When Trent was founded in 1964, the seeds for excellence in innovative research and teaching were planted in the spirit of creating a world-class university. As the University has evolved over fifty years, Trent has been engaged in cutting-edge research in pivotal areas like humanities and culture, the environment, and healthy and sustainable communities. “Trent has always been a really fertile and open-minded place, where people are willing to experiment,” said Dr. Neil Emery, vice-president of Research and International. “Without strict boundaries around disciplines, faculty members feel like they can do almost anything to succeed.”

Fertile ground for research

As Trent celebrates its 50th anniversary throughout the 2014-15 academic year, the University’s faculty, staff, students and alumni reflect on five decades of uniquely interactive learning. Often, it is the connection between research and teaching that takes place at Trent that makes it shine – an outstanding faculty publication record, and attracting top research grants in the sciences, social sciences and the humanities, all speak to fifty years of excellence.

Engagement from the Peterborough community and academic leaders committed to research created an ideal place for both young and established faculty members to initiate new programs. The ingenuity of those researchers who were attracted to Trent has resulted in an interdisciplinary hub of knowledge, establishing facilities such as the Water Quality Centre, an international centre for aquatic science, and the Trent Centre for Aging and Society, which has received widespread acclaim for its integration of faculty from Sociology, Psychology, the Trent/Fleming School of Nursing, English Literature, Gender & Women’s Studies, Geography and Canadian Studies. That expertise is also reflected in the quality of teaching and learning for Trent students.

“Research connections made by our faculty around the world lead to opportunities for undergraduate and graduate students to work in labs and research centres and undertake exchanges,” Professor Emery said. “Students also benefit when faculty bring experiences of their global travels back into the classroom to address topical, urgent issues.”

Applying research to critical issues in society

The interdisciplinary aspect of Trent’s research and teaching model is a key factor in attracting star faculty members who will challenge the way their students think and learn, and contribute to global knowledge. Faculty members build broad and strong networks with colleagues across a multitude of fields, each person bringing a new strength.

“In the sciences, we’re analytically very strong, but we speak the language of social sciences and humanities as well, which allows us to have a two-way relationship between different disciplines,” Prof. Emery said. “Faculty in the social sciences and humanities may learn what is possible from science and technology, and scientific faculty gain awareness of current issues in government relations, policy development, and international affairs. Partnerships like these are helping Trent to develop further expertise on socially-relevant cross-disciplinary topics like global warming, poverty, Indigenous issues and aging demographics. “The adaptation of society to major political, social, economic and environmental change is a theme of research at Trent,” Prof. Emery said. “These efforts will allow Trent to engage in the community and at a new level in Canadian research.”

Looking to the future, the University’s Strategic Research Plan for 2014-2018 will leverage Trent’s existing strengths to expand its capacity for interdisciplinary research in order to reach new levels of excellence. Speaking of the plan, Prof. Emery said, “We are building on our current strengths, including our active research centres, Canada Research Chairs, and many successful awards from the Canada Foundation for Innovation – those speak loudly to where our expertise exists currently and also to our emerging strengths.”

With a distinctive research plan in place and a strong history of research excellence, Trent is poised to continue to make a name for itself throughout the next 50 years and beyond.
Professor emeritus Dr. David Lasenby can trace the origins of his career as an aquatic researcher back to one night as a Trent student aboard the TURTLE, a floating laboratory which cruised the Trent-Severn waterway in the 1960s as part of a fledgling university that had yet to make its mark.

“Imagine a houseboat with ‘Trent University’ on its side, floating around the Kawarthas, exposed to cottagers and tourists. It may have been helping to raise the profile of a small, new university,” Professor Lasenby suggested.

The Trent University Research and Teaching Lab, christened as the TURTLE, was launched in 1965 through the work of Dr. Roy Edwards, the first chair of the Biology department. It was supported through a research grant from the National Research Council, another first for Trent. The houseboat provided researchers with a stable platform for sampling, and carried equipment so aquatic samples could be analyzed on site.

For a university barely one year into its existence, it was a novel idea.

At the time, Prof. Lasenby, a member of Trent’s first class, was an undergraduate Biology student assisting with the aquatic research.

“I’ve always felt that hands-on fieldwork, getting your feet wet, was essential.”

