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UCLA Louise M. Darling Biomedical Library

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Embedded With the Scientists: The UCLA Experience

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Abstract

This is the transcript of the Video Article wherein Lisa Federer describes her experience as a research informationist for a National Institutes of Health-funded research team at the University of California, Los Angeles.

My name is Lisa Federer and I'm a Health and Life Sciences Librarian at the UCLA Louise M. Darling Biomedical Library. In addition to my responsibilities as a liaison librarian, I also recently started work as a research informationist, thanks to funding from the National Institutes of Health and National Library of Medicine, working with the team of Dr. Warren Grundfest. They're working on a project that investigates the use of THz or terahertz lasers to measure corneal hydration, and I have had the great opportunity to join their team as their research informationist. I'm going to talk about the work I do with their team, and also about the outreach efforts I did in obtaining this grant and the new partnerships I've formed as a result.

Although we've only been working together for a short time, the team and I have already identified several different challenges we hope to address and put some plans into place as to how we intend to do that. First off, the biggest challenge that we face is that their data exists in lots of different places and different formats. Like most research teams, they have a paper lab notebook where they write down the results of their different experiments and this lab notebook has about four years' worth of data. We

need to figure out how to digitize that for preservation purposes and also to make it easier for them to analyze the data. In addition to the paper notebook, they have a lot of images that go with their experiments. A lot of these images are in proprietary systems, and these systems are not connected. For each experiment, there's the data they wrote down, an image from the camera, a proteomics image describing the proteins, and a histology image, all of which are in different systems, all of which have different file names, and there's no connection between any of them even though they're all about the same experiment. So the challenge is to figure out how we can get all of this data into one place. One of the ways we've explored doing that is through an electronic lab notebook or database system, but the thing that's important to me is finding a way to work whatever solution we come up with into their existing data workflows so they're not forced to change how they do their work in the lab. They're never going to adopt a system if it's going to be a lot more work for them. So we're looking at different ways of digitizing existing data and collecting data digitally moving forward.

Another challenge we've identified is that

this is an emerging technology. As more researchers start to do research with terahertz lasers, it's going to be important for them to have standards, particularly about metadata that they should be gathering about their experiment. THz lasers have applications in both medical fields and elsewhere, such as security imaging and non-destructive evaluation of art, so one of the things we'd like to do is to adapt or design a metadata standard that researchers in the field throughout the world could use in their experiments. This would allow researchers to share data more efficiently, to replicate experiments other groups have done, and help contextualize data for people reading about the experiments.

Finally, another very simple challenge that we're facing is that the researchers are scientists, and not librarians, so they don't know about the best data management practices. It's been an easy fix for me to go into their lab and talk to them about what they should be doing to back up and preserve their data and simple things they could do to make their data more meaningful to people outside of their own group. They've found it interesting to learn about how data should and could be organized.

Beyond the work I'm doing with Dr. Grundfest's team, the grant opportunity was a good chance to forge some new partnerships and create some new opportunities for myself here at UCLA. First of all, when I found out about this grant, I wanted to let researchers know that they had the opportunity to apply for this funding to have a research informationist on their team. I partnered with the Office of Research Administration and Office of Contracts and Grants Administration here at UCLA so they could help me get the word out to eligible researchers. I now have contacts in these office and can work closely with them so they can let me know about opportunities that are available and I can let them know about opportunities I hear about.

I also had a chance to contact a lot of researchers individually, and we ended up putting forward three proposals, one of which was selected. But even for the proposals that were not selected for funding, I've now made relationships with those researchers and have started doing some work with them. For example, for one of the groups that did not get funding, I'm continuing to work with them on a systematic review as their expert searcher. Even though the funding was not successful in all cases, the outreach opportunities were great in forming relationships.

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