

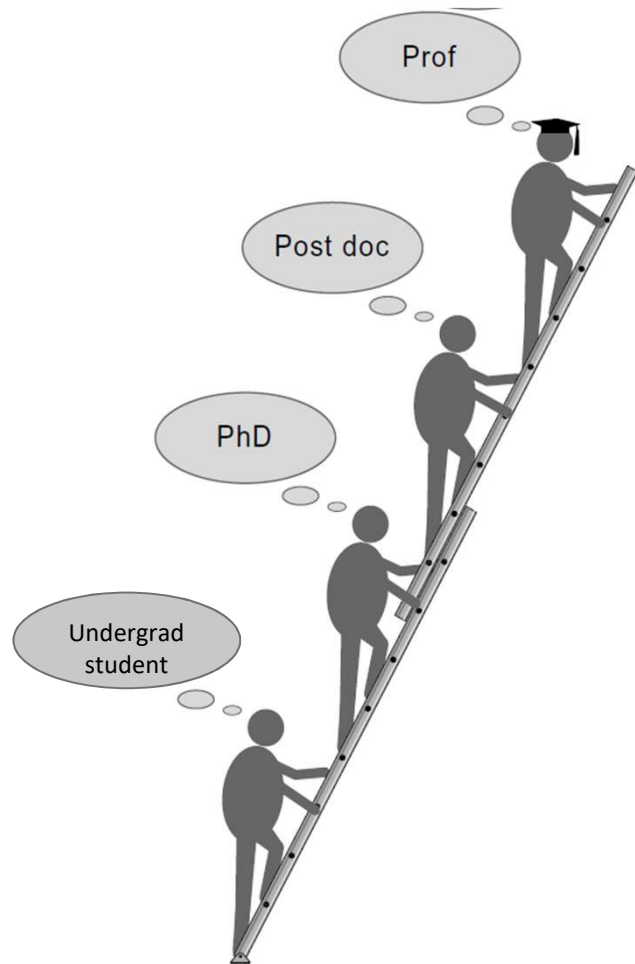


A PhD is not enough - how to prepare for a career inside academia

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***“You cannot climb
the career ladder
with your hands
in your pockets.”***



What percentage of PhD graduates (on average) continue in academia?

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Rathenau Instituut

The impact of a doctorate

The careers and job prospects of doctorate holders in the Netherlands



Report

Netherlands:

- 70% PhD graduates work outside academia
- **28%** inside academia
- only 2% unemployment
- (source 2018 Rathenau Institute - The Impact of a PhD)



A PhD is about resilience

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“You never expect the resilience that you will need to have to get through the whole process,” says Stefano Tognini, a PhD student who recently finished his degree at Federal University of Goiás in Brazil. “I think the PhD was a very good personal achievement, not just professional.”

- After 1 year: first low point – “One year is gone and I have nothing”
- One year before end: second low point – “I shall never make it to finish”





A PhD is about acquiring competences

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<https://phdcompetencemodel.nl/>

