The difficult “job” of postdocs: Take charge of your career!

Andrea Giuffrida, PhD
VP for Research

6th Postdoctoral Forum  September 18, 2018
My Journey

This is where I started...
From Catania to Siena
From Italy to Germany

Hannover

In vitro fertilization
From Germany to USA

IP thief!

Director Medical Science Liaisons (Acadia)

Faculty

Faculty

UC Irvine, California (1999)
...and finally to San Antonio!
...On the road again!
AAAS Science & Technology Policy Fellowship
a tremendous learning experience!
...living like a student again
My Activities at NIH

Office Science Policy

- Biomedical databases, Adverse event reporting, etc.
- Review FDA regulations; NIH viewpoints
- Grant Portfolio Analysis
- Prepare documents, presentations; NIH Biennial Report

Office of the NINDS Director

NIH-FDA Joint Leadership Council
(Exchange programs and Shared Culture)
VPR at
UT Health San Antonio
Postdocs at UTHSA

UT Health SA Postdocs 2017 (n=197)

CITIZENSHIP
UT HEALTH SA POSTDOCS (N = 197)
Reality Check

- In 1973, 55% of PhDs in biological sciences received a tenure-track position within 6 years, compared to 16% in 2009.\(^1\)
- The median age for landing a faculty position is 38, and for the first R01 grant is 43.
- \(~65\%\) graduates do a PostDoc\(^2\)
- \(~16\%\) graduates become tenure-track faculty\(^3\)
- 120\% increase in BioMed Science PhD’s graduates (1980 – 2010)\(^4\)
- 10\% increase in faculty positions (1980 – 2010)\(^4\)
- Too many PhDs spend prolonged periods in postdoctoral positions

Career path increasingly unattractive in terms of pay, duration, risk-taking and future job prospects

---

Challenges

**GENERAL**

NIH funding has declined 22% in real dollars since 2003¹

Do we train more people than science needs?

Universities have been slow in adopting reforms

**SPECIFIC**

- Postdoc experience as a “parking spot”
- Power dynamics
- Stipends vs salaries
- Entering non-academic careers

- **YOUR PERSONALITY!**

  Insecurities, lack of self-assessment, big ego, etc.

¹ Specific Initiatives
National Academy of Science: 2018 Recommendations

- Reduce barriers to recruiting and retaining diverse researchers at all stages of their career
- Research Institutions should collect, analyze and disseminate comprehensive data on outcomes, demographics of pre- and post-doctoral researchers using common standards developed in concert with the NIH (and NSF)
- Research Institutions should provide every postdoc a high-quality training experience that prepares them for success in their chosen career. To achieve this overarching objective:
  1. The NIH should require PIs to provide a research training and mentoring plan in all grant proposals
  2. Institutions should introduce a mechanism to facilitate career guidance and counseling for all postdocs
  3. NIH should increase the NRSA starting salary to $52,700 (in 2018 dollars) with annual adjustments for inflation
  4. Institutions should harmonize benefits for all postdocs regardless of support mechanism
  5. Institutions should collect a fee of at least $1000/year from the host investigator (for each postdoc on research grants) to support effective training and professional development
National Academy of Science: 2018 Recommendations (cont.)

• Postdoctoral training should be limited to 5 years

• Congress and NIH should create and expand existing entrepreneurial and private-sector opportunities to attract and support the next generation of biomedical researchers (by revising SBIR/STTR programs and establishing an employment tax credit to R&D firms for hiring new PhDs, MDs, MD/PhD’s)

• The NIH should invest in strengthening the research funding landscape for young investigators [NIH Director’s New Investigator Awards (DP2), expand the Pathways to Independence (K99/R00) and similar programs]

• Institutions and NIH should increase the number of staff scientist positions to provide stable, non-faculty research opportunities
Mentoring

Mentoring goes beyond just learning about the art of science

How to:

• Start a research lab
• Write a grant
• Manage rejection
• Find your niche
• Hire the right people
• Work together and build a network
• Be your own marketing department

Transform “competing” into “collaborating”
Even if you don’t get funded, you build relationships

Team mentorship: learn to communicate across disciplines
Key Ingredients for a Successful Scientist

- Good publications, “pedigree” and recommendations
- Collaborations
- Good communication skills
  - Networking at meetings and seminars
  - Use lab meetings as practice ground!

