

Non-academic employability of life science PhDs: the importance of training beyond the bench

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Background

- In 2016, >40% of University of Toronto life science PhD graduates from 2000 to 2015 were employed in non-academic sectors (Reithmeier et al. 2018. 10,000 PhDs project.)

Objectives

- To understand how PhD trainees have transitioned to non-academic careers
- To identify the most impactful career preparation activities, and potential barriers to participation
- To identify opportunities to develop programs to prepare PhD trainees for their career path of interest

Methods

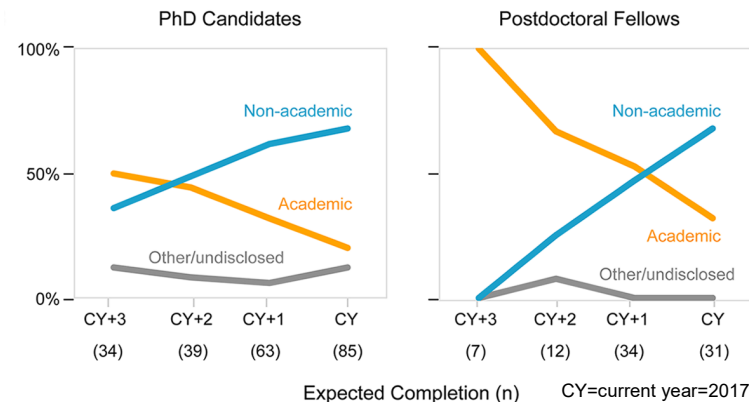
- Surveyed life science
 - trainees (PhD/postdoc trainees at U of T & affiliated institutes);
 - professionals (completed life science PhD/postdoc programs at U of T & affiliated institutes in 2010+ and are employed in non-academic sector)
- Collected data online (30Jan.-3Mar. 2017)

1. Survey Participants Analyzed

Trainees	PhD Candidate	244
	Postdoc	86
Professionals	Completed PhD	79
	Completed Postdoc	37
Total		446

2. Target Sector of Employment (Trainees)

Higher rate of seeking non-academic employment closer to completion



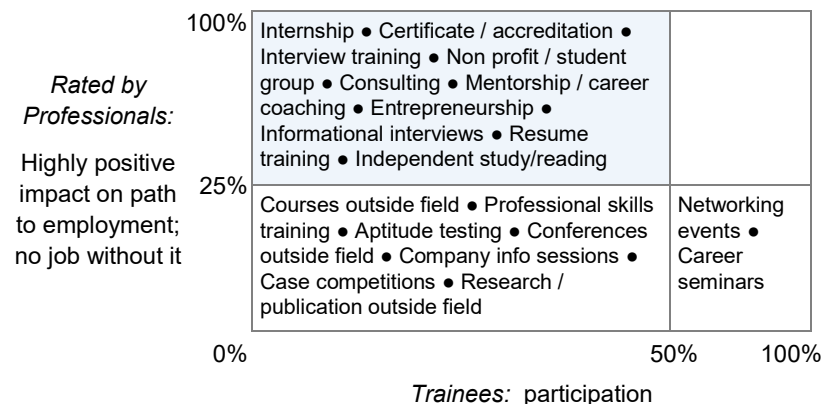
3. Top Functional Areas of Employment (Professionals)

PhD training is relevant for various roles

Research & Development	30%
Medical Affairs	16%
Regulatory Affairs	15%
Business Development	15%
Medical / Scientific Communications	13%
Consulting	9%
Sales / Marketing / Project Mgt.	ea. 7%
Data-Informatics-IT / Clin. Research	ea. 4%

4. Opportunities for High-Impact Training

High-impact career development activities as rated as by professionals had low trainee participation rates



5. Barriers to Participation in Extracurricular Training

Many trainees face barriers to extracurricular training

	Trainees	Professionals
Yes	46%	39%
Time / workload	32%	18%
Supervisor	3%	13%
Awareness / availability / location	6%	6%
Cost / funding	4%	0%
Other	7%	8%

Recommendations

- Increase participation of interested trainees in career development programs
- Increase institutional awareness of non-academic career development
- Increase institutional support for non-academic career development programs