



Trudeau TB Researcher Named Francis B. Trudeau Chair

Traveled to China in September to Form New Research Partnership

It's been an exciting year for Trudeau Institute faculty member **Dr. Andrea Cooper**, an expert in the cellular immune response to the most common cause of TB. In September she traveled to China hoping to form an important research partnership. In October she was named the inaugural **Francis B. Trudeau Chair in Tuberculosis and Related Research** by the Institute's Board of Trustees.

The Trudeau chair was established in 1994 in recognition of Dr. Frank Trudeau's 40 years of dedicated service to the Institute. Said Dr. Cooper following the announcement:

"During my 10 years at the Institute, my research has developed tremendously; this bears witness to the vision of Dr. Trudeau in developing this center for quiet contemplation from the sanitarium and research laboratories started by his grandfather and maintained by his father.

"Tuberculosis research at the Institute is returning to its roots as we pursue patient-based studies in populations throughout the world. I hope Dr. Trudeau would be pleased to think that the Institute he created can be the center of an international program that we hope will change the way we treat this most persistent and damaging disease."

In keeping with that vision, Dr. Cooper visited Shenzhen, a major city just north of Hong Kong, last fall to meet with tuberculosis researchers in a clinical

setting in order to test the relevance of her research to actual patients. With few TB patients here in the United States, she needed to seek out partners overseas. China emerged as an ideal setting because, in addition to having many patients with active disease, it also houses state-of-the-art research facilities.

Dr. Cooper hopes to break new scientific ground by partnering with colleagues at Third People's Hospital; she also hopes their collaboration will help ease the suffering of current TB patients in China, where Multidrug-resistant tuberculosis (MDR-TB) is a serious public health threat. In addition to treating TB patients, the hospital is home

to a research institute that studies the disease.

According to Dr. Cooper, much of the tuberculosis research that interests her Chinese colleagues is similar to what her Saranac Lake team has been studying. She will send a member of her research team to begin working with the Chinese researchers in the near term. Likewise, scientists from Shenzhen hope to visit Dr. Cooper's lab this year.

Clinical success also could have an important byproduct for Dr. Cooper because of its potential to attract grant money from major funding organizations looking for more immediate impacts on a disease that in 2011 felled 8.7 million people worldwide and killed an additional 1.4 million.



Trudeau President, Director and CEO Ron Goldfarb presents a framed image of Dr. Frank Trudeau to Andrea Cooper at a reception honoring her recent appointment to the Francis B. Trudeau Chair in Tuberculosis and Related Research, while Dr. Cooper's son, Thomas Pearl, looks on.

Latest Discoveries from the Trudeau Institute

- An international contingent of immunologists, led by Trudeau faculty member Dr. Marcia A. Blackman, has established an experimental mouse model that has enabled researchers to answer fundamental questions about the biological origins of thrombocytopenia (a decrease in platelet levels which can lead to excessive bleeding) caused by gamma-herpes viruses (e.g., Epstein-Barr virus). Their findings were published in December in the scientific journal *Immunity & Ageing*.
- New research from the Trudeau Institute demonstrates that prior immunity—the result of a previous influenza infection or vaccination against the virus—plays a critical role in preventing secondary bacterial infections. Bacterial infections are a common occurrence that can lead to a number of serious complications, including death. The findings of Drs. Laura Haynes, Stephen Smiley and their Trudeau colleagues were published last fall in *The Journal of Immunology*.
- Trudeau Institute researchers have found a key mechanism that limits damage from the immune response to the influenza virus. The research was led by Dr. Erik L. Brincks in Dr. Blackman's lab and was published this April in *The Journal of Immunology*.
- New research from the laboratory of Dr. Andrea Cooper published in September in the *European Journal of Immunology*, holds promise for the improved prevention and treatment of bacterial infections and the life-threatening complications of chronic inflammation that can result from them.
- Researchers from the Trudeau Institute uncovered abnormal behavior in aging cells that helps explain the loss of previously acquired immunity. The findings were published in January in *Immunity & Ageing*.



Trudeau faculty member Dr. Elizabeth Leadbetter and research scientist Dr. Ekaterina Koroleva visit during a reception following the Scientific Advisory Board meeting in October 2012.

For more detailed information about these discoveries, visit the Trudeau Institute's website at TrudeauInstitute.org.

While you're there, please consider a gift to the Institute. You can make a secure online donation by going to the **Support Trudeau Institute** section on the website and clicking on the **Donate Online Here** button.

Thank you for your continued support!



Trudeau Awarded Gates Foundation, Northeast Biodefense Grants

In November 2012 the **Bill & Melinda Gates Foundation's Global Health Program** awarded the Trudeau Institute \$229,865 to support tuberculosis research. Trudeau faculty member **Dr. Andrea Cooper** was awarded the grant for her work using mouse models to develop an improved tuberculosis vaccine. The Gates Foundation is a major funding source for tuberculosis research, and its grants process is highly competitive.

Dr. Steven Smiley has been awarded grant funds for research to increase survival rates from life-threatening

bacterial infections. Dr. Smiley will be evaluating new strategies for improving patient survival after a bacterial infection. If successful, his strategy would work against many types of serious infections that spread throughout the body, including those caused by deadly weaponized or antibiotic-resistant bacteria. The research will be funded by a grant from the **National Institute of Allergy and Infectious Diseases (NIAID)**, via the **Northeast Biodefense Center**.

