

ALUMNI INSIDER

Faculty of Applied Health Sciences

Vol. 2, No. 1, Spring/Summer 2017

Honouring
a mental
health
champion

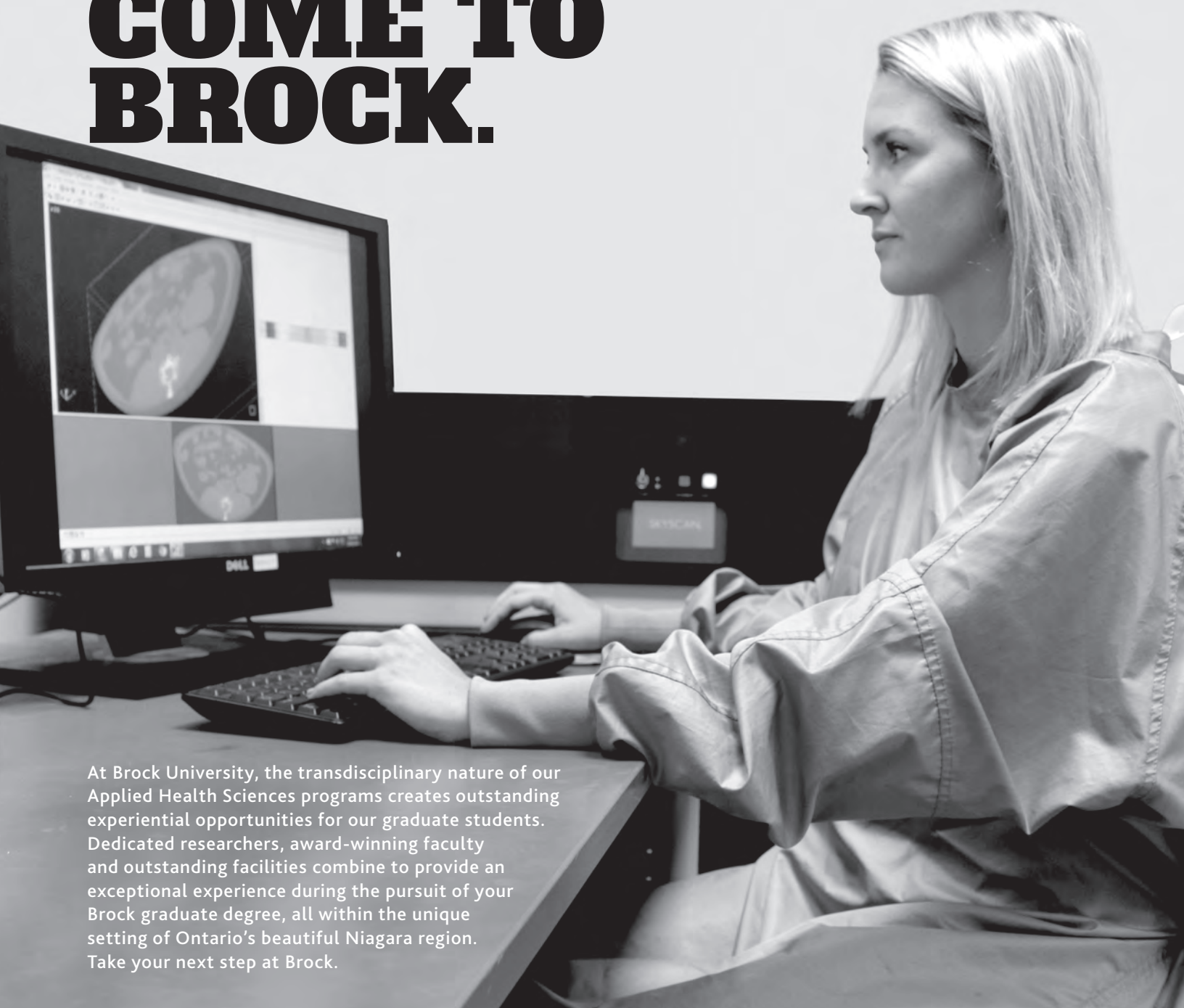
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strives to
improve
patient care

Ergonomics,
work
shouldn't
hurt



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Alumni Insider brocku.ca/applied-health-sciences

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Dean Peter Tiidus, Niagara Health President Dr. Suzanne Johnston and President Tom Traves at the 2017 FAHS Community Partners Reception.