“One night, we were collecting samples on Stoney Lake and we pulled up a specimen we couldn’t identify,” he said. “Dr. Edwards recognized it as a freshwater shrimp. Later, as a Ph.D. student in Toronto, I remembered that discovery and based my thesis on a comparative study of freshwater shrimp in the Arctic and the Kawarthas.”

An ideal platform for aquatic research

Like Prof. Lasenby, the TURTLE had a profound impact on all of the students who had the chance to learn from it (and on it). Several went on to pursue careers related to water biology, including Prof. Lasenby, who returned to Trent as a faculty member in 1971.

“I’ve always felt that hands-on fieldwork, getting your feet wet, was essential,” said Prof. Lasenby, who credits his experience on the TURTLE for influencing his teaching style. “Students need this type of exposure to better understand and critically evaluate the numbers they are looking at in the laboratory and in the literature.”

“Trent is one of the best places, anywhere, to teach and do research in freshwater ecology,” he said. “There is an enormous variety of water bodies nearby, in part because we sit on the edge of the Canadian Shield.”

The people make the University

The introduction of the Watershed Ecosystems graduate program (now Environmental and Life Sciences) in 1976 was another milestone which helped to attract world-class faculty to teach at Trent.

“Over the years, we’ve brought together the faculty who are good at what they do and are able to work collectively to achieve a common goal,” said Dr. Chris Metcalfe, professor of Environmental and Resource Studies and chair of the Institute for Watershed Sciences.

“Trent is one of the best places, anywhere, to teach and do research in freshwater ecology,” he said. “There is an enormous variety of water bodies nearby, in part because we sit on the edge of the Canadian Shield.”

Dr. John Wadland, professor emeritus, Canadian Studies, founded Trent’s iconic “Canada: The Land” course in 1972.
Dr. Ray March has come a long way from his humble beginnings – not unlike Trent University. In 1965, Professor March took a chance by accepting a tenure-stream position at a newly-established Trent. Eighteen years later, his decision to join Trent and pursue basic research resulted in the commercialization of a new, low-cost form of mass spectrometry technology known as quadrupole ion trap mass spectrometers. When combined with a gas chromatograph and a new desktop computer, and using a new method of mass-selective axial ejection of ions introduced by Finnigan Corporation, the user-friendly quadrupole Ion Trap Detector (ITD) instrument brought about a revolution in the field of mass spectrometry. Today, the 3D-quadrupole ion trap mass spectrometer is used in almost every well-equipped university and research facility around the world.

**Building a legend**

Prof. March’s intense study of mass spectrometry began in 1972, during a year-long sabbatical in France, where he researched a new technique used to weigh the mass of ionized molecules. He became fascinated by the quadrupole ion trap, which had appeared in a patent by Wolfgang Paul (Nobelist, 1989), but was not available commercially, and its potential to replace larger, more labour-intensive equipment. He began a collaboration with fellow Leeds University undergraduate, Dr. John F.J. Todd at the University of Kent in Canterbury UK, which led to joint and individual research publications, student visits, seven books, and continues 40 years later.

Upon his return to Trent, Prof. March decided to build his own quadrupole ion traps with his students and workshop colleagues, Wayne King and the late C.G.S. Stuart. In 1989, Professors March and Todd and Dr. Richard Hughes co-authored the groundbreaking paper, *Quadrupole Storage Mass Spectrometry: the culmination of 15 years of research and the first-ever publication devoted solely to the theory and practice of quadrupole ion trap devices*, which led directly to the creation of mass spectrometer technology used now in cutting-edge research.

**Trent: a place for the meeting of the minds**

From his office adjacent to the world-class Water Quality Centre at Trent, Prof. March today reminisces about his career as an internationally-recognized chemist and educator. Joining Trent in its infancy in 1965 had been a leap of faith, but he was attracted by the one-year-old university’s ambitious plans.

“I thought it might be worthwhile to be a part of the creation of a university,” says Prof. March, who was originally interviewed by founding president Tom Symons.

Prof. March built his research program over the years, starting with the first spectrograph purchased for him by the University for $3,000. He supervised a small number of Masters students working on theses, and kept in touch with his former colleagues around the world, most notably his own Ph.D. supervisor, Dr. John Polanyi, who would be awarded the Nobel Prize in 1966. Now the University’s state-of-the-art Water Quality Centre is home to 16 mass spectrometers, including new two ion-trapping instruments, supporting developments in the health sciences, environmental sciences, and the agriculture and food industries.

