



Ceshi Chen, Ph.D.

Albany Medical College
Center for Cell Biology and Cancer Research

Success Magazine: Dr. Chen, what is your definition of success?

Ceshi Chen: In my career, success could be defined as making significant contributions to improve society through different approaches, including scientific research and education. Success is a journey. Personally, I am successful if I am able to obtain sufficient resources to develop my research projects, which will contribute to cancer patient management.

“My long term goal is to identify novel oncogenic molecular targets for breast cancer diagnosis and target therapy.”

United States. From three offers, I chose Albany Medical College because of its excellent research environment.

SM: What is it about cancer research that is so intriguing to you?

CC: As I mentioned, cancer is a complicated and challenging disease. Different mechanisms of cancer initiation and progression are involved in different cancer patients. Target therapy and personalized medicine are the direction we are heading. It is interesting for me to discover new potential molecules for diagnosis and therapy.

SM: You recently received a \$960,000 grant from the American Cancer Society for breast cancer research. What specifically is being examined with this grant?

CC: We will test whether WWP1, a gene overexpressed in over 40% of breast tumors, can be developed into a diagnosis marker and therapeutic target for breast cancer.

SM: Why were you chosen for this grant?

CC: This project is novel and promising. WWP1 is an enzyme targeting protein for degradation. The WWP1 gene is frequently over-activated in breast cancer. We demonstrated that inhibition of this enzyme can kill breast cancer cells. After we validate this target in animal models, we can further develop small molecular inhibitors for cancer target therapy.

SM: To what do you attribute your success?

CC: I want to thank my wife, Ms. Zhongmei Zhou, who supports me with her full heart. She helps me manage the lab. In addition, my previous mentor,

Professor Jin-tang Dong, at Emory University greatly contributed to my career development. My colleagues at Albany Medical College, my postdoctoral fellows, and students all contribute to my success. The research environment in the United States is outstanding.

SM: Is breast cancer your primary area of research? Why is this in particular of interest to you?

CC: I am interested in both prostate and breast cancer. Both cancers are the second leading cause of cancer death in men and women. Now I focus a bit more on breast cancer partially due to my previous research experience and research support.

SM: How does it feel to be a recipient of a record breaking grant? What are your hopes for this grant money?

CC: I am honored to be a recipient of a record breaking grant. I want to thank all people involved with the American Cancer Society. First, I hope I can prove my hypothesis that WWP1 is a promising biomarker and therapeutic target for breast cancer. Second, I hope I can further develop my career and contribute to fighting cancer.

SM: How will this grant change your research? What types of things have been planned?

CC: This grant will significantly change my research. It will give me an opportunity to focus more on my research. Second, I can recruit at least 1-2 staff into my team to expand the scope of the research. A new postdoc will join our team next month. Finally, I now have sufficient resources to perform animal experiments, which are usually expensive.

SM: What are the long term goals of your team?

CC: My long term goal is to identify novel oncogenic molecular targets for breast cancer diagnosis and target therapy.

SM: How about in the short term?

CC: In the short term, I want to demonstrate that inhibition of WWP1 can suppress tumor growth in mice.

SM: What is the most rewarding aspect of your job?

CC: The most exciting aspect of my job is the discovery of a new phenomena and mechanism. It is very nice to find the answer for an important scientific question. Additionally, my job is creative, not boring at all.

SM: Being immersed in such intense work, I would imagine that it is difficult to separate your work from your personal life. Is this a difficult balance for you?

CC: Not really. Although I spend more time than other people in the workplace, my work time is quite flexible and I could work at home if I chose to. My wife understands the situation. My major hobby is playing soccer on the weekends. I feel I'm able to balance my work and personal lives well.

SM: Do you believe that a cure for breast cancer will be found in your life time?

CC: Target therapy and personalized medicine are future directions for breast cancer. I do not think we can cure all breast cancer patients in my lifetime. We should be able to develop more weapons for breast cancer prevention, detection, and treatment. We have made significant progress in the past two decades for breast cancer. Actually, the death rates from breast cancer have steadily decreased in women since 1990 due to earlier detection and improved treatment.

SM: What one thing would you like people to know about your work?

CC: Our work is the basic cancer research. It may take 5-10 years to translate this into patient care. However, all improved diagnosis and treatment are based on laboratory research. People should be patient and invest for our next generations.

SM: Who is your role model?

CC: Robert A. Weinberg (Professor at Whitehead Institute) and Bert Vogelstein (Professor at Johns Hopkins University).

SM: What personal characteristic has helped you to get where you are today?

CC: I am curious and ambitious. I like adventure and enjoy exploring something new. At the same time, I try to work hard.

SM: What is the most challenging aspect of your position?

CC: The most challenging aspect of my position is to establish collaboration with pathologists. Additionally, it is difficult to get a paper published in top journals.

SM: What accomplishment are you most proud of?

CC: As an immigrant with a foreign education background, I am proud of my career development. In terms of career accomplishment, I think the discovery of the alteration of the WWP1 gene in human cancer is quite exciting for me.

SM: What advice would you give to someone trying to figure out their career path?

CC: Follow your own interests in your career path. Be confident, motivated, and patient, and then you will be successful.

