I have now completed 15 years as the Assistant Dean of the Bachelor of Health Sciences (Honours) Program. It has been an enormously rewarding experience. For fourteen of the fifteen years, BHSc staff and colleagues explored ways to surprise me and they were without success until a ‘retirement’ event on the second of June. John Kelton, Dean and Vice-President of the Faculty of Health Sciences walked me to Alumni Memorial Hall, ostensibly to discuss a variety of opportunities. I was met with a crowded room of faculty, staff, alumni and students who had come to help celebrate my final month with the program. I am saddened to leave my day to day interaction with an incredibly dedicated and motivated faculty and staff group. I will miss the constant excitement of working with very bright young people. I would like to thank everyone for attending and sharing so many incredible experiences.

Alumni from each of the first 14 cohorts and current students were in attendance. They have been enormously successful, as you might have predicted. It was a pleasure to reconnect with so many. They are very bright people and at various times we have thought that our role was to support, encourage, challenge and then to get out of the way, thereby making ourselves progressively unnecessary. You will perhaps see this in the pages of this newsletter. Students, faculty and staff engage in so many activities that extend beyond the boundaries of a traditional curriculum; the fashion show and musical, the Meducator and a variety of fund raising and community activities.

The program was reviewed through the institutional IQAP process over the course of the past year. Reviews occur every seven years and we were fortunate to have reviewers with strong backgrounds in pedagogy. The report was received this week and the overall summary reads; “This is an impressive program, not only for its attention to principles of PBL and aligned curricula, but also for its attention to the developmental arc of its learners. It assumes that students can achieve excellence in a motivated and intentional fashion and it puts in place the structures to support this outcome. The scaffolding and mentoring are further supplemented by a governance structure that embeds consultation and ongoing curriculum development into its equally sustainable structures of pedagogy and course development. It would be easy to think it is ‘easy to do this’ because of the apparent ease and fluidity of the processes; however, the complexities and intricacies ought not to be underestimated. The program team is well integrated and believes in its mission. Their commitment to their own ongoing development as academic professionals and scholars is further testimony to the strength and depth of this program”.

The new Assistant Dean will join us in September and I am sure that she will enjoy the BHSc community as much as I have. Congratulations to all!

Del Harnish
3M Fellow
Assistant Dean, BHSc (Honours) Program
MentorMatch was created in response to a needs assessment performed by the BHSc (Honours) Program that identified an interest in and need for formal mentorship. In January 2014, the BHSc (Honours) Program in collaboration with the Student Success Centre piloted the new mentorship program, MentorMatch. During this pilot, approximately 40 Level II students (protégés) striving towards similar career goals with BHSc Alumni mentors in a variety of fields. This mentorship connection provides students with insights into what they might encounter in their field of interest, the pathway Alumni took to get to their current positions and common themes or issues to expect along the way. MentorMatch uses a structured approach with goals, timelines, a formal matching process, mentoring agreements and resources that outline the structure and purpose of the relationship. For Mentors, this is a wonderful opportunity to reconnect with McMaster, the BHSc Program and Community and inspire the next generation of professionals. They will help students make international connections in order to maximize the value of their university education. Protégés will build relationships as they explore career possibilities and reflect on their personal, academic and professional goals.

In 2014 we were fortunate to award three scholarships. The scholarship recipients for 2014 were Megan Schlorff, Class of 2015, Krista Kruja, Class of 2016 and Kaiwen Song, Class of 2017.

Megan Schlorff, Class of 2015 has been involved with several activities in Hamilton and at home in Hanover. Within the Hamilton and McMaster communities, she has been especially devoted to McMaster Arts for Children and Global Youth Volunteer Network since first year. She began as a volunteer with McMaster Arts for Children in first year and loved the experience. This prompted Megan to join the executive team as well as become a program coordinator for her weekly placement. Now in her third consecutive year on the executive team, Megan will serve as the club president for this school year. Throughout her involvement with the club, she has been involved in establishing new placements, developing curriculum, and being part of the weekly placements. The club has allowed Megan to pursue her passions, which is working with children. The experience has helped her discover Hamilton, particularly the downtown core. Megan adds that it has been an honour to serve in these positions and have the chance to give back to the club that continues to have an influential impact on her. She now has the chance to welcome incoming students to the club and provide them with an opportunity to become involved with both the McMaster and Hamilton communities.

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LEARNING PORTFOLIOS
By Nikhita Singhul, BHSc (Honours), Class of 2017

Assessment is a concept we are all familiar with. It is invaluable in guiding learning, a process that is active, integrative, experimental, and transferable. However, it can be difficult to capture the sheer scope of our learning in our personal assessment of our careers. This is where learning portfolios come into play – portfolios incorporate documentation and evidence, reflection, and collaboration in order to achieve a richer learning experience. Although HTTH 4003 - Learning Portfolios was a requirement, the learning portfolio at BHSc progam has been searching for a more comprehensive and appropriate tool for years. Elyse Watkins, BHSc (Honours), Class of 2012 and former BHSc staff member, proposed Evernote as a solution. After piloting the tool for one year with BHSc Global Health and Childhood Specialstations with promising results, it is now being rolled out into the wider BHSc community.

DeHannish, BHSc (Honours) Assistant Dean, provided additional insight into the adoption of this technology. Students will collect raw data – academic and non-academic, formal and informal – throughout their undergraduate careers, and deposit it into the reservoir Evernote provides. The product advertises itself as "the workspace for your life’s work," and it would be difficult to find a more accurate explanation. So what exactly can this repository hold? There really are no limits aside from the 2 GB of data per month allotted to users. Music, video, pictures, documents, and more – the process of collecting raw data – data that you may not even know the significance of – must be continuous. Deciding how and where feedback will occur is another challenge that is still being contemplated, but as the learning portfolios are rolled out the appropriate method will likely become clearer.

