

# David · The Young Investigator

David has advanced from the post-doc stage to a fellowship position at a Harvard-affiliated hospital. While much of his work is still under the direction of his lab's primary investigator, he has begun applying for his own funding, including NIH K grants. Despite Harvard's size and resources, he feels isolated, but is willing to do the legwork to find new collaborators that he knows are out there. His lab lacks a grants manager, so the application process gets pretty overwhelming, especially with frequently changing NIH rules.



**Age:** 36

**Affiliation:** BIDMC

**Field:** Biosciences

**Level:** Junior Researcher

**Degrees:** MD, PhD

## Motivations

- **The Science.** David is passionate about his research and enjoys the intellectual satisfaction he finds in his work, even though there's no way to predict when he'll have the breakthrough which gets him noticed by his peers.
- **Getting a faculty promotion.** To remain in his field long term, David must achieve a tenured faculty position. He recognizes the role that data collection, publications, and grants play in his career progress.

## Behaviors

- **Takes control of his work.** David's research is highly self-directed, and he knows he's responsible for his own success. David takes the "lead quarterback" role on collaborative grant efforts.
- **Looks out for networking opportunities.** David attends a monthly meeting of young researchers to learn about new research at the hospital and network with other investigators like him.
- **Willing to try new things.** While social networking isn't in David's blood, he's willing to trying a new technology a few times if it offers relief from the difficulties of collaborative research.

## Obstacles

- **How to find Dr. Right?** Potential collaborators abound, but it's hard for David to know who will be reliable, honest, and available from generic lists of researchers.
- **Lack of great examples or instructions.** Research faculty are often unwilling to share old applications and budgets that can be used as templates or examples of proper writing style. Though he can find reference materials, they're not filtered down enough to be immediately useful.
- **Grant matchmaking.** David wonders, "Which grants from which agencies are most appropriate for me? Are R03s worth the time? Why choose an R21 over an R01?"

# Jessica · The Post-Doc

Jessica, a second year post-doctoral fellow, is getting better at balancing her lab work, publishing responsibilities, and graduate student mentoring. During her first year, she was supported by her principal investigator, but she's now looking for her own funding opportunities. Unfortunately, advice about grants from peers and her PI hasn't been so clear, and she wants to really understand the process before spending several weeks on a grant application. Increasingly, Jessica has been advising her fellow post-docs, and she wishes there was a way to more efficiently share what she knows or seek help with technical questions outside of the expertise of her lab.

## Motivations

- **Making an Impact.** Jessica sees her work as part of a continuum of the scientists that have come before her. This is nothing less than a calling for her. She wants to make an impact on human health and maybe get a patent or two along the way.
- **Ascending the Ivory Tower.** Because of her graduate work, Jessica had several post-doctoral fellowship offers. She chose Harvard because she felt it would maximize her chances of becoming a faculty member in Boston or at other top research institutions. She ultimately hopes to have her own lab and explore some of the ideas that constantly percolate in her mind.

## Behaviors

- **Burgeoning Independence.** As a postdoctoral fellow, Jessica is responsible for her own experiments and mentors graduate and undergrad students in lab techniques. This year she plans on being the primary author on two publications. At the same time, she is dependent on the resources that her PI can provide.
- **Career Building.** Though busy with work in the lab, Jessica knows it is important to build a network of contacts in her field. She feels that knowing people outside her area of expertise can mean the difference between one day and one week of frustration when a problem arises.
- **Balancing Divergent Interests.** Last year, Jessica had to abandon an experiment that was outside of her PI's immediate interest. Cautious to avoid that experience, she tries to maximize alignment between her own curiosities and the lab's goals. She now asks to read all of her PI's completed grants to know what's coming down the pipe.
- **Mind on the Money:** Jessica feels that if she can secure independent funding, she can feel more free to step out on her own. She dreams about getting a K99 award from the NIH and making the "kangaroo jump" to independence. She feels she has enough preliminary data to justify her direction, but the logistics of putting together a successful application and getting objective feedback seems unnecessarily complex.