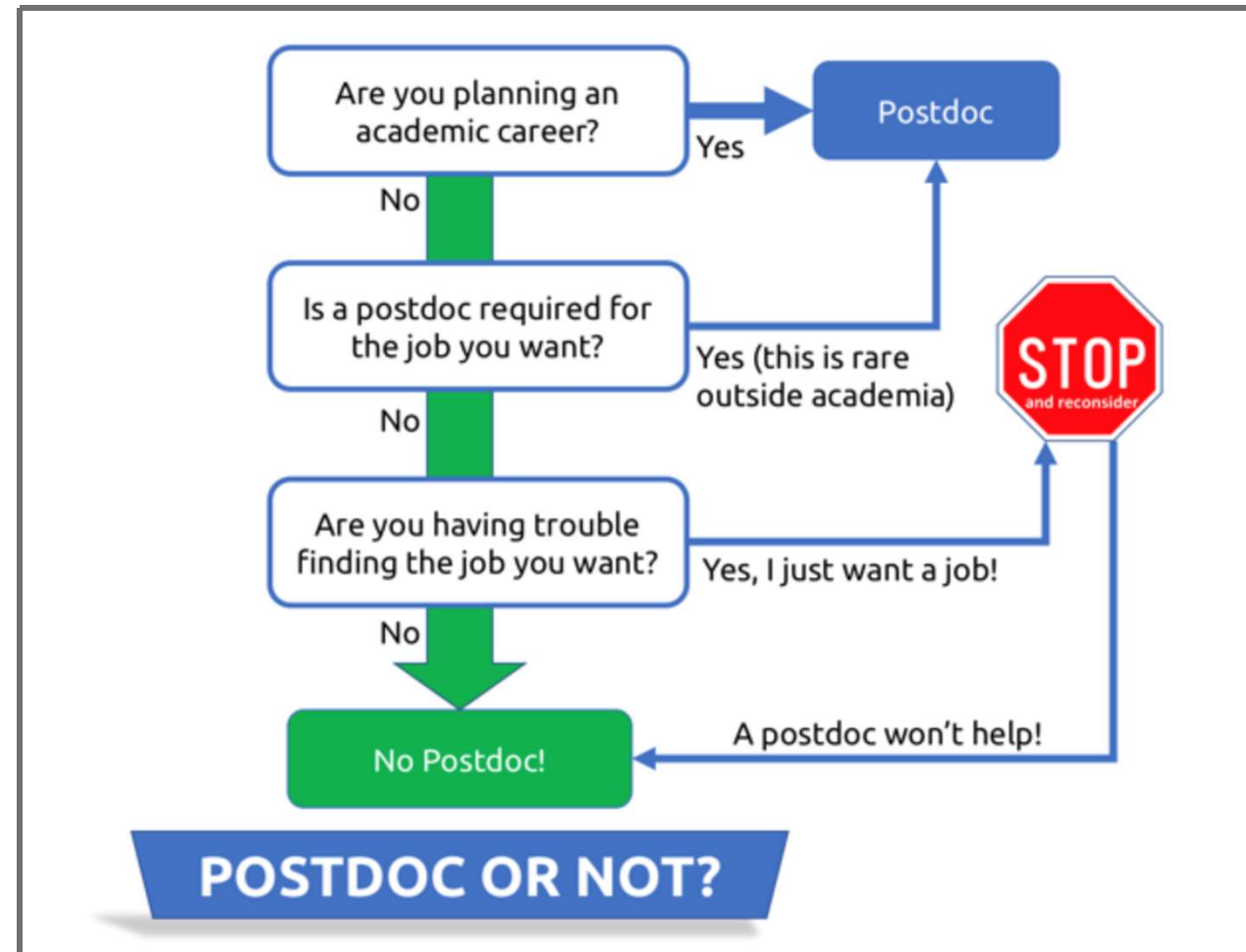
**Self-assessment
tool – feel free to
check yourself!**





After PhD – go for a postdoc ?

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<http://blogs.nature.com/naturejobs/2018/03/26/the-autopilot-postdoc/>



Academic career: After PhD – go for a postdoc !

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“I don’t think you need to be extra smart for an academic career. Much more important is that you love research and teaching, how much time and effort want put into it and that you are not afraid to be alone.”

- You will be selected on the basis of your research competence
- **What do you need to get out?**
 - Experience with different research environment
 - Experience with new techniques/new research topic
 - Recognition of your ideas
 - Network of future collaborators



Which supervisor? Which place?

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- Experience with different research environment – many universities require postdoc abroad for tenure track candidates
- Experience with new techniques/new research topic – going to work with a “hot shot” has advantages and disadvantages...
- Recognition of your ideas topic – going to work with a junior professor has advantages and disadvantages...
- Network of future collaborators – you meet more people in “famous places”



How to apply

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- › More postdoc positions than good applicants: check website <https://euraxess.ec.europa.eu/> and websites of Learned Societies. In NL: Academic Transfer
- › Check website of potential supervisor, institute
- › Contact former PhD students/postdocs
- › To get selected: Motivation letter, interview

Or get your own funding ...



