

Careers in Environmental Health

[music] Anne Johnson: Welcome to Environmental Health Chat, a podcast about how the environment affects our health, from the National Institute of Environmental Health Sciences Division of Extramural Research and Training. I'm your host Anne Johnson.

We've been doing this podcast for a while now, and typically we tell you about an environmental chemical you might want to watch out for, or new ways of doing environmental health research.

But we realized that we never really talk about the people who work day in and day out to advance our understanding of environmental health.

Today, we're talking about how you, yes you, can help to address environmental contaminants and make the world a healthier place. We'll talk about jobs in environmental health, how you can get involved as a community member, and how NIEHS's training grants, fellowships, and career development awards can help you get the skills you need—whether you're a high school student or a practicing doctor or scientist. Our guest is Dr. Mike Humble. He's a Health Scientist Administrator at NIEHS and oversees many of our extramural fellowship and training programs.

He said you might be surprised at just how many different careers you can find in environmental health.

Mike Humble: There's all sorts of different things that one can do in this field. There's straight biological research, where you're trying to figure out perhaps how a particular environmental exposure might be involved in a health outcome—could be that you have a chemistry or biology background, toxicology, those types of science backgrounds. But there's lots of other ways in which people can get involved in this field. We need community members, for example, who work with researchers to help understand what might be going on in their communities. We need health care providers, public health officials, we need educators who can take the science and translate that back to communities. We need engineers, for example, who can make gizmos, for lack of a better word, that can measure things in the environment or measure samples, you know blood samples, for particular contaminants. We need mathematicians and statisticians who can help evaluate and model what some of these exposures and health outcomes might be. So it really doesn't matter what kind of things you like to do, there's all sorts of different ways that people can get involved in the various careers that are involved in environmental health.

Anne Johnson: Mike himself was a high school chemistry teacher before going back to graduate school to receive a doctorate and pursue a career in environmental health at NIEHS. He said there are opportunities in this field for people with any kind of educational background.

Mike Humble: You don't need a Ph.D. to do this type of research. Certainly, a Ph.D. opens a number of doors for you in terms of leading research projects, but people with Bachelor's degrees, for example, are working on these projects to help support the research going on, actually doing the hands-on research or working directly with the communities involved. You have people with M.D.'s or clinical degrees who are working more directly with the patients themselves, so there's all sorts of different degree levels

that you can have. Even people who are just residing in a particular area in a community can get involved in this type of research. They might see something going on in their neighborhood, start voicing concerns, and they may end up forming a partnership with an academic researcher or government researcher, and that can happen with any kind of background.

Anne Johnson: The jobs span different sectors, too, from academic research at universities to government research at the National Institutes of Health and other federal agencies. There are also business opportunities to provide equipment and other support to advance environmental health research.

And Mike says these opportunities are growing.

Mike Humble: There's becoming more and more appreciation for the role the environment plays in human health. We know that most diseases can't be attributed to simply inheriting a bad gene, there has to be something else going on, and that's where the role of the environment comes into play. There's becoming more and more appreciation for that role of environmental exposures. As a consequence, I believe there will be more and more opportunities for research and careers in this particular area.

Anne Johnson: If this sounds appealing, you're probably wondering how to get started. That's where NIEHS's training grants, fellowships, and career development awards come in. If you're a high school or college student, or even a teacher, you can find summer internships to gain experience in the field and see if you want to pursue it further. If you're thinking about graduate school or are already in a graduate or medical program, NIEHS offers fellowships that can help you pay for tuition and expenses. There are plenty of opportunities for postdoctoral researchers, and even training opportunities for midcareer professionals who want to learn a new area of science.

In addition, NIEHS is committed to increasing diversity in the environmental health workforce. Several internship and fellowship programs are designed especially for people in groups that are underrepresented in science, technology, engineering, and math fields.

You can find all of these opportunities and more at niehs.nih.gov/careers. Mike says you'll be glad you did.

Mike Humble: This is a career where your impacts can really have an impact on human health and the public. Working on a project where you determine that a health outcome is related to a particular environmental concern and then working with community partners, policymakers to ultimately change that situation so that people's health can improve because of the research and efforts that you've done—I think that's really, really rewarding to know that you've made a difference.

Anne Johnson: So visit the website for opportunities and application deadlines. And if you're not sure if this field is right for you, Mike says the best way to find out is to talk to people in the field. Get in touch with Mike or others at NIEHS with any questions you might have. Thanks again to today's guest, NIEHS's own Mike Humble.

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