Come September 2015, the program will be moving from Evernote to the new centrally supported PebblePad e-portfolio platform that all McMaster students will use. PebblePad has similar functionality to Evernote, and will include the ability to import Evernote information. This exciting new opportunity is just one way in which the BHSc (Honours) Program is equipping students with the tools to excel in an ever-changing world.

WHY PEER TUTOR?
By Stanley Chen, BHSc (Honours), Class of 2015

An integral and unique component of the Bachelor of Health Sciences (Honours) Program is the opportunity to peer tutor, which is available to fourth year students. Peer tutoring is a way of giving back to the community through a mentorship with younger students. Peer tutors play a vital role in the classroom by helping students facilitate meaningful discussion and placing an emphasis on the process of learning. Currently, there are many courses that are available to peer tutor including but not limited to child health, communications, global health and first year inquiry. The vast array of courses provides students with more opportunities to tailor their peer tutor experience to their interests.

There are many factors that weigh into the decision of whether to become a student and sharing my knowledge to hopefully help others.

FUNDRAISING INITIATIVES
By Chiana Garvida, BHSc (Honours), Class of 2016 and Ye Rin (Yenah) Seo, BHSc (Honours), Class of 2017

At McMaster University, there are numerous clubs, events, and student initiatives that raise thousands of dollars for a variety of charities. From raising funds for cystic fibrosis research to bringing awareness and support for pediatric patients, Mc- Master students are heavily involved in fundraising. One of the largest fundraisers is Shinerama, a national event in Canada. Through Shinerama, students help make a difference in the lives of those who are impacted by cystic fibro-

Another MSU club that is heavily involved in fundraising is Mc-

student-run organizations on campus. This club raises awareness and support for pediatric patients primarily through their two annual fundraising events – Shave for a Cure and Locks for Love. Volunteers from members of the McMaster Master students and local commun-

Funds for both of these organizations. This year, SOS is hosting a new fundraising event, the McMaster Dance Marath-
There are many more clubs that are involved in fundraising at McMaster and the local community. One of them is the McMaster Lung Society (MLS), which was founded earlier in the year. Despite being new to the roster of MSU clubs, it has been successful in raising funds and awareness for the Ontario Lung Association. In November, MLS held a weekend lung awareness campaign for Lung Cancer Awareness Month — going around to various classes to raise awareness about respiratory health and collect donations.

McMaster Cancer Society (MCS) is an MSU-registered club that has a different take on how it raises funds and awareness. MCS, for one, runs an event called Cranes for Cancer, where students are invited to fold origami cranes, with a goal of reaching or exceeding 1,000 paper cranes. The inspiration for this event comes from the story of Sadako Sasaki, a girl who wanted to fold 1,000 cranes to gain a wish following being diagnosed with leukemia. MCS collects donations throughout the year and on average raises about $33.5k to $54k yearly. At the Cranes for Cancer event, MCS holds raffle prizes and invites musical acts and guest speakers. The donations and paper cranes are then sent to Camp Trillium, where the cranes are either displayed or given to the children who are a part of the cancer support program. MCS is also currently in the process of putting together a project called Anthology, which will have a compilation of stories from cancer survivors and those who were impacted by cancer. In addition to donating to Camp Trillium, MCS has donated to other organizations including the Canadian Breast Cancer Foundation, Lung Cancer Canada, and Prostate Cancer Foundation.

Another club that is involved in fundraising is McMaster Multiple Sclerosis (MS) Society. MS is an inflammatory, autoimmune disease involving demyelination of the central nervous system, causing problems with vision, balance, muscle control, and other functions of the body. One of the founders of McMaster MS Society felt compelled to start a club that raises awareness for MS because she saw firsthand how debilitating the disease could be. McMaster MS Society aims to promote awareness and raise funds for the Multiple Sclerosis Society of Canada through various events such as coffee houses and bake sales. It also engages students by creating dialogue and providing volunteer opportunities.

There are plenty of fundraising initiatives going on at McMaster and within the BHSc (Honours) Program. Many BHSc students dedicate their time and effort into planning, promoting, hosting fundraising events, helping with administrative duties for clubs, and other important roles that help these initiatives raise a lot of funds for the benefit of a diverse group of local and national organizations and charities. Each initiative, with their own background and inspiration for what drives them to fundraise and raise awareness, contributes to the strong McMaster presence in the local and global community.

DEALING WITH UNCERTAINTIES

By: Andrew Park & Kai Yi Wu, BHSc (Honours) Class of 2016, Christina Ma, Class of 2018

Every year, a new cohort of BHSc students is welcomed into our program. Faced with a new environment, new friends, and new opportunities, experienced students are overwhelmed with a period of excitement and uncertainty. A few years later, this cohort of BHSc students will graduate from the program and face a similar but even more daunting change as they leave university. Uncertainty is an inevitable part of our time in BHSc. As motivated and ambitious students, it is natural to question our place within and beyond the program. The struggle to deal with uncertainty is especially evident amongst the first and fourth year BHSc students as they grapple with change. Many experience change in their environments, leave behind comfort, and wait to hear back from professional and graduate schools. Searching for some guidance on the subject, we interviewed Laurie Barlow, a career counsellor and facilitator in HTTH SCI 1E06 (Inquiry) and HTTH SCI 3T03 (Work, Self and Purpose) and Parmjit Singh, an instructor in HTTH SCI 2T03 (Health, attitude, and Behaviour), HTTH SCI 3E03 (Body, Mind, Spirit), HTTH SCI 4XX3 (Professional Transitions), HTTH SCI 3H23 (Deception in Decision Making). Each facilitator shared their approaches to deal with uncertainty and provided valuable insight on this topic.

