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## Navigating clues to success in academia

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Title: Navigating clues to success in academia

Authors:

Ann M. Clemens<sup>1</sup>, Kamran Khodakhah<sup>2</sup>, André A. Fenton<sup>3\*</sup>

Affiliations:

<sup>1</sup>University of Edinburgh, Simons Initiative for the Developing Brain, 1 George Square, Edinburgh EH8 9JZ

<sup>2</sup>Dominick P. Purpura Department of Neuroscience, Albert Einstein College of Medicine, 1410 Pelham Parkway South, Bronx, NY 10461

<sup>3</sup>Center for Neural Science, New York University, 4 Washington Place, New York, NY 10003, USA

<sup>4</sup>Neuroscience Institute at the NYU Langone Medical Center, New York, NY 10016, USA

\*Author for correspondence, André Fenton [afenton@nyu.edu](mailto:afenton@nyu.edu)

## **ABSTRACT**

Academic success and how to achieve it takes diverse forms, depending on who's asked. We suggest that happiness, impact, and longevity can be achieved with professional effort and support that balances the toil and joys of one's chosen path.

## **INTRODUCTION**

Academic careers are enigmas that few get early clues to decipher (Fernandes et al., 2020; Van Bavel et al., 2019). Efforts to diversify the professoriate fall short for myriad historical reasons, comprising the fabrics of culture. Even though the innovation economy is driving increases of industry jobs (Reithmeier et al., 2019), the likelihood of joining the professoriate remains demoralizing. The do's for success and the don'ts that court failure should neither be mysterious, nor for the privileged. Here, a new assistant professor at a European university, a mid-career neuroscience professor in a US Research 1 (R1) university, and the neuroscience department chair at a US medical school offer guideposts for postdocs and junior faculty to succeed along their academic paths (Fig. 1).

## **THE GOAL IS SUCCESS**

Did we mention that the goal is success? Institutional and individual incentives should be aligned, but often misalign because academic success means different things to different stakeholders. In our view academic success means individuals live happy lives, their professional effort has impact, and their research programs have permanence.

You should define success in your own terms, but also find out what defines institutional and departmental success if you consider joining the faculty. There needs to be sufficient overlap to have a fair shot at achievement.

We should tell the reader about ourselves. Fenton born in Guyana, identifies as a black male, first-generation scholar. He did not get much academic advice but did not know to ask. His startup was 5-figures, and he did not even know what tenure meant until he was informed to prepare his tenure package. Fenton is grateful that he never made any scientific decisions in consideration of his work status, and never stressed about his career, which to date has been joyous. Fenton got amazing scientific training in Prague and Brooklyn from PIs and colleagues that adored and supported him as a full and complex person with diverse interests and talents. Mostly he was free to get into anything he wanted, so long as he found a way to pay for it.

Clemens grew up in the US academic system though had little idea what an academic job was until near the end of university. Her scientific interests and drive to explore how science was done in other parts of the world, took her to Berlin for her postdoc, where she was free to explore her own interests while honing novel techniques. Recognizing there is a lot to learn from new scientific cultures and experiences, she found her way to Edinburgh where she is starting her own laboratory. She acknowledges the challenges of moving between internationally-diverse academic ethe but is continually thrilled by the experience. She thanks her mentors and colleagues for making it rich and fulfilling. Her

priority throughout this academic journey is to have fun with what she is doing - it seems to be working out so far.

As a foreign student in 1980's UK, Khodakhah learned to parse meaning, like the English word "random" was "certainty" for some. The certainty that, being Iranian born, he will be "randomly" selected for a full search at airport security. That the word "equal opportunity" had the unwritten qualifier "as long as you are in the club." He was drawn to, and cherished, the scientific community that sometimes, but not always, overlooked a lack of "club membership" for the sake of intellectual power. He heard loud and clear the advice of his UK scientific colleagues who told him he'd be "better off" in the USA, even though the melting pot is only slightly more accepting. Despite this precious nugget of advice, he had little mentoring to navigate the academic maze. Kamran was very fortunate for the outstanding scientific training and support that he received from his mentors and focused on doing good science and having fun. He found himself quite at home at his department at Einstein, fully subscribing to the college's social justice mantra, its unequivocal commitment to excellence, collegial and collaborative culture, and focus on fundamental research. The journey so far has been, by and large, happy and meaningful. As a Chair, he has opportunity to pay back, with his primary function being to mentor, support, and serve his colleagues, in advancing the Department's mission.

