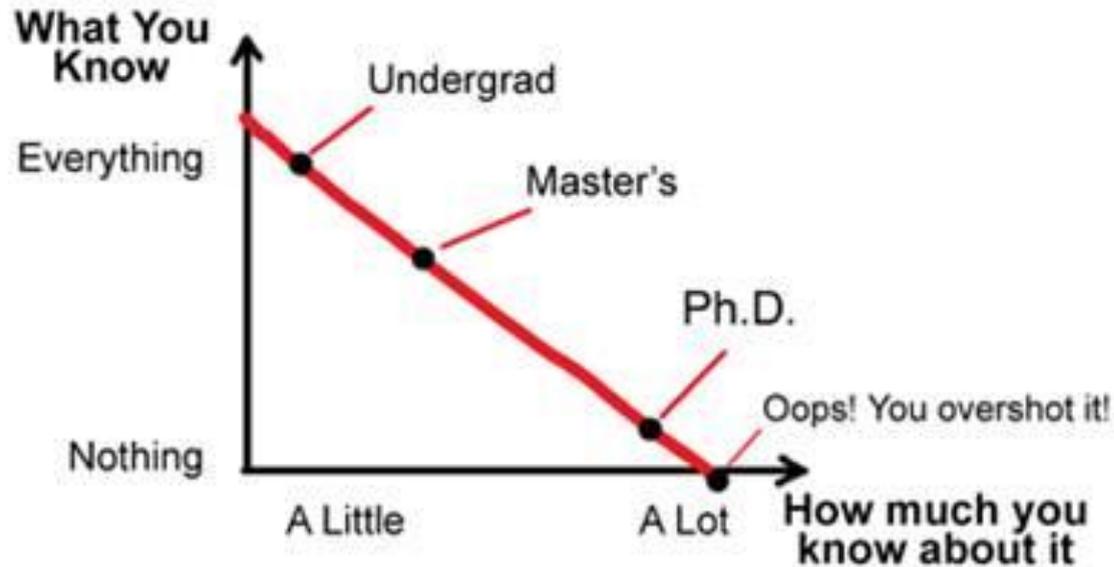
What does a PhD entail?

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 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

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What is special about doing a PhD?

- 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)
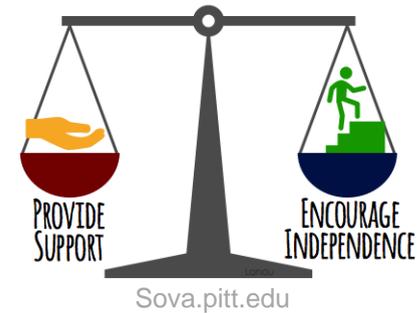
- Life in a sandwich position
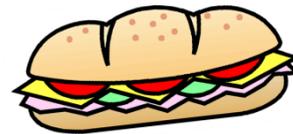
- Preparing for growth and leadership

What is expected from me when entering into PhD research?

Exhausted or ready for taking off?

What is expected from me when doing PhD research?

- ■ 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!

skills

know-ledge

commitment

＊
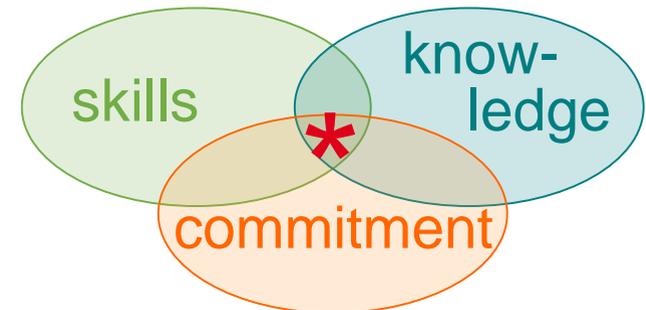
＊ where excellence originates ...

Why to do a PhD?

Good reasons (not) to do a PhD…

- 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

?

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How to prepare for a PhD? (I)

■ 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.

■ 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*).

■ 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.

■ 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)

- What is the subject area/research question you are interested in?

- Identify your "doctorfather" or "doctormother"

- 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?

■ 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?

