How Junior Faculty Can Secure Industry Funding?

When interviewing faculty candidates or hosting junior faculty members, the question of securing funding frequently comes up. Many senior faculty members often refer these inquiries to me, as I've successfully obtained funding from companies like Meta, Intel, IBM, Walmart, Sony, etc.

During the New Year break, I decided to write about this topic so faculty who haven't had the chance to visit me at Columbia can still learn from my experiences. I also encourage industry partners to read this to better understand how academic research can benefit their teams and companies.

Why Pursue Industry Funding? Pros and Cons

Compared to government grants (e.g., NSF, DARPA), industry funding has several advantages:

- **Shorter Proposal Requirements**: Typically, industry funding applications require only **2-4 pages**, whereas government grants often exceed **14 pages**.
- **Faster Processing Time**: If both parties align, industry funding can be approved within **1-2 months**, whereas NSF and DARPA can take **6+ months**.
- **Flexibility in Duration**: While industry funding is often perceived as short-term (1 year), many collaborations **extend for multiple years** through renewals or multi-year agreements.

However, industry funding **requires alignment** between academic research and the company's goals. Regular meetings (biweekly or quarterly) are necessary to track progress. These meetings provide valuable **practical industry insights** but should be managed carefully to ensure the project remains publishable and academically relevant—especially for PhD students.

Types of Industry Funding: Gifts vs. Contracts

Industry funding generally falls into two categories:

1. **Gifts**:
   - No strings attached; the company cannot claim IP rights.
   - Faster processing time (as little as **one week**).
   - Lower overhead costs.
   - Best for small to medium-sized funding amounts.

2. **Contracts (Awards)**:
   - Legally binding agreements where terms (e.g., IP, deliverables, overhead) are negotiated.
   - Often larger funding amounts but **can take 6-12 months** to finalize.
   - Requires navigating **complex legal negotiations** between the university and the company.

Best Practice Recommendation:

If possible, **opt for a gift**—it's faster, simpler, and avoids bureaucratic delays. In AI research, where academia works largely with open-source data, IP is rarely a major concern.

For industry partners: Consider offering **gifts instead of contracts** to streamline collaboration and avoid lengthy legal negotiations. However, choosing a **dedicated junior faculty member** who has time to meet regularly is key to ensuring project success.

Why Do Companies Fund Academic Research?

Before discussing how to secure funding, it's important to understand why companies invest in academic research. Companies typically fund faculty research for one of three reasons:

1. **They Lack Expertise in Your Field**
   - Some companies are new to a research area and need academic guidance.
   - These collaborations may take time to establish as trust and alignment takes time when you don't speak the same language.
2. **They Can't Commit to Hire a Full-Time Research Team**
   - Hiring top AI talent is expensive—often far more than a PhD stipend.
   - Industry-academic collaborations allow companies to access expertise at a lower cost while offering internships and hiring opportunities for PhD students.
3. **They Want to Keep Their Researchers Engaged**
   - Many applied scientists in industry want to stay connected to cutting-edge research and publishing.
   - Partnering with faculty allows them to contribute to state-of-the-art advancements while benefiting from academic rigor.

How to Secure Industry Funding

Landing industry funding requires strategy and persistence. Here are key approaches:

1. Apply for Open Faculty Awards

Many large companies—Google, Amazon, Meta, Sony, Tencent—offer annual **faculty awards**. These are often designed to support junior faculty.

- Keep a **list of deadlines** and **submit applications annually**.
- If your proposal gets rejected, **resubmit** to other calls without major modifications—great ideas remain valuable!
- Many faculty awards do **not** require prior industry connections. **50% of my industry funding came from blind submissions.**

Example: My collaboration with **Sony** started when I submitted a **rejected NSF Career Award** proposal. Three years later, we're still working together. I've shared that proposal with many junior faculty—email me if you'd like a copy!

2. Build and Nurture Industry Champions

Many successful industry collaborations come from personal networks and strategic outreach.

Start with People You Know

- Former classmates and colleagues who moved to industry are great contacts. For example, one of my collaborations with **Meta** began through my **CMU classmates**.
- Intern mentors or contracts you worked with during your PhDs.

Engage at Conferences

- Attend top conferences where companies sponsor events—they are actively looking for collaborations.
- Visit sponsor booths, **introduce yourself**, exchange business cards, and schedule meetings.
- If you don't have time at the conference, **follow up afterward**.

Give Talks at Companies

- Senior faculty may refer you for company talks—accept these opportunities!
- Understand their corporate structure and research funding process.
- Share your talk slides on **LinkedIn** to attract further invitations.

3. Prioritize Face-to-Face Engagement

- If your industry contact is in **the same city**, collaboration is easier.
- **Meet in person at least once a year**—face-to-face interactions strengthen relationships.

4. Maintain Long-Term Relationships

Industry champions **switch companies**, but good relationships **move with them**.Many projects transition from one company to another—stay in touch!

Final Thoughts

Securing industry funding is not just about money—it's about building **mutually beneficial relationships**. Not all funding is good funding, and junior faculty must learn to say **no** to projects that don't align with their research goals.

By strategically applying for faculty awards, nurturing personal connections, and actively engaging with industry, junior faculty can build **sustainable, long-term collaborations** that benefit both academia and industry.

Good luck, and happy funding! 🚀

Key Takeaways for Industry Partners:

- **Consider gifts** instead of contracts for faster collaboration.
- **Choose engaged junior faculty** who can dedicate time to regular meetings.
- **Leverage academic research** to stay at the forefront of innovation while attracting top PhD talent.