SHERRY CHOW, PH.D.

Interviewed by: Blake Gibson and Kyle McKeown

Kris Hanning, UAHS BioCommunications

1. Where and when did you complete your education?
I finished graduate work in 1989 at State University of New York in Buffalo, NY in Pharmaceutics. They have the top 2 programs in pharmaceutics.

2. How did you become involved in research?
My undergraduate degree was in pharmacy, but I knew I didn't want to be a pharmacist. I knew my interest was in learning and working in pharmacokinetics, and wanted to do research in that area. I went into graduate school to do research. I was kind of naive when I think back, and didn't really explore research as an undergraduate, and went into research blind, but turned out to like it. Now, I get to think outside the box, get to ask questions, and then try to answer those questions. I don't want to memorize things; I want to think through problems. That fits me.

After my graduate work I came to the UA, which has been my only job. I did my first ten years at the college of pharmacy doing bench research. I was on tenure track, and then I switched over to the research track at the Cancer Center.

3. What is your current research?
My current research is in early phase clinical development of cancer preventative agents. We are trying to conduct early phase clinical trials of potential drugs or nutraceutical compounds to see if we can find a way to test those agents for their safety and efficacy, and also see if they can be used for cancer prevention. [A Nutraceutical is a pharmaceutical-grade and standardized nutrient.]

4. How did cancer prevention become your primary research interest?
My background was in pharmacy. I began talking to Dr. Dave Alberts, who is well known in cancer prevention research, when I came over here, He stressed there is a real need for people like me to develop a drug for cancer prevention, known as chemoprevention. There is a need for someone experienced in pharmacy research to bridge the gap with cancer research.

Drug companies usually want to develop drugs that treat tumors or cancer, but they aren't interested in developing drugs to prevent cancer. The companies don't really have an industry base to support, and there isn't a strong incentive to work on things that can prevent cancer. We have to rely on academic based research to work in this area in hopes of developing something that can be used to prevent the development of cancer. Cancer researchers and pharmacy researchers need to work together to develop something to prevent cancer.

Currently, we are running a metformin trial, seeing if it can prevent breast cancer. It's a R01 grant and investigating if metformin has potential activity in breast cancer prevention.

5. If you could go back in time, would you still pick the route you chose?
Yes, I really enjoy what I am doing. I am hoping I can find something for the prevention of breast cancer or at least something that is promising that can be used for breast cancer prevention before I retire,. There are FDA approved drugs to prevent breast cancer. However, the uptake of those drugs is very low in average risk populations, and even the high risk populations don't use them often because of the side effects. I hope we can find a drug or dietary supplement that can be safe, in the long-term, while at the same being efficacious in preventing cancer, specifically breast cancer. That is going to be my focus. I've studied prostate, and esophageal cancers, but my real passion is breast cancer research.

6. What are some misconceptions that you think some medical students have about PhD researchers or translational research in general?
I don't know what kind of misconceptions exist. They may think we mostly do bench work and maybe it's difficult to somehow translate those results to the clinic. Maybe it seems researchers are working on fundamental questions not directly related to clinical problems. Actually, even basic scientists are often trying to work on research that is translatable to the clinic setting. I think it is difficult to see that sometimes right away. People are really moving into translational research to have impact in the clinic. Some research findings are directly translatable, like those from lifestyle intervention research in the field of public health.

Medical students should try to explore different areas of research if they are interested in research. Hopefully they can learn about different fields, even something like nutritional sciences, which I find fascinating. My field is mostly focused on drugs, and chemicals, but there are other ways that we can prevent cancer. Students should have an open mind about different areas of research.

7. What is one of the most memorable moments of your career?
I don't thing I have a specific moment, but I am always very delighted to see mentees develop their skills and knowledge over the years when I work with them. Those are really good moments for me. But no single moment. I really feel like I am doing a good job providing training whenever I see I am able to have some impact on a postdoc or trainee

8. How can medical students get involved in translational/ clinical research?
Sometimes the residents try to summarize our work and present them to medical students. Seek out those opportunities. Seek out research presentations and hear about our work. Medical student have Dr. Witte (MSRP) who sometimes presents faculty research to students. It's a great opportunity to learn about research from different faculty members. Students could also try to identify their areas of interest. I know I had a couple of medical students in previous summers who were interested in clinical research. We have more people doing bench research than translational research, so they kind of stumbled on my work and we tried to get them involved in our clinical research so they could better understand clinical research and its components. I would encourage them to try to attend those conferences or presentations to learn about the different research areas.