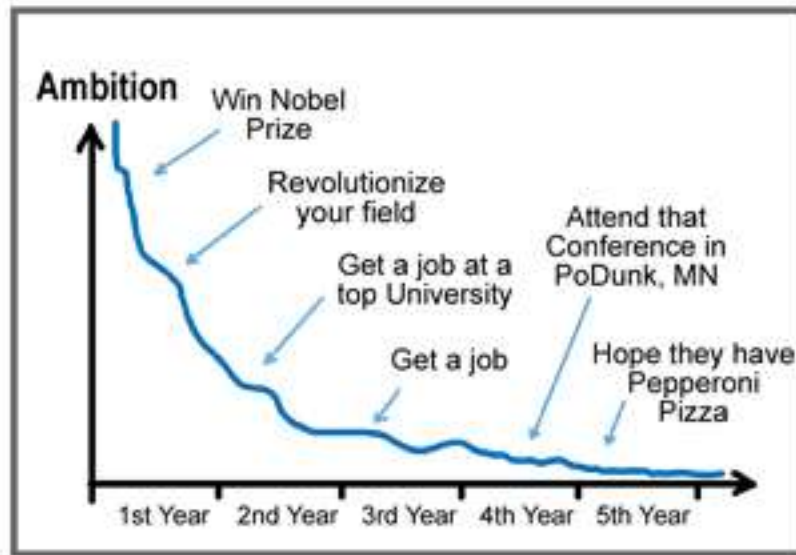


How to get to build your own lab

A variety of **career expectations**

YOUR LIFE AMBITION - What Happened??



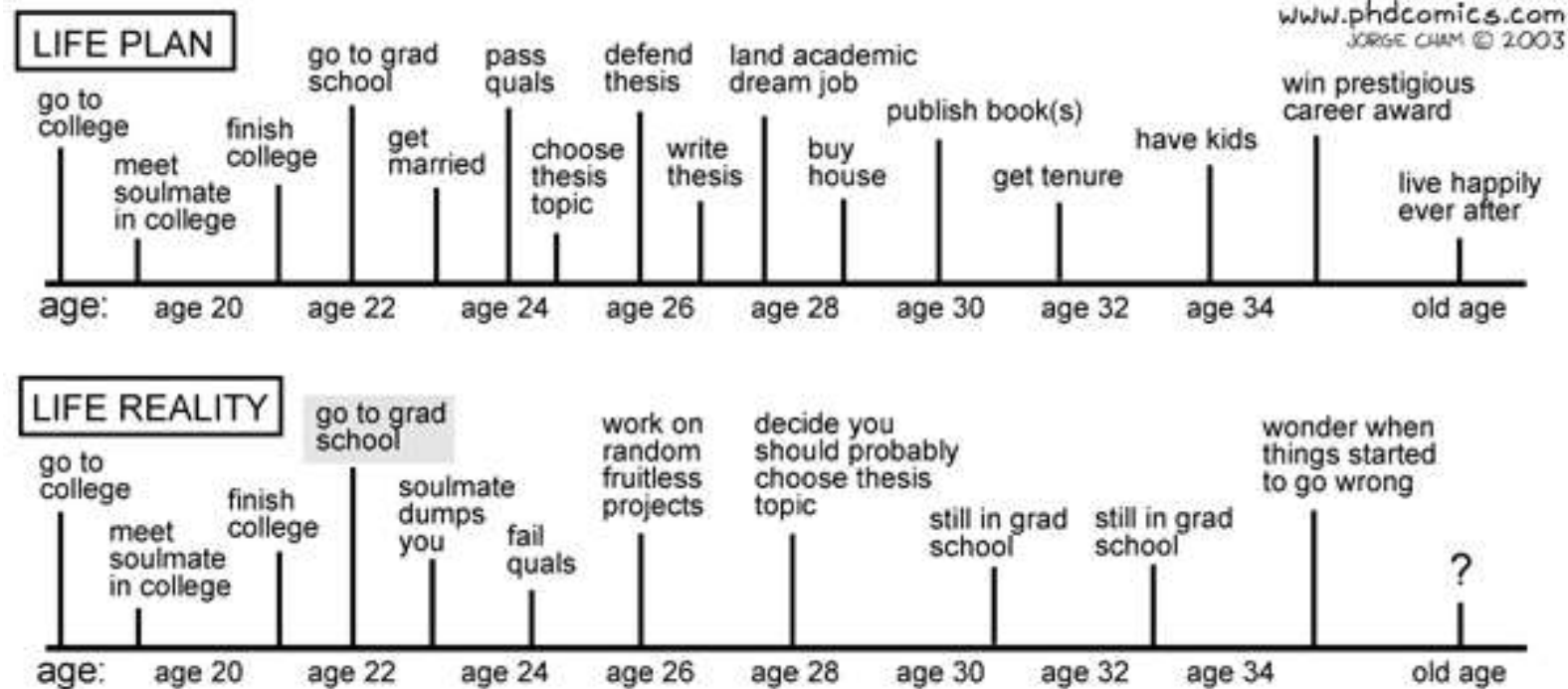
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Years in graduate school