## Obstacles

- **No Road Map.** Last year, Jessica thought it was just her that had difficulty adjusting to the Harvard system, but she now realizes that most post-docs face similar dilemmas. She tries to help others when she can, but she wishes there were better resources for navigating the various lab cores, learning new techniques, and writing grants.
- **Collaboration Confusion.** When Jessica meets other post-docs at talks, their conversations often lead to interesting ideas and potential hypotheses. Getting the time, resources and ultimately the permission from PI's to pursue these ideas is difficult if not impossible, especially when it comes to sharing credit for a new discovery.
- **No Guarantees.** Jessica thought that coming to Harvard would assure her a faculty position somewhere, but she has met people who have done multiple post-docs and still not found a permanent position. Although she feels good about her current prospects, this observation worries her.



**Age:** 30

**Affiliation:** MGH

**Field:** Genetics

**Level:** Post-Doctoral

**Degrees:** PhD

# Thomas · The Senior Researcher

As a tenured professor, Thomas has been able to explore both clinical and basic science aspects of cardiovascular conditions. He is proud of the many publications attributed to his name. Thomas spends most of his time managing his large and growing lab group. He typically applies for large R01 grants, but has been increasingly interested in collaborative P01 and SCORR grants. Managing the logistics of his research enterprise is a challenge, but he is fortunate to have an administrative team that protects him from the details of day-to-day administration. Over the years, Thomas has developed a cadre of trusted collaborators with whom he works frequently on publications, and sometimes on grants. He surprises himself with his ability to connect people, but he is noticing that this "talent" is taking an increasing amount of precious time.



**Age:** 52

**Affiliation:** Harvard Medical

**Field:** Cardiology

**Level:** Tenured Professor

**Degrees:** MD, PhD

## Motivations

- **Discovery.** Thomas realizes that his career as research scientist is about the journey rather than the destination. Thomas has advanced his field in significant ways and he continues to push it in bold directions. He increasingly sees his legacy as much broader than his publications, patents and named professorship.
- **Guiding the Next Generation.** Thomas takes great pleasure in mentorship of bright young minds both on the wards and at the wet bench.
- **Staying Productive.** Thomas does not see his tenured position as a chance to rest on his laurels, but rather as an opportunity to stake out bold new ground atop of which new areas of inquiry can be built.

## Behaviors

- **Focused on the Science.** At his level, Thomas feels free to focus on science from an abstract perspective. He finds labs meetings to be synergistic, hypothesis-generating opportunities. He keeps a notebook of unexplored ideas and looks out for new techniques that might lead to discovery.
- **Delegation.** To keep his mind relatively unencumbered, Thomas tries to off-load as many administrative tasks as possible. Secretly, this is one of his most prized privileges as senior faculty. He is especially thankful for his grants administrator who manages the various forms, budgets, and regulations around his work.
- **The Consummate Networker.** Thomas believes that it is important to have as many friends as possible; you never know where the next big opportunity will arise. He is constantly meeting people in his department, at conferences, and through correspondence. Often, managing all of his contacts and recalling them when someone seeks advice is a challenge.

## Obstacles

- **Institutional Responsibilities.** Thomas would like to spend most of his time tending to his lab, keeping an eye out for the latest opportunities, and immersing himself in the literature. His position, however, comes with several institutional responsibilities. He knows the committees and panels are important, but it takes away from what he really wants to do.
- **The Logistics of Collaboration.** While the NIH has lately been encouraging collaboration, it is logistically difficult to arrange, considering budgets and subcontracting agreements in addition to the normal NIH documents. Sometimes collaborations fall apart for non-scientific reasons, which, in Thomas's opinion, is a tragedy of the highest degree.
- **Being the Hub of the Wheel.** Although Thomas takes pride in helping his colleagues, sometimes he feels overwhelmed by the number of requests and the amount of time it takes.