



# Institutional impact of research integrity trainings – lessons learned at HHU Düsseldorf

UKRIO research integrity webinar: research culture

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iGRAD is part of: Res

Research Academies

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### This session



- I. Background: HHU and German Code of Conduct
- II. Development @ HHU Düsseldorf: Important milestones, current state, forseeable developments
- III. iGRAD's training course on good research practice
- IV. Lessons learned

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## Heinrich Heine University Düsseldorf Short profile



### Facts and figures:

- Founded 1965 (from Medical Academy Düsseldorf, est. 1907)
- One campus:
  - 5 Faculties (Mathematics & Natural Sciences, Medicine Arts & Humanities, Law, Economy)
  - Düsseldorf University Hospital
  - University and State Library
- Students<sup>1</sup>: 37.526
- Doctoral researchers<sup>2</sup>: 4.185
- Heine Research Academies:















### Research integrity in Germany: DFG Code of Conduct (1998/2013/2019)



### 19 Guidelines + Explanations

- → Defining professional ethos
- → 3rd level of Code: DFG online portal incl. FAQs, discipline specific information and case studies
- → Code supplements existing norms and regulations
- → To be **implemented** by research institutions, funding bodies or publishers in form of binding regulations (2019 revision: until 31 July 2021).

Code of Conduct



**Guidelines for Safeguarding** 

**Good Research Practice** 

**DFG** 

"Guidelines for Safeguarding Good Research Practice - Code of Conduct"; 2019, DFG, Bonn.  $https://www.dfg.de/download/pdf/foerderung/rechtliche\_rahmenbedingungen/gute\_wissenschaftliche\_praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche\_rahmenbedingungen/gute\_wissenschaftliche\_praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche\_rahmenbedingungen/gute\_wissenschaftliche\_praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche\_rahmenbedingungen/gute\_wissenschaftliche\_praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche\_rahmenbedingungen/gute\_wissenschaftliche\_praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche\_rahmenbedingungen/gute\_wissenschaftliche\_praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche\_rahmenbedingungen/gute\_wissenschaftliche\_praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche\_rahmenbedingungen/gute\_wissenschaftliche\_praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche\_praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche\_praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche\_praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche\_praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche\_praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche\_praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche\_praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche\_praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche\_praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche\_praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche\_praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche\_praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche\_praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche=praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche=praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche=praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche=praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche=praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche=praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche=praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche=praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche=praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche=praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche=praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche=praxis/kodex\_gwp\_en.pdf/foerderung/rechtliche=praxis/kodex_gwp\_en.pdf/foerderung/rechtliche=praxis/kodex_gwp\_en.pdf/foerderung/rechtliche=praxis/kodex_gwp\_en.pdf/foerderung/rechtliche=praxis$ 

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# Establishing a vivid research integrity culture @HHU Düsseldorf: Important milestones



- 2002 HHU Senate: Enacts "Rules on the principles for safeguarding good research practice at HHU Düsseldorf".
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- 2007/08 FMNS: First doctoral research programs implement self commitment to HHU's GRP rules as part of agreements on supervision or stipend approvals.
- 2009 FMNS: Foundation of iGRAD → Self commitment to HHU rules for members + decision to establish GRP course in curriculum.
- 2010 MedF: Foundation of medRSD.

**FMNS/iGRAD:** Start of GRP-courses (mandatory for members) and confidential conflict counselling for early stage researchers and doctoral supervisors (for whole Faculty).

 02/2011 German prominent case (Bayreuth) → Follow-up discourse + recommendations: Serious considerations @ HHU.

FMNS = Faculty of Mathematics and Natural Sciences, GRP = Good research practice, iGRAD = Interdisciplinary Graduate and Research Academy Düsseldorf (Graduate Academy of

. . .

# Establishing a vivid research integrity culture @HHU Düsseldorf: Important milestones



 12/2011 FMNS: Revision of doctoral regulation → GRP-course (iGRAD) now mandatory for DR at FMNS.