This is our third edition of the *Alumni Insider* and we are hoping it is the best one yet.

In this issue, we feature stories about our latest Canada Research Chair, Dr. Mike Holmes, and the development of his new Ergonomics Lab, the celebration of 20 years of Sport Management, and much more.

This spring, at our annual Community Partners Reception, we brought together many of our research and experiential education community partners, along with students, faculty and staff. The event recognized Niagara Health as a long-standing partner and I had the pleasure of presenting this award to President Dr. Suzanne Johnson.

We in the Faculty are working hard to enhance our connections to and interactions with our alumni. I hope you enjoy this issue of the *Alumni Insider*.

I also look forward to greeting many of you at the annual Brock Homecoming Weekend this September.

Best Wishes,

A handwritten signature in black ink.

Peter Tiidus, Dean

Faculty news



Tim O'Connell

Recreation and Leisure Studies prof wins national teaching award

RECL PROFESSOR TIM O'CONNELL has won this year's 3M National Teaching Fellowship. Considered Canada's most prestigious prize for teaching excellence at the university level, only 10 are given out nationwide each year. "It really is a group effort," O'Connell said. "I don't think you can be a good educator without having great people to work with. There are a lot of people behind this."

O'Connell, who joined Brock in 2006, has received significant praise for co-founding the BaseCamp leadership program, where novice students with little experience in outdoor recreation are teamed with senior students for five days of hiking, canoeing and rock climbing to help foster student success and confidence. It's a model that has been adopted as a best practice by other Canadian universities.

Pearl Gloves donation helps Brock respond to MS in Niagara

PEARL GLOVES IS AN ANNUAL LAS VEGAS-STYLE charity boxing event in Niagara that features white-collar fighters pushing themselves to their limits in front of hundreds of people to raise funds for Multiple Sclerosis (MS), a disease of the central nervous system.

The 2016 sold-out event expanded its list of benefactors to include a \$22,000 donation to Power Cord, a wheelchair-accessible program that customizes exercise to individuals with spinal cord injury, multiple sclerosis and amputations.

"Power Cord is a hidden gem in our community that does incredible work, providing inspirational stories of support," said Jessica Potts, Chair of Pearl Gloves.



The Pearl Gloves charity boxing event. (Photo courtesy of Form & Affect.)

Sport Management partners with Indigenous Games

DOZENS OF SPORT MANAGEMENT STUDENTS from the Major Games Field Course will get valuable in-the-field experience this summer at a major sporting event being held in Ontario.

The Department of Sport Management (SPMA) has partnered with the Toronto 2017 North American Indigenous Games to provide more than 60 students with the opportunity to volunteer and receive course credit at the Games in July.

The North American Indigenous Games is the largest continental sporting and cultural gathering of Indigenous peoples. The eight-day event, from July 16-23, will be attended by more than 5,000 athletes and 2,000 volunteers, along with spectators and dignitaries from across North America.

SPMA Associate Professor Professor Laura Cousens said students in the Major Games Field Course will be able to volunteer "in a variety of different roles and work in a team situation under the supervision of both paid staff of the Games and volunteers responsible for co-ordinating specific areas of the Games."



Graduate student Jessy Moore with Evangelina Tsiani, Associate Professor in the Department of Health Sciences.

Health Sciences research hopes to reduce lung cancer

NEW RESEARCH has uncovered a connection between a common household herb and the reduction of lung cancer cell growth.

A recent study into rosemary began with Evangelina Tsiani's longstanding interest in polyphenols — chemical compounds that are mostly found in plants people eat.

"We have some evidence that rosemary extract stops the growth of cancer cells," Tsiani said. "The question is: how is this done? What is the mechanisms of action to inhibit cancer cell proliferation?"

After growing non-small lung cancer cells in a lab, Tsiani's team exposed the cells to rosemary extract and studied the extract's impacts on a signalling pathway called Akt and on certain proteins within the pathway. Their findings suggest that rosemary extract may have considerable anti-tumor and chemoprevention properties in lung cancer and deserves further systematic investigation.



Brock SPMA student Nichole Davey, Brock Elder in Residence Carol Jacobs, Toronto 2017 NAIG CEO Marcia Trudeau-Bomberry (BA '00), Dean of the Faculty of Applied Health Sciences Peter Tiidus and SPMA Associate Professor Laura Cousens.