**Taking mass spectrometry out of this world**

Over the course of his career, Prof. March’s influence on the field of mass spectrometry has reached far beyond the labs at Trent. Most recently, to the far reaches of outer space. Ten years ago, a facsimile of the original quadrupole ion trap mass spectrometer constructed by Prof. March was placed on the Rosetta “Comet Chaser,” which, on November 12, 2014, achieved its decades-long mission and landed successfully on the comet 67P/Churyumov-Gerasimenko. The Lander is now using the quadrupole ion trap mass spectrometer to determine the chemical composition of the comet and isotope ratios for H, C, N and O. This information – never collected before – will expand our understanding of the universe and the creation of the earth.

Humby speaking of the role he has played in this groundbreaking mission, Prof. March says: “It is all very exciting to have pioneered the construction and development of a powerful analytical instrument that has been included in the Rosetta project. I am grateful to my students who had faith to labour with me in pursuit of the unknown.”

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**Dr. Shirley Williams worked with Trent students to develop first-over educational resources in the Nishinabeemwin language**

through scientific understanding, and through different world-views, particularly Indigenous and European,” he says. “In 1972, we were beginning to seriously reconsider our relationship with the land, and that has deepened since then as ecological crises become bigger and more difficult to wrestle with.”

Describing the classroom as a shared community experience, Prof. Waadland says students can expect “The land is not merely the stage on which the human drama is enacted; it’s the leading player in the play” a conversational environment featuring fascinating visitors, noting that celebrated author Margaret Laurence was a regular attendee. Prof. Bowie says the course is helpful for students wishing to build a broad foundation for future study and work. He should know: as a Trent undergrad, he took the course under Prof. Waadland. “My experience in the course set me on the direction of research that I’ve taken since then,” Prof. Bowie says.

When a series of suicides rocked her small community on Manitoulin Island, Dr. Shirley Williams “I had an epiphany, leading her to realize what her life’s work would be. Professor Williams, now professor emeritus in Trent University’s Indigenous Studies department, experienced first-hand the alienation of being cut off from her community and being forced to deny her language and culture, when she was placed in the residential school system as a ten-year-old girl. She never forget her father’s parting words to both “remember who she is” and to “remember her language,” and has spent much of her career working to preserve and revitalize her mother tongue from the Wikwemikong First Nation.

“My mother used to say: ‘What are you going to tell the creator when you leave this world and answer him what have you done for your community?’” Prof. Williams said. “I thought, ‘If I know my own language and culture, I can contribute.’ Thereafter, everything led to language.”

“All these re-creative activities reflect the revitalization of Ojibway Nishinabeemwin thought and language, the rebirth of our cultural identity as a people. Putting these into practice is equivalent to regaining our voice, recovering ourselves, reclaiming our landscape, and re-imaging our place in the cosmos.”

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**Incorporating the student voice**

After completing a B.A. in Indigenous Studies at Trent University and a Native Language Instructors diploma from Lakehead University, she was hired in 1986 by Trent as an Ojibway language teacher. The first Indigenous person in Canada to achieve the rank of full professor based on her traditional knowledge, Prof. Williams continues to engage in ground-breaking research and development in the field of knowledge preservation.

“I started from scratch,” she recalls. In keeping with her traditional learning, she turned to the students to develop her curriculum through collaboration. “The Nishinahde do not say, ‘This is what you must learn,’” she explains. “We ask: ‘What is it you would like to learn?’”

Building on research she began in 1986, Prof. Williams created the Revitalization of the Nishinabeemwin Language Project to develop much-needed educational resources, including a dictionary, textbooks and an interactive language instruction program – all in Nishinabeemwin. Prof. Williams believes that written materials play an essential role in the revitalization of the language and, through it, the culture, particularly for those who lost their language through their residential school experiences.

Reflecting on over a quarter-century of work, Prof. Williams is proud to have been a part of preserving her language, and grateful that she never lost the language that has been so central to her life.

“All these re-creative activities reflect the revitalization of Ojibway Nishinabeemwin thought and language, the rebirth of our cultural identity as a people,” she said. “Putting these into practice is equivalent to regaining our voice, recovering ourselves, reclaiming our landscape, and re-imaging our place in the cosmos.”
Dr. Tim Cook, one of Canada’s foremost historians, wasn’t sure he wanted to devote his life to the study of history — until he came to Trent.

