

Chen Gao Dream Catcher

Pam Goldberg-Smith

It is by following her heart that Chen Gao always finds value on the road to pursuing her dreams. Chen completed her BS in Biology at Nankai University in Tianjin, China. She earned her PhD in Molecular Biology at University of California at Los Angeles (UCLA) under the supervision of Dr Yibin Wang. Chen has also won the 2011 AHA BCVS (American Heart Association Basic Cardiovascular Scientific Sessions) Young Investigator Travel Award¹ and the 2013 ISHR Richard J. Bing Award.

What Can You Say About Your Background, and What Brought You to California?

As college professors, my parents greatly influenced me by encouraging me to read. They cared not only about my education but the pursuit of my dreams. I was very much inspired by my mother when visiting her lab and watching her students perform experiments in very detailed and rigorous ways. I became interested in learning about biology and animals in high school. A lot changed when I attended Nankai University—I lost my grandmother, to whom I was very close, to lung cancer. This ignited a passion in me to save people from losing their loved ones or losing their own lives. I worked really hard as an undergraduate researcher in a cancer research lab while seeing others having fun. I interviewed at different graduate schools in the United States, but the summer research program at UCLA impressed me and I was given the opportunity to work with my mentor, Dr Yibin Wang, as a graduate student.

What Led You to Study Cardiovascular Science?

Dr Wang taught me how to be creative which, along with remembering my passion, helped pave my path. My PhD project was also fun. Throughout the project, I learned how to troubleshoot, how to interpret my results, how to communicate my ideas, and how to think out of the box to chase bigger

questions. I felt very fortunate as both a graduate student and postdoctoral fellow to study at UCLA as it has a large number of cardiovascular research facilities where you can meet many experts in cardiovascular diseases. There is such a willingness to collaborate with different labs, and it's clear the principal investigators care so much for the success of young scientists.



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Why Did You Start Your Current Project, and What Interests You the Most About It?

The project started at the beginning of my PhD training where I investigated a regulatory mechanism of transcriptome changes in the failing heart and identified that cardiac-specific RBFOX1 regulated global RNA splicing reprogramming during heart failure.² In the lab of my current mentor, Dr Yi Xing, we are investigating the cytosolic function of the splicing regulator RBFOX1 in the heart and want to determine its downstream targets, not only in the nucleus but also cytosolic. It's exciting to have the opportunity to look into the cardiac transcriptome itself and find novel regulatory mechanisms never identified before. It's a huge area to be explored in both cardiovascular disease and early cardiac development. It gives me a much better idea of how far I've come since I was in high school, where I used to think that the Central Dogma was a simple straight line.

What Has Been the Most Exciting Moment in Your Career Thus Far?

Chairing the early career events during the International Society for Heart Research North American Section (ISHR-NAS) meeting is certainly a memorable moment in my career. After winning the Richard J. Bing Award in ISHR 2013 World Congress, I was given the opportunity to organize a series of events for junior scientists. I saw it as a bridge for people to come together to discuss science and seek career development advice. I learned from Dr Wang that helping

other people can lead to long-lasting joy, and I cannot agree more.

How Hard Would You Say You Work?

I do work hard because I work every day in the lab. At home, I analyze data, read publications, and plan ahead for future experiments. And yet both of my mentors work harder than me. They are the ones responsible for supporting the whole lab, for example, acquiring funding so people in the lab can work.

What Worries You the Most About Your Future?

I believe everyone has concerns, like job and funding opportunities. However, worries shouldn't stop us from pursuing our dreams, rather they should be our motivation to chase our dream at even faster speed. I believe this is true for everyone, as people who are in this field enjoy science and research because this is where their dreams lay.

What Have Been Your Main Challenges? How Do You Overcome Them?

Every day there are challenges. I had a big head filled with dreams when I first came to the US and realized that other graduates are just as good or even better than I am. I find myself lucky to be exposed to such opportunity, and Dr Wang, who coached me with so much patience, taught me how to communicate and present my work, which used to be so hard for me.

How Do You Spend Your Time Outside of the Lab?

I enjoy running, painting, and reading nonfiction books on leadership or documentaries. I spend a lot of time practicing piano and love Chopin. These days, it's easy with technology to keep in contact with my parents. Although dad recently left his position at Tianjin University of Science and Technology to work in government, mom is still a professor of microbiology. Their students continue to visit them, and I think it reflects how a good teacher or mentor is supposed to be.

What Traits Do You Consider Important for Success in Research?

I don't honestly believe there is one or two good traits to make someone a good scientist, just like everyone has the potential to be a good leader. I do think passion is the most important. Passion leads to persistence, and it's the secret ingredient to keep the work exciting in the face of challenges. I enjoy doing research and following my heart.

What Do You Like and Dislike About Research?

In science, there's always something to be uncovered as long as you work hard. I liken it to running through a tunnel. The dark part of the tunnel is the years of hard work, where people will get what I call "long necks" spending a lot of time on the bench. As scientists, we work hard every day; some days are good and then the next day you can get frustrated if an experiment doesn't work. You have to believe this will turn out to be a good project in order to reach the light at the end of the tunnel.

What Would You Do to Improve Training in Research?

I understand that there are some junior scientists who don't have the opportunities to present their ideas to peers and get feedback. I wish we'd have early career investigator events, not only in conferences like BCVS and ISHR, but also in each institute so that early career scientists would have more opportunities for exposure. I've been extremely lucky as UCLA provides so many opportunities. It's a luxury. I can't tell you how grateful I am to work here and receive help from so many people.

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