Why do you think uncertainty scares people so much?

Parmjit: “It’s the loss of familiarity that scares us the most. Breaking out from familiarity can be so daunting that even if the familiar is not helpful, we don’t want to venture out. When we have multiple available options, for example multiple career options, making decisions becomes very scary for us. Negotiating the attractive or unattractive features of all of these options is not only labor intensive for the brain but we expect that there should always be “one best option”. The fear of not choosing this option is what scares us, however, in reality, we can never know what or if there was one. Unfortunately, the imagined attractive features of the choice we reject continues to subtract from the satisfaction even if the choice we have made is the best under the given circumstances.”

Laurie: “Uncertainty threatens the idea we have created that there are paths laid out in front of us to follow. We’ve created these expectations that you work hard, choose the right program, get to the right career...but things are much more complicated than that. It scares us that there is no path that will carry you forward. Rather, we’re constantly living on the edge of time unfolding, creating our own reality with no guarantees of anything.”

What does it mean to deal with uncertainty? How can we cope with uncertainty in our life?

Parmjit: “I think it is helpful to understand that things are a lot more uncertain than certain. That kind of understanding is a coping mechanism within itself because we are aware that we only have so much control over situations. This helps us make sense of undesirable outcomes. We can also remind ourselves that certainty is stability. Stability, though usually desirable can become stagnant. Therefore, we can look at uncertainty as a bag of opportunities or a chance for growth.”

How do you become a better risk taker?

Laurie: “One way is through loss. If you’ve lost a goal, a dream, even a person, but you see that you’re still able to go on - it helps you understand the loss or failure that makes risk scary. We can also normalize risk taking through choosing appropriate role models. If the people we aspire to be like are risk takers, we can become accustomed to that approach and push ourselves to be better risk takers.”

How do we factor uncertainty into creating goals?

Parmjit: “I think we should ask ourselves, what are we really looking for from certainty? It must serve a purpose. So on the surface, your goal may be a professional commitment but why do you have this underlying desire? Think of goals as determining what you want from your life and what is meaningful to you.”

In general, what advice would you give to first or fourth years about dealing with anxiety and uncertainty?

Laurie: For first years, just focus on learning. Don’t take on too many responsibilities and just get used to university. Remember you have time, so explore, find some good friends and start to figure things out.

Don’t worry that you’re the only one who doesn’t have things figured out because in my experience no one does. This doesn’t just apply to first year, or even undergrad. After working as a career counsellor for medical school students and in private companies, even people with established careers are still confused. People make career decisions in different ways, with different timings than socially given. Early decisions and early closures aren’t always the best way.

If you’re struggling with your future, remember that anxiety is about worrying about the future, so focus on the present, moment to moment. Externalizing anxiety, by talking to a friend/counsellor or even just writing them down, make them different than simply thoughts in your head and easier to deal with. Also, look for help. Career counselling actually works - so seek out McMaster’s career counsellor or take HTTH SCI 3T03 (Inquiry into Work, Self, and Purpose) to figure out what works for you. It’s a process. Pay attention to things you like, define suitable options and figure out ways to go about pursuing those options.”

Parmjit: “I would give them the same advice I give myself — whether you like it or not - things are going to happen. If you’ve only found ways to embrace good things and have no idea how to work with bad, you will suffer. In the ever changing landscape of personal and professional life, only one thing will stay constant and that is you, so keep working on yourself as a person. That is your best insurance policy against the inevitable ups and downs of life. Invest time in developing compassion, compassion for yourself and others, positive work ethics, resilience, being attentive, present and mindful as these skills will help you navigate the curves of your life.”

Our greatest effort should be to use the opportunity of being born as a human to the best of our abilities. Remembering that one day we will be gone from this place can be a helpful reminder to calibrate, reflect and re-orient our efforts so that we don’t spend too much time on things that don’t really matter in the larger scheme of things. Also remember, success is more glorified than failure for obvious reasons, but if you look at a timeline in human progress, the greatest human inventions and accomplishments are the result of a string of failures. “Failures” can be considered a way of pausing, stopping for a moment and really reflecting and inquiring on your life.”
HTH SCI 2G03 – Epidemiology

When you first saw the word epidemiology, what did you think of? Chloe Bedard, BHSc (Honours), Class of 2014 and teaching assistant for 2G03, sees epidemiologists as “disease detectives.” HTH SCI 2G03 provides an overview of various study designs and teaches students how to read a research paper, which help readers draw appropriate conclusions instead of taking information at face value. The broad range of research fields from clinical trials to pedagogical studies introduced by the course has since motivated Chloe to pursue a Master’s in Health Research Methodology.

Dr. Russell de Souza, one of the 2G03 instructors, says his first exposure to epidemiology did not occur until his doctorate. Through his undergraduate and Master’s education in nutritional sciences and his experiences as a clinical dietitian, he learned to implement and test strategies to improve the health of individuals. At the same time, he became very interested in how researchers were able to link specific foods or nutrients with risk of disease at a population level, and wanted to understand how to translate individual-level interventions into population health strategies. Epidemiology to him was the final piece to his training. He believes that epidemiology is very useful for students interested in careers in medicine, health care, or public health. Epidemiology helps answer the question, “How bad is the disease or condition?” Russell’s biggest hope for students is that on a very basic level students can read a Globe and Mail article that finds eating seven or more bananas per week protects against kidney cancer, and be able to read a scientific article that finds eating seven or more bananas per week protects against kidney cancer. He notes that students will be able to take away an increased knowledge of various study designs and teach students how to read research papers and help them develop skills related to reading scientific literature in an evaluative manner. The knowledge I obtained from this course paved the way for the study of many other reading-based and project courses, and the research skills have been well-applied to my inquiry project and thesis.