**WHAT IS AN ACADEMIC JOB ANYWAY?**

Academic jobs are heterogenous. Not all might be right for you; a good fit may change as you and your career evolve and mature. Research institutions mostly do not teach, but like R1 universities prioritize research scholarship while liberal arts colleges prioritize teaching. The prioritization is rarely to the absolute exclusion of the other responsibility. In all cases, scholarship is required -- that means generating knowledge.

Tenure-track jobs provide the potential for job security so that the principles and responsibilities of Academic Freedom (<https://www.aaup.org/report/1940-statement-principles-academic-freedom-and-tenure>) can be exercised, whereas a non-tenure track job has no such opportunity. Academic freedom, a moral and legal concept, asserts that faculty have absolute freedom to pursue any inquiries, no matter how inconvenient, inconsequential, or offensive. This freedom from censorship or retaliation is essential to the principles and mission of the academy, unsurprisingly, that is not awarded casually.

Tenure amounts to different things in different institutions. In most institutions, a tenure review must be completed within seven years of employment, and obtaining tenure coincides with promotion. Some US institutions only award tenure upon promotion to full professor and the systems are different in each country. Tenure-like positions, also called “permanent” or “open” positions exist in other national systems, each with their own intricacies.

In most teaching institutions, tenure means job security with a guaranteed full salary. However, in some institutions, and often in US medical schools, tenure does not guarantee a salary. In some institutions space to conduct research is assigned and difficult to revoke, whereas in other institutions laboratory space is revocable at the Dean's discretion; in others, space must be rented. Tenure reviews are conducted first at the department level of the tenured faculty, then at the institutional level by a promotions committee. Finally, tenure cases are reviewed and approved by the institutional leadership, i.e. the University Provost, President, or Medical School Dean, sometimes requiring endorsement of the institution's governing board. Failing to obtain a favorable tenure review typically means job termination, and leaving the institution. Accordingly, to keep their jobs, junior faculty are advised to be laser focused and effective at meeting the success criteria codified in institutional policy.

### **CITIZENSHIP - INSTITUTIONAL CULTURE/ETHOS**

Choosing a faculty job is choosing citizenship in a culture with history, aspirations, and an ethos. Like any sensible immigration decision, anyone with agency would work to learn about, and understand the institutional and departmental cultures they will join; more so if the goal is to organize, launch, and build their independent career within the cultures. Those cultures bring you opportunities, and present barriers, open and close off networks for growth and support within, as well as beyond your discipline. Those cultures will not only be, but will also determine, your future colleagues and the trainees that will operate and be educated in your lab. Those engagements with scientists can determine success

more than specific core facilities. It is far easier to succeed and get support to succeed in a culture that shares your values and welcomes you.

### **ASK AND LOOK AROUND**

It is hard to learn what's important about institutional cultures. Is debate equitable or even welcome? Which levels of biological organization are pursued and respected? Is the ethos to protect-and-nurture or is it sink-or-swim; is it to collaborate or to compete? Is the mission primarily to serve and contribute to society, or to dominate and secure name recognition? The department's culture of mentoring is especially important to learn about because those mentorship practices are an expression of the institution's willingness and investment to support early career academics. Like most challenges that demand personal growth, it does take a village. Aspiring colleagues would do well to migrate to villages that are welcoming and mindful of their power and responsibility to mentor. There are many ways to institute effective mentoring that are both formal and informal; in our view, the topic deserves its own Neuroview. While none of this information is on the departmental website, folks know. That's the information they get from their professional network. To find out you must ask. Ask seriously and directly, not by way of rumor and gossip. Your network is not only enabling, but also limiting, which is why you must cultivate and grow a network of diverse knowledge, intellect, opinion, career stage, accomplishment, and experience as well as the social categories of race, gender, and sexual orientation. Narrow, homogeneous networks provide narrow and homogeneous advice. Judiciously build a professional network of diverse knowledge,



experience, and people, then ask for professional advice. Consider the advice but choose your own actions.

Job search strategies vary widely; low levels of success in acquiring interviews and even fewer offers can lead academic job candidates to send as many applications as there are jobs that might vaguely fit. This is a costly strategy for both the applicants and the institutions.

Early career researchers on the job market often forget that landing a job is not the end; in a real way, it is only the beginning. What the institution can provide for you should be a major consideration. Does the institution strategize success by hiring cohorts with a plan to keep a small percentage? Understanding a department's current and long-term scientific priorities is one of the most important factors to consider. There will be synergies when your research priorities align, and marginalization when they are counter. Many departments have an up-to-date strategic plan that states how the department understands its place within the discipline, its priorities, and mechanisms for growth. If you are negotiating a job, ask to see that strategic plan.

