

Bioscience company will soon be hiring more staff

by Heidi Riley

Bioscience - Improving Human Health

Imagine working to develop a promising new cancer drug - right here on PEI!

Nautilus Biosciences Canada Inc. is a bioscience company at the **Joan and Regis Duffy Research Centre**, located on the UPEI campus.

The National Research Council Institute for Nutrisciences and Health is located at the centre. It provides space and equipment for bioscience companies to develop academic discoveries into commercially viable technology.

Job opportunities

Nautilus will be hiring four to six junior researchers within the next six to eight months. They will be looking for candidates with a Bachelor of Science or a community college Bioscience Technology diploma.

What does the company do?

It has been known for years that corals growing at the bottom of the ocean produce chemicals that can improve human health. Nautilus is using technology developed at UPEI to produce large quantities of these chemicals, which can be made into highly-promising cancer fighting, anti-inflammatory drugs, as well as other bioproducts.

The chemicals are made by bacteria that lives in coral. "That discovery can be commercialized," says **Dr. Russell Kerr**, the CEO of Nautilus. "We can cut a one-inch branch of coral, bring it to the lab, purify the bacteria responsible for producing the compound, and then grow the bacteria and produce as much of that compound as we need."

Another component of the company discovers new natural products that can benefit human health. Land-based organisms have been used for years, and now more discoveries are being made in the oceans.

"We collect samples in waters off PEI, the Bay of Fundy, Newfoundland, and Barbados," says Dr. Kerr. "The very best source of new drugs comes from bacteria called *atinomycetes*. Most of these bacteria come from soils, including marine sediments. We could develop a new cancer drug, anti-bacterial or anti-inflammatory agent from sediment in the Bay of Fundy!"

The role of the biotech company

In 2003, Dr. Kerr started a company called Nautilus BioSciences while living in Florida. He started the company to bridge the gap between an academic discovery and making it commercially viable so that it can attract the attention of a big pharmaceutical company. "The big company can take the project further by investing the millions of dollars it takes to conduct clinical human trials before a new drug is ready for market."



Dr. Russell Kerr holds a sea sponge in his office at the National Research Council Institute for Nutrisciences and Health in Charlottetown. His company, Nautilus, is working on commercializing a method of producing cancer-fighting or anti-inflammatory drugs from sea organisms.

In 2006, Dr. Kerr closed down the lab operation in Florida to move to PEI. He started a related company called **Nautilus Biosciences Canada**, which was incorporated in 2007.

Staff

Besides Dr. Kerr, two other partners help run the company. **Don Ridley**, who has a PhD and has worked in a senior position in a pharmaceutical company, handles Business Development. A third partner is **Stan Kim**, who is a Patent Attorney and a PhD. Three senior staff from the academic lab provide the technical expertise in microbiology and chemistry.

Right now there is just one full-time employee. Katherine Ballem is a full-time scientist working at the bench in the lab. She has a BSc in Chemistry at UPEI. She also had relevant job experience from another biotech company on the Island.

How do they hire?

"The company is only as good as the people in the lab, so we will have to work really hard to get the right people," says Dr. Kerr. "We plan to advertise, and networking is also important. We hired Katherine after meeting her at a PEI BioAlliance social event. The **Prince Edward Island BioAlliance** is an incredible networking resource."

Another way of job searching is through on-the-job training. Students of the Biotechnology program will have job placements with PEI biotech companies. Dr. Kerr says this is a good way for students to prove themselves and get employers to become aware of their skills and abilities.

Awards

In June, Dr. Kerr was awarded the Premier's Medal of Innovation. He is a UPEI professor and Canada Research Chair in Marine Natural Products in the departments of Chemistry and Biomedical Sciences at the Atlantic Veterinary College.

Why choose PEI?

Dr. Kerr received his BSc (Chemistry) and PhD (Organic Chemistry) at the University of Calgary. He completed his postdoctoral fellowship at Stanford University in California. He worked for 15 years at Florida Atlantic University, where he helped develop a new Centre of Excellence for Marine Biotechnology. After being part of large universities in large centres, he was happy to move to PEI.

"Part of the reason I decided to move here was to be part of this institute," says Dr. Kerr. "I came here as a professor, and it's a bonus to be part of this building, which houses university people, a brand-new NRC institute and Agriculture and Agri-Food Canada. It's great to be part of this young, energetic, very bright group of people who are focused on an area I've been working in for 20-odd years.

"As a Canada Research Chair, I can focus on research. Having the job security, the research budget, and being part of this exciting new institute were huge draws.

"Another part of it was the PEI factor. My wife and I had a sense that it would be a great place to live and a great place to raise a family. When we moved here, our two boys were five and seven. Part of the lure was the privilege of raising a family on PEI. This is a nice safe supportive community.

"Ten years ago, if you had a Masters in Microbiology, it would be crazy to move to PEI and hope for a job in your field," says Dr. Kerr. "But things have changed. There are 30 bioscience companies on PEI now, and the new BioCommons will open in two years. There are very promising signs that there will be a big influx of new companies that will be hiring."



For more information, visit www.upei.ca and search **Nautilus**. Dr. Kerr can be reached at rkerr@upei.ca

To explore Bioscience companies and research on PEI, visit www.peibioalliance.com

www.employmentjourney.com