# An unexpected life as faculty at a PUI

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### A scientist

- Work for a pharmaceutical company
- Drug discovery from marine sources



# B.S. in Marine Science and B.S. Chemistry





#### M.S. Marine Science



"The isolation and characterization of natural products from marine plants and microorganisms"

- Lessons learned
- ▶ Do not leave graduate school planning to finish your thesis. It took me 3 extra years to finish, and I almost didn't.

# PhD. Medicinal Chemistry and Molecular Pharmacology



 Modulating farnesyltransferase substrate specificity: tools for altering protein function in vivo.

### The post doc

► Choice 1: The up and coming faculty at a moderate institution

► Choice 2: "All star" scientist at a good institution

► Choice 3: Scientist at Harvard University

Always keep as many doors open as possible

# The post doc

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# Substrate Specificity of Gamma Secretase

Project was unsuccessful



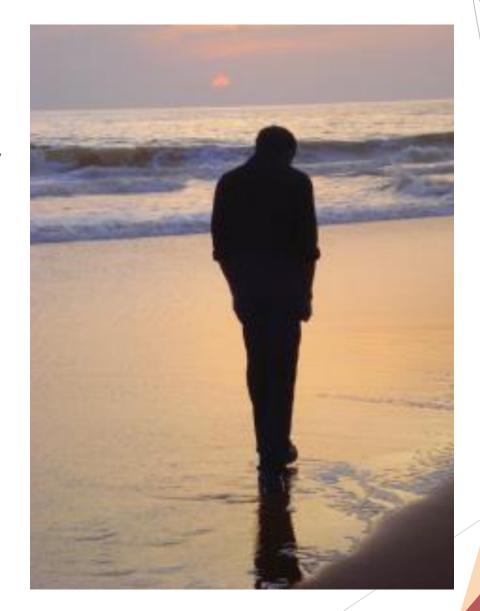
► No first author pubs

No spin off work that I could or wanted to pursue on my own



# Soul Searching

- I liked science
- Did not like research enough to make it my sole focus
  - ▶ No more industry
- Academia...



### Academic options

#### Major Research institutions

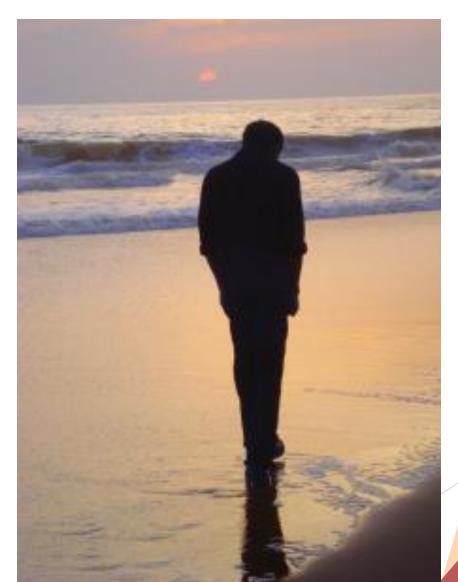
- Supervising graduate students and postdocs
- Limited interaction with undergrads
- Limited time in the lab
- Minimal teaching
  - ► TA's
- Leading/brainstorming multiple projects
- ▶ 10+ Publications required for tenure
- Grants required for tenure
- Portion of salary derived from grant funding (20-100%)
- Year round

#### **Small Schools**

- No graduate programs/post-docs
- Heavy undergraduate interaction
- Will be in the lab teaching classes and with research students
- Mostly teaching
  - ► No TA's
- Leading a single project that moves very slowly
- 1-2 publications required for tenure
- No grants required
- ▶ 100% salary from the institution
- Significantly smaller salary
- 9 month contract

# Soul Searching for my academic home...

- To be successful at a large institution,
  - You need to be able to be competitive in writing and obtaining grants to fund work
  - ► I didn't think I was good enough or motivated enough
  - Required me to do a 2<sup>nd</sup> postdoc and write 2 grant proposals and my heart wasn't in it
- Did I like teaching enough for it to be the major part of my day?
  - ▶ Lot's of TA experience and really liked it.
  - ▶ I had no experience leading my own course



# Adjunct faculty teaching a non-science majors course as the instructor of record

- What is the instructor of record?
  - Person listed in the course schedule
  - Responsible for curriculum, admits, exams, etc.
- 3 credit lecture
- "Human Health and Disease"



- ► Loved it!
- ▶ Was the best part of my day!



# Small College life was for me

I loved teaching.

I loved being in the lab.

I loved science.

### My job search...

► There were 14 biochemistry positions at small colleges advertised in the Fall 2011.