**MedF:** Revision of doctoral regulation → Membership in medRSD (incl. curriculum) now mandatory for medical DR.

- 01/2012 FAH: philGRAD founded, GRP course for doctoral members
- 05/2012 FAH: First GRP courses in doctoral programs at FAH. Prominent German case (FAH/HHU): Serious considerations across HHU.
- 09/2012 FLaw: GRP rules for Law (German Law Faculties Association.) + Revision of doctoral regulation → Mandatory GRP instruction.
- 10/2012 FMNS/iGRAD: Pilot in BSc-studies Biology → GRP transparently implemented in obligatory module "Key qualifications".
- 11/2012 MedF/medRSD: First GRP courses for supervisors (voluntary) and medical doctoral researchers (obligatory).
- 12/2012 HHU Senate: Start of HHU GRP rules' revision.

DR = Doctoral researchers, FAH = Faculty of Arts and Humanities, philGRAD = Graduate academy of the FAH, FLaw = Faculty of Law

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### Establishing a vivid research integrity culture @HHU Düsseldorf: Important milestones



- 01/2013 FAH/philGRAD: Start of regular GRP courses for DR of FAH.
- 04/2013 iGRAD/medRSD/philGRAD: Association of Heine Research **Academies** established → e.g. collaboration and joint quality standards for GRP courses.
- **07/2013 FMNS:** Start of faculty wide discussion on revision of doctoral regulation.
- 11/2013 FBAE: Revision of doctoral regulation: Instruction on HHU's GRP rules now mandatory for DR of FBAE.
- **12/2013 MNF:** Revision of doctoral regulation → Supervision agreement, yearly progress reports, independent mentor, etc. now obligatory.
- 02/2014 HHU Senate: Enacts revised GWP rules (considering all relevant GRP/RI recommendations and guidelines until 2013).
- 11/2014 HHU President's office: Initiation of university-wide discussion and consolidation process on GRP standards and quality measures in doctoral education

### Current state of development @HHU Düsseldorf 2020



- Implemented in doctoral regulations of HHU's five faculties:
  - 5/5: Mandatory GRP course and/or Mandatory instruction on GRP rules
  - 5/5: Written agreement on supervision
  - 4/5: Regular written progress reports [FMNS + FMed + FAH + FBAE]
  - 4/5: Independent second supervisor/mentor [FMNS + FMed + FAH + FLaw]
- Heine Research Academies: GRP courses offered on regular basis. For **Doctoral researchers** (@4.5/5 Faculties) + central courses for **Postdocs** 
  - Yearly average @HHU: ~45 GRP courses for up to ~800-900 participants.
  - Joint agreements with collaborating research institutions on GRP courses.
  - HHU's GRP courses meanwhile demanded across Germany
- GRP courses linked to conflict counselling offers [FMNS + FMed + FAH]
- MedF: GRP course compulsory for "Habilitation" and appointment of extraordinary professors
- Study programmes: Increasing transparent implementation of GRP as topic of Bachelor-/ Master modules

# Foreseeable future developments @HHU Düsseldorf



- 10/2020: HHU Senate enacts revised version of HHU's GRP rules:
  - Revisions of DFG code of conduct (2019) implemented
  - Considering 17 additional relevant GRP recommendations/guidelines
- → More stronger focus on prevention of misconduct and immediate (possible) correction of mistakes, not mainly on "punishing" misconduct.
- → Strengthening and increasing professionalisation of GRP ombudspersons (new: at least one ombudspersons from non-professorial academic staff)
- → Transparent implementation of GRP as topic of all study programmes @ HHU
- → GRP relevant consolidations and revisions of rules and regulations for study, examination, doctoral education and "habilitation"
- → Establishment of HHU-wide GRP event series addressing RI related topics for all career levels
- → Implementation of GRP as integral part of HHU's welcoming culture (addressing all incomings)

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## iGRAD's training course on Good Research Practice



- *Time point:* Beginning of doctoral research/"brush up" Postdocs (e.g. incomings)
- Type: Seminar with discussion, reflexion and exercise phases
- General Concept:
  - Learning objectives of the curriculum recommended by the German Research Ombudsman, (hereby essential condensation of all modules).







