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TOP STORY

## Story Next Door: OSU's Logan Anspach publishes peer-reviewed paper on radiation

JAMES DAY Corvallis Gazette-Times Feb 12, 2018

### THE ANSPACH FILE

**Who:** Logan Anspach, Oregon State University senior

**Hometown:** Milwaukie (graduated from Putnam High School)

**Residence:** Corvallis (shares a south-of-campus rental with four other OSU engineering/science students from Putnam)

**Up next:** Has been accepted into OSU's master's program in radiation health physics

It was just one of those normal Mondays in the news biz, sitting down at the Valley Library cafe with Oregon State University senior Logan Anspach to talk about his just-published scientific journal article on VARSKIN.

VARSKIN, of course, is computer code for calculating skin dosage to those exposed to radiation. Anspach and one of his OSU professors, David Hamby of the School of Nuclear Science and Engineering, collaborated on the paper, which is being published in Radiation Protection Dosimetry.

But we're getting ahead of the story a little bit.

Anspach, a radiation health physics major from Milwaukie, was looking for a summer job after his sophomore year in 2016. So he emailed Hamby, and Hamby hired him for 20 hours a week to work on his VARSKIN project.

Memo to other students: This is not the way these things usually work. It's not normal to send out one email for a summer job, get hired and wind up the lead author in a peer-reviewed journal. But, then again, maybe Anspach is a cut above normal.

So he and Hamby began working together, sometimes on parallel tracks and sometimes in a more classic mentoring mode. The goal was to come up with a tool that the Nuclear Regulatory Commission could use to make the regulatory process easier for dealing with surface skin contamination from radiation.

How does the skin get contaminated in the first place?

"Usually it's from spills or from holding something," Anspach said.

Anspach took the lead on writing the paper, and he battled away at it through the 2016-17 school year doing, as he put it, "a little bit of work here and a little bit there."

## WHAT IS DOSIMETRY?

Dosimetry often refers to the status of wearing a personnel badge that measures and monitors dose. It may also refer to dose history and the records where dose history is maintained. More specifically, radiation dosimetry is the calculation of the absorbed dose in tissue resulting from exposure to ionizing radiation.

Source: U.S. Office of Homeland Security & Emergency Coordination Radiation Safety Division

Last September Anspach sent the paper to Radiation Protection Dosimetry, and he was “surprised by how quickly it went through,” another sign, perhaps, that Anspach has the right stuff.

The journal sent the article to be “peer-reviewed” by experts in the field, a process that eventually resulted in some rewriting, clarifications and changes to the charts and graphics. Then it was on to the publication process. The article already is available online, with print publication due in the next few weeks, Anspach said.

For perspective, we checked in with Cynthia Sagers, OSU’s vice president for research.

“It would be difficult,” she said, “to express how unusual this is as the likelihood may vary among disciplines. In nuclear engineering, however, it is likely a long shot.”

“It’s been a blast, I’m pretty excited about it,” said Anspach, who leveraged his work on VARSKIN into a summer of 2017 internship at the Knolls Atomic Power Laboratory in Niskayuna, New York, and acceptance into OSU’s master’s program in radiation health physics.

So where might his education lead? Anspach notes the medical, nuclear weapons and nuclear security fields and his dream job of working at the Pacific Northwest National Laboratory, a U.S. Department of Energy facility in Richland, Washington.

A post there would allow Anspach to stay in the Northwest and the proximity of the Hanford site means “you can use a wide range of knowledge in a lot of research activities.” Working on Hanford cleanup issues “is a big draw as well. And I would be doing something for the nation. It’s work that helps your community.”

Anspach also notes that there are U.S. Navy positions and state jobs that also offer prospects for those in his field: gigs on spent nuclear fuel, power plant sites, radiation safety measures and certification of hospitals. But that’s in the future. For now, Anspach says as he exits the café, “it’s on to those midterms.”

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