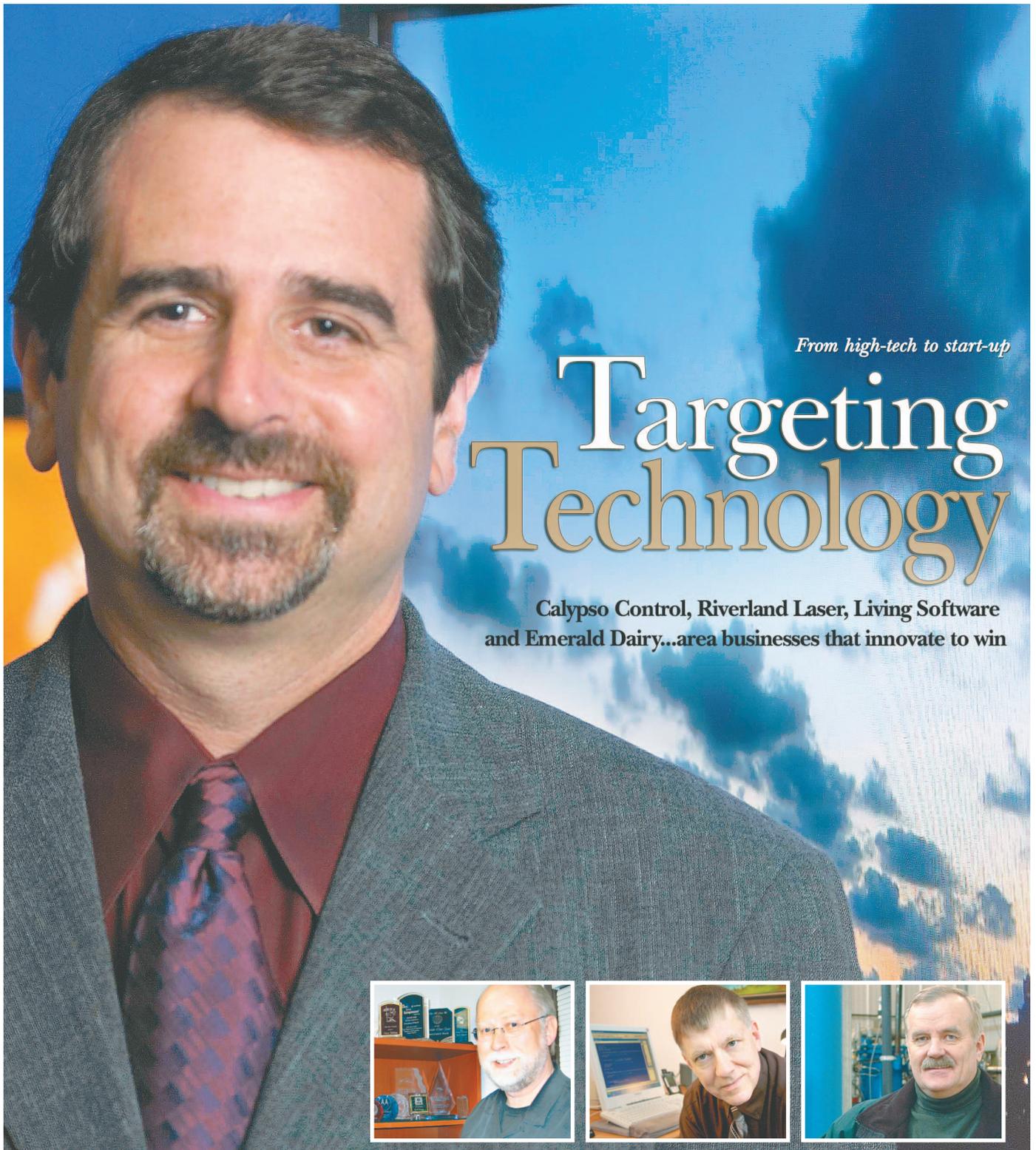


ST. CROIX COUNTY | WISCONSIN

Business Review

2007



From high-tech to start-up

Targeting Technology

Calypso Control, Riverland Laser, Living Software
and Emerald Dairy...area businesses that innovate to win



High stake Hogs

Spring Point pivotal in quest for diabetes cure

The security surrounding a new high-tech industrial complex in New Richmond could have some wondering if top-secret things are occurring inside.

But employees at the Spring Point Project's facility, located in western Wisconsin, aren't keeping their activities under wraps.

In fact, officials with the non-profit organization are getting worldwide media coverage for the work they're doing and they couldn't be happier.

Spring Point Project's facility is home to dozens of pigs, which will ultimately be used for future diabetes research. The 21,000-square-foot biosecure building will eventually be home to approximately 100 high-health, "medical-grade" pigs.

"Healthy, disease-free pigs, that's what we want," said Dr. Adrienne Schucker, veterinarian overseeing the care of the New Richmond pigs.