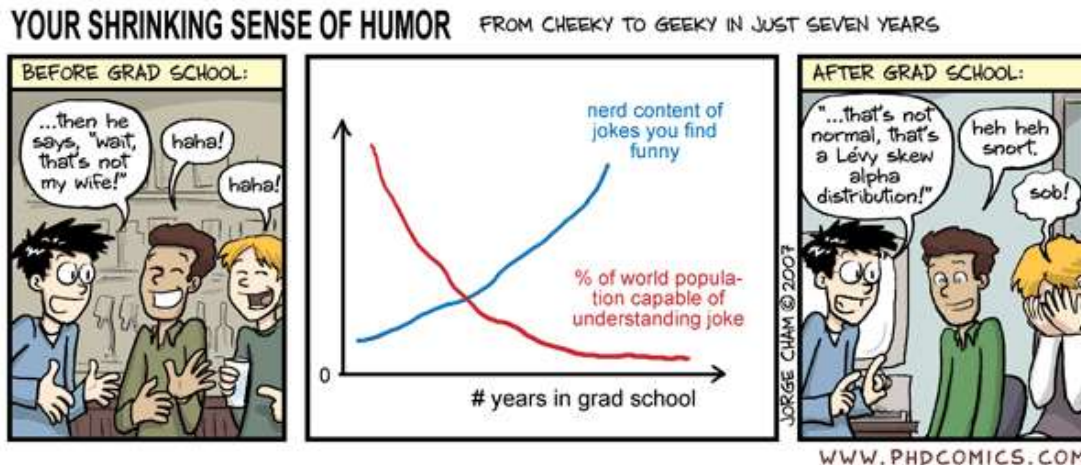
At CNIC we are not allowed to have happy hours...
so you better **finish your PhD in 4 years!!!**

Life & career planning: keep a flexible focus

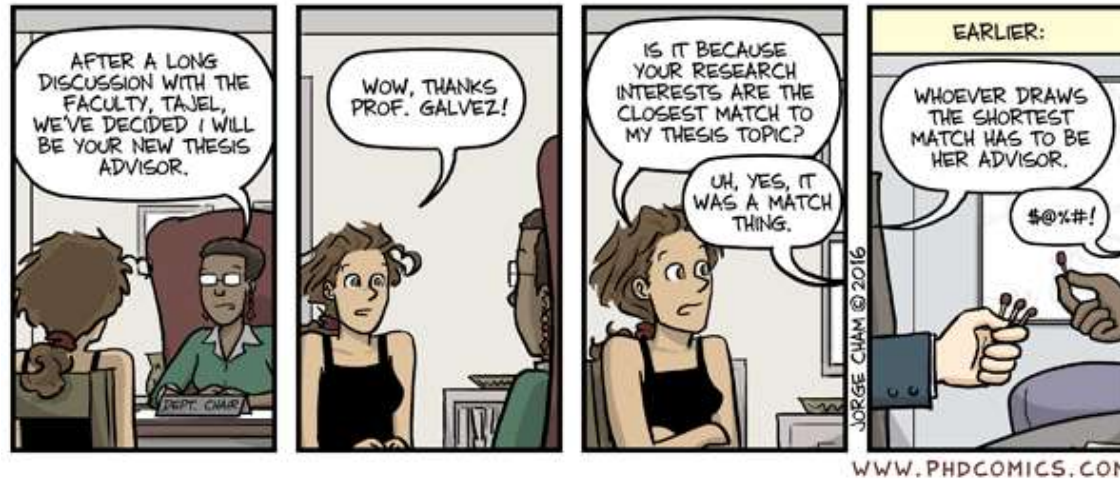


What should you aim at as a PhD student?

