

given doctor's patients have filled out the survey, that doctor can use the database to ask questions like "What percentage of my patients are seeing another doctor?" It's not common for patients to volunteer such information or for doctors to ask—but it can be very important to a patient's health for that information to be known. Or a doctor might ask, "How many of my patients have feelings of depression that they haven't told me about?" Many patients will conceal such feelings unless prodded about them.

The benefits run deeper still. All the information from patients all over the country goes into a very sophisticated database that promises to yield valuable information about the health of the nation as a whole.

For example, participating doctors can compare their practice patterns with those of other doctors, asking such questions as "How does my handling of allergies compare with that of other doctors?" or "Am I using the best possible medicines to treat a given condition—with appropriate consideration for efficacy, safety, and cost?"

**Aggregated:** And at the most aggregated level, the database will allow national outcomes researchers to track regional differences and other variables in patterns of care and pinpoint what does and what does not make for differences in the quality of care.

For that, of course, is what everyone is after—from the patient in Long Beach, Calif., to the doctor in Lebanon, N.H.

ROGER P. SMITH, PH.D.

## INVESTIGATOR INSIGHT



In this section, we highlight the human side of biomedical investigation, putting a few questions to a researcher at DMS-DHMC.

**Brent Berwin, Ph.D.**

**Assistant Professor of Microbiology and Immunology**

*Berwin studies how white blood cells induce immune responses—in particular, how molecular chaperones (molecules that help proteins fold) activate the immune system, how white blood cells clear bacteria after an infection, and how immune cells induce anti-tumor responses. He joined the faculty in 2004.*

**What are the keys to being a successful scientist?**

Work hard. Plan well. Think things through. And be in an environment where you enjoy working and spending time.

**What got you interested in science?**

I've always enjoyed science, although for a long time I thought I'd end up working for the Oregon Department of Fish and Wildlife (which I did for a couple of summers). Then I came back from my senior year of college abroad, needed a job, and got sucked into working in a virology lab for two years—that was the beginning of the end.



**Are there any misconceptions people have about your field?**

Lots. Most people outside of science don't really understand what we do from day to day.

And it's always vaguely entertaining when a random person asks me about some obscure disease or condition they have, fully expecting me to have a working knowledge of the entire therapeutic and medical field.

**What's a typical day like for you?**

After getting to the lab, I try to get any long or continuing experiments under way; check the baseball box scores and make sure my fantasy baseball team is doing okay (or not); search for

recent published papers that are relevant to our work; check on our cell cultures and our mice; go back down to the animal facility and do what I forgot to do the first time; and check in with the lab members to see what they are doing, how things are going, and how we can press forward. On top of all that, I am usually writing grants and manuscripts or attending meetings.

**What were your first paying jobs?**

In high school, I had the usual array of restaurant jobs—busting suds. In college, I worked in the chemistry department stockroom and, during the summers, for the Oregon Department of Fish and Wildlife doing a census of salmon and squawfish in the McNary Reservoir on the Columbia River in Oregon. And for two years before going to grad school, I was a technician at Oregon Health and Science University.

**What are your favorite nonwork activities?**

Pretty much anything outside: hiking, biking, running, swimming, canoeing, etc. I think it's important to engage in activities outside the lab to get the blood flowing, work off frustrations, and maintain sanity.

**What place would you most like to travel to?**

There are not many places I wouldn't want to explore—in times of peace. I love traveling. I visited a lot of places on an around-the-world trip after graduate school. I think my credit card is still recovering from that.

**Do you always have a working hypothesis in the lab?**

If you consider "let's try this and see what happens" a working hypothesis, then yes, we do.

**What do you like most about your job?**

The people I work with and around—what a good group of intelligent, entertaining, and motivated people. I'm proud that our lab members enjoy each other's company and can work, play, and (usually) laugh together. I also feel pretty lucky to have a job where I get paid to do something I enjoy. That said, my department chair jokes that I'm lucky to have a job at all.