Faculty news

Brock receives top global ranking

BROCK HAS BEEN NAMED among the top 151-200 of ShanghaiRanking's first-ever Global Ranking of Sport Science Schools and Departments 2016. "This is a world-class achievement for the departments and it reinforces the Faculty of Applied Health Sciences' strength in research and our standing in the international academic community," says Nota Klentrou, Associate Dean of Research and Graduate Studies, Faculty of Applied Health Sciences. ShanghaiRanking combined the research output of the 28 Kinesiology and 11 Sport Management faculty members who published in exercise and sport science journals from 2011-2015 to determine Brock's impact factor across the subject area.



Graduate student Garrick Forman runs a VO2max Aerobic Power Test on third-year Kinesiology student Maico Padillo.



Third-year nursing student Stephanie Blais with Foyer Richelieu resident Claudia Pigeon. (Photo courtesy of G rald Lachapelle.)

Nursing project encourages French health careers

THE BOND BETWEEN French-speaking students and seniors within the francophone community has been strengthened through a Brock University initiative.

The REVIVRE project, led by Nursing Professor Lynn McCleary, was created to inspire high school and university students to pursue careers in French health services by giving them the chance to develop meaningful connections with residents of the Welland long-term care home Foyer Richelieu.

"Even though French is an official language in Canada, it can be difficult to access French health services," says McCleary. "This can have a particular impact on aging populations who reside in long-term care homes where few staff speak French."

The project, which began in March 2015, paired French-speaking student volunteers from Brock University, as well as  cole secondaire catholique Jean-Vanier and Centennial Secondary School in Welland, with Foyer Richelieu residents over the course of 18 months. The long-term goal is to attract francophone students to gerontology and health care, however, the secondary, more immediate purpose was to increase quality of life by providing residents with an extra social outlet. Although the Brock study is complete, student volunteers continue to be needed for the Foyer Richelieu program.

Journalist, mental health champion honoured

BY DAN DAKIN



Michael Landsberg

One of Canada's most honoured sports broadcasters and an advocate for mental health issues was the guest of honour at the 20th anniversary celebration for the Department of Sport Management at Brock University.

Michael Landsberg was honoured with an Industry Award, while Erin Mathany (BSM '05), Director of Strategic Partnerships for the Canadian Olympic Committee, and Kojo Mensah (BSM '04), Senior Policy and Issues Co-ordinator in the Ontario Ministry of Tourism, Culture and Sport, were recognized with Alumni Awards during the March 2 event at Amici's Banquet Centre in Thorold.

Landsberg, Mathany, Mensah and three Department of Sport Management employees were honoured as part of the first-ever Brock SPMA awards.

For the inaugural Industry Awards, the department wanted to recognize someone "who has significantly and positively impacted the Canadian sport community," which Department of Sport Management Chair Lisa Kikulis said describes exactly what Landsberg has done.

"He has made a tremendous contribution to mental health advocacy through his significant roles in the Bell Let's Talk and #SickNotWeak campaigns," she said.

"As a leading sports journalist in Canada, he has been able to break barriers and heighten communication on an extremely important topic for our students, our faculty and staff, and the sport industry as a whole."

Landsberg said he has come to realize that speaking publicly about mental health issues can change the stigma.

"When you care about someone (with mental health struggles) you don't treat it the way you would if they had cancer or diabetes or MS. Until we get to that point, the stigma will still exist."

Michael Landsberg

With more than 1,000 SPMA graduates, Sport Management alumni are now working in some of the most high-profile roles in the Canadian sports industry.

Mensah, who received an alumni award, has held a wide variety of positions in the Canadian sport industry and said the reputation of Brock's SPMA program is well-respected.

"Everywhere I go, I'm always bumping into other SPMA alumni. We're everywhere. We're taking over the Canadian sport industry," he said with a laugh after receiving the honour.

Established in 1996, the Bachelor of Sport Management (BSM) program remains the only specialized four-year sport management degree program in Canada. In its 20-year history, it has grown to become internationally recognized. In 2015, it was ranked fourth in the world for sport business programs by an industry publication.

Dan Dakin is the Media Relations Officer for Brock University.

Work shouldn't hurt, Kinesiology researcher builds high-tech lab to study ergonomics



Michael Holmes

BY CATHY MAJTENYI

Michael Holmes is determined to make work a safer place by studying how people sit, stand and use their muscles on the job.