CV and motivation letter

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- › See <https://motivationletter.net/motivation-letter-for-postdoc/> or <https://hwpi.harvard.edu/files/ocs/files/gsas-cvs-and-cover-letters.pdf>
- › Three parts: 1) **Why are you writing?**
- 2) **Why do you fit the job description?** these include a paragraph about your dissertation/current research, one about your future research plans, and one or two about your teaching experience/interests/approach/courses you could offer.
- 3) **Say what you attach**, that you would appreciate **explaining personally & thank** for time and consideration



The interview – how to prepare

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- › <https://academicpositions.com/career-advice/how-to-prepare-for-a-postdoc-interview> ; <https://academicpositions.com/career-advice/top-10-postdoc-interview-questions> and <https://academicpositions.com/career-advice/10-questions-to-ask-during-a-postdoc-interview>
- Practice Your Answers.
- Ask for Feedback.
- Prepare Some Questions of Your Own.
- Prepare Your Talk.
- Read Up on the Lab.
- Dress the Part.
- Follow Up.



Many possibilities for applying for funding

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- › EU Marie Curie Individual Fellowships
- › NWO Rubicon grant
- › (National) Foundations: USA-Fulbright program, National Research Council Canada, UK-Newton International Fellowships, NL-VENI, F-French Postdoc Prestige Programme, B-FNRS, FWO...
- › Individual Universities/research institutions: ETH Zürich, Trinity College Dublin, Max Planck Society, ...

First think of where you want to go, then search for the right funding...



Apply for a grant

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- Read the instructions and follow them carefully
- Learn how to write a Grant proposal (free)
<https://www.hfsp.org/node/5761> The Art of Grantmanship
- Think of who will be judging ...
- Be sure to be ready 1-1.5 months before deadline
- Establish a mock committee for feedback

Remember: older people like to help young people, so don't be afraid to ask for help



Find a good supervisor !

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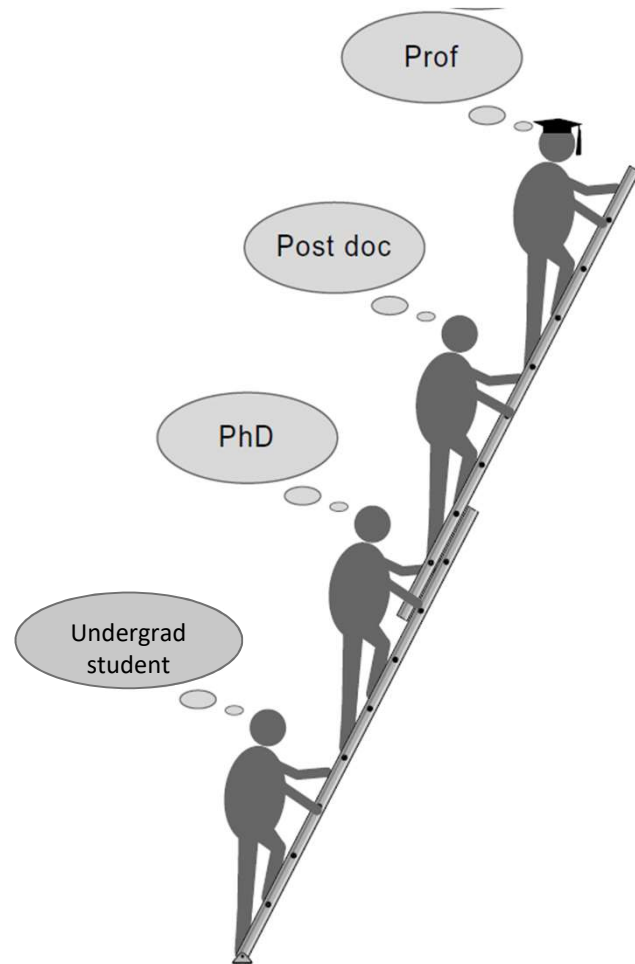
Apart from giving scientific guidance, s/he should

