

CAREER DEVELOPMENT : ARTICLES

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Finding the Way Back to a First (Career) Love

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Science and engineering careers demand tremendous time and energy and an intense, narrow focus. As a consequence, it's not unusual for scientists to find themselves well along a scientific career path before recognizing that their interests are waning or aren't quite strong enough to carry them through a Ph.D., a postdoc, and tenure. A small midcourse adjustment puts some scientists back on track, but sometimes satisfaction can only come from a more radical change of direction. One approach is to reconsider an old hobby or passion that you discarded or never considered as a career.

Like rekindling an old romance, the pursuit of an old interest can be exciting and rewarding. But it also might not live up to your expectations. Honest assessment of career goals and how they fit into your life are critical to finding the right combination of work, reward, income, and overall satisfaction when you think of returning to a "first love."

REKINDLING AN OLD FLAME

"You really need to know what you want. Figuring it out is the hard part, but doing it is the easy part." -- Sandeep Jauhar

Sandeep Jauhar started his career as a physicist; today, he's a cardiologist at [Long Island Jewish Medical Center](#) and a medical journalist in New York City. Coming from a family of physicians and scientists, Jauhar spent time in an emergency room as an undergrad but decided to major in physics instead. He stuck with physics all the way through a Ph.D. But a few years into his graduate work, in the early 1990s, his interest in the subject waned and he saw limited opportunities on the tenure track. Physics "wasn't really my passion," he admits.



Sandeep Jauhar

"Wanting to do something completely different motivated me to go back and look at my interests before I got into physics," Jauhar says. Long, tortured evenings of soul-searching, and the serious illness of a good friend, led him to reconsider medicine. At the same time, he followed up on a long interest in writing and pursued an [AAAS Mass Media Fellowship](#), working as an intern at [Time](#) magazine during the summer of 1995. After that, he went to medical school and began to build a career that combined writing and medicine.

Pursuing medicine and journalism at the same time has proved fruitful. An internship at the [St. Louis Post-Dispatch](#) during medical school at Washington University in St. Louis, Missouri, helped him hone his skills. During his medical internship, he wrote essays about his experiences for [The New York Times Science section](#), and he [recently published a book](#) about his medical training, which grew out of those essays.

The combination isn't as odd as it might seem, Jauhar insists. "Medicine is fundamentally about narrative. It's about people; it's about their histories; it's about their stories."

"I can't say that my career was organically constructed," Jauhar says. "The Ph.D. is an island, its own separate thing. In some larger sense, I needed to do it." But even with the extra years of training, he feels that the transition to medicine and

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REALITY CHECK



Chris Reed

As many romantics have discovered, reconnecting with your first love doesn't always lead to happily ever after. Chris Reed, an engineer at an authentication solutions company, Texas, was a prolific artist in high school. He even considered art school. But his parents and teachers saw talent for math and science and directed him toward a more remunerative profession. Instead of art, he majored in [mechanical engineering](#).

As a senior at [Texas A&M University](#), he rediscovered his artistic interest through a course that introduced him to computer graphics and animation. "I had spent nearly 5 years doing something that I didn't necessarily love just so I wouldn't be a starving artist," he says. He sought a way to combine art with his technical expertise. As he began working as an engineer, he also took evening classes and got a certification in computer animation from the [Art Institute of Dallas](#).

Hoping to become an animator, he landed a job at [Reel FX](#), a special-effects company in Dallas, Texas, taking a pay cut to pursue his dream. But the company had other plans: Because his technical abilities were strong, his bosses wanted him to maintain their computer servers. As he worked long hours and watched the animators, he realized that "the workhorses were young, nomadic, single males" moving between companies and cities as they completed projects. It wasn't a lifestyle that appealed to him. After a year and a half, he returned to an engineering career that allows him more time with his wife, a level of compensation commensurate with his technical skills--and a little time on the side to pursue his artistic interests.

In fact, he incorporates his animation skills into his engineering arsenal, using them to build models. Still, there's no denying that things didn't work out the way he wanted them to. "I had unrealistic expectations," he says. He advises others to be practical and take care not to make unnecessary compromises. "Keep in mind that you don't want to keep beating a dead horse if you would be happy going back to what you were doing before."

