Post-PhD Career Paths of some UIC Chemistry Graduates

An incomplete survey of 106 UIC Chemistry Ph.D.s whom I have known (1971-…)
by Cynthia J. Jameson, Professor Emeritus Sept 2013

Geographical distribution

Distribution in Employment Sectors

Private Sector
- Private Sector
- Academic Institution
- Govt
- Non-profit
- Not Found

Where are they now?

CAVEAT: I searched the web (including publications, patents, LinkedIn) for individual names that I knew personally. Of 134 that I searched for, 28 I could not find (post-PhD, except in White Pages or Yellow Pages). Also, since Chinese names are very difficult to track when they are not unique, I easily gave up on those cases.
Some pursue other degrees and certificates & licenses along the way

- MBA
- MD
- JD
- PhD in Anthropology
- Secondary School Teaching Cert.
- Patent Agent

In Academic Sector, typically straightforward path

- Some go directly to a job in a big company (GE, Shell, 3M, Dow, ...) and stay until they retire.
- Some start with a small company with a very narrow product line and move from company to company, with increasing responsibility, and finally become part of a big company.
- Some do 1 or 2 postdocs before they decide to take a job in the private sector.
- Most work in areas not at all related to their Ph. D. thesis in subject or even chemistry subfield, but continue to use the problem-solving approaches they learned as grad students.
- Some stay at the bench doing R&D throughout their career; some move into managerial positions after a short time at the bench.
- Some end up in non-chemical areas altogether.

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1998 – 2000 Sugen Inc (CA) estab chemical process devt lab for cytostatic cancer drug

2000 – 2001 Ricerca LLC (OH) process devt for 10-50 kg scale-up

2001-present: Ventana Medical Systems (Tucson AZ) Senior Director of Discovery: Chemistry, Multiplexed Detection, Molecular Biology technologies and Advanced Staining systems toward cancer diagnostics

43 patents

SD-809, is a novel inhibitor of the vesicular monoamine transporter 2 (VMAT-2). This drug offers the potential for significant advantages over existing therapies including improved safety, reduced drug-drug interactions, and less frequent dosing. Auspex is also exploiting its deuterium chemistry approach to optimize drugs in several additional therapeutic areas. Included in the Auspex portfolio are SD-900, a JAK kinase inhibitor for the treatment of autoimmune diseases, and SD-560, for the treatment of fibrotic diseases, as well as other compounds.

Auspex Pharmaceuticals is a pioneer in the use of deuterium in medicinal chemistry, and is focused on the treatment of hyperkinetic movement disorders including Huntington’s disease, Tourette syndrome and tardive dyskinesia. Its lead compound, SD-Bog, is a novel inhibitor of the vesicular monoamine transporter 2 (VMAT-2). This drug offers the potential for significant advantages over existing therapies including improved safety, reduced drug-drug interactions, and less frequent dosing. Auspex is also exploiting its deuterium chemistry approach to optimize drugs in several additional therapeutic areas. Included in the Auspex portfolio are SD-900, a JAK kinase inhibitor for the treatment of autoimmune diseases, and SD-560, for the treatment of fibrotic diseases, as well as other compounds.
Some stay in research, others end up in management

Vice Presidents of companies, large and small
- VP of Business Development, Infiniti Media
- VP of Pharmaceutical Development, Nektar Therapeutics
- VP of Research & Development, Nanogram Devices
- VP of Technical Sales, Nalco Chemical Co.
- VP of Cardavent, Inc.
- VP of Technology, Daubert Chemical Company
- VP of Research & Development, CollPlant, also Pleuristem Therapeutics, Israel
- Senior Regional Medical Liaison, Amgen Scientific Affairs also Senior Medical Science Liaison, Procter&Gamble Pharmaceuticals
- Product Safety Manager, Reckitt Benckiser, Sydney
- Marketing Manager, Dow Chemical Co.
- Global Head of Research & Development, GE Healthcare LifeSciences
- Intellectual Property & Technology Leader, HyClo, Inc.
- Director of Computational Chemistry & Computational Biology
- Manager, Manufacturing Technical Support, Celera
- Production Manager, Emerald Specialties
- Senior Program Manager, Hospira

Some become entrepreneurs

Founders, co-founders, owners
- Neil Tomiuk, owner Actol Chemicals, Quebec
- Herbert E. Paaren, owner SAFC, Madison
- Herbert E. Paaren, co-founder Cardiavent, Inc.
- Alexander Padva (dec.), Founder and owner of Alex Padva PhD & Associates, environmental consultants
- Terence J. O’Donnell, President, gkova, Inc.
- Manoucher M. Shahbaz, co-founder and VP of Discovery, Auspex
- Yannis Vlahoyannis, Freelance Consultant
- Scott K. Magnuson, Founder and President, Paradise Genomics
- Igor I. Malik (dec.), co-founder and CTG, HyClo Inc.
- Mary E. Brubaker, owner Mary E. Brubaker Tutoring
- Rina Kobrinskaya Dukor, co-founder and President, BioTools Inc.
- Stuart G. Levy, owner, SGL ChemConsulting
- Daniel Zavitz, co-founder Chicago Semiconductor

Government Sector

Some careers for Ph.D. chemists:
- Fundamental research as Scientists or Fellows in national labs (typically the same path as faculty in Ph.D. granting institutions)
- Technical Staff in national labs and institutes
- Technical staff or Managers in regulatory agency or investigative agency (City, State, Fed)
- Program officers or directors in federal funding agency

In the Government Sector
- Director of Inspectorate of the Technical Secretariat of the Organization for the Prohibition of Chemical Weapons (Netherlands): Ichiro Akiyama 1973 (LeBreton)
- Scientist, National Research Centre for Env. Toxicology (Sydney): Arunagunduram Prakash 1985 (LeBreton)
- Distinguished Staff Scientist & Grp Leader, OakRidge NL: Mitchell D. Okray 1992 (Benight)
- Scientist, PNNL Kenneth Beck 1984 (Gordon)
- Staff for Domestic Safeguards, New Brunswick Lab (DOE), Paul Croatto 1990 (Keiderling)
- NMR Lab Manager, Natl Inst Env. Hlth Sci, Eugene DeRose 1988 (Gislason)
- NSF Program Officer, Evelyn Goldfield 1983 (Gislason) and Sally Estella 1977 (Walter)
- Principal Researcher, Korean Institute of Ceramic Engineering & Technology (Seoul), HyungMi Lim 1997 (Jameson)
Preparation for entry into these career paths

Department of Chemistry
Fall 2013 seminars
for Graduate Students and Post-docs
Organized by Prof. Luke Hanley, Head

Fall 2013 seminars: PhD→Career

- Sept 12: Introduction, resources for developing your career plan
- Sept 26: Expanding beyond your research
- Oct 10: Optimizing the post-doc experience
- Oct 17: Getting and keeping an academic position
- Nov 7: Exploring the option of industrial careers
- Nov 14: Exploring government careers
- Nov 21: Should you do an internship?

Assignment: Your Individual Career Development Plan

- Choose one of the ICDPs (Scripps, FASEB, UCLA) or customize your own using some elements from each
- Fill out what you can
- Sit down with your primary mentor and discuss your long-term goal
- Identify your individual milestones to achieve your long-term goal
- Figure out the intervening preparation steps toward each milestone
- Bring your ICDP to the Oct. 10 session