



CSU unveils \$30 million biocontainment lab

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By **Greg Campbell**

For the Tribune

It's apt that Colorado State University's newly unveiled Rocky Mountain Regional Biocontainment Laboratory is located on Rampart Drive -- of all the places in Fort Collins that's most in need of expressing a sense of fortification, it's here.

Once it's up and running, the \$30 million lab that held its ribbon-cutting ceremony Tuesday morning will be home to some of the deadliest bacteria and viruses on the globe, but there are few complaints from the neighbors. In fact, the new lab won't bring much that's new to the area in terms of what even some seasoned scientists call "spooky" microbes, infectious bugs and weaponizable biological agents.

Between the existing Centers for Disease Control and Prevention field station, the Colorado Division of Wildlife research center and the new biocontainment lab, an entire galaxy of dangerous material will be concentrated in a linear quarter-mile along the Fort Collins foothills.

Among them are anthrax, SARS, avian influenza, tularemia, encephalitis, West Nile virus, Lyme disease, chronic wasting disease, plague, yellow fever and dengue fever, just to name a few.

"One of the spookier ones we'll be working on is Burkholderia, an organism on the select agent list," meaning it could be adapted for biological warfare, said Dr. Ralph Smith, interim director of CSU's infectious diseases complex and a professor of the department of microbiology, immunology and pathology. Burkholderia can incubate for up to 60 years, is infectious during its incubation period and seems to be able to penetrate skin.

But Smith and others who hosted a who's who of local dignitaries and media on a tour of the facility stressed that CSU's new Level III biocontainment lab -- meaning that it is certified for research and testing of exotic bacteria and viruses that have the potential to cause serious or lethal diseases if inhaled -- has put safety above everything else.

"Before we work on any agents, we're inspected by a team from the CDC to examine our protocols," Smith said "We can't start any work without their approval."

As far as the new facility representing a possible terrorism target, he said the university was required to perform a classified threat and risk assessment in which possible threats and mitigation measures were identified and analyzed.

"Our main criteria is safety," reiterated Bob Ellis, the university's director of biosafety. "That trumps everything else."

So it would seem; on a tour of the facility, the safety features of a variety of rooms were ticked off for media members in a way that left little question that the building was as hermetic as possible. In an isolation lab, where the most dangerous work will be performed, it was pointed out that the floor is made of seven layers of epoxy. It

was explained how airflows are not only constantly monitored to ensure specific air pressure, but how those monitors are rigged to set off alarms if the airflow is disrupted. Utilities, such as gas and electricity, come in through airtight holes in the ceiling, and the sprinkler system is designed to put out fires with a low-flow mist. That keeps to a minimum the amount of contaminated water that would have to be disposed of ... and that water stays in the room since there are no floor drains. Air is exhausted through a thick HEPPA filter designed to capture microbes in cellulose fibers.

In comments before the ribbon cutting, CSU President Larry Penley said the lab will help researchers protect human health against threats both now and in the future.

"The facility we dedicate today is a remarkable tribute to where we've been and where we're headed at Colorado State as an exceptional land-grant university," he said.

After a series of community open houses, which will be the last time residents will be allowed in the secure building, researchers will work with Level II projects in order to ramp up to Level III research.

It should be fully operational within four to six months.

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