HTH SCI 2A03 – Statistics

Statistics is everywhere. You would be hard pressed to find a place where it is not used. From research to the local news, statistics is behind so much of the data and information that we see every day. This is also true for McMaster University. In virtually every faculty, students are required to take a course in statistics. Students in the Bachelor of Health Sciences (Honours) program are no exception. HTH SCI 2A03 teaches students basic statistical methods and their application to the analysis of biological and psychosocial data. In 2A03, students learn how to apply the fundamentals of statistical analysis instead of learning how to do manual calculations this year. HTH SCI 2A03 is being taught by Dr. Mateen Shaikh, a post-doctoral fellow at McMaster University in the Department of Clinical Epidemiology and Biostatistics. The course started a little later than usual, in order to give Mateen, who took on 2A03 with short notice, time to provide students with some more polished material, instead of going in front of a chalkboard and reaching the content. When asked whether he believes statistics should be a mandatory course, Mateen acknowledges his bias but wholeheartedly agrees, saying that it’s important that students are exposed to [statistical concepts] that may not be tested but are still important for students to learn. There are a lot of skills that go beyond numeracy in the same way that there are a lot of skills that go beyond literacy. It’s not just sufficient for someone to know how to read and write; they have to know how to create coherent thoughts, pass on ideas, and communicate and receive them, and it’s the same thing with numeracy.

It’s not just enough to know how numbers work; [students] have to understand the nuances of numbers. They have to understand what numbers can and cannot tell people, and they have to understand how to communicate with them.

As a new instructor for 2A03, Mateen has a chance to bring a really nice guy. He gave a really welcoming intro lecture, and reveals that he plans to make them very confident in the fundamentals. That way they can keep [the class] engaged.” Mateen hopes to engage students to pursue a Master’s in Health Research Methodology.
Critical Appraisal of the Medical Literature

Critical Appraisal of the Medical Literature is relevant for virtually any career path. In fact, it is applicable to everyday life. This is what led Dr. Bryant, the instructor for the course, to teach HTH SCI 3GG3. Dianne, who has been an instructor for the course, teaches HTH SCI 3GG3 since 2003, emphasizes the importance of knowing how to make decisions about health interventions and being able to participate fully in the decision-making process. In 3GG3, students acquire the skills necessary to assess the quality of scientific literature and identify the important details that separate a good study from a poor one. One can see the benefits of having this set of skills; in the Bachelor of Health Sciences (Honours) Program, which emphasizes evidence-based learning, students are required at every level to support their work with information from scientific literature, a task that can be daunting, for any student. As students progress through their academic and professional careers, the use of scientific literature becomes even more important. With this in mind, it isn’t hard to imagine why HTH SCI 3GG3 is a mandatory course in the program, and Dianne agrees. She hopes that from this course, students understand that with these critical appraisal skills, they have the power to ask important questions and make informed decisions about health care interventions, whether they are being asked by the patients themselves or a谊nity member, or recommending the intervention as a health care provider.

Many students who have taken the course have agreed that the skills they learn from 3GG3 are essential. Nilani Ananthamourthy, BHSc (Honours), Class of 2016 comments, “Critical Appraisal was a course that I believe to be very valuable because it made me look at scientific literature with a more critical eye. It showed me the value of understanding what you’re looking at; in retrospect, I’ve looked at a lot of research papers and pretty much just accepted the published results without understanding the importance of the methodologies and the biases that may exist when researchers don’t do things the right way.” Nilani credits 3GG3 for teaching her the skills she now uses everyday in her HTH SCI 3H01 (Inquiry Project) course. She says, “[Critical appraisal] has become a better tool for me for the work that I am doing. I am realizing while helping with this research project that, in the real world, it’s really hard to conduct the perfect study. There are always potential sources of bias, things that go wrong, and study participants who might not be totally compliant. I think the important thing here is that I am now able to identify where these faults are, and I learned that from taking [3GG3].” Dianne reveals that most students who send in course feedback find Critical Appraisal to be a lot of work. However, she maintains that the course content is worthwhile, and though the course is managed online and requires some adjustment, the content is delivered effectively, as evidenced by the consistent high performance of each class year after year. Dianne frequently hears back from students working on their fourth year thesis or senior project, where they first start to use their skills outside of the course. In many cases, she says, students are leading a project and can communicate with their supervisor as a colleague, and are able to make a huge contribution. She has also heard from some of the former students who have been pleasantly surprised by the level of knowledge in critical appraisal and study design that their student brings to the discussion. Dianne also hears from students who have gone into the health care or health research fields. She says “students have consistently commented that they find themselves ahead of their colleagues in discussion groups about diseases, interventions, and decision-making. Some have wanted to launch their own critical appraisal course within their medical school—or have me run the course—because the course has been essential to their learning and application and they now feel that their colleagues should also have this advantage. The general sentiment seems to be that [students who have taken] 3GG3 have had a ‘leg-up’ because of the foundation offered through the course.”

