

THE FUTURE OF CANCER RESEARCH

An audience of distinguished scientists gathered in the main assembly hall at the recent 38th Annual International Herpesvirus Workshop in Grand Rapids, Mich. They came to hear a speaker selected based on his compelling abstract, unaware he was celebrating his 32nd birthday.

Such relative youth is not often featured in the arena of high-stakes research, whether at large conferences or in prestigious academic journals. David Meckes, Ph.D., is an exception.

The new assistant professor of biomedical sciences at the College of Medicine is breaking ground in virus research, where the goal is to better understand viral-associated cancers. *Proceedings of the National Academy of Sciences (PNAS)* published the study Meckes discussed in Grand Rapids, and also selected it for a special commentary.

So much of what is transpiring could easily have been difficult to fathom for Meckes, who only recently completed his postdoctoral studies. Scientists you've looked up to for many years listening attentively as you explain your work, an older and more professionally advanced colleague making favorable comments in *PNAS* about a study you've done, setting up the first laboratory that you can call your very own ...

"Good timing helps, being in a new and exciting, growing field," Meckes said. "It was nice having scientists whose work I have admired come up to me after my talk and tell me I did a great job. That's a good feeling to be recognized by the people you have been looking up to."

Meckes told them of his discovery about the impact two viruses – Epstein-Barr and Kaposi sarcoma – have on the cargo of tiny vesicles (called exosomes) that are released from infected cancer cells.

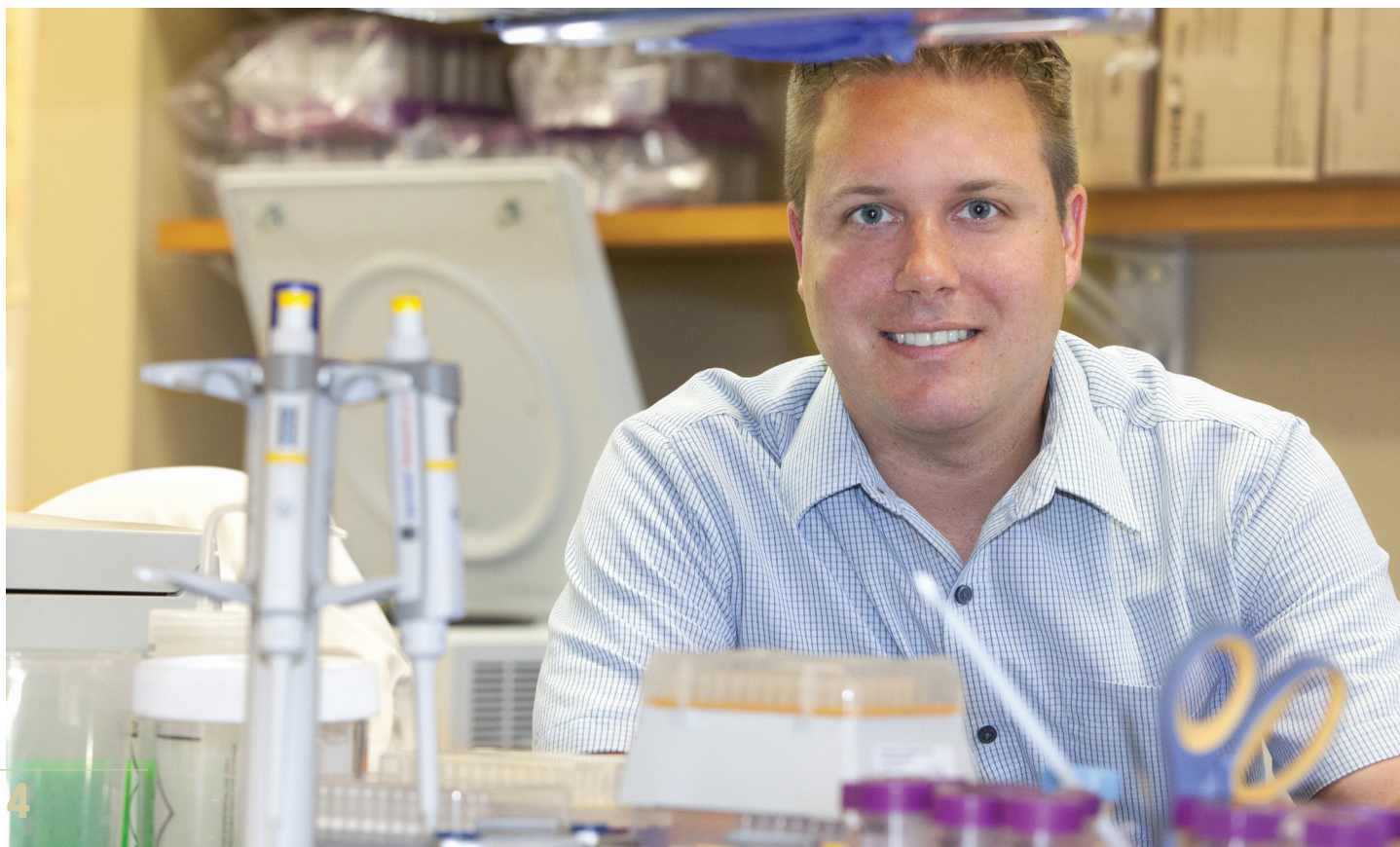
"It's really the first time anyone has looked at how viruses, particularly cancer viruses, alter the components of exosomes," he said. "Lately there's been a lot of interest in exosomes because of their potential functions in many biological processes, but even more so in cancer, where alterations in the components of these vesicles could contribute to cancer pathogenesis."

His research demonstrated, for the first time, how the viruses dramatically alter the components of the cellular vesicles. It suggests a new way that the viruses, and possibly other viruses, could promote the growth and spread of cancer in the body. And that could point the way to more effective methods of treatment.

With so much interest in his work, Meckes had various career options when he was finishing his postdoctoral studies at the University of North Carolina.

"The state-of-the-art research facilities and the diversity of great science being done here was important for me," he said, explaining what brought him to Florida State. "The new translational science core lab was very attractive, providing the capabilities to continue some of these studies. But also being at a major research university with the opportunity to collaborate with lots of other researchers on campus, since this is a new and rapidly expanding area that will be driven by interdisciplinary work."

David Meckes



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