1. Sponholz Gerlinde (2009, 2011, 2012 and 2019) available via: https://ombudsman-fuer-die-wissenschaft.de/2693/curriculum-fuer-lehrveranstaltungen-zur-gwp/

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## iGRAD's training course on Good Research Practice



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#### General Concept:

- Learning objectives of the curriculum recommended by the German Research Ombudsman, (hereby essential condensation of all modules).
- Focus on all (for early stage researchers) relevant guidelines of DFG code of conduct. Specific complementation by additional content.
- Discipline related work on all modules. Condensation by specific methods and minimization of redundancies.
- Complemental topics: Basics research theory/ethics, dealing with conflict.
- Participant specific: Introductions to rules, procedures, contact points of all institutions (university and collaborating institutions).
- Duration/participants: ~8 h (or 2x4 h online) /~12-24 participants
- Methods: Dialogical inputs, participant-specific cases, focussed single and group work, discussions, reflexions
- Possible Variations: Discipline specific or interdisciplinary course adjustments, Supplementary topics: Theory of Science, ethics, case studies, etc.

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### Content & structure iGRAD's training course



#### I. Basics of responsible conduct and professional ethos of a researcher

- la. Introduction: Research, ethical principles and ethos
- lb. Basic (inter-)national recommendations and regulations
- Ic. Research misconduct: Definition, elements of offense, examples, possible reasons and consequences

#### II. General Responsibilities

- IIa. Quality management, research design, documentation and data management
- IIb. Providing public access, authorship and publication process
- IIc. Supervision: Expectations, roles and responsibilities
- Ild. Organizational culture: Collaboration, communication, dealing with conflict
- IIe. Procedures in case of suspicion and relevant contact persons

#### III. Important specific responsibilities

- Illa. Important issues prior to data collection: Authorization or permission relevant research
- [IIIb. Research on animals]\*
- [IIIc. Research on humans]\*
- [IIId. Surveys, Interviews, Data privacy and security]\*

Seminar complemented by: Confidential conflict counselling Advice and counselling on RItopics

\* Depending on disciplinary background and research projects of participants

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## Lessons learned: Individual experiences from 10 years of iGRAD's GRP training courses



- Lesson 1: Initially people will not be happy the moment courses become compulsory...
  - Average score of iGRAD's GRP course evaluation dropped after course became mandatory + increase of general complaints, in particular that courses became mandatory (→ "shooting the messenger")
  - After 2-3 years: Re-improvement of average evaluation score (now frequently higher than before) + general complaints and questioning of compulsiveness virtually vanished.
  - Currently frequent feedback like e.g.: "important topic", "GRP topics now more clear", "will change aspects of my conduct", etc.
- ...but will get used to it.

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## Lessons learned: Individual experiences from 10 years of iGRAD's GRP courses



- Gommel, Nolte & Sponholz (2015)¹: Experiences from 200 GRP trainings.
  → Variation(s) of one/more of the following questions heard every course:
  - "Why didn't our supervisors tell us about GRP regulations?"
  - "Do our supervisors also know about the GRP regulations?"
  - "Are there GRP workshops for supervisors?"
- Lesson 2: Do not underestimate doctoral researchers as possible multipliers...
  - Initially similar observation during GRP courses of iGRAD, but decreased within following years.
  - Meanwhile rare observation, mainly connected to previous experiences (other institutions).
  - Doctoral researcher report now more frequently: GRP relevant topics discussed during project discussions, journal clubs in groups/by supervisor, GRP relevant expectations expressed by supervisors, etc.
- ...they might contribute to distribution of GRP knowledge over time.

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Gommel M., Nolte H. and Sponholz G (2015): "Teaching Good Scientific Practice: Results from a Survey and Observations from Two Hundred Courses", JUnQ 5(2), 11-16.

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# Lessons learned: Individual experiences from 10 years of iGRAD's GRP courses



- Lesson 3: With time, an impact on institutional GRP culture is possible...
  - Doctoral and postdoctoral researchers and even supervisors are increasingly aware of confidential conflict counselling opportunities.
  - Important development: Seeking advice at earlier conflict stages than in previous years.
  - Doctoral researchers and supervisors appear less challenged, when uncertain about aspects of GRP topics → Seek advice more frequently.
  - Observation in GRP courses: Meanwhile participants generally show a more profound understanding of GRP topics than in previous years.
- Lesson 4: ...even evident from data...

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