these schools have never had federal money before," says Taylor. "There's a lot of rules when you accept federal money," he adds, which is why schools like Dartmouth usually have an office with grant managers to ensure that the money is used and accounted for properly.

The most important word in grants administration is "compliance," says Kathleen Carroll, senior development officer at Colby-Sawyer College. That's one of the lessons she's learned in her role as the person who oversees the NH-INBRE funds that flow to Colby-Sawyer. "There is so much for me to learn in this role," says Carroll.

Wise says Carroll is "one of the success stories. Ultimately I see somebody like Kathy Carroll helping her faculty five years from now administer grants. . . . That's what we want to see."

It's not clear if the NH-INBRE funding will continue after the five-year grant is up, but Taylor believes it will have a lasting impact even so.

Play: By getting smaller institutions involved in federally funded research, he says, "we're bringing them up to the plate so they can play. And if they play well . . . They're going to have [the] experience . . . [to] compete on a national level."

And that will benefit all the NH-INBRE institutions, by improving the quality of undergraduate science education in New Hampshire and creating a stronger pool of in-state applicants for the graduate programs at UNH and Dartmouth.

Jennifer Durgin

INVESTIGATOR INSIGHT

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

Craig Tomlinson, Ph.D.
Assistant Professor of Medicine
Tomlinson studies the molecular aspects of adult-onset cardiovascular disease, diabetes, and obesity.

Can you describe your research?
We study how the AHR—aryl hydrocarbon receptor—is activated by environmental toxicants on a molecular level. Each cell in our body has an AHR signaling system that binds, metabolizes, and helps detoxify harmful agents. We've found that AHR, when activated by certain environmental toxicants, is involved in obesity and atherosclerosis. We're also interested in how toxicant-activated AHR affects a fetus *in utero*.

How did you become interested in this field?
I've always been interested in molecular biology. I have never been much of a naturalist and wouldn't know the difference between an oak tree and a maple tree. But molecular biology has always fascinated me. There has been a great breakthrough from sequencing the human genome; it has helped us understand how genes are expressed and how genes differ among populations. This has had a huge impact on our understanding of medicine, therapeutic treatments, and drug reactions.

Who is your fictional hero?
Adam Dalgliesh in the mysteries by P.D. James.

And your hero in real life?
Abraham Lincoln. I grew up in central Illinois, where Lincoln first made a name for himself. He made some tremendous, hard decisions through much personal as well as political strife. He had a wonderful sense of humor, too, and could tell great stories as well.

Where do you do your best thinking?
In front of the computer, usually. But good ideas also come to me in the shower, when the water is beating on my head.

If you could live in any time period, when would it be?
Living in the past is often romanticized, but I don't think I want to go back to a previous era. Life was much harder in the past, and people are softer now. Disease, for example, was more rampant; now we can vaccinate against, fight, and cure many diseases. So I'd choose the present. Or the future—I'd like to see what our knowledge base will be hundreds of years from now.

What was your first paying job?
I grew up on a farm and worked for my parents and grandparents baling hay and chopping weeds.

If you weren't a scientist what would you like to be?
A bookstore owner, because I could sit around and read books all day and not feel guilty—it would be a part of my job description. My second choice would be a geologist. It is interesting to me how tectonic plates float and move.

What bores you?
Television—it is so bad. Repetitious meetings, too.

What music do you listen to most?
Jazz and classical. My wife and I used to go to jazz festivals in New Orleans every year. We were there for the 100th anniversary of Louis Armstrong's birth, and they played a lot of his songs. He's my favorite trumpet player; his playing gives me goose bumps. I like some rock 'n' roll, too.

What do you think makes for a successful scientist?
Perseverance, good ideas, and some good luck. Working hard and loving what you do are important, too. Most of the things you discover, you discover not by design but because you sort of trip over them. And you have to be able to recognize it when you trip over something good.