With both parents as historians, Dr. Cook arrived at Trent in 1990 with an open mind about his undergraduate degree options. It was the faculty members he met in the History department whose passion for their subject and for teaching drew him in. “Professors like Dr. Stuart Robson, Dr. John Syrett and Dr. John Jennings were so dynamic,” Dr. Cook says. “The mentorship they offered, and the chance to learn from experts, was the draw for me.”

“We want students to become good writers, to read widely and to be able to synthesize their thoughts. Those are skills that I didn’t have when I came to Trent, but I did when I left.”

The political and cultural situation of the early 1990s was rich with possibility for Dr. Cook as a budding scholar. “It was a really interesting time for Canadian history — it was after Meech Lake, things were falling apart,” he says. “I thought I might become a constitutional historian. But then I took a class on the world wars with Stuart Robson — that put me on the trajectory that I’m on today.”

Finding a home at the heart of the Canadian historical scene

After attending Royal Military College for a master’s degree and pursuing his doctoral degree in military history, Dr. Cook has landed at the heart of the Canadian historical scene: working at the Canadian War Museum in Ottawa, where he has curated the First World War permanent gallery and other exhibitions since 2002. He also teaches at Carleton University, and has authored seven books, many of them award-winning, including Warlords, The Madman and the Butcher, Shock Troops, At the Sharp End, Clio’s Warriors, and No Place to Run. In 2013, he received the Queen’s Diamond Jubilee for his contributions to Canadian history and was awarded the Governor General’s Award for History (formerly the Pierre Berton award). His newest book, The Necessary War, is the first volume of a two book set to explore Canada in the Second World War. The second volume, Fight to the Finish, will be published next year.

As Dr. Cook reflects on his accomplishments, he credits his education at Trent University for preparing him for graduate work and his outstanding career in his field. “The program gave me a very strong foundation for all the other things I’ve done in my life,” he says.

Of the many skills he developed during his undergraduate degree, several have been key in his work. “The critical one, which I still hope is at the core of arts degrees, is being a good communicator. We want students to become good writers, to read widely and to be able to synthesize their thoughts,” Dr. Cook says. “Those are skills that I didn’t have when I came to Trent, but I did when I left.”

Equally important is the ability to present research — that’s where seminars come into play, he says. “The real advantages of Trent were those small intimate seminars. You’ve got to be able to defend your arguments and discuss them intelligently,” he says. “We had professors dealing face-to-face with students in first or second year. We got to know them personally. That was a tremendous push for me to improve as a student.”

“At Trent, everyone finds their own community — you find groups of like-minded people and that does so much to enrich the educational experience.”

Dr. Cook also has fond memories of his four years playing varsity rugby at Trent, where he built a strong camaraderie with his teammates, some of whom he is still in touch with 20 years later. “Those were other important skills that I developed outside of the classroom,” he says. “At Trent, everyone finds their own community — you find groups of like-minded people and that does so much to enrich the educational experience.”

Students have been actively involved in the development of the Digital Page Reader, with dozens serving as aides to Prof. Pollock on the project.

“The final annotated work is visually complex and often challenging for both scholars and people outside of academia to understand,” said Professor Pollock. “The Digital Page Reader will make it easier to review different versions of one piece of writing at the same time, so that readers can spend more time focusing on the content of the text itself.”

Making reading more active

The software program — named after P.K. Page, the celebrated poet and artist whose body of written work is the first volume of a two book set to explore Canada in the Second World War. The second volume, Fight to the Finish, will be published next year. No Place to Run, The Necessary War, will be published next year.

The process of editing text will become much easier thanks to Dr. Zailig Pollock and Trent graduate students.

Trent University has been at the forefront of interrogating cultural change since the 1960s, and the Public Texts graduate studies program is no exception. Founded seven years ago, the program is focused on taking well-known concepts and analyzing how new developments in communication have turned them on their heads. Past students have had the unusual opportunity to intern with small publishers, arts organizations, and even individual authors, showcasing the versatility of the program.
WHAT’S THE REAL STORY ABOUT HOW HUMANS AND NEANDERTHALS CO-EXISTED?