Do what it takes to know your department. Landing an academic job means joining a community of scholars with all the opportunities, responsibilities, burdens, and quirks that come with any organized collection of people. Each member of the department is wondering how your recruitment will advance the department and particularly their own academic interests; make sure you are asking the same question on their utility in

advancing your academic career. Both your and the department's success, are intimately entangled.

### **DOING A GOOD (ACADEMIC) JOB**

Academic neuroscience jobs have and are assessed according to three responsibilities – research scholarship, teaching, and service. The extent to which each is valued differs according to the institution, but their relative importance, what qualifies as each, and evidence of accomplishment are codified in each institution's faculty handbook as part of the governance policy. These are typically public, at least in terms of assessment and criteria for tenure and promotion.

#### *Research Scholarship*

The central requirement of research scholarship for academic success means you will be hired to create original knowledge that is recognized by domain experts and other scholars, although each institution has its own definitions and standards. The quality and volume of scholarship is mostly assessed by a neuroscientist's peer-reviewed publications, the willingness of external agencies to fund that work, and the interest of the professional community to learn about and engage with that work. Numbers of impactful publications, amount of grant funding, number and prestige of invited lectures, conference presentations, scientific and grant review board memberships, as well as competitive awards for scholarship are standard metrics of research quality.

It is prudent, to understand what your institution recognizes and values. A person's influence and scholarly importance can manifest in other ways beyond research scholarship, especially through social media and activism but some institutions do not consider activism as scholarship. Nor might an institution recognize as scholarship an individual's activities and communication through social media and popular forms of communication; some even view such activities as compromising the objectivity of scholarship (Yona, 2019). An institution may not recognize participation on boards and groups as evidence of scholarship quality and importance, unless those organizations have explicit scholarly missions that are clearly and publicly stated. Professional and commercial organizations are valuable, but they are not necessarily academically valuable, worse if unrecognized by your institutional governance policies. Such activities are usually gratifying and important. They can be the basis of social justice efforts, and are certainly influential, but whether your institution values and rewards them as scholarship is in the faculty handbook and the guidelines by which the promotions committee will make their assessments and judgements of you. Rather than assuming what those guidelines might be, we recommend reading, discussing, and debating them. It is prudent to plan and conduct your scholarship with a clear understanding of how your institution, and the institutions you are interested in being part of, will evaluate your activities.

In pursuing a job, many junior researchers endeavor to mimic their successful mentors with hopes that they will be hired as an accomplished-person's clone, another set of

junior researchers adopt contrarian positions, posing as maverick iconoclasts. Everyone wants originality but no one wants the risks of parting with tradition. Institutions that can afford risks, tend to take risks, and mostly lose, but when they win, they win big. Such institutions are like venture capitalists. They are betting on big, not incremental gains. Less financially-secure institutions can't afford too many failures and they, sensibly, make less risky bets.

Whether your research program has elements of what has been borrowed (old/established) or what is blue-sky thinking (new/uncertain), your job is to sell it and sell yourself as the best person on the planet for accomplishing it. You need to understand whether the department you are applying to has an institutional culture of only rewarding academic knowledge generation, which is best signaled by first- and/or last-authored publications that experts will attest have been impactful. Or alternatively, whether that department is also able to recognize and reward tool building. Remember, promotion and tenure decisions must be approved beyond the department at the level of the institution by a committee that is unlikely to include people from your discipline, judging you according to the standards of your institution for research scholarship achievement.

You will also need to understand whether your department values the lone wolf that works selfishly and determined, or the collaborator who works and plays well with others, generously but also with determination. Both types make academic departments

strong and resilient. You need to gain a clear picture of what the department is looking for and feel comfortable that their ideal candidate is indeed you, not an insincerely projected picture of you just to secure the position. If the latter, in time, both the department and you will realize that this was not a good match, with you ultimately paying the far dearer price.

### *Teaching*

While all academics value education, institutions value teaching differently. Some institutions are primarily focused on educating students and others are primarily focused on research scholarship. How the institution generates and spends money is very closely aligned with this mission. Most academic departments in a Faculty of Arts and Science have a primary teaching mission, and a member of the faculty is expected to teach a particular number of courses each year. It should be obvious that to successfully secure and retain a faculty position at a particular institution requires a conscious alignment between the individual and institutional commitments to teaching, as well as research and scholarship.