Key factors when choosing a job in Academia:

- Supporting, mentoring and visionary department Chair
- Start-up and reputation of the university
- Salary (bottom of the list)

Empower yourself!

How to decide what to do next?

If you want to stay in Academia:
• Being a scientist is more about creativity than what you can do with your hands or the techniques you master
• Find your niche
• Do your skills intersect with the science that excites you?

If you are searching for that one person that will change your life, take a look in the mirror!
• Get feedback
• Forget what they told you to be
• Build a plan – SWOT Analysis

Consider where:

How do you get a job outside Academia?
• What do you enjoy?
• Build a plan and timeline
• Network / Use your mentor
• Patience

THINK POSITIVE
RISK
LUCK
## Self-assessment & SWOT ANALYSIS

<table>
<thead>
<tr>
<th>STRENGTHS</th>
<th>OPPORTUNITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills</td>
<td>Informational interviews</td>
</tr>
<tr>
<td>Motivation</td>
<td>Internships/fellowships</td>
</tr>
<tr>
<td>Personality/leadership</td>
<td>Shadowing</td>
</tr>
<tr>
<td>Supporters</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WEAKNESSES</th>
<th>THREATS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of....Be honest!</td>
<td>What does hold you back from your</td>
</tr>
<tr>
<td>Consider feedback from peers</td>
<td>dream job?</td>
</tr>
<tr>
<td>Personality</td>
<td></td>
</tr>
</tbody>
</table>
“Fortis Fortuna adiuvat”
Fortune favors the brave

The role of luck in life success is far greater than we realize

PASSION, PERSEVERANCE, INTELLECTUAL CURIOSITY, EMOTIONAL INTELLIGENCE modestly contribute to the road to success (but definitely help in maintaining your success once you get it)

Therefore.....

YOU NEED a stimulating environment rich in opportunities!
...Plus a good education, intensive training, and an efficient strategy

Surround yourself with people that disagree with you and can provide sincere feedback
If you are the smartest in the room, you are in the wrong room!

Be ready to jump on new opportunities
...but keep in mind that you will never be ready!
Some Opportunities outside Academia

FDA fellowships

- Commissioner’s Fellowship Program
- Visiting Scientist Program (for foreigners)

Excuses will always be there for you. Opportunities won’t!

AAAS S&T fellowships

- Executive Branch
- Judicial Branch
- Legislative Branch

Don’t wait for things to happen: YOU ARE IN CHARGE !!

Internships in government offices or private organizations

If opportunity doesn’t knock, build a door!

– Milton Berle

NPA – workshops and seminars
Resources: OPA Team

**FOCUS**

- Postdoc Programs/Career development
- Institutional Postdoc Policy
- Institutional Postdoc Profile

![Laura Moreno](image)
**Laura Moreno**
Office Manager

![Arthur Barrera](image)
**Arthur Barrera**
Administrative Assistant

![Chase Fordtran](image)
**Chase Fordtran**
Graphic Design & Web Support

**Postdoc orientation**
- Individual Development Plan (IDP)
- Responsible Conduct in Research
- UP / F-Troop
- Entering mentoring

**Director:**
Linda McManus, Ph.D.
An institutional resource to address the needs and enhance the training environment for postdoctoral research fellows and mentors

Welcome to the Office of Postdoctoral Affairs (OPA). This office serves the postdoctoral research fellows who are essential members of the multidisciplinary investigative teams at the UT Health San Antonio. There is no question that the research knowledge and skills of newly-minted scientists contribute to the overall success of our research programs. However, the training of early career investigators must also ensure that they:

http://opa.uthscsa.edu/
RIGOR & REPRODUCIBILITY in Biomedical Research Workshop

Saturday, Sept. 29, 2018
8:00 am – 5:00 pm
Location: MED 3.309L

Wouter Koek, PhD
Professor of Psychiatry
UT Health San Antonio

Enhance Teaching Skills

UTeach

TUESDAYS, 4:00 - 6:00 PM
AUGUST 21 - NOVEMBER 20, 2018
ACADEMIC LEARNING AND TEACHING CENTER (ALTC), ROOM 107
Last recommendations

Excellence is never an accident. It is always the result of high intention, sincere effort and intelligent execution; it is choice, not chance, that determines your destiny.

Aristotle
ASK YOURSELF IF WHAT YOU’RE DOING TODAY IS GETTING YOU CLOSER TO WHERE YOU WANT TO BE TOMORROW.