Anthropologist Dr. Eugène Morin believes that modern humans didn’t simply replace the Neanderthals – we may have actually mated with them. In a multi-author study in the prestigious journal Nature, Professor Morin contributed materials used to support the notion that Neanderthals and modern humans could have lived during the same time period, at least for long enough that the two groups would have engaged in complex cultural and genetic interactions.

How closely are we really related?
Collaborating with an international group of fellow archaeologists, Prof. Morin participated in a study that raises important implications for research into the cultural, technological and biological elements involved in the replacement of Neanderthals by modern humans.

“Interactions between distinct populations – even those as distinct as Neanderthals and early modern humans – are extremely complex and rarely result in simple and direct replacement of one group by another,” said Prof. Morin.

The paper provides a more refined timeline for the disappearance of the Neanderthal species from Western Europe than any previous research. The new data is consistent with his earlier research which suggested that Neanderthals experienced severe population decline as a consequence of extremely unfavourable climatic conditions, yet succeeded in maintaining genetic ties with other neighbouring populations, including the anatomically modern humans arriving from Africa. This process could have permitted the diffusion of Neanderthal traits into the modern human gene pool. These findings provided support to the hypothesis that Neanderthals contributed, although minimally, to the emergence of modern humans.

These findings provided support to the hypothesis that Neanderthals contributed, although minimally, to the emergence of modern humans.

The benefits of interdisciplinary conversation
Since taking a position with Trent University’s Department of Anthropology six years ago, Prof. Morin’s research has benefited greatly from interdisciplinary conversations with colleagues in other scientific fields. He is the first faculty member at Trent to be conducting research in the field, and the help he received from many individuals throughout the University has been a key factor in developing the studies that led to his latest publication.

“I have very fruitful discussions with Trent biologists and people from the Ministry of Natural Resources office on campus,” he said. “I learned a lot from them about herbivores, which were extensively exploited during the Paleolithic era.” This information was key to Prof. Morin’s assertion, published in 2008, that modern humans are related to early Neanderthals, and ultimately influential for his latest research.

For Prof. Morin, the publication of this paper is the culmination of many years of research into the disappearance of the Neanderthal species. Working on team projects of this kind across the globe provides many opportunities for the exchange of ideas and keeping up to date on the latest advances in the field, he said. “Pulling together all these data from a wide range of sites and regions is always a challenge, but the results are often quite productive.”

The next step, according to Prof. Morin, will be to reconcile these findings with the DNA evidence, a task that will require much more work – but Prof. Morin is up for the challenge.

NATIONAL LEADERSHIP IN RESEARCH EXCELLENCE

At Trent, eight faculty members hold Canada research chair positions with three more positions currently in recruitment, exemplifying the high level of research productivity and reputation of the University’s professors. Maclean’s ranked Trent as #1 in awards per full-time faculty, #1 in medical/science grants, and #5 in social science and humanities grants. According to the Higher Education Strategy Associates’ national survey, Trent has “by far the best publication record of any small-ish school in the country across all disciplines.”

CURRENT CANADA RESEARCH CHAIRS:

- Julian Aherne – Environmental Modelling
- May Chazan – Feminist and Gender Studies
- Céline Guéguen – Aquatic Sciences and Biogeochemistry
- Dennis Murray – Integrative Wildlife Conservation
- Bryan Palmer – Canadian Studies
- Mehdi Sharifi – Sustainable Agriculture
- Aaron Slepkov – Physics of Biomaterials
- Paul Wilson – DNA Profiling, Forensics and Functional Genomics

CRCS in RECRUITMENT:

- Indigenous Arts, Literatures and Performance
- Aging, Health and Life-course in Rural and Non-urban Canada
- Environmental Archaeology

*Currently undergraduate only.

2010s TRENT RESEARCHER SHINES LIGHT ON HUMAN CAUSE OF CLIMATE CHANGE

When it comes to climate change, there are almost as many theories and opinions as there are people to formulate them. But based on recent findings by Trent Geography professor Dr. Graham Cogley, the idea that humans should only share a small portion of the blame for climate change has been further discredited.

As part of an international team of scientists led by Dr. Ben Marzeion of the University of Innsbruck, Professor Cogley co-authored a study recently published in Science showing unambiguous evidence that human activities are having an increased impact on losses of glacier mass, a key symptom of climate change.