To do that, however, the assistant professor in Brock University's Department of Kinesiology needs high-tech machines to help him track muscle activity and body movements.

"The equipment is fundamental to everything we do," Holmes says.

Holmes, who joined Brock in September 2016, is in the process of building the University's first Neuromechanics and Ergonomics Lab.

"In this lab, we will be able to evaluate the physical demands associated with a variety of jobs by simulating workplace tasks using motion capture technologies, virtual reality and robotics," he explains.

Among the equipment is a motion capture system. Similar to what's used in the development of gaming, animation and cinema, nearly a dozen cameras will record research participants' postures and body movements as they perform a variety of simulated workplace tasks.

But these are no ordinary cameras, Holmes says. Volunteers wear reflective markers that are tracked by infrared cameras.

"The camera records the motion of those markers, and we record the movement of the markers, not the person, per se," he says. "On the computer screen, we can track the 3D location of the markers on the person, and link them together, to develop sophisticated computer animations and models. We can then very accurately calculate movements and joint angles."

Another piece of equipment is the haptic wrist robot, a one-of-a-kind device that is unique to Canada. Similar to a joystick, the device can push back or provide resistance when a person tries to move it.

"This allows us to look at how the brain and forearm muscles control the hand," says Holmes.

"It's like when you're holding a power tool and you have to control feedback from the tool in all directions to counteract the imbalance. This requires muscular control and using such a device will allow us to better understand how fatigue, pain and/or injury influence performance."

The research has applications for pilots having to control joysticks, surgeons, dentists and others who regularly hold tools for their jobs.

The third piece of equipment is an electromyography system, or EMG, which evaluates and records electrical activity produced by skeletal muscles.

"The equipment is fundamental to everything we do."

Michael Holmes

"This helps us to understand how the muscles generate the movements captured by our cameras," says Holmes. "As we contract a muscle, the muscle emits electrical activity. The EMG sensors will pick up that activity; we can then determine not only how hard a certain muscle works, but also what muscles are being used at what times."

Holmes explains the combination of the three machines will give him and his research team a complete picture of workplace movement.

"We'll understand what the muscles do, how people move and what sort of forces they're interacting with."

This knowledge, in turn, can be used to better design workplace tools and objects, or change workstations so that workers "interact with the tools differently" to prevent workplace injuries, he says. "It will impact the lives of working Canadians because work shouldn't hurt."

Holmes is a Tier 2 Canada Research Chair in Neuromuscular Mechanics and Ergonomics. His research examines how the brain and nervous system interact with the mechanics of hand, arm, shoulder and neck muscles as we perform a variety of tasks. The Canada Foundation for Innovation (CFI) recently awarded Holmes a grant of nearly \$100,000 for equipment purchases from its John R. Evans Leaders Fund.

Cathy Majtenyi is the Research Communications/Media Relations Specialist for Brock University.

Making occupational tasks safer

Work-related pain and injury to the upper extremity are primary reasons for illness, sick leave and disability among workers.

"The hand and upper limb are engineering marvels," says Michael Holmes, Assistant Professor in the Department of Kinesiology. "Even trivial human-object interactions require a complex series of coordinated events from the brain to the start of movement."

But each person is different. Holmes' research aims to understand why some people develop carpal tunnel syndrome, repetitive strain injury and other upper body injuries while others doing the same job do not develop these injuries.

Part of the answer may lie in the fact that muscles in the forearm and hand perform many similar actions, explains Holmes. "Therefore, two people can complete the same task in entirely different ways."



Mary Ann Edwards

Distinguished alumna honoured

BY CATE TALAUE

VOLUNTEERING IS A WAY OF LIFE for Mary Ann Edwards. Well known in Niagara for her volunteer work and dedication to the community, Edwards, a Brock alumna (BPhEd '76, BEd '77) and founder of the Rankin Cancer Run, was recently awarded the Ontario Medal for Good Citizenship for her local contributions. The Rankin Cancer Run draws thousands of participants each year. The 2016 edition drew 13,200 community members, raising a record-breaking \$1 million.

In 2014, Edwards was awarded the Distinguished Alumni Award by the Brock University Alumni Association. She also sits on the Brock University Alumni Association Board of Directors

Cate Talaue is the Digital Content Developer for Marketing and Communications at Brock University.

Former Brock curler makes mark at Scotties

BY ERIN COURT

WHEN AMANDA MACKENZIE (BSM '16) completed her studies at Brock University, she hurried hard towards her next opportunity.