A Word from Dr. Ronald H. Goldfarb, President, Director & CEO

Thank you for your support of our research and continued interest in the Trudeau Institute.

Our faculty continues to pursue peer-reviewed grants, the backbone of revenues for most independent research organizations in the United States. Unfortunately, with less than 10 percent of these applications approved and funded prior to federal sequestration, an already challenging situation recently became much more difficult.

Since coming on board last October, my priority has been to stabilize and expand the Institute's financial base by diversifying our revenue sources. I have approached private foundations, reached out to pharmaceutical and biotech companies, and met with a number of individuals who share our vision and want to ensure the Institute's future economic well-being. I have also initiated a process to recruit new faculty and am delighted to report that one extremely well-qualified individual will be joining the Institute this summer. The Board and I are also exploring a number of strategic partnerships—both within and beyond New York State—that could go a long way toward safeguarding the Institute's future growth. All of these efforts have taken place while we work diligently with our state representatives to ensure their continued support of our recruitment efforts, which will help bring new jobs to the North Country.

I look forward to sharing more exciting news in the coming months about our future plans and efforts to secure E.L. Trudeau's legacy for generations to come.

The Inaugural Ralph M. Steinman Lecture

The Trudeau Institute hosted its inaugural **Ralph M. Steinman Memorial Lecture** on October 19, 2012. Michel C. Nussenzweig, M.D., Ph.D., Head of the Laboratory of Molecular Immunology at The Rockefeller University, presented the topic "Antibodies in Immunity and Cancer" to a gathering of faculty, friends, the Steinman family, and interested members of the local and scientific communities at Trudeau's Founder's Library on its Saranac Lake campus.

A preeminent cell biologist and chairman of the Trudeau Institute's Scientific Advisory Board, Dr. Steinman was awarded the 2011 Nobel Prize for Medicine for his work on the human immune response. At the time of his death, he was the Henry G. Kunkel Professor and director of the Laboratory of Cellular Physiology and Immunology at Rockefeller and a senior physician at Rockefeller University Hospital.



L-R: Liz Leadbetter, Mithilesh Jha, Adam Steinman with daughters Isadola and Syla, Claudia Steinman, Michel Nussenzweig, Ursula Trudeau, Ron Goldfarb, Markus Mohrs, Laura Haynes, Larry Johnson, Andrea Cooper, Alan Sher, and Alexei Tumanov.

Two New Trustees Elected

The Trudeau Institute board of trustees elected **Daniel P. Leff** and **Robert A. Curtis** at its annual meeting in October 2012.

With more than 30 years of extensive operating experience building, leading and transforming global energy services businesses, Dan Leff serves as Chief Executive Officer and Director of Hara, an enterprise software company providing energy and sustainability solutions to a global clientele. He also serves on the firm's board of directors. A graduate of Union College, Mr. Leff previously held executive positions with Clayton Dubilier & Rice, Invensys, and Enron Energy Services. He presently serves on the boards of Viridity Energy and Lake Placid Sport Forum. Mr. Leff resides in Lake Placid with his family.

Bob Curtis is principal of Curtis Consulting & Communications LLC in Mashpee, Massachusetts. He previously spent

five years as CEO of the nonprofit Regional Technology Development Corporation of Cape Cod, established by the Commonwealth of Massachusetts to stimulate the technology-based economic development of marine, environmental and healthcare technologies from local research institutions. Dr. Curtis has extensive experience raising venture capital and leading commercialization efforts to bring new technologies to market. He has a BS from Massachusetts College of Pharmacy, a PharmD from the University of Missouri-Kansas City, and an MBA from Columbia University.

Said newly-elected Vice Chair **Patricia Y. Tsien** following the October meeting: "Mr. Leff and Dr. Curtis bring tremendous capabilities in business, operations, science and technology transfer, and we look forward to their active engagement with the Trudeau Institute."

A Piece of Trudeau History

The long, harsh Adirondack winters have left our beloved “**Little Red**” -- the first of the Adirondack Cottage Sanitarium buildings built in the 19th century, and now located on the Trudeau Institute campus -- in need of a major roof restoration. If you're interested in helping fund the repair of this cherished local landmark, please consider making a gift to the “Trudeau Institute” and note that it is intended for “Little Red.” Thank you!

In July 2012, a maple tree (photo, right) was planted to honor **Fred Morgan Kirby II** (1919-2011), whose foundation has generously supported the Trudeau Institute for many years. The tree is marked with a plaque in Mr. Kirby's memory and is situated next to Little Red,

facing Trudeau's main entrance.



Lilo Guggenheim Levine, tuberculosis survivor and longtime donor to the Trudeau Institute, shared the story of her recovery from TB while viewing the inside of Little Red with relative **Peter Lawson-Johnston** (photo, left) during his visit to Saranac Lake last fall. Lilo recently made the inaugural donation for the roof repair of Little Red. Peter is a third cousin of Edmond Guggenheim, who donated the property on which the Trudeau Institute stands today.



The Trudeau Institute's fundamental research on immunity fosters the development of vaccines, treatments and cures for many life-threatening diseases, including cancer, tuberculosis and influenza.