Of course, while 3GG3 offers students essential skills, not everybody becomes enamored with the content. Dianne tries to inspire students to find interest in the course by emphasizing the relevance of the material. In her classes, she emphasizes work in her personal life where critical appraisal skills have been instrumental in decision-making. She also talks frankly about some of the research that she has been involved with—where things have gone wrong or compromises have had to be made. The content that is taught, even though it is too many concepts to cover within one semester, is delivered effectively, and students find the content to be completely engaging, they are encouraged to question what is ‘known’, to seek out or demand evidence, and when contributing to knowledge themselves, implement the most robust methods, draw reasonable conclusions from their findings and make sensible, well-supported recommendations or decisions.

John’s biggest hope is that students get energized by the topic area and come to realize that decisions made about our health system have huge consequences for taxpayers, patients and their families and caregivers, the healthcare professionals who work in the system, and the managers who run clinics and organizations. It is crucial that people understand how the system works, and how health policy is made, so that if things are not working right for any of these groups, they know how to approach these challenges to make a difference.

Teaching the course has forced John to be very clear about what the essential concepts are. “I read the evaluations every year and make adjustments. No matter what the course looks like, there are always a number of students who feel there are too many concepts.” However, the much more limited number is a big contrast with what the first class of 60 students went through, which was very labour intensive. They had to figure out the important concepts and apply the theories we learned from the lectures.” The students ended up nominating the course for, and it was, the McMaster Student Union Teaching Award in its inaugural year. And he’s re-designed the class again for its 2015 offering, and looks forward to seeing what the evaluations have to say in April.

John also appreciates having the chance to meet BHSc (Honours) students. He also connects with BHSc alumni regularly. For a considerable number of students, 3GG3 has influenced their career paths. If they pursued a more traditional path such as a healthcare professional, it has become increasingly apparent to them that they need to know about health systems and health policy. Once they are in leadership positions, they are more aware of the factors that affect the health of populations.

According to the Canadian Institutes of Health Research, such four pillars include biomedical innovations, clinical care, health services and systems, and the factors that affect the health of populations. John commented, “It is great that there is some pressure on students to have at least one course in Health systems and health policy. It could be that for a number of the students, it is their first start to use their skills outside of the course, but for others it is not where their hearts lie. In the same way as I had to take biomedical science courses, it is good to have a sense of what’s out there so you can figure out what really interests you.”

John now has a clearer understanding of the content to be completely engaging, as he feels the writing and analytical toolbox through the course can be greatly relevant to students’ future pursuits, whether they are advocacy, program or service development, or community engagement.

“Indeed many BHSc students find value in 3GG3. Jasmine Malecki, who was a student in 3GG3 in 2015, found that Critical Appraisal helped her to see the health system in a new light. She has since gone on to complete a Master’s in Public Health and feels that the content of 3GG3 helped her to make positive changes to the health system in her new role as a Public Health Professional. Another student, Shane Dallaire who worked as a research assistant in 3GG3, found 3GG3 to be incredibly relevant and helpful, especially being in Global Health. It’s usually easy to identify issues with the system, but it’s much trickier to understand how to solve these problems. He says, ‘My two biggest takeaways from 3GG3 showed me how positive change can happen through policy development, even though it’s a long process.’

The comments from students are encouraging, and Dianne continues to make it a priority to keep the course engaging and relevant for virtually any career path. In order to do this, she gets feedback from a variety of sources, including students, instructors, and administrators. This feedback helps her to stay up-to-date with the latest developments in her field and to ensure that the course content is always relevant and applicable to everyday life. She also engages with students on a regular basis, whether through in-class discussions or one-on-one conversations, to ensure that they are able to fully understand the material and are able to apply it to their own lives. Dianne is committed to providing students with the skills they need to succeed in their future careers and to help them to make positive changes to the health system.”

Christine Wang, BHSc (Honours), Class of 2015 comments, “Epidemiology and Health Systems and Policy were two avenues by which I got in touch with the social aspect of the field of Health Sciences. As a person that has always been more inclined to qualitative data which I would like to carry into my future career.”

HTH SCI 3GG3 – Health Systems & Health Policy

The idea of introducing 3GG3 was to provide students with some of the key frameworks from health systems and health policy so that they can explore these areas from a more analytical perspective than the usual and quite-laden approach. This course addresses questions such as how health care is different from other goods and services, and how governments make decisions and deal with challenges in different health systems. Dr. John also links the instructors with its legacy, one of his core beliefs, that it’s important for students who will be working in the health sciences field to have a basic understanding of the four research pillars that support the health of Canadians.
Alessandra Palombo is a family physician based in Brampton, Ontario, where she practices the full scope of family medicine - low-risk antenatal care and deliveries, pediatrician, preventative health care, geriatric medicine and even palliative care.

**ALUMNA PROFILE: ALESSANDRA PALOMBO**

BSc Class of 2004

What led me to family medicine specifically was the way in which the specialty combined my interests in science with humanities. I am so fortunate to be able to care for and support patients during some of the most significant moments in their lives, good or bad, and to be able to form long-term relationships with them. I enjoy the intellectual stimulation, diversity, flexibility and continuity of care that family medicine provides.

As a member of the inaugural Health Sci class, I took a leap of faith when deciding to attend BHSc, and I am so glad that I did. Aspects of the Health Sci experience continue to touch my professional life in so many ways, and I use many of the skills I learned in BHSc on a daily basis.

Another important aspect of BHSc is the interdisciplinary approach to health care - on a daily basis I collaborate with a myriad of health professionals to provide optimal care for patients. When I am treating palliative patients in the community, I rely heavily on input from our advanced practice palliative care nurse and social worker, as well as our links with community agencies like CCAC, and we really do work together as a team.