- Graduate school is **not only** about having a project and getting it published.
- Graduate school is a **formative period**: learn **techniques**, start **writing** your papers and proposals, **ask questions** in seminars, **talk** to international speakers and collaborators, develop **critical thinking**... You are a PhD student to **become a scientist!**
- **Do not isolate yourself** in your bench, visit other laboratories, different countries, go to conferences... Think that in 4 years you have to have an idea on what to do next!











How to **choose** a lab for your **PhD**?



- The topic of the project has to be **exciting** to you... You'll spend a lot of time working on it.
- **Quality of training** provided by the group
- Track record of **publications and funding** of the lab
- Do you agree with the **philosophy of work** of the lab?
- If possible, do a **rotation in the lab** before committing for the PhD
- **Quality of the scientific environment**

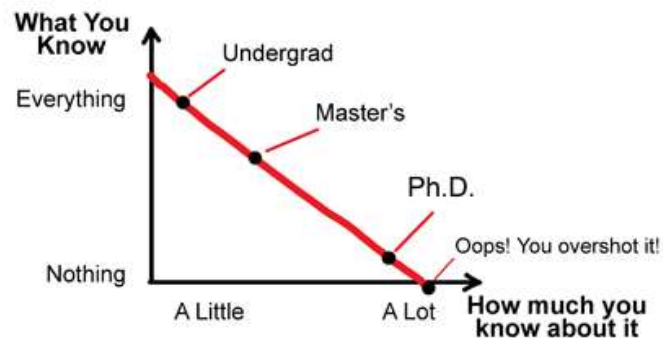
Is CNIC a good place to do your PhD?

-  Research topics
-  Quality of training
-  Rotation in the lab before committing for the PhD: Cicerone, internships, etc.
-  Quality of the scientific environment: SEMINARS!!!
-  Thesis committee: you get two extra mentors for free
-   Very good facilities, and technical and administrative support
-  Happy hour

What should you aim at as a **postdoctoral researcher**?

- Your postdoc is **not only** about having projects and getting them published.
- Postdoctoral scientists are also in a **formative period**: learn novel **techniques**, **write** your papers and grant/fellowship proposals (**secure** your own **funding!!!**), **supervise students**, improve your **soft skills**, help your supervisor with **administrative chores**, do **networking**, teach...
- It's always a good idea **to change fields of research** while still benefiting from your previous expertise. Aim at **build your own research niche** where you can take advantage of both your PhD and your postdoctoral training.

What You Know vs How much you know about it



How to **choose** a lab for **postdoctoral training**?



Questions to ask yourself that will help you make the right decision:

- Do you want to become a **group leader**?
- Do you want to gain more experience and then move to **industry**?
- What **subjects of research** are you interested in?

How to choose a lab for postdoctoral training?



- Start thinking about postdoctoral training at least **6 months before graduation**
- Listen to **your supervisors and mentors**
- Find out about the **track record of the lab**: do all postdocs get faculty positions?, do postdocs get 1st author papers in top journals?
- **Talk** to the people in the lab
- It's not only the lab, it's the **scientific environment!**

Is CNIC a good place to do your postdoc?



Research topics



Quality of training



Quality of the scientific environment: SEMINARS!!!



Very good facilities, and technical and administrative support



Scientific environment, but limited options to establish your own lab in Spain



Options to obtain independent funding in Spain



Happy hours

The transition to your first independent position

This is a **tricky period** of your career: exciting, overwhelming, long, a time for compromises... a prelude of what being a PI means



- Job market for faculty positions is very **competitive**
- A **good publication record** is needed, but not enough
- **Good match** between your expertise and the institution goals!
- Don't put all your **eggs in a single basket**
- Send out **several applications** to different places: be open about relocation
- **Don't rush** to make a decision once you start having offers

Working toward **job offers** (a general overview)

Application package

- **Cover letter**
- **CV**
- Independent **research program**
- **Teaching** statement
- **Recommendation** letters

On site interview(s)

- **Seminar** about past research
- **Chalk talk** about future projects
- Meeting with faculty members: remember they want to **hire a colleague!**
- Interview works **both ways!**

You have a **job offer**... and now what?