What the company and the University of Minnesota's Diabetes Institute for Immunology and Transplantation hope to prove is that islet cells from the pancreas of pigs can be used to cure diabetes in human patients.

Human-to-human islet cell transplantation has proven to be an effective tool in battling type-one diabetes. The prob-



■ The first pig to enter the barrier facility via the lock in the wall to the left, February 15, 2007. First diagnostic tests revealed the piglet is of high-health and pathogen-free.

lem in the past has been the limited supply of human islet cells, which must come from someone who has died. Researchers determined that pig islet cells, found in the pancreas, can also be used.

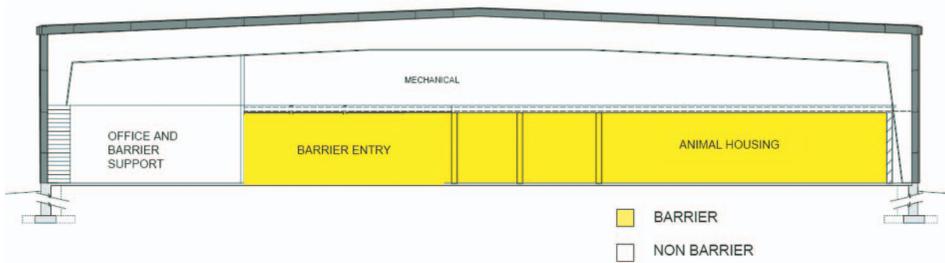
"Human islet cell transplants have reversed diabetes in 90 percent of our recipients," said Dr. Bernhard Hering, a world-renowned diabetes expert and sci-

entific director of the Diabetes Institute which may run pre-clinical and clinical trials with Spring Point Project. "However, the shortage of human donor organs greatly limits the applicability of islet transplants. Pig islets will solve this demand issue and are at the forefront of a far-reaching cure for patients with diabetes."

RESEARCH see page 13

Spring Point Project
www.SpringPointProject.org

RESEARCH *continued from page 11*



■ This cross-section through the DRWF Islet Resource Facility, Home of Spring Point Project, shows the biosecure barrier as a 'building within a building'

In earlier research, pig islets were harvested and transplanted into 12 diabetic monkeys in University of Minnesota labs. The procedure reversed the disease in the animals and the monkeys began producing sufficient insulin on their own.

Once Spring Point gets Food and Drug Administration approval to continue, transplantation of pig islet cells into humans can begin. Officials hope those initial "clinical trials" will begin within three years.

Few people are allowed beyond the doors of the bio-secure pig house.

Once clinical transplant trials are conducted, researchers with Spring Point expect that mass production of pig islet cells will begin and the devastating disease could be cured.

In the interim, however, FDA regulations require the New Richmond facility to raise extremely healthy pigs. If the pigs' islets are to be transplanted into human

patients, federal regulators don't want any diseases to be transferred as well.

To keep disease out of the facility, Spring Point constructed a "building within a building," according to Dr. Henk-Jan Schuurman, chief executive officer.

The New Richmond facility was constructed thanks to a \$6.2 million grant from the Diabetes Research & Wellness Foundation, a Washington, D.C.-based non-profit dedicated to finding and funding a cure for the disease. To acknowledge this grant, the building got the name "DRWF Islet Resource Facility, home of Spring Point Project."

The building was completed quickly, as the City of New Richmond worked cooperatively with Spring Point to gain the necessary approvals in a short time frame. The operations started in February 2007, when the first piglets were successfully delivered into the building.

"We're moving closer to a cure for diabetes as a result of everyone's efforts," said Tom Cartier, president and chairman on the board of Spring Point Project.

Michael Gretschel, volunteer president of the Diabetes Research & Wellness Foundation, said his organization was thrilled to be part of the new research facility.

"I like to refer to the Spring Point Project as the beginning of the end," he said.

The structure which houses the pigs is effectively sealed off from outside air and potential contamination. The facility is divided into a number of "houses" where the pigs are kept, and each house has a separate air handling unit.

Pigs entering the facility are born by c-section in a surgical suite that rivals any hospital. Once born, the piglets are immediately passed through an airlock so as to limit their contact with the sow. The piglets then spend several weeks in a "nursery," where they are monitored for any potential problems and diseases.

Any visitors to the facility must don a smock, hair net, booties and goggles to keep contaminants at a minimum. Few people are allowed beyond the doors of the bio-secure pig house.

Approximately 246 million people are affected worldwide by diabetes. About 20 million diabetic patients live in the U.S.

If the transplant effort works, Spring Point backers hope to relieve patients of the day-to-day burdens of insulin administration and threats of high and low blood sugars that cause deadly complications – from blindness to heart attacks, strokes and kidney failure.

For more information on the project and the facility, visit www.SpringPointProject.org.

(Story and photos by Jeff Holmquist, New Richmond News, jholmquist@rivertowns.net)