BHSc emphasizes not only the basic sciences but also the more humanitarian aspects of health sciences, and I think this certainly shaped the direction of my career. Much of what family physicians do is just listening to patients during difficult moments in their lives, treating not just diseases but the whole person. I rely heavily on input from friends, family, colleagues and community and try to provide care from a social and other perspectives that I carry with me today.

This is what I love about my job! In BHSc I gained an understanding of health from biological, behavioural, social and other perspectives that I carry with me today.

The BHSc Program emphasizes and promotes work-life balance amongst students, and this is so important to continue as you move along your career path! That's what BHSc taught me well. You will be supported to one another as you continue your training in whatever field you may choose, and well beyond into your professional and personal lives.

The BHSc program built a strong foundation for my life-long learning journey.

Approximately half way through my first year, amidst the increased demands of post-secondary school, the confusion of inquiry and the transition to living on my own, I called Del for a one-on-one meeting. I was determined to get answers from him. My question: what am I going to do with a BHSc degree? What he shared with me during that meeting not only eased my concerns, but it gave me a new perspective through which to approach the program. He shared with me that his career path wasn't the carefully planned roadmap that I thought successful people needed, but rather a series of opportunities that arose in the moment, as a consequence of the experiences in which he was engaged. It was ok not to know what I was going to do with a BHSc degree! Being in this program would expose me to many learning opportunities in a safe environment, but I had to be open to exploring them, learning new skills along the way, and to constantly reflect on my learning. I didn't know it at the time, but Del was opening my eyes to the importance of the process and not just the content. I was used to and expected to learn content in university. Learning about the process was unfamiliar, and therefore, uncomfortable. I now know that uncomfortable isn't negative. Uncomfortable means challenging and I love being challenged.

I entered the BHSc program with excitement and enthusiasm to embark on a new journey. I could not have predicted what unfolded over the next four years. Challenges, obstacles and unexpected changes led me to develop into a new person. BHSc graduated in my 4th year, delved into Post-Traumatic Stress Disorder (PTSD), with the support of my advisor, I presented my work at a research conference and to clinicians who work with individuals affected by PTSD.

Upon graduating, I knew I wanted to continue on my learning journey so I decided to pursue a Master of Science degree at the University of Toronto, and now I am an Associate Professor in the core competencies that I developed in the BHSc program and applied them to explore my budding passion for chronic disease prevention. During this time, I supplemented what I was learning in class with extra-curricular activities that allowed me to apply what I learned. I became the University of Waterloo’s Campus Program Coordinator for "Leave The Pack Behind," a peer-to-peer comprehensive tobacco control initiative for young adults at all 44 publicly funded post-secondary institutions in Ontario. This experience ultimately led me to my first “adult” job, as the Assistant Manager of Programming and Communications for the province-wide program. In this role, I drew upon all the skills I had spent years developing, and I was able to observe the importance of effective partnerships with community and health promotion staff, public health partners and a variety of external organizations. Working in tobacco use prevention sparked a wider interest in chronic disease prevention. This eventually led me to the opportunity to develop and lead a Healthy Kids Strategy for the City of Hamilton presented itself, I knew it was the perfect fit for me. I love the work I do, but I continually look for new challenges and opportunities to be “uncomfortable”.

Looking back, my career path was shaped very similarly to the way Del described his to me years ago. I don't have a master plan, but I follow my passions and ensure I am always engaged in my learning along the way. I am continuously discovering new passions, and I have the confidence to pursue them fully. My journey is far from over. I look to the future today with as much excitement and enthusiasm as I did when entering the BHSc program.

Rosanna Morales graduated from the Bachelor of Health Sciences (Honours) Program in 2004, as part of the inaugural cohort. In 2006, Rosanna graduated from the University of Waterloo’s School of Public Health with a Master of Science Degree. During her time at the University of Waterloo, Rosanna received the Canadian (CHIR) Stratford Institutes of Health Research (CIHR) Strategic Training Program in Tobacco Research Award. Rosanna is passionate about and has been working in the field of chronic disease prevention for eight years. Currently, she is the Project Manager for the City of Hamilton’s Healthy Kids Strategy. Rosanna has presented at various research and program-related presentations and workshops to clinical, community and academic audiences at provincial, national and international conferences. Rosanna is also actively involved in her community, volunteering as a coach and convener with the Burlington Youth Soccer Club, Burlington Giants Hockey Association, and Burlington Basketball.
I began the BHSc (Honours) Program with a goal of pursuing a career in medicine, but even with that goal in mind the BHSc certainly shaped my career. Going into the program I knew it would give me a good foundation for future medical training, however, BHSc really opened my eyes to the challenges of larger health care system issues and really showed me how to be a provider of health care and how I could influence change. During this time, the Canadian forces began its participation in the war in Afghanistan as a member of NATO. I knew at the time that this conflict was going to be a difficult challenge for our country, but at the same time it was an important opportunity to have a positive influence on a global scale. Shortly after completing my BHSc degree I joined the Canadian Forces as a first year medical student. At each step in my military medical career I have used the leadership skills honed in the BHSc Program. I attribute much of the success I have had to a teaching and working for a medical unit composed of health care professionals from 7 different nations to the inquiry and collaborative academic experience provided in BHSc.

After coming back from Afghanistan, the Canadian Forces selected me for retraining in general surgery at the University of Western Ontario. My interests now include acute care and trauma surgery. Of course those fields lend themselves well to the needs of the Canadian forces. My research interest is in cost effectiveness analysis of health care systems. Last year I completed my MBA at Western’s毅 Barr School of Business. That education complements my previous experience in the BHSc (Honours) Program. The truth is that many of the problems facing the health care system today are business problems and not clinical problems. From a societal perspective many new treatments offer marginal benefits at high incremental cost. Resolving those issues will be our system’s next big challenge.