It was the time management and organizational skills she developed as a student that helped the Brock alumna to land a job working with Curling Canada on the 2017 Scotties Tournament of Hearts.

The Canadian women's curling championship event, for which the University was a proud Silver Sponsor, hit the ice at the Meridian Centre in downtown St. Catharines, last February.

Through her role with Curling Canada, Mackenzie worked from the organization's St. Catharines office to help plan the national event.

"This position at the Scotties tournament seems like a great place to start my career," she said, while acknowledging it was her time at Brock as a student and varsity athlete for the Badgers women's curling team that helped get her on her current path.

Erin Court is the Communications Officer for Development & Alumni Relations at Brock University.



Amanda MacKenzie

School comes first for student with pro fighting future

BY DAN DAKIN



Anthony Romero. (Photo courtesy of Bernd Franke/Welland Tribune.)

THE TEMPTATION is tough to ignore, but Brock University student Anthony Romero has decided school is more important than earning a paycheque as a professional fighter.

The second-year Recreation and Leisure Studies student from Welland has established himself as a top mixed martial arts prospect.

After a perfect 5-0 record in 2016, Romero earned amateur fighter of the year, and fight of the year awards by the Bluegrass MMA organization.

He also won three title belts from three separate organizations and spent some time training in Montreal with Canada's most famous MMA fighter, George St. Pierre. But any thoughts of turning professional, which would mean getting paid for his fights and endorsement deals, are on hold until Romero wraps up his four-year degree at Brock.

"I know I can't fight forever, so I want to make sure I have something as my backup in case my plans don't work out," said Romero. "It's very tempting because to be a professional is a main goal for me. I've been thinking about it – but it's something that once you turn pro, you can't go back."

Dan Dakin is the Media Relations Officer for Brock University

Brock bowler eyes world championships

BY MARYANNE FIRTH

MIRANDA PANAS HAS LITTLE TIME TO SPARE. The fourth-year Kinesiology student splits her time between hitting the books at Brock University and perfecting her throw at a local bowling alley. Panas has bowled her way onto Team Canada annually for the past six years and is vying to again join the national team in 2018.

Her love for the sport, and a killer hook, has taken her to national tournaments across Canada, and competitions around the world.

Despite her demanding schedule, Panas has managed to maintain her schoolwork and is scheduled to walk across the stage at Spring Convocation.

She plans to compete on the Professional Women's Bowling Association summer tour, but will then head to grad school for physiotherapy.



Miranda Panas

Maryanne Firth is the Writer/Web Editor for University Marketing and Communications at Brock University

Brock alumna uses data to improve patient care

BY COLLEEN PATTERSON

Brock's first Public Health graduate is using primary and secondary data collection, and analyses to improve the experience of cancer patients in Ontario. When Adele Carty (BSc '09) learned about Brock's newly developed Public Health program back in 2008, it seemed a perfect fit.

At the time, Carty was a Community Health Science student who was busy completing a directed study and internship at the Port Colborne hospital under the supervision of Health Sciences Professor Madelyn Law.

While her existing program was rewarding, the benefits of transferring into the innovative new offering proved a real draw. "Being versed in searching for job opportunities within research, and through the mentorship of Health Sciences Professor Brent Faught, I realized my future career would benefit greatly if I switched programs," Carty explains.

"Even though I am working with data, I am appreciative of the fact that there is a face on the other side of what we are analyzing."

Adele Carty (BSc '09)

Since making the leap, and becoming Brock's first-ever Public Health graduate, Carty has been working in various sectors of government with an aim to improve the health of patients. Now a doctoral student in Epidemiology at another Ontario university, Carty has built her career on using data to make an impact on the health of populations.

"After completing my undergraduate degree at Brock, I worked as a research analyst in the Department of Rheumatology at Toronto Western Hospital," says Carty. "As a member hospital of the University Health Network, the clinic I worked with gathered primary data from arthritis patients who were participating in a longitudinal study."



Adele Carty

It was Carty's responsibility to utilize the physician collected information to analyze the data. "Working in a teaching hospital was a great opportunity," she says. "I was afforded the opportunity to simultaneously work on multiple research projects with an international team of investigators. The group was dedicated to gaining insights into the etiology and progression of arthritic diseases."