Take your teaching statement seriously. It should be thoughtful, considered and align with the department and the job to which you are applying. Understand how your teaching contributes to the economics of the department. Does tuition drive the department's economics, does the department have a specific interest in pedagogy, or not at all? If research is the major component of your new job, explore teaching relief

during your first years. If teaching is the focus, consider developing a course that can serve many students. Understand the departmental teaching priorities, determine if this fits your own goals and take that forward from the application stage and beyond.

### *Service*

Institutional service is neither scholarship, nor is it teaching-promoting work. Your efforts on a search committee, or on a curriculum committee, or the departmental seminar committee, or the diversity and inclusion excellence committee is important. The results of this work are the cultural drivers and influencers of the department, and your time and commitment are required to be documented in the assessment of your service contribution. But there's a catch. Every hour you spend in committee is an hour you did not spend on scholarship or teaching. Every hour you spend creatively thinking about how to change and improve the department culture is an hour you did not spend on a different priority. Biologists understand homeostasis and why balancing stasis and change make for a vibrant life.

### *Influence through Service*

Departmental service expands into institution-wide service for the successful academic. When you turn service obligations into service opportunities, you can use your activism effectively and powerfully.

As your scholarship and teaching excellence is recognized, your influence, opportunities and responsibilities will also grow in academia. They will grow beyond the confines of the institution that houses, nurtures, and pays you. Your influence expands through service in professional societies, granting agencies and foundations that pay for and award the research of your colleagues and competitors. Joining, influencing, and leading these networks are complex and time-consuming efforts. They are more than opportunities to serve. They are opportunities to give back, influence, advocate, and change culture. But these service efforts come at the expense of bandwidth; it has been traditional to leave that society-level work to senior colleagues. This, however, might be the very reason our academic structures and societies evolve slowly. The junior academic is well advised to be vigilant for both opportunity and oppression in their choices and commitment to service. You will increase your chances of success by looking for, advocating for, and selecting the service opportunities that can afford a lasting impact, given your talents, interests, and budgeted time.

### **BE AN AGENT OF CULTURAL CHANGE**

As most academic institutions embrace their role in culture and change, job applications now require a diversity statement. Take this seriously and if you have not thought about your own role in improving equity, inclusiveness, and excellence of academic culture, then start now. Every forward-looking institution is looking for ways to evolve and compete, and you will have to contribute. You will have an opportunity to be essential to the department's culture and evolution. A powerful diversity statement outlines what

you understand the issues to be and the actions you have committed to promote equity and inclusiveness. We expect that all our readers understand that this is a way to promote academic excellence and modernization. If your application materials are compelling, they will explain how you understand and intend to utilize the privileges and duties of the academic platform. It is each of our responsibility to understand and express how we can be essential to the success of academic culture. If you are not already walking the walk, start now.

### **THE BOTTOM LINE**

An academic life rooted in research scholarship is like running a start-up business. Although the goals and many of the principles of academia may not align with the principles of entrepreneurship, a good number of the best practices are similar and have been disseminated in popular books on entrepreneurship. The National Science Foundation and National Institutes of Health recognize this and even offer entrepreneurial training through the highly recommended Innovation-Corps program ([https://www.nsf.gov/news/special\\_reports/i-corps/](https://www.nsf.gov/news/special_reports/i-corps/)). Start-ups begin unclear about what their product is and who their customers are. So too in academia, at the beginning the essential things are whether the research problem is perceived to be important, whether you have a viable solution, and whether you have the moxy to bring that solution to the intellectual marketplace. Successful entrepreneurs know it is a fundamental misstep to not first know your customer's needs deeply. Entrepreneurs engage in continuous customer discovery, a fancy term for talking to people to learn



about their interests and needs, without trying to sell them anything. There's a terrific book on developing this skill. It is free for academics (<https://www.talkingtohumans.com>) (Constable, 2014). We strongly recommend that all academics practice the principles of customer discovery and information gathering at every step of their academic journey.

Academic life is wonderful for those who enjoy the challenges, perils, and uncertainty inherent in generating and sharing new knowledge that can impact culture and wellbeing.

Academic success is hard to measure and what it means to an individual can be quite different from what it means to an institution. Our experience is that people and institutional cultures are happy when visions and measures of success align.

Entrepreneurs strive for that product-market fit. Finding it takes judicious judgement, perseverance, and a good amount of luck. Mentors, openness, and friendlies also go a long way towards enjoying the journey towards success. Whatever your definition of success, we hope you prioritize and nurture happiness for yourself and our community.

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Figure 1: Navigating the academic network to success demands fortitude and balance and is best achieved when milestones and supports align with your path.