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

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Heidelberg University's big 4
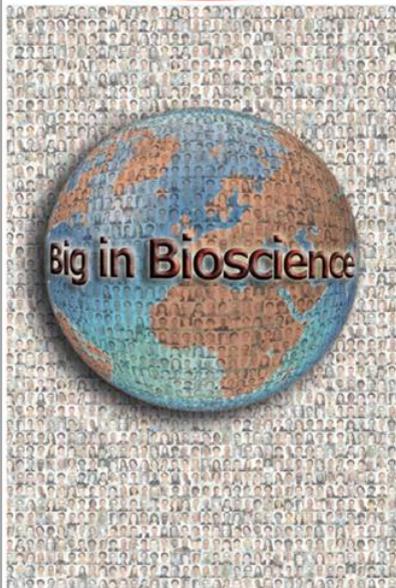
Biosciences	Math/Comp	Physics	Humanities & Social Sciences

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

How do I know I am ready to graduate?
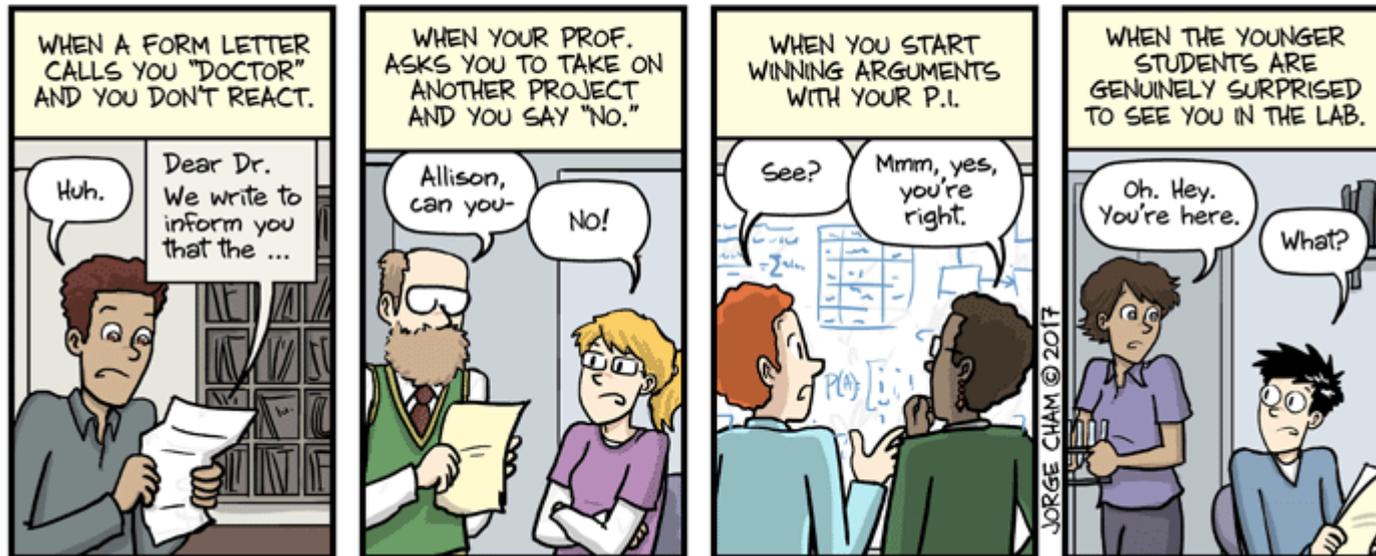
What is expected from me after the PhD?

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

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
- …

How to manage a PhD?

Happiness, satisfaction, resilience, work-life balance
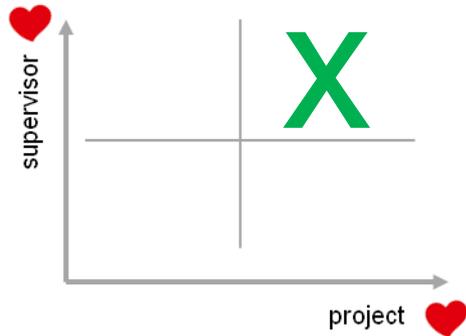
Great –
- keep going,
- nurture
- and enjoy!
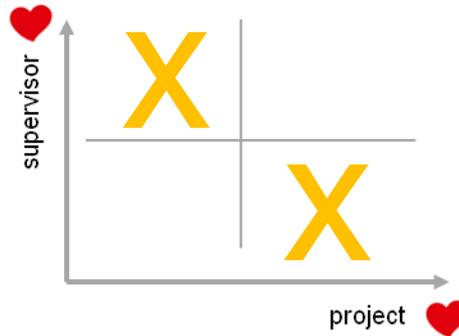
Fix it –
- talk to people
- identify sinks
- keep observing!
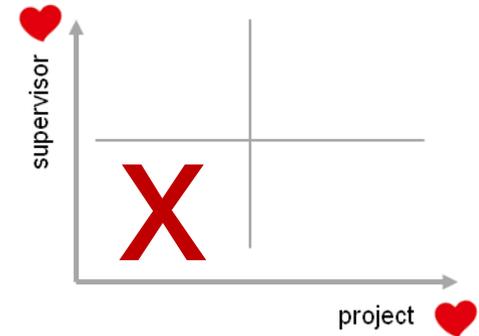
Drastic change is much needed –
- talk to people
- think about plan B!