The team of scientists simulated glacier changes in Prof. Marzeion’s computer model of glacier evolution, using the Randolph Glacier Inventory, a database of nearly all glaciers on earth that was developed with the help of Prof. Cogley.

“Our finding is an independent nail in the coffin of the belief that climatic change is not mostly our fault,” Prof. Cogley said. “People who still believe that are running out of places to hide.”

“We [found] unambiguous evidence of a growing human impact on glacier mass loss,” Prof. Marzeion said. “Up to about 1950, glacier mass loss attributable to human activity is hardly noticeable, but the attributable percentage has increased steadily since then. We are very confident that it is now dominant, regardless of the fact that the glaciers would have lost some mass anyway.”

Dr. Graham Cogley is shining a spotlight on the causes of climate change.

Dr. Eugene Morin and his students dig to find the truth about our lineage as humans.

“People who still believe that are running out of places to hide.”
Unlocking the genetic code behind one of the most common neurodegenerative diseases known to humans was no easy task, but with the guidance of her professor, Ph.D. student Andressa Lacerda has made a key contribution to future medical research. Along with Biology professor Dr. Craig Brunetti and undergraduate Biochemistry student Emily Hartjes, Ms. Lacerda discovered the genetic factors that result in Charcot Marie Tooth (CMT) disease.

Published in scientific journal PLoS ONE, Ms. Lacerda’s research will lead to a better understanding of the disease, and provide clues for developing better diagnoses and treatments of CMT. The disease causes damage to the peripheral nerves of the arms and legs and eventually leads to muscle weakness and reduced mobility.

The research, undertaken by Ms. Lacerda with support from Dr. Brunetti and Ms. Hartjes, focuses on LITAF, a cellular gene that is used by the body to degrade and dispose of proteins. If proteins in the body aren’t properly broken down, old protein fragments can accumulate and damage cells. The inability to break down proteins has been linked to a number of neurological disorders.

Until now, little in-depth research had been done on the LITAF gene. These new findings could have far-reaching effects on the diagnosis and treatment of Charcot Marie Tooth Disease, which affects one out of every 2,500 people.

For example, Ms. Lacerda’s work demonstrated that while some mutations in LITAF completely change the location of LITAF in the cell, other mutations result in only a partial change of LITAF. This may lead to different clinical outcomes for patients depending on the type of LITAF mutation that they carry. Future research could link different mutations in the LITAF gene with different types of CMT, and therefore, to develop new forms of therapy targeted to each type of mutation.

Undertaking graduate-level research with real and groundbreaking implications for medical treatments was a wonderful opportunity for Ms. Lacerda, who began her research on the LITAF gene in 2011.

“Trent is known for having an amazing Environmental and Life Sciences program, but people don’t always realize that the University also has the capacity for this type of research. Being part of that and having my research showing that is amazing.”

Over 200 students entered Trent’s new Bachelor of Social Work (B.S.W.) program this fall at the University’s campuses in Peterborough and Durham, starting their journey toward making a difference in local communities. Through the development of clinical knowledge, critical thinking skills, and the awareness of social justice issues, the next generation of social workers will answer the call of the local agencies that need them.

Dr. Tara La Rose joined Trent this fall to spearhead the program at the Durham campus. She brings a wealth of knowledge and experience in post-secondary education to her new role, including 12 years of direct social work practice in areas ranging from homelessness to domestic violence.

“Trent’s commitment to community-based scholarship and experiential education, as well as the University’s renowned International Development, Indigenous Studies and Environment Studies programs, all tap into a number of emerging trends in social work education and practice,” Professor La Rose said. “This unique combination of resources suggests Trent has the capacity to deliver a B.S.W. program that will play a significant role in advancing the profession in a number of greatly needed areas.”

“The new Bachelor of Social Work program is an excellent addition to Trent’s wide-ranging program options and comes as a response to high demand for university-level education in this field,” said Joe Muldoon, head of Trent University Oshawa.

“The program will be especially successful in the Durham Region, one of Canada’s most socially and economically diverse communities in close proximity to the largest metropolitan area in the country.”
In keeping with Trent’s tradition of innovative research, Professor McIntosh, a faculty member at the Trent/Fleming School of Nursing, aims to better understand the knowledge girls bring to the vaccination decision and their participation in that decision.