Carty was presented with a new opportunity, in October 2016, working as a senior analyst for Cancer Care Ontario (CCO) to help improve the patient experience. "My role looks at data collected in Ontario to assess the patient experience of cancer patients," she says. "Working internally, I help to develop analytic plans and methodologies which are reported to the provincial government to help improve patient care."

One major difference between Carty's work at the Toronto Western Hospital and CCO is she now spends a lot less time with patients. "At CCO, I am really in-depth with the data, but I think everyone, including myself has a personal connection to someone with cancer," she says. Working alongside researchers has inspired Carty to continue her own graduate work. "I've always had a passion for child health and being able to conduct my own research. This is why I'm now exploring the relationship between environmental exposures and neuro-developmental disorders in children for my doctoral work," Carty says.

"I really see Brock as giving me that foundational stepping stone of real-world experience that has prepared me with the necessary skills to embark on this non-linear career path."

Colleen Patterson is the Marketing and Communications Officer for the Faculty of Applied Health Sciences at Brock University.

SPMA alumnus receives Distinguished Graduate Award



**SPORT
MANAGEMENT
ALUMNUS** Jeff Dykeman (BSM '05) is the recipient of the 2017 Faculty of Applied Health Sciences Distinguished Graduate Award.

Dykeman, of Ancaster, Ont., is the founder and CEO of One Eleven Management Group – a unique sports and entertainment marketing company. In 2016, Dykeman was named one of Canada's Sports Business Thought Leaders by Sports Business Canada. He will receive the Brock award for his achievements at the Alumni Recognition Reception on September 16 during Homecoming Weekend.

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Class notes



Campus flashback

THE CAMPUS REC CREW AT BROCK, Jennifer Currie (PhEd '93, BEd '03, MED '08), Lynn Hunter-Hope (MED '99), Karen McAllister-Kenny (MED '97) and Brian Ker (MED '00), pictured in the early 2000s, are ready for Challenge Day, an initiative that encouraged employees to get active. Friendly competition was had between Brock and Niagara College to see who could get the most employees active on a specific day. The event was the inspiration for the existing Brock Wellness Day.



Heart Strong

HEALTH SCIENCES STUDENT Samnang Sith helps Brock-Niagara Centre for Health and Well-Being member Wayne Marsh check his blood pressure as part of the Heart Strong program, which caters to individuals with known cardiovascular disease or other risk factors.



Puppy therapy

GRAD STUDENTS Tyler Harrison, Evan Gwartz and Katelyn Sander take a much deserved break with a St. John Ambulance Therapy Dog as part of Wellness Week.

Human physiology

BROCK STUDENTS, Alexandria Albano, Laree Dicks and Benjamin Davis participate in a lab for the Principles of Human Physiology course which serves a diverse group of students including those from the Medical Sciences, Biomed and Community Health programs.



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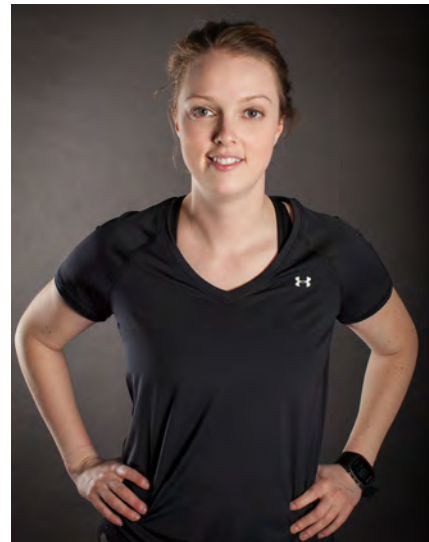
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Brock alumna named OJHL Trainer of the Year



Sarah Ditmars (BKin '11, MA '13) is on a breakaway and shows no signs of slowing. The Kinesiology alumna has been making strides in the hockey world as a therapist and trainer for the Trenton Golden Hawks.

Her efforts in the male-dominated industry over the past four years have not gone unnoticed.

Ditmars was recently named the Ontario Junior Hockey League Trainer of the Year. She is the first female to hold the honour.

During her time at Brock, Ditmars worked as a student trainer in the University's Athletic Therapy Clinic providing sports medicine care to varsity and recreational student athletes.

Ditmars said her time with the school clinic played a large role in shaping the career she has today.

It helped her to build a strong work ethic and gain the experience needed to get a job soon after graduation.

Ditmars is now in her fourth season with the hockey team.



Homecoming

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