Whom to contact
if anything goes pear-shaped?
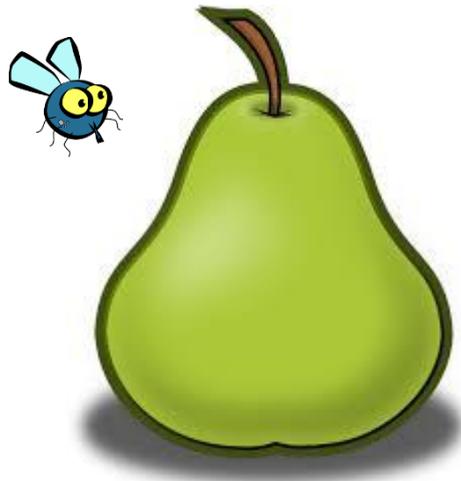
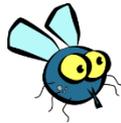**Avoid the fly**
turning into a big white elefant…
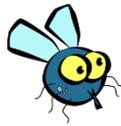
… communication is key!

Avoid the fly
turning into a big white elefant…

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 (Gleichstellungsbüro)

- the ombudsperson

… and start talking early on; communication is key!

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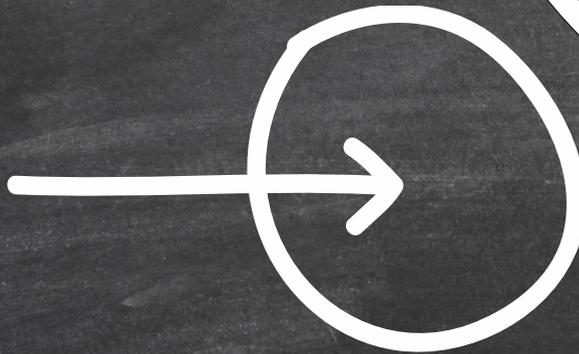SEIT 1386

What is a PhD?

2024   2028
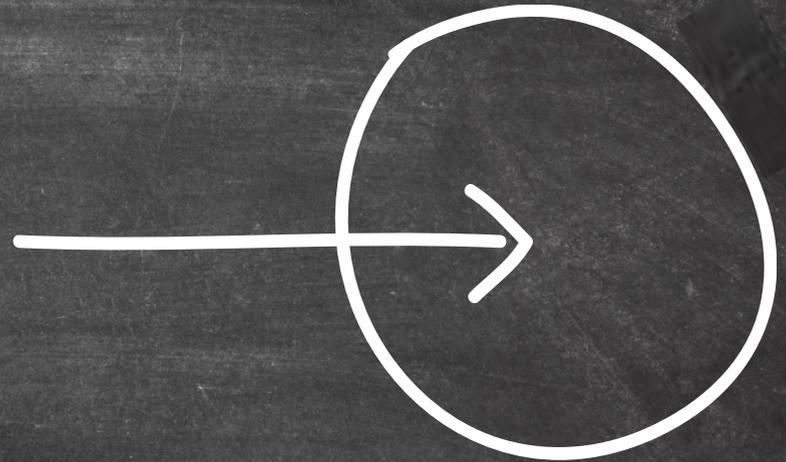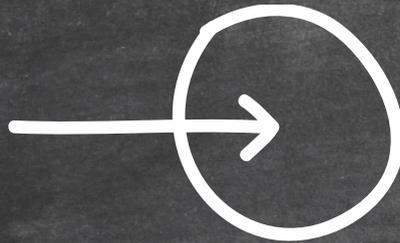
your comfort zone

Where the

magic happens

your

comfort

zone

Get in touch – stay in touch!

There is always space for YOUR ideas:

For The Unknown Idea
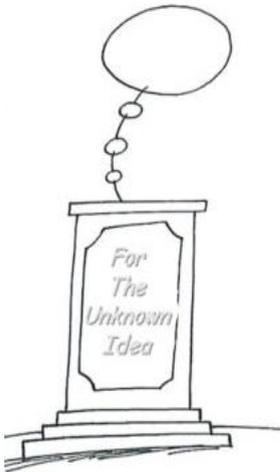
© Manfred Bofinger & Ming Fai Chow

To PhD or not to PhD ?

–

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

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