Some things to consider (and **negotiate**) before accepting an offer:

- The most important: will you be able to **develop your research plan**?
Start-up funds, positions covered, lab & office space, teaching duties, facilities
- Will you be able to **collaborate** with some of the faculty?
- How will your **research plan be improved** by the institution?
- Will your **salary** be enough considering cost of living?
- **Spouses & family**

Full disclosure: we always talk about ourselves



Jaime Andrés Rivas-Pardo

Pallav Kosuri



Fares Saqlain

David Giganti

2004

2008

2014

PhD in protein biochemistry

Mechanism of pore formation by actinoporins



Sea anemone



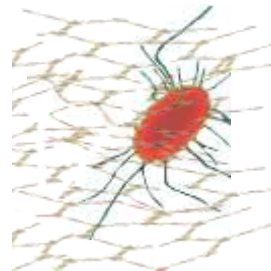
Nematocysts



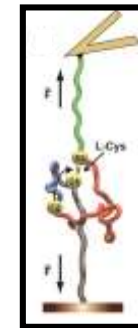
Pore

Postdoc in single-molecule biophysics

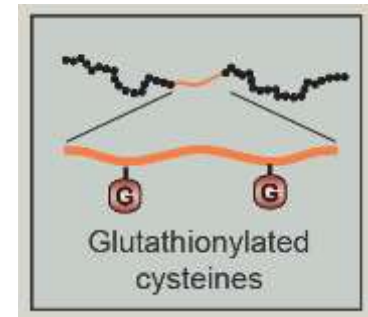
Protein mechanics



Bacterial adhesion



Chemistry under force



Titin elasticity (from 2011)

Single-molecule Mechanochemistry



Fundación
Centro Nacional de
Investigaciones
Cardiovasculares
Carlos III



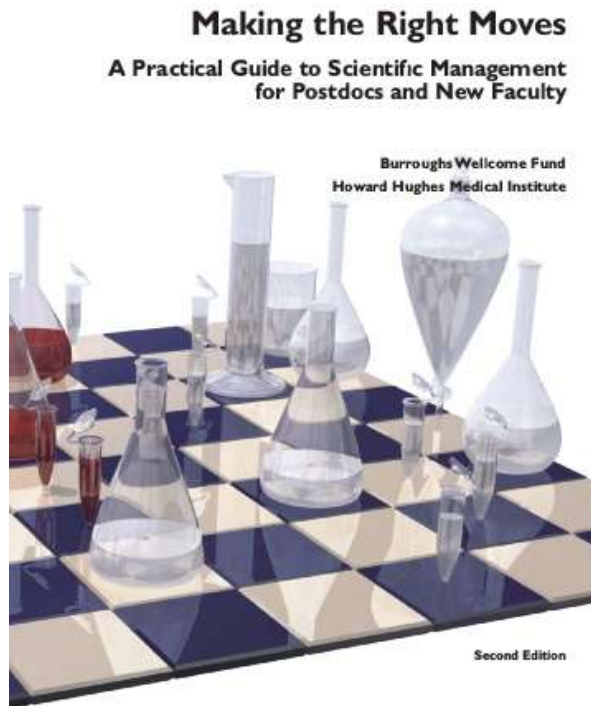
Cristina Sánchez, Diana Velázquez, Carla Huerta, Carmen Suay, Elías Herrero-Galán



Fundación **pro**cniic



Resources



Downloadable book
from www.hhmi.org

Science careers website

- How-To Series Collections

Nature jobs website

- Career toolkit pages

Some **final remarks** and **take home** messages

- Keep a **flexible focus**
- **Find out** as much as you can about the labs or institutions you plan to join. Keep in mind that the **scientific environment** is also important.
- You **become** what **surrounds** you
- PhD and postdoctoral periods are **formative**
- Getting constructive **feedback** is key: engage and take care of **mentors**
- **Networking** is central to career development