I think that a common characteristic of the BHSc student is that we are goal oriented. Most of us start the program with a specific end point in mind, and for many of us (and I would have included myself in this) make that goal a singular focus of our efforts. Looking back however, I wish I could have learned sooner how important the journey through BHSc was. In BHSc you truly have an opportunity to discover yourself, your strengths, your weakness and your interests and you can do it while achieving what most people would consider lofty goals. Only when I finally did learn that lesson did I fully experience what BHSc could offer me.

Since graduating from the program and working professionally in the health care sector I regularly run into BHSc graduates. I am so impressed by how proud we are of our undergraduate education and how influential BHSc was to each of us. I would like to encourage students and graduates of the BHSc program to continue to nurture and develop the network they developed during their undergraduate years. Inevitably BHSc’ers will be colleagues and friends who will have a regular influence on your work and career.

Dr. Ball is an instructor for the Anatomy & Physiology courses (HTH SCI 2F03/2FF3, ID06, H106) at McMaster University. After earning a PhD in Anatomy from Dalhousie University, he completed his Postdoctoral Fellowship in the Department of Anatomy and at the newly formed Lion’s Sight Centre. During these years he also gained experience teaching in the class. Dr. Ball says, “You have to work in order to further their understanding of the material. He expresses that his vision in all of this was to help students be prepared for professional school. “We know at that time all professional schools had bell ringer exams that they called ‘objective structure practical exams’ to go along with OSCEs which are clinical exams. And so I really felt that this was important for students who might go to professional schools.” Dr. Ball acknowledges the large amounts of information that students have to digest in Anatomy & Physiology, and that old strategies for memorizing and categorizing will likely be inefficient. He says that the course encourages students to build concept maps and, through the bell ringer, come up with information under stress. “There’s a huge amount of stress when doing the bell ringer, and you have to be able to look at something you’ve never seen before and make sense of it in a time-limited fashion and reason through it.”

Many students who have taken Anatomy & Physiology will agree that there is an unprecedented amount of learning that takes place during the course. On the “final exam there are always some challenging questions, which have become known as the infamous ‘Dr. Ball questions’. These questions are from more of a clinical perspective many new treatments offer marginal benefits at high incremental cost.
As students, we’ve become accustomed to many of the comforts of the BHSc Program from room bookings, help with project courses, technical support, academic advice and the list goes on. However, we often forget that behind every piece of paperwork is a team. Not just a team, but a well-oiled machine that continuously runs to power the engine of our program: the BHSc Office. Open Monday - Friday, the dedicated BHSc Office team works tirelessly to sustain and enrich the program and the lives of the students in it.

As one of the core values of the BHSc Program, the BHSc Office leads by example when it comes to community. Andrea, Del, Jen, Ghazaleh, Nathan, Penny, Stash, Susan, and Teresa have established a hardworking community within themselves whilst supporting the broader BHSc community. While all of the members of the office took unique paths to their positions, the majority of staff have been there since the inception of the program. This has led to an incredibly tight-knit and supportive environment. In fact, it is one of the unique characteristics of the BHSc team.

From zip-lining the Elora Gorge to the annual Secret Santa gift exchange, the BHSc Office knows how to have fun just like its students. Accordingly, when we asked for the hypothetical mascot, a monkey was suggested; they balance getting the work done and having fun.

First and foremost, the office is for the students. Unfailingly, everyone mentions that the best way to build a relationship with the office is to simply come in, say hello and ask a question. The role of the office as a service for students is all encompassing. They act as our academic advisors, our mentors, our textbooks, our FAQ page, our friend. Drop in with any concerns and Penny and Ghazaleh will point you in the right direction. Whether a student is looking for someone to talk to about their academic and career goals or seeking advice about maintaining a work-life balance, the office is the place to go.

Time and time again, students refer to the staff team as a tremendous source of knowledge and support. The reason why? The members of the office want to remind students that as much as they love being a resource in times of need, they also relish the moments in which students share positive experiences and accomplishments with them. When asked for a highlight of their experiences, almost everyone mentions developing relationships with the BHSc students. In particular, it is the privilege of watching as students mature and grow throughout their BHSc experience and even beyond that they find most rewarding. For example, even members of the inaugural BHSc cohort remain in contact and drop by the office. The BHSc annual New Year’s 3.5 Breakfast, our annual Welcome Weekend sessions and Welcome Week videos are just some of the events that they organize in an effort to engage with students.

It is this student-centred approach that underlies the rewarding relationships between staff and students and builds the overwhelming sense of community and belonging BHSc is known for. This article acts as a small reminder not to overlook or underestimate them. As the backbone of the BHSc community, they go above and beyond the regular duties of a faculty office to facilitate our education.

If you’re new to the program, stop by and introduce yourself and ask that question that you’ve always wondered about. If you’re a familiar face, take a moment to visit and share something exciting going on in your life. In a landscape of higher education where students constantly feel like they are being reduced to a number, the students in BHSc are incredibly fortunate to find the opposite. When you step through the doors of MDCL 3308, above all else, you are an individual and your needs will be treated as such.

INTERVIEW WITH JAKE HIRSCH-ALLEN

Interview by Vishalini Sivarajah, BHSc (Honours), Class of 2015

Jake Hirsch-Allen is the new facilitator for two global health courses: Global Health Advocacy (4ZZ3) and Global Health Governance (4LDS) offered in the BHSc (Honours) Program. His unique life experience brings a new and highly valued perspective to these fascinating courses.