Confusion about HPV, HIV and Gardasil

Studies show that many adolescent women are confused about HPV, with 15 percent believing incorrectly that HPV – the human papillomavirus – leads to AIDS. As many as 21 percent of teens surveyed think the vaccine protects them from HIV and other sexually transmitted infections. This misinformation could lead teen girls to neglect the use of protection against STDs. Alarmingly, Public Health Canada reports that young adult females ages 16-24 have the highest incidence of HIV diagnosis in Canada.

According to Prof. McIntosh, this gap in information poses a serious health problem, as well as an ethical minefield faced by the front line nurses who administer the vaccine to young patients. Many adolescents may not have adequate knowledge of the risks, benefits or alternatives to the vaccine in order to be adequately informed.

Prof. McIntosh’s study, entitled “A shot in the dark? The ethics of school based Gardasil vaccination programs,” will incorporate Ms. Dykeman’s thesis research, which focuses on gaining an in-depth understanding about the influences and information sources involved in young girls’ decision-making process regarding the Gardasil vaccine for HPV.

Students learning to be agents of change

As a nursing student, Ms. Dykeman was initially drawn to the topic after she encountered the trend first-hand during her time working with adolescent girls at PARN, Peterborough’s community AIDS resource network, which provides counselling and information resources on HIV/AIDS.

The issue inspired her to prepare an in-depth proposal to conduct her own research. As a result, Ms. Dykeman received one of Trent University’s first-ever Vouchers from CIHR.

“It’s really about giving the teens the opportunity to have the knowledge and ensure they are engaged in the decision-making process in ways that are healthy for them.”

Health Professional Student Research Vouchers from the Canadian Institute of Health Research (CIHR) in April. Her involvement in this research study, alongside Prof. McIntosh, enables her to see how evidence is developed and how research is published and conducted.

“The Trent/Fleming School of Nursing is committed to advancing nursing practices and achieving social justice. ‘Nursing is sometimes seen as exclusively clinical,’ Prof. McIntosh said. ‘This particular project shows that nurses are also engaged in research with social justice aims. We are building on Trent’s historic commitment to social justice by educating nurses to be agents for change.’

Challenge the common stereotype of older women as frail, disengaged, marginalized and apolitical, isn’t easy, but Dr. May Chazan is willing to give it her all.

Professor Chazan is among a number of internationally-recognized researchers at Trent who are challenging myths about old age, including an interdisciplinary group of faculty at the new Trent Centre for Aging and Society. As a Canada research chair (CRC) in feminist and gender studies, and a professor in the Department of Gender and Women’s Studies, she highlights the many important contributions older women are making in working for social change.

“The CRC position is an amazing opportunity to build a program of research and involve students in it, and Trent is a great place to do this,” said Prof. Chazan. “There’s a really terrific critical mass of feminist scholars here and an interest in aging.”

CRC engages students in cutting edge research

Along with her students, Prof. Chazan’s research explores networks of older women like the Raging Grannies and the Grandmothers Advocacy Network, and examines why and how they are organizing, with a specific interest in how they build solidarities across difference, both overseas and within Canada.

These studies are leading Prof. Chazan and her students deep into the community, where they conduct collaborative feminist research. Together, they document older women activists’ life stories, conduct focus groups to better understand how these women build coalitions, and spend time at gatherings, meetings and protests.

“I really hope this work will bring visibility to the many important contributions older women are making in working for social change, and that it will bring new understandings to how we might go about building intergenerational solidarities and coalitions across difference.”

Dr. May Chazan challenges stereotypes about older women.

Trent researchers have been celebrated and honoured on the national and international levels since the University’s inception in 1966. In 1986, the University decided that it was only fitting that we also begin to honour our best researchers internally as well, and created the Distinguished Research Award, the highest honour conferred by Trent for research and scholarly activity. For close to 30 years, this award has been conferred upon an outstanding Trent researcher annually in recognition of research excellence across the sciences, social sciences and humanities.

Dr. Fly I Presume?

What’s in a name? A lot, especially when you have a fly named after you. And if you are a researcher in the field of entomology, there may be no greater honour. Recently, Trent Biology professor Dr. David Beresford experienced this honour first-hand when a former student, Trevor Burt, discovered a new species of fly and named it after his former professor.

