

actually require a lot of time and work. Others can yield large benefits for little effort, and a good chairperson can help younger faculty members to figure out which is which.

Shokat, for instance, recommends that junior investigators avoid becoming a PI on large multi-investigator grants because it typically involves a huge time commitment. Instead, he says, it is best to negotiate to be co-PI to tap into the awarded funding and research resources without such a heavy administrative burden.

For those who can swing it, an administrative assistant or grants or lab manager can be tremendously helpful. Amy Brock, a cancer researcher in the biomedical-engineering department at the University of Texas at Austin, says that such staff members can save PIs precious time — for instance, by booking travel, formatting and uploading documents for grant and manuscript submissions, updating CVs and creating and reconciling budgets. “I would advise new faculty to see how administrative support is used by other PIs in the department and then take advantage,” she says.

At most universities, says Shokat, few junior faculty members will get access to administrative assistants. If they do, the person is typically shared. (Shokat’s department gives each faculty member one-third of an assistant’s time.) Glynn recommends that PIs ask whether such resources can be locked in during their hiring negotiations.

Some junior PIs can use start-up funds to pay for an assistant. Kimberly Reynolds, a systems biologist at the University of Texas Southwestern Medical Center in Dallas, hired a lab manager-cum-technician when she started her post. The assistant orders lab equipment and supplies, reconciles budget statements and maintains a lab-reagent archive system. “That’s really taken a lot of stuff off my plate,” Reynolds says.

And, say seasoned PIs, junior faculty members should keep in mind that effective time management includes making time for life outside the lab. Behar promised his wife that he would work 12-hour days four days a week and be home earlier on the fifth. “I’ve been trying to stick with that even though it feels wrong,” he says. Such arrangements often become harder to maintain as tenure decisions approach and stress levels rise. But young investigators also need to remember what they have accomplished and to appreciate where they are. “You’ve been looking to do this for most of your academic career,” says Reynolds. “You finally get to do it, so you should enjoy it.” ■

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TURNING POINT

Swati Padmaraj

Swati Padmaraj was fulfilling her lifelong dream of becoming a chemist when she earned a master’s degree in inorganic chemistry from the University of Bombay, now known as the University of Mumbai, in India. But today she owns and operates a fashion design company, Atiz Fashion House near Seattle, Washington. Here, Padmaraj explains how chemistry continues to play a prominent part in her life.



What inspired your interest in chemistry?

I grew up in Mumbai, India, where career choices for those graduating from university were very limited. In the early and mid-1980s, you became a science major, an engineer or a doctor — that was the Indian culture. I was fascinated by chemistry because I could connect minerals and metals with elements in nature. The brilliant chalcopyrite, a copper iron sulfide, is bright yellow, whereas turquoise, a copper aluminium phosphate, is blue–green. The colours that are frequently associated with gems — such as emerald, ruby and sapphire — reflect the mixture of metals in the minerals.

Did you work as a chemist?

I did a lot of fieldwork in inorganic chemistry while I was pursuing my degrees. Inorganic chemistry is about elements and metals, understanding their molecular structures and composition, and how they affect the environment. I explored the prevalence of metals in different types of rock and soil. There are more than 90 metals in the periodic table and I studied how they coexist in nature.

Why did you choose to do a master’s degree in business administration instead of a PhD in chemistry?

After my chemistry master’s, I was going to do more research and pursue a PhD. But the chemicals I was using weren’t very safe — I was losing a lot of hair and my skin wasn’t doing well. I decided not to do a PhD, but still wanted a career that involved chemistry. The next best thing I could think of was to get a business degree to find other ways of making that happen.

What led you to the United States?

My husband was working as an orthodontist in the Seattle area. We decided to raise our family in the United States, and I put my career on hold while I was raising children.

How did you transition from a degree in inorganic chemistry to fashion design?

I found my passion for creating things when I started thinking about how chemicals affect fabrics. I knew that cotton was the number-one fabric in India, but growing it requires so many pesticides, which pollutes the environment. I also know that polyester can be recycled and can be a good alternative to other fabrics.

How does your chemistry background influence your fashion design?

Chemistry and fashion are interlinked in many ways. My knowledge of chemistry helps me to choose environmentally friendly fabrics, but it also helps me to understand the environmental implications of various inks that are used for digital printing. Water-soluble inks are good for the environment, but can need more energy to fixate. Also, the chemical make-up of a fabric helps to determine how the fibres will accept colour saturation and at what point the volume of ink might compromise the fabric. My background also helps me to produce garments that last.

What lies ahead for your design business?

There is so much progress going on in fashion these days, especially when it comes to printing. Block printing requires water washing, which is not as environmentally friendly as digital printing. I’m always looking at how to be environmentally friendly when choosing fabrics. I am using silk and polyester prominently in my current collection, which includes such statement pieces as trench gowns — long-sleeved, hooded dresses — and jumpsuits, both of which are good for people who travel globally. ■

INTERVIEW BY SCOTT KRAFT