

NCW 2007: The Many Faces of Chemistry

Career Profile: Pharmaceutical Chemist

by Sue Wollowitz

Describe your present position.

I am currently Vice President, Chemistry and Manufacturing, at Medivation, Inc., in San Francisco, California. Medivation is a small virtual pharmaceutical company. We have no laboratories or chemicals on site but instead work with contract laboratories and manufacturers to develop, test, and manufacture our active pharmaceutical ingredients and the dosage forms. Prior to joining Medivation, I worked as an independent consultant for several years, also with small virtual companies.

Did you get to your present position because of your background in chemistry and area of specialization or did life experience(s) take you there?

My job requires a meld of chemistry knowledge and life experiences. My chemistry training allowed me to serve as a technical expert in my current field and to understand the chemistry challenges involved in pharmaceutical production. Knowledge of the pharmaceutical industry, manufacturing operations, team organization, leadership, and many other areas are also part of my job requirements. These are things that I've picked up through formal training, mentoring, reading, and observation.

In what areas of chemistry did you specialize?

Organic synthesis with an emphasis on synthetic methods and reaction mechanisms. This has been very valuable for process chemistry understanding, but also a perfect training ground for critical thinking in general, which is valuable in all careers.

Do you use chemistry on a daily basis? Describe what you do on a day-to-day basis.

I do use chemistry every day, and it is one of the most enjoyable parts of my job. On a daily or weekly basis, I meet with the drug development teams for strategic planning and to make sure activities are running smoothly. I meet with our contract manufacturers to discuss the latest progress and issues. About 15

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photo by Lisa Taylor

Sue Wollowitz

to 30% of my time is spent visiting our far-flung contract sites. I unfortunately do a lot of paperwork—document review and approvals, budgets, time lines, etc. On the up side, I often have opportunities to find creative solutions to issues at the interfaces of chemistry, drug products, and business. Finally, I believe in life-long learning and try to learn something new each week through literature, the Web, or in frequent conferences.

Describe the personal skills that have played an essential role in your present position.

My job is 50% what you would call soft skills: providing clear leadership, successfully collaborating and negotiating, managing change, and motivating people to do their best. There are always potential stress points due to conflicting needs, sudden changes in direction, and unmet expectations. Being able to minimize these is critical so that poor communication, lack of agreement, and lack of motivation don't derail good people and good projects.

What advice do you have for those who wish to pursue this or some other nontraditional career path?

All careers, whether traditional or not, require you to evolve with the field and to work with people outside of your area. Seek opportunities to do both.

Careers are often not straight lines; they are a series of challenges that take advantage of your prior experience and your ever-increasing arsenal of abilities. We don't always choose

Related Resources

1. Ealy, Julie B.; Kvarta, Veronica. Mentoring an Undergraduate Research Student in the Structural and Nonstructural Properties of Drugs. *J. Chem. Educ.* **2006**, *83*, 1779.
2. Pinto, Gabriel. Stoichiometry of Calcium Medicines. *J. Chem. Educ.* **2005**, *82*, 1509.

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the steps in the careers, sometimes they choose us. But being the right person at the right time for a great opportunity means you make yourself the right person, and keep your eyes open for many opportunities, one of which may be at that right time.

Are there other thoughts or lessons learned that you would like to share with our readers?

When I left graduate school, I couldn't imagine not working in an area that used all my hard-won knowledge. But working

in new areas was liberating because I realized that the basics of good critical thinking were what made a job rewarding to me, less so the specific subject matter. School is just your first education. People learn the most when they are in situations that stretch them. Don't be afraid of those challenges.

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