“Dr. Beresford was very influential in my training as an entomologist during my undergraduate degree, guiding my thesis work and several reading courses,” Mr. Burt said. “He was also instrumental in my efforts to gain entry to a master’s program at Carleton University.”

After receiving his Bachelor of Science degree in Biology from Trent in 2012, Mr. Burt joined the Entomology program at Carleton and is now conducting research at the Canadian National Collection of Insects, Arachnids and Nematodes under Dr. Jeff Skewington and Dr. Jeff Dawson. Along with Dr. Skewington and Dr. Dawson, Mr. Burt published the discovery of the new species from the southern United States, Stylogaster beresfordi, in the scientific journal The Canadian Entomologist in July 2014.

In 2009, the RBC Blue Water Project awarded $500,000 in funding to experts at Trent’s Institute for Watershed Science and the Indigenous Environmental Studies program to develop the “Protecting Drinking Water in Indigenous Communities in Canada’s North Program,” with the support of the RBC Foundation and in partnership with Fleming College.

Supporting Indigenous Knowledge

The program’s goal is to enhance capacity within northern Indigenous communities to ensure that their natural sources of water are protected from threats that could degrade the quantity and quality of drinking water. Working in collaboration with Indigenous organizations, non-governmental organizations and other educational institutions, Trent experts assisted in offering capacity-building activities to local communities, aiming to increase awareness and enhance technical and lay expertise for multi-barrier approaches to the protection of drinking water.

“The unique aspect that Trent and our partners and collaborators bring to this project is the ability to ensure that our work will both respect Indigenous knowledge and be enhanced by it.”

“...and be enhanced by it,” said Dr. Chris Metcalfe, director of Trent’s Institute for Watershed Science. “The generous support of the RBC Foundation assisted in strengthening the capacity of northern Indigenous communities to protect sources of drinking water and to manage watersheds.”

The experience gained and materials developed will serve as a template for similar capacity enhancement projects within other Indigenous communities in Canada and potentially internationally.

From the Mouths of Babes

The key to the secrets of numbers and language may rest with a group of preschoolers. And, together with her project team, Dr. Nancie Im-Bolter, associate professor of Psychology at Trent University Durham, is taking it upon herself to find out more. Professor Im-Bolter says the results of a longitudinal study of three-year-olds, funded by a new Social Sciences and Humanities Research Council of Canada (SSHRC) Insight Grant and involving faculty and students from Trent, Ryerson and U of T, will likely challenge the way we think about early learning.

Preschoolers will enter the study at 36 months of age and be evaluated every four months until they turn four, once at age five, and again at age six. They will be evaluated on tasks related to language, numeracy and executive function. Many of these tasks will feel like games for the children and include puppets, puzzles, toys and trinkets. The goal of the study is to identify the skills that are critical for language and math success, and to support improved educational assessment and intervention for children at risk for learning difficulties.

Historical photos courtesy of Trent University Archives

A Glimpse into the Latest Findings at Trent

Investing in Trent

Building Indigenous Partnerships to Protect Clean Water in Canada’s North

We Are What We Eat

Dr. Mehdi Sharifi is encouraging his students to get their hands dirty – literally and figuratively. Digging into the soil of Trent’s groundbreaking Sustainable Agriculture Experimental Farm, Professor Sharifi and his students are taking learning to a whole new level with experiential education and hands-on research opportunities. With funding provided by the Natural Sciences and Engineering Research Council of Canada (NSERC), Prof. Sharifi and his students are growing two varieties of quinoa on one acre of the farm, a 33-acre living laboratory located right on Trent’s Symons Campus. Quinoa is a relatively new crop in Ontario and is celebrated for its high nutritional value and for being gluten free. Prof. Sharifi, the Canada research chair in Sustainable Agriculture and Food Systems program, hopes the project will create more sustainable ways of growing quinoa as a means to produce organic food for local cafes and to teach his students to think differently about the food we eat. “Most conventional agriculture educational programs focus on larger-scale food production, but fail to address the crucial role of small-scale diversified farming in the world’s food system. The social, political and environmental sustainability of our food system needs to be highlighted,” he said.

Challenging the Way You Think

Trent University is celebrating our milestone 50th anniversary in 2014/15. Learn more about anniversary events and initiatives at trentu.ca/fifty.