► My then fiancé (now husband) and I did not want to live west of the Mississippi, so I applied to the 7 schools east of the Mississippi River.

- ▶ I got a call from 2
- ▶ I got the job at Bellarmine



Life at a Primarily Undergraduate Institution (PUI)

### Job facts

- 9 month contract August 15-May 15<sup>th</sup>.
- Contractually obligated to attend convocation and graduations (Dec & May)
- ► Teaching (70%)
  - ▶ 21 credit hour load a year.
  - Lecture Load is hour lecture:hour load
  - ► Lab load is 2/3 hour load:hour in lab (4 hour lab = 2.67 hour load)
  - Responsible for all instruction, materials and grading
- Scholarship/Research (15%)
  - ▶ 0.25 hours toward load for research students
  - Whatever time you have left in a day!
- Service (15%)
  - Advising students
  - Department meetings
  - University meetings (faculty assembly, college meetings)
  - Committee meetings (honors council, faculty compensation, etc)

### Tenure-Track at Bellarmine

- 6 year process
- 2 full years as faculty
- Submit a tenure binder for review
- 2 years to fill in gaps
- Submit your tenure binder fall of the START of your sixth year.



- Teaching
  - Course evaluations
  - Sample materials
  - Grade distributions
- Scholarship
  - ► 1-2 pubs required
  - ► I'm really close!
- Service
  - To your department: did you attend dept meetings
  - To the university
    - ▶ 3 search committees
    - ► Pathways to graduate school committee
  - ► To your profession
    - ► This talk
    - Judge undergrad poster sessions at ASBMB meeting

# A day in my life...I am teaching 4 classes this semester

#### Tuesday

- Arrive on campus at 7:30am
- ► Teach biochemistry I 8-9:15am
- ► Teach biochemistry I 9:25-10:40
- ► Talk with students ~10:50
- Grab lunch till 11:30
- **11:30-1:40** 
  - ► Get biochem lab ready for the week
  - ► Get lecture ready for 1:40
- ► Teach advanced biochemistry 1:40-2:55
- ▶ 3-5 Non stop parade of students, responding to emails, try to squeeze in a little grading

#### Friday

- ► Get in around 10
- Research students (in lab) from 11-1 and 2-3
- Lunch from 1-2
- Steady parade of students in office all day
- Get caught up on emails
- Get caught up on grading
- Post materials for the following week on moodle
- Leave by 5-5:30

### Demands of the job

- The first year is extremely stressful!
- Stress gets better as you get more experience, but...
- I've never been busier-The greatest demand is of your time!
  - ▶ In the classroom 13 hours per week (not including prep and grading)
  - ▶ I have 4 research students (~10 hours per week)
  - ▶ I have ~ 3 hours of meetings a week
  - 2 office hours
  - Steady stream of students coming to visit/needing help
  - I generally have no time during the day for lecture prep and grading.
  - I had to put off finishing writing the 2 pubs I am working on.
  - ▶ But...I spend about 2 hours a day talking with and helping students/colleagues. (If I would close my door, I could get a lot more done!)

# Shifting from postdoc at Harvard to faculty at a liberal arts college

- Research plans need to be simple
  - Designed with an undergraduate in mind
- Research plans need to be adaptable...
  - resources at small colleges are scarce and varied
- Research needs to be modular
  - Student will have a few hours here and there to give you
  - You will only have a few hours here and there to give
- You will have little to no money
- It will take you longer to do everything
  - ► Your time out of the lab will soften your skills
  - You will have to look for things
- You will have to fight to set time to do research.
  - It is very easy to get pulled away by students/serving on committees.
- Your work still needs to be publishable
  - Have to find a niche to work in

### Lessons from my life!

- Do not leave grad school until you finish your thesis
- Always keep as many doors open as possible
- Honestly assess your skills and interests
- Get as many relevant experiences as possible
  - ► Teaching a lecture
  - Supervising undergraduate researchers
- Be willing to move!
- Life at a PUI is no longer about your success...You take pride in what your students accomplish and their development.
- Your days are busy, but the interactions with students are fun
- You miss the pace of research, the focus of being in the lab, and not mentoring grad students.
- But you can't beat the 9 month contract and flexibility!

# What Bellarmine looks for in faculty hires?

- Teaching experience
  - Instructor of record for lectures
  - Visiting Professor
- Research experience
  - Postdoc
  - Supervising undergraduates
  - Feasible research plan
- Credentials
- Desire for small college/liberal arts
- Fit with the department/university

- Essential skills
  - ► Good communicator/teacher
  - ► Like interacting with students/colleagues
  - Patience
  - Passion for research
  - Adaptability
    - ► Ability to shift gears scientifically