Jake says with a smile, I grew up as a diplomat – my dad is a diplomat. I grew up all over the world and I’m still addicted to travelling. I grew up bouncing between Ottawa, Mexico, India, Washington, Israel, Amsterdam, and Phnom Penh. More recently, I’ve mostly been bouncing between Montreal and Toronto, but also San Francisco, Vancouver and Toronto for a bit of software. It’s a fair amount of places but I love it. India was my favourite place – it’s the most fascinating and overwhelming in a positive way. Having travelled to 18 cities in India, I just wanted to see more. Every sense is overwhelmed all the time in a great way, but it’s also exhausting in that respect.

I started out in global health through global international development when I was quite young because my dad is a diplomat. I went to elementary school in India, and my mom would take us, as a part of the program run by the teachers at our school, to the shantytown nearby and work with the kids there. This exposure to the developing world made me more interested in global health. Over time, I’ve become more interested in global business and relations, particularly international development. This led me to pursue a law degree at McGill University to keep as many doors open as possible. My interests there were in line with what I had already done and what I was interested in before, which was international affairs. I also started getting into intellectual property (IP) law. My mom’s an artist, and I love fine art and technology, so IP was a natural fit. The most interesting student organizations around intellectual property at McGill for me were the ones that were focused on access to medicines, so for instance, Universities Allied Access to Essential Medicines had a chapter at McGill. At the time I was working with Richard Gold and Richard Elliott on a variety of other HIV access initiatives. I was also doing research in intellectual property for the McGill Centre for Intellectual Property, which was led by Richard Gold. After leaving for a couple of years, I articled at Gilberts LLP and that was really when I sank my teeth into the deeper issues behind global health, whether from an intellectual property standpoint related to litigating for pharmaceutical or technology companies, or whether it was my pro bono work with the Health Impact Fund. That’s when I started to get into my current role as a general counsel with, in particular, the organization behind Health Impact Fund.

The global education platform area has huge potential. For example, by taking advantage of online education and technology to extend the existing tools that we have at our disposal and areas that we want to work on. We have the tools to share information more broadly to grow companies quickly and basically take our ideas and make them work faster and bigger than we ever have, and I’m happy to connect people who would like to do or pursue that.

I’ve been a bit of a world traveler recently about what my next steps are and what the future will hold for me. I know I will continue to be working at the nexus of innovation policy or even technology and policy, so it’s important for me to have social impact play a role in my life. I’m a relatively macro-thinking person, on international affairs or at least national affairs, and I am also really tied to the beneficial effects of technology. It’s an area of our economy that’s moving fastest and growing well. I think that there’s huge potential for an increased focus on bigger issues.

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While he didn’t gain an understanding of what research really was until his fourth year of undergrad, Del knew from a young age that he was interested in asking questions and finding answers. He was accepted to various Ontario universities, including the University of Ottawa for medicine, but ultimately opted for a biology program at Queen’s. He chose not to pursue medicine because he found science more interesting - more about being inquisitive and finding answers. Looking back, Del says that was “exactly the right decision.” However, it wasn’t just smooth sailing from there on out. According to Del, first year was quite boring because the students would just be “sitting, learning things that no one knew wasn’t just smooth sailing from there on out. According to Del, first year was quite boring because the students would just be “sitting, learning things that no one knew. One of the things he should have been doing was being more self-directed and knowing how to ask interesting people to help him. Not only did he come from a faculty that used Problem-Based Learning (PBL) he also knew that PBL guides graduate students and researchers. Introducing this component to undergraduate courses would make them more consistent with the true nature of scientific exploration. Del acknowledges that there is tremendous value in a good lecture, but realizes that it’s not where students really learn - they learn in other ways, when they leave lecture and review the material. “All sorts of things precipitate the learning, but the lecture itself is just a mechanism to give you information. Which you can acquire in lots of ways!” When asked how his perspective on effective teaching methods has changed while he’s been with the BHSc (Honours) Program, Del says that he thinks many teaching styles can be effective - “lectures, inquiry, PBL, case-based learning - everything can be effective.” For Del, it’s more important to think about the entire experience, not just one course. He says that becoming more self-directed and knowing how to ask questions and find answers are especially valuable skills, and aims to foster these throughout students’ time as undergraduates.

Del on behalf of the hundreds of BHSc students you’ve taken care of over the past 15 years, we thank you for all your words of encouragement and wish you all the best in your future endeavours!
EMBARK ON PROJECT COURSES: WHAT STUDENTS HAVE TO SAY

Everett Claridge - Alumnus, BHSc (Honours) Class of 2014, Mohammed Firdouse - Alumnus, BHSc (Honours) Class of 2014, Philipp Kobl – BHSc (Honours) Class of 2015

By Anna Kudrina & Huaying (Helen) Zhao, BHSc (Honours) Class of 2017

Undoubtedly, the BHSc (Honours) Program offers students a plethora of opportunities to explore research. From HTH SCI 3H03 (Inquiry) to HTH SCI 4A09 (Thesis), students tackle various fields of interest, engaging in a self-directed approach to their learning. We interviewed two BHSc Alumni and one fourth-year student to discuss their experiences in their project/thesis course and asked them to highlight the challenges they overcome and the pivotal lessons they subsequently learned.

Could you please provide a brief overview of your research?

Philipp: For the most part, I work on a disease called pulmonary fibrosis, and in humans, it manifests as idiopathic pulