“*And Gladly Teach*”

ACS

Peter W. Carr University of Minnesota

A PhD IS NOT ENOUGH!

A Guide to Survival in Science

REVISED EDITION

PETER J. FEIBELMAN

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New York

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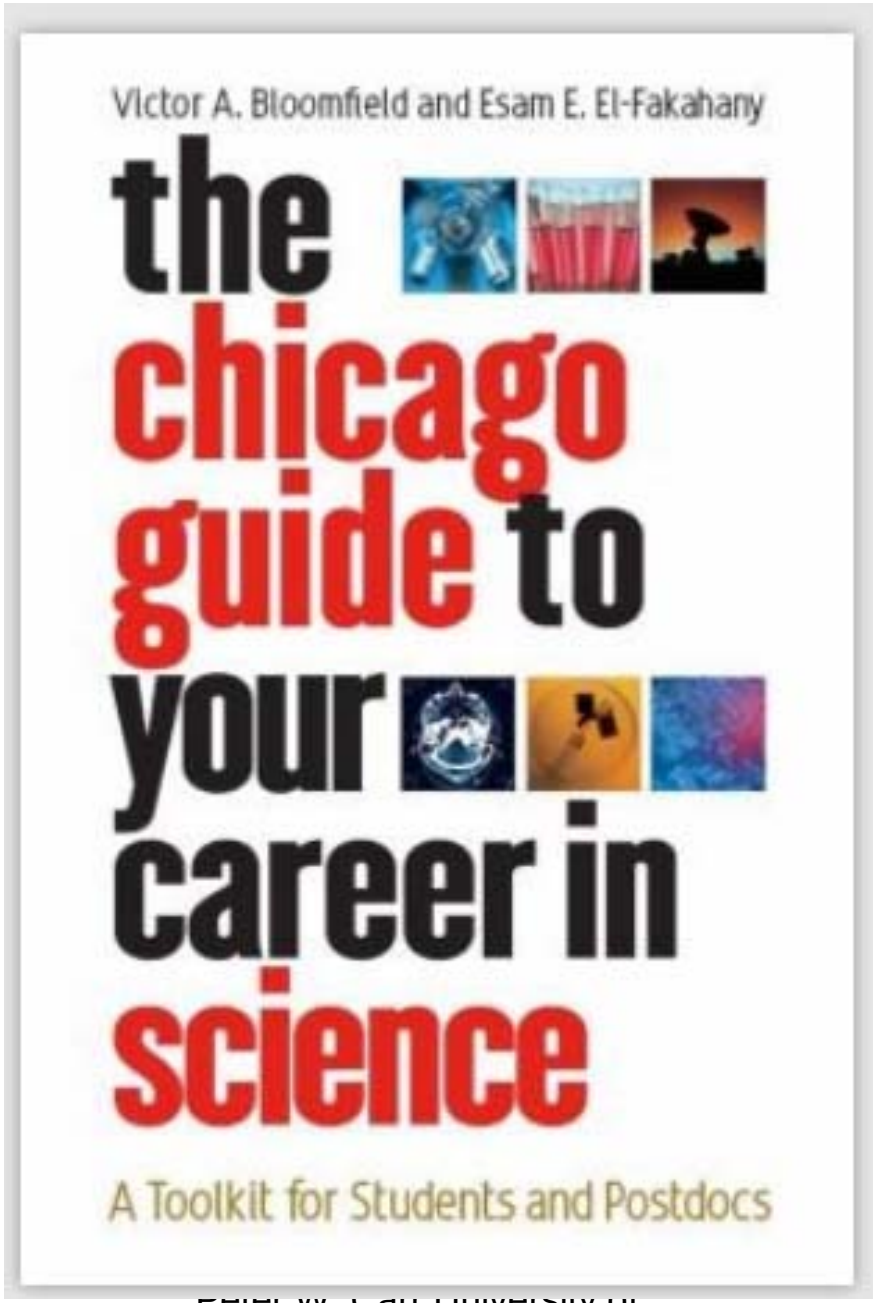

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National Council on Undergraduate Research (NCUR)

"How To Get A Tenure-Track Position At A Predominantly Undergraduate Institution: *Advice from Those in the Science Fields*"

"How To Get A Tenure-Track Position at a Predominantly Undergraduate Institution" outlines the process of landing a tenure track position in the sciences at a predominantly undergraduate institution (PUI). Applying for a tenure track position at a PUI is a fundamentally different process than applying for a tenure track position at a research institution with a large graduate enrollment. Graduate thesis advisors and postdoctoral advisors are sometimes unaware of the culture at undergraduate institutions. This booklet will bridge the information gap between PUIs and research institutions and give you some practical advice that will make your application stand out from the rest. Topics covered include a description of what a job at a PUI is like, how to prepare yourself for such a position during graduate school and in your postdoctoral years, preparing the application itself, details of the interview process, and negotiating the contract. This booklet is aimed primarily at current graduate students, postdoctoral fellows, and faculty in temporary positions. Those who counsel graduate students as they seek jobs will want to offer this booklet as a handy guide. Faculty members and deans who are hiring will also find useful insights into the process that will improve the hiring process.

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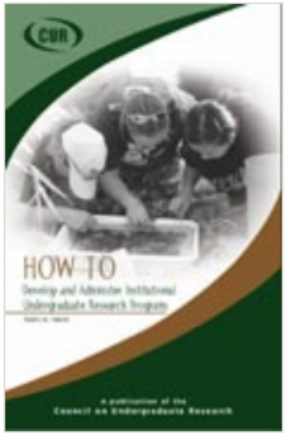
"How To" Series

"How To Develop and Administer Institutional Undergraduate Research Programs"

- A step-by-step approach to developing and managing a campus-wide undergraduate research initiative
- Commentaries on undergraduate research issues relating to faculty, students and curricula
- Common practices and surveys
- Useful vignettes



"This manual provides a guide to the crucial questions that must be raised and answered at various stages in the decision-making and implementation process...[It is] a much needed guide for the institutions that wish to begin or expand an undergraduate research program , while at the same time it offers fresh ideas and evaluation tools for more experienced institutions."

“A Ph.D. Is Not Enough!”

A Guide to Survival in Science

Petr J. Feibelman

“It took me forty years to learn from experience what can be learned in one hour from this guide.”---**Carl Djerassi**

This really is a survival guide. It is straight from the shoulder, blunt advice, bordering on Machiavellian from a senior scientist. Although he is a physicist and has worked primarily at a national Lab and not an academic institution there is hardly anything in it not pertinent to chemists and especially those interested in an academic career. A grad student is never too young to read this book.

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Chapter Topics

- Important Choices: Ph.D. advisor, post doc job.
- Giving talks.
- Writing Papers.
- Choosing a career path.
- Job interviews.
- Getting funded.
- Establishing a research program.

Chp 6. Career Choices: Academia, Government or Industrial Labs.

"*The focus is on being reflective and rational rather than naïve and romantic*".

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Chp. 7

"*Doing your homework and persuading your potential employers that you have a sense of direction are the most important issues*".

Chp. 8 ----Grants

"*The bane of scientific life namely getting money*"

"*I suggest that you view the preparation of a proposal as an <u>important scientific exercise</u>.*"

“*The most difficult problem in being a scientist is selecting what to work on, and it is even more difficult when you are just launching your career.*”

Chapter 9

"*Jumping into the hottest research area may not be a very good idea, nor is taking on a project that you have no realistic hope of completing before your short-term employment comes to an end.* ***The main idea is to establish a program that simultaneously maximizes your chances for continuing employment and of scientific achievement***."

Things You Need to Prepare to Apply and Interview

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What you will need to prepare before you are interviewed

- Cover letter --don't over look its importance. It is your first opportunity to make an impression and single yourself out.
  - Why are you interested in this school?
  - What you feel qualified to teach, are interested in teaching.
  - General area of research interests.
  - Expand on CV
  - Not in CV (e.g. I will be in the area and can drop by…)
- Curriculum Vitae --- everything relevant. Not merely a resume.

What you will need to prepare before you are interviewed

- Statement of Teaching Philosophy (2-3 pages).
- Description of Your Research **Program.**
  - a. At least two projects/proposals --- not highly derivative of prior work. Show creativity and accumen.
  - b. Possibly combining in some unique way both doctoral and post doc fields.
  - c. One, at least, should pass the “Hoye” test.

What you will need to prepare before you are interviewed

- Seminars:
  - a. One based on accomplished work.
  - b. One based on proposed research ideas.
- Very brief (5 second, 5 minute) talks on past and future work.
  - “elevator talk”.
  - office visits.
- List of specific questions to ask about school, facilities, set-up package, first year responsibilities, students,etc.,etc.,

C.V.

- List all educational experience starting at the bachelor's degree level. Make sure you indicate your thesis title and who you worked with in grad school. Similarly your postdoctoral indicate final project and your advisor as well as the institution.
- Split out research versus teaching experience (list courses taught, number of students, lab experiments developed, list publications in the Journal of Chemical Education, if you directed any undergraduate student research while you were in graduate school or during your post doc list it.)
- List current research interests: synthesis and isolation of neuropeptides, etc.

- List personal skills related to job (programming languages, instruments skills – FT IR, NMR, HPLC, run vs. fix, electronics facility, drill press, lathe, glassblowing, etc.)
- List general interest (music, do you play? write science-fiction? etc.)
- Community work (hospital volunteer, scouting 4-H, Big Brother/Sister).
- Language facility (speaking, writing).

- Presentations: list all including posters but differentiate between poster and talks underline your name when you where the presenter.
- Papers: list all in print, submitted- be cautious about “in preparation”- be ready to send a copy of the paper that you would not be embarrassed about.
- Give names of references (at least 3), phone numbers and e-mail addresses.
- Be sure you **give all of your contact information** including mailing address, phone and e-mail.
- Do not include your social security number or any family information. You should not be asked to give this type of personal data. You will need to let them know your Social Security number when you claim reimbursement for travel expenses but that comes a lot later.