

Underexplored Roles in Industry for PhDs | October 7th, 2025

This session showcased PhD-trained professionals who have built rewarding careers in industry outside traditional R&D and academic tracks. Panelists discussed how they identified and transitioned into roles in areas such as quality control, business development, sales, and scientific consulting. They shared practical advice on exploring alternative career paths, translating academic skills into industry value, building professional networks, and navigating the cultural shift from academia to industry.

Speakers:

- Chad Cecil, PhD – Associate Head of QC, Microbiology, Fujifilm
- Michael J. Miley, PhD – Commercial Zone Leader, Central/Southeastern US (Sales), Cytiva
- Harold Haun, PhD – Scientific Consultant & Grant Writing Specialist, Eva Garland Consulting
- Bailey Zwarycz, PhD – Business Development Director, Alimentiv

Key Takeaways

- PhDs can pursue many rewarding industry careers beyond research and development - skills in analysis, communication, and problem-solving are highly transferable.
 - Career paths are rarely linear; exploration, pivots, and curiosity often lead to the most fulfilling opportunities.
 - Relationship-building is central to success in industry - genuine connections and collaboration matter more than networking volume.
 - Confidence and authenticity are powerful; employers value enthusiasm, self-awareness, and communication over technical perfection.
 - Apply even if you don't meet every requirement - adaptability and the ability to learn quickly outweigh missing experience.
 - Strong writing, project management, and organizational skills make candidates stand out across roles from consulting to quality control.
 - Evaluate company culture carefully - observe team dynamics, leadership styles, and communication during the interview process.
 - Keep learning and stay flexible; every role adds transferable experience that builds long-term career momentum.
 - Be patient and give yourself grace during transitions - adjusting from academia to industry takes time and openness.
 - Success in industry comes from curiosity, collaboration, and the courage to pursue paths that align with one's strengths and interests.
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1. Preparing for Industry Roles

- Research the roles that interest you and identify the skills they require.
 - Examine job descriptions and note recurring competencies such as project management, quality assurance, or GMP experience.
 - Consider certifications that demonstrate industry literacy – for example, GMP or project management certifications.
 - Learn to speak the “language” of industry – terms matter in interviews.
 - Some PhDs combine their scientific background with business training, such as an MBA, to broaden their options.
 - Continuous learning is essential – industry rewards people who keep expanding their skill sets.
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2. Making the Transition

- Transition earlier if possible. Planning for industry early in your PhD or postdoc gives you time to align your projects with industry-relevant skills.
 - Seek internships, volunteer projects, or collaborations that expose you to industry environments.
 - Attend conferences and networking events to meet professionals and learn how they use their degrees outside academia.
 - Don’t assume you need formal training before applying – many skills can be learned on the job.
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3. Networking and Relationship Building

- Networking is about genuine relationships, not collecting connections.
- Having a small circle of engaged, trusted contacts is far more useful than hundreds of unspoken LinkedIn links.
- Follow up after connecting – schedule a Zoom call, ask about their job, and stay in touch.

- Treat informational interviews as learning opportunities, not as requests for referrals.
 - People are often happy to help – most professionals remember being in your shoes.
 - Reach out to alumni networks and leverage LinkedIn's filters to find shared affiliations, even outside academia (such as hobbies or sports).
 - Conferences are valuable venues for informal networking – social hours can lead to career insights and introductions.
 - The worst that can happen is no response – so reach out without fear.
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4. Applying and Interviewing

- Apply for positions even if you don't meet 100% of the qualifications – 70% is often sufficient.
- Job descriptions describe an ideal candidate who usually doesn't exist.
- If you lack a specific skill, be ready to explain how you'll learn it or how your team can complement you.
- Demonstrate curiosity and growth mindset rather than focusing on perfection.
- Show enthusiasm for learning new things – companies value problem-solvers more than specialists who resist change.
- Personality and communication skills can outweigh minor gaps in technical experience.
- During interviews, ask questions about management style, team culture, and support for growth.
- Pay attention to your gut – if something feels wrong about a manager or company culture, trust your instincts.
- Ask to tour the workspace and observe interactions – are people talking to each other, smiling, and collaborating?
- Peer interviews offer insight into team morale – read between the lines of their tone and comments.

5. Evaluating Work Environments

- Pay attention to company culture. Visual cues – art on the walls, energy levels, and open communication – reveal a lot.
- Small startups can be exciting but risky; leadership quality varies greatly.
- Poor management is the top reason people leave jobs.
- Large corporations offer stability but often involve more bureaucracy and slower decision-making.
- Ask current employees or sales representatives (like Fisher or VWR reps) about reputations of local companies – they often know insider details.
- Look for alignment between your personality and the company's structure and pace.

6. Skill Translation and Career Mobility

- PhDs bring value through critical thinking, problem-solving, and learning agility – skills that transfer across industries.
- Focus on demonstrating value, not titles. Explain how your expertise solves problems or creates efficiencies.
- Technical roles (QC, validation, field application science) can be stepping stones to leadership, business, or strategy.
- Writing-heavy skills can translate into grant writing, consulting, or medical writing.
- If you lack writing samples, create them – publish short pieces on LinkedIn or write mock examples to show ability.
- There's no single path – people move between sales, operations, consulting, and leadership roles as they grow.
- Think of your career as a branching tree rather than a single ladder; each branch adds new perspective.
- Short-term pay cuts or lateral moves can open access to broader, higher-value opportunities later.

7. Career Exploration and Growth

- Careers evolve – your first industry job is not your last.
- Don't feel locked into a role you dislike; use it to gain skills, then pivot.
- Larger companies often support internal mobility – ask about internal transfer programs.
- Career conversations within companies can help ensure you remain in roles that align with your interests.
- Stay curious and proactive in shaping your path – career satisfaction grows from exploration.
- Be open to change, even if it feels uncomfortable at first.

8. Confidence and Mindset

- Confidence goes a long way – advocate for yourself and pursue what you want assertively.
- Be optimistic, enthusiastic, and proactive.
- Remember that careers outside academia are just as valid and fulfilling – leaving academia carries no shame.
- Give yourself grace while transitioning; adapting takes time.
- Enjoy the journey rather than fixating on the final destination.
- It's fine to take risks or make mistakes – they're part of growth.
- Motivation should come from curiosity and purpose, not fear.

9. Red Flags and Work-Life Considerations

- Watch out for roles requiring excessive travel – it may sound exciting but often becomes exhausting.
- Clarify expectations around travel, workload, and flexibility before accepting.
- Trust your intuition – if something feels off during interviews, it probably is.

- Consider whether you prefer the structure of a large organization or the fast pace of a startup.
 - Ask candidly about work-life balance and management style.
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10. Miscellaneous Advice

- Keep your options open – anyone you meet might become a collaborator or boss later.
 - Even small entry-level roles can be valuable learning experiences.
 - Use LinkedIn actively; professionals regularly post open positions.
 - Leverage local and alumni networks – your school connections can be powerful career accelerators.
 - When applying for writing or consulting jobs, creativity and initiative can set you apart.
 - There is no “one right” path – careers are made by curiosity, courage, and connection.
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Overall Summary

The panel emphasized that thriving in industry begins with self-awareness, openness to growth, and authentic relationships. PhDs succeed not because of narrow specialization but because of their ability to learn, adapt, and contribute meaningfully. Whether in quality control, consulting, business development, or technical sales, success depends on curiosity, persistence, and a willingness to take leaps toward opportunity.

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