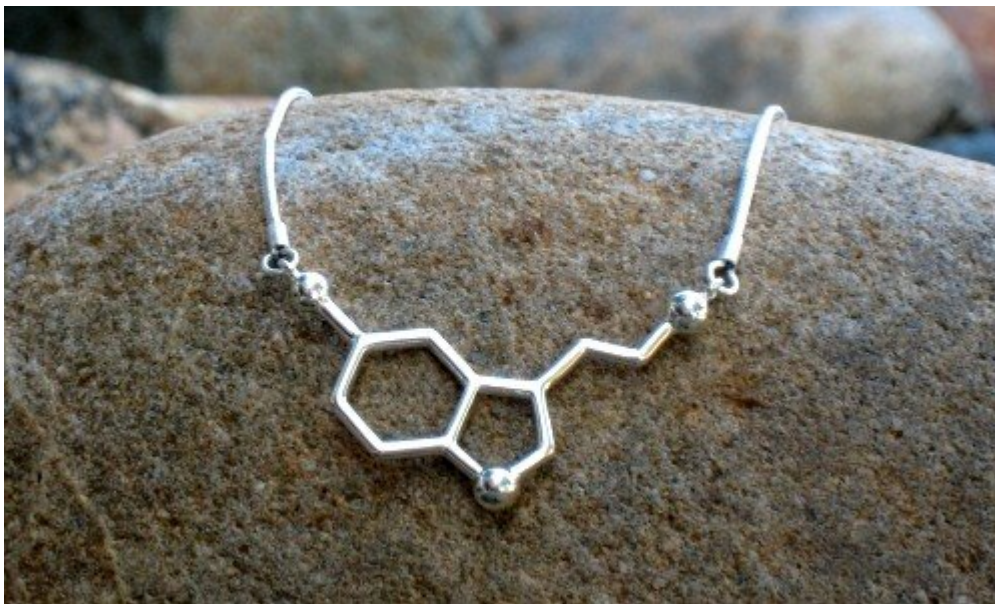
FOLLOWING HER CURIOSITY

Sometimes, a passion for science can take you in an unexpected direction. Biophysicist-turned-jewelry designer Raven Hanna ended up in her new career because of her innate curiosity and interest in communicating science, along with an artistic flair. After majoring in biochemistry at the [University of California \(UC\), Santa Cruz](#), she studied RNA enzymes for her Ph.D. at [Yale University](#). "I wanted to have a career where I could follow where my curiosity led," she says. Reading books on outside topics such as string theory rekindled her interest in science that waned during a postdoc at the [UC Berkeley](#).

She wanted to find a way to communicate her enthusiasm about science to other people. She pursued [science writing and got a graduate certificate](#) from UC Santa Cruz in 2005. While poring over a book on neurotransmitters, she looked at the structure of serotonin and decided it would make a pretty necklace. So she found a jeweler who showed her how to make it.



Raven Hanna



Raven Hanna's serotonin necklace launched her career in the jewelry business.

In places such as the Gap, she got compliments on her serotonin necklace. "I found myself giving people little science lessons in the most random places," she says. And then it clicked: Her jewelry could be the creative form of science communication that she'd been looking for. She launched her Web site, [Made With Molecules](#), in 2005. She initially figured that she would work on other science outreach and writing projects while working on the jewelry business part-time. But after she showed her work at an [American Chemical Society](#) meeting and an article about her work appeared in [Chemical & Engineering News](#), business took off. "Making this jewelry made me happy, and it would have made me happy even if it didn't pay the bills," Hanna says.

PRACTICING SAFE CAREER



Brian Schwartz

In his career development course for scientists at the [City University of New York](#), physics professor Brian Schwartz encourages Ph.D. students to pursue two career trajectories at the same time in case one doesn't work out. "Have plan B, not in series but in parallel," he says. Schwartz's approach minimizes the time and resources needed to launch in a new direction.

Such a plan, Schwartz says, allows you to dream big: to be a Harvard researcher, Internet entrepreneur, educator, or writer. By taking classes, networking, and pursuing professional activities on both tracks, you end up with two sets of marketable skills when it's time to find a job.

Schwartz points out that when looking for a career outside of your area of study, you have to be prepared to explain why you aren't going into the field in which you got your degree. A functional résumé that groups relevant skills together, instead of the traditional chronological one, will allow you to showcase the skills that fit a new career path. Changing careers often means taking a first job that might not be a perfect fit, he adds, but such a job gives you demonstrable experience and

teaches you valuable skills that can help you move forward toward your new career goal.

Career romance is fickle and uncertain. Whereas academic research careers often involve steps orchestrated years in advance, many other tracks require changing focus and positions quickly. That change of pace is an adjustment, but not knowing exactly what you might be doing in 5 years can be exciting, says Hanna. As you figure out what might work for you, self-knowledge and honest self-evaluation are critical. "It's important to know your motivations, what it is that gives you energy," Jauhar adds.

Sarah Webb has a Ph.D. in bioorganic chemistry. She writes from Brooklyn, New York.

Comments, suggestions? Please send your feedback [to our editor](#).

Images, top to bottom: Courtesy, Mike Taylor. Credit, Maryanne Russell. Courtesy, Chris Reed. Courtesy, Raven Hanna (portrait and necklace). Courtesy, Brian Schwartz

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