- provide training in presentation of results, paper writing
- find funding / help you find funding
- teach you how to write successful proposals
- teach you the « rules of the game » and how to change it
- introduce you to important professional contacts
- give you challenging assignments and opportunities
- provide constructive feedback on unsuccessful proposals or interviews
- give you credit, and advocate you in the academic community

If you don't get these things from your supervisor, ask for them. If you still don't get them, try someone else [a mentor].



Next step: tenure track assistant professor... 7/23/2021 | 15



postdoctoral researcher vs
tenure track assistant
professor

- Differences in capabilities demonstrated by your CV
- Differences in tasks
- Differences in how your “boss” cares about YOUR career



Your CV

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From a tenure track assistant professor advertisement: APPLICANTS MUST HAVE:

- a Ph.D and post-doctoral experience, preferably in different research institutions (Dutch applicants should have minimally 2 years post-doctoral experience outside the Netherlands).
- publications in first rate international scientific journals
- experience in supervising research projects
- the ability to successfully compete for external research funding
- affinity to teaching
- evidence of international recognition

When deciding on application: Difference in behaviour men/women!



During your postdoc

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- help **supervising** bachelor, master and PhD students
- show **leadership**: start a journal club, organize a workshop
- do **outreach** in schools, participate in open days
- participate in **competitions** (Famelab, dance your PhD, young speakers contest...) – you will learn speaking techniques and a better talk makes you attractive as invited speaker later and improves your teaching
- apply/ask to be nominated for **prizes/awards**
- **apply** for any type of **grant** you can: access to large facilities or computer time, travel grants for conferences, ...
- do some **teaching** during your postdoc and if possible also some **teaching training**

And don't forget to write it in your CV ...



Make publicity for yourself

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Future employers, people who nominate you for prizes, organizers of conferences have to find you

- › Setup your profile on ORCID (with miniCV etc) and **make it public**
- › Be on googlescholar, publons, researchgate,...
- › Even better: have your own website



university of
 groningen

Renata Raidou

About me

News

Curriculum Vitae

My Publications

Travel Photography

Contact

About me



Hi! I am Renata and I am Assistant Professor in Medical Visualization and Visual Analytics at the [Scientific Visualization and Computer Graphics](#) Research Group of the [Bernoulli Institute](#) at the [University of Groningen](#), the Netherlands. Before, I was a Post-Doc at the [Visualization Group](#) of Eduard Gröller, at [TU Wien](#), Austria. I received my Ph.D. in Medical Visualization from [Eindhoven University of Technology](#), the Netherlands, in 2017. The topic of my dissertation was "Visual Analytics for Digital Radiotherapy: Towards a Comprehensible Pipeline", and for the results of my work, I obtained the [Best PhD Award 2018 of the EuroVis Awards Programme](#). Additionally, I was awarded the [Dirk Bartz Prize for Visual Computing in Medicine](#) (1st Place) at Eurographics 2017.

My research focus is on the interface between Visual Analytics, Image Processing, and Machine Learning, with a strong focus on medical applications—in particular, radiotherapy. My specific domains of expertise are Comparative

Missing: what I am particularly proud of



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- › Be on googlescholar, publons, researchgate,...
- › Even better: have your own website
- › But also: **Google thyself**. Want to see what your prospective employer can see? Follow tips on <https://www.sciencemag.org/careers/2020/01/applying-your-dream-science-job-google-thyself>

GOOD LUCK with your next step!

Thank you for your attention

Book advice:

- Federico Rosei and Tudor Johnston, **Survival Skills for Scientists**, World Scientific;
- Peter J. Feibelman, **A PhD is not enough: a guide to survival in science**, Basic Books
- Ritsert Jansen, **Funding Your Career in Science** Cambridge University Press