

COMING TO CANADA

EDUCATION

PEOPLE

INSPIRING PROFILES

Giao Châu 📅 24 HOURS AGO 👁 104

Amid constant social and technological changes, Canada's researchers are working to examine the complexities of life on this planet. Even though their fields of expertise are wide-ranging, from medicine and ecology to anthropology, their tenacity, creativity and curiosity has fueled impactful results and inspires other budding researchers to follow in their footsteps.

Here are some of the trailblazers featured in Universities Canada's annual celebration of international research award winners.

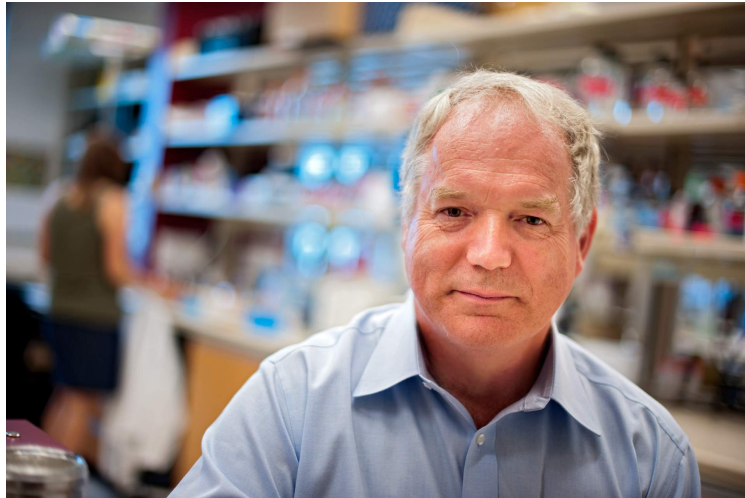


Photo Credit: Michael Holly @University of Alberta

Dr. Michael Houghton

Dr. Michael Houghton in his lab at Li Ka Shing Institute of Virology

University of Alberta professor Michael Houghton won the [2020 Nobel Prize in Physiology or Medicine](#), along with Dr. Harvey Alter and Dr. Charles Rice, for the discovery of the hepatitis C virus (HCV). As the director of the Li Ka Shing Applied Virology Institute, Dr. Houghton is also leading a team at the University of Alberta to develop a COVID-19 vaccine.

According to the [World Health Organization](#), hepatitis C is a bloodborne liver disease that affects 71 million people worldwide, many of whom eventually develop cirrhosis or liver cancer. Most HCV infections are asymptomatic, and people could carry the virus and spread to others through blood transfusion without knowing. Dr. Houghton's work will pave the way for an accurate screening test for HCV and ultimately a vaccine that could prevent future infections.

Dr. Houghton's advice to students is to think carefully about what they want in their professional life and find their passion. To him, hard work is not really hard work when you enjoy what you do.



Photo Credit: Michael Holly ©University of Alberta

Dr. John Cherry

Dr. John Cherry is the first Canadian to receive the world's two most prestigious water awards, the Lee Kwan Yew Water Prize in 2016 and the [Stockholm Water Prize in 2020](#), for his research on groundwater. He created "contaminant hydrogeology," an academic field that comes up with methods to monitor, control and clean up contamination caused by chemicals and waste that leaches into groundwater.

According to the [United Nations](#), rising temperature, sprawling urbanization and population growth will result in a 40 per cent water deficit worldwide by 2030. Despite making up 99 per cent of the planet's freshwater, groundwater is often overlooked. Through his work, Dr. Cherry encourages more curiosity about water in the educational system. Last year, he launched [The Groundwater Project](#), an online not-for-profit platform that provides educational materials on groundwater in multiple languages, with the participation of more than 400 experts from around the world.

Dr. Cherry is an Adjunct Professor at the University of Guelph and Emeritus Professor at the University of Waterloo.



Dr. Shaylih Muehlmann. Photo courtesy of Dr. Shaylih Muehlmann

Dr. Shaylih Muehlmann

Dr. Shaylih Muehlmann is a Canada Research Chair in Language, Culture and the Environment at the University of British Columbia and has won various accolades for her work as an anthropologist. In 2020, she was awarded the [Guggenheim Fellowship](#) for her research on environmental conflicts and the impact of drug trafficking on the wider society.

Her book, [“When I Wear My Alligator Boots,”](#) unveils the daily lives of the rural underclass along the US-Mexico border, where narco trafficking plays a significant economic and cultural role. The funding from the fellowship will allow her to explore this subject further and focus on the resilience of Mexican women experiencing the ruthless drug wars.

Dr. Muehlmann’s research motivation stems from the vast and fascinating varieties of human experience and her belief that understanding other perspectives of the world can help build more just and open societies. Her advice to students aspiring to pursue academia is to find a subject that they are interested in but also one they know is important.



Dr. Daniel Pauly. Photo credit: Alison Barrat

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Dr. Daniel Pauly is the principal investigator of the [Sea Around Us Project](#), a research initiative he founded at the University of British Columbia to study the impact of fisheries on the world's marine ecosystem. The project is built upon Dr. Pauly's earlier achievement, an online encyclopedia named [FishBase](#) containing information on more than 40,000 fish species.

In 2020, Dr. Pauly won the [BBVA Foundation Frontiers of Knowledge Award in Ecology and Conservation Biology](#), for his contribution to our understanding of the world's depleting fish stocks. His records collection method includes data often overlooked in official statistics, such as illegal fishing or small-scale fisheries. This offers more insight into overfishing and allows policymakers to take appropriate mitigating actions.

Dr. Pauly is a UBC Killam Professor, the highest honor the university confers on a faculty member who has achieved exceptional work with international recognition. After a decades-long career, his advice to students is simple: "One should have friends, and work hard."

His biography, "The Ocean's Whistleblower – The Remarkable Life and Work of Daniel Pauly" will be available in September.



Dr. Chelsea Rochman (in dark t-shirt, third from left) in her field trip to Vietnam. Photo courtesy of Dr. Chelsea Rochman.

Chelsea Rochman

Dr. Chelsea Rochman is an assistant professor at the University of Toronto's Department of Ecology and Evolutionary Biology. In 2020, she won the [Sloan Research Fellowship in ocean sciences](#), which will allow her to advance her study of the impact of plastics pollution and climate change on our ecosystems.

Dr. Rochman co-founded the school's [Rochman Lab](#), which explores how pollutants such as microplastics travel through water systems to inform policymaking. It also conducts community outreach to increase waste literacy. In one of her projects, she assessed the vulnerability of the

communities surrounding **Xuân Thủy National Park** in Northern Vietnam and shared the knowledge with local partners so they could develop their management strategies. As someone who developed an interest in conservation at a young age, Dr. Rochman encourages students to be confident about their aspirations and get involved early and often to expand their network. She explains, "Each opportunity was a next step leading from a person I connected with or an activity I participated in. If you know what you are passionate about, it's never too early or too late to get started."

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