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LIFESAVING TESTS



IMMY's new headquarters is shown in Norman. [PHOTOS PROVIDED BY OCAST]

For Norman's IMMY, simple does it for fungal disease diagnostics

There is a recurring theme in Sean Bauman's descriptions of the high-tech diagnostic tests developed at Norman's IMMY for potentially fatal fungal diseases around the world — keep it simple.

Bauman, Ph.D., is president and CEO of IMMY, which is an acronym for Immuno-Mycology Inc.

IMMY develops and makes diagnostic kits that are sold to hospitals and clinics across the globe. IMMY's simple kits diagnose certain types of fungal infections that are serious, life-threatening illnesses. These fungal diseases can impact patients from the world's wealthiest to the poor-



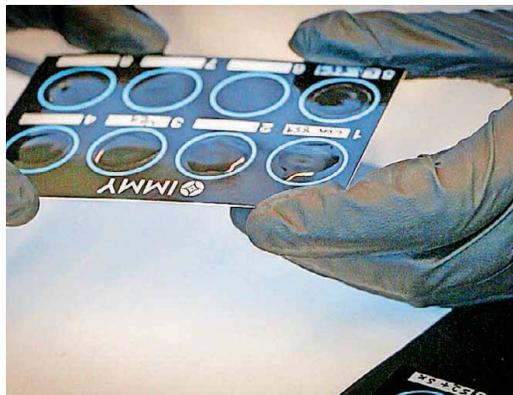
Jim Stafford

OK INNOVATIONS

est of countries.

"We're able to reach the Third World or the third shift here in the U.S. with the same test. It all operates on the same principle — keep it simple," Bauman said. "That's actually how we got our start, developing diagnostic tests that are simple and could address the problem in the resource-limited countries."

SEE IMMY, 6C



IMMY develops and manufactures a variety of tests for infectious diseases.



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IMMY

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In emerging nations without infrastructure and with a large population with compromised immune systems — like the many HIV-positive citizens of sub-Saharan Africa — fungal diseases can be deadly.

“It’s not that these infections are not common in the United States,” Bauman said. “In the U.S., we’ve got laboratory infrastructures already in place to handle those types of illnesses.”

The main advantage of labs utilizing IMMY’s rapid tests is that accurate treatment can begin sooner in the disease life cycle, in some cases even before it becomes fungal meningitis.

A really cool story

IMMY operates out of a 45,000-square-foot, state-of-the-art facility that opened in 2016 in north Norman near the Max Westheimer Airport. It employs 70 people.

Stan Bauman, Ph.D., Bauman’s father and an OU graduate, founded IMMY in a barn in Goldsby in 1979. Sean Bauman and his brother, Scott, the company’s chief operating officer, bought the business from their father in 2004.

“IMMY has a really cool story,” Sean Bauman said. “My brother and I grew up in it and literally ran the halls of this company from as young as we can remember. It was literally started in a metal barn out in the middle of nowhere.”

In 2008, IMMY released its breakthrough diagnostic test, CrAg LFA, for the detection of Cryptococcosis, an infection of the lining of the spinal cord and brain.

“We developed this little test to detect fungal



IMMY ships the CrAg LFA, a 10-minute test to detect a deadly form of fungal meningitis, to more than 60 countries.
[PHOTO PROVIDED BY OCAST]

meningitis,” Sean Bauman said. “It’s built on the same technology that a pregnancy test is built on. Our vision is that we go out and dominate fungal infection.

“We’re going to do that by saving lives one diagnostic at a time.”

Today, IMMY’s simple diagnostics reach patients in more than 60 countries across the world. Wealthy nations and nonprofit organizations often pay for the diagnostics that are distributed to Third World countries.

“In the poor countries, this type of product is paid for by the benevolence of First World countries,” Bauman said. “The U.S. is a prime giver in the fight against HIV and AIDS.”

New products on the way

Now, IMMY is preparing to launch a menu of new products that target three different diseases. IMMY’s R&D staff developed simple diagnostics that can detect infections known as Valley Fever, Histoplasmosis and Aspergillosis.

“Valley Fever is a big problem in the southwestern United States,” Bauman said. “We built a simple test that takes 30 minutes to perform and can be run out of any basic laboratory. The current diagnosis takes about 90 days for you to be accurately diagnosed, and it’s a referral lab test. We bent the curve down from 90 days to 30 minutes.”

Histoplasmosis plagues South American populations where it accounts for 40 percent of the deaths of HIV patients in that area. Histoplasmosis is also endemic in the Ohio River Valley and Mississippi River Valley.

“We’re talking big numbers,” Bauman said. “And the reason it is unrecognized is because it is undiagnosed.”

Aspergillosis is a fungal disease that plagues people who already have underlying illnesses such as cancer, tuberculosis or chronic obstructive pulmonary disease.

“You breathe in spores from Aspergillosis nearly every breath,” Bauman said. “The problem is transplant patients or cancer patients have their immune system blown up, so to speak, so they can receive a transplant or chemotherapy for their cancer. Well, that leaves them vulnerable to organisms like Aspergillosis that infect you via the airways.”

Each of IMMY’s new diagnostic tests is tied together by a common thread.

“I tell you, the lesson we learned in Africa,” Bauman said. “Keep it simple. We’re trying to bring that to every test that we do.”

Jim Stafford writes about Oklahoma innovation and research and development topics on behalf of the Oklahoma Center for the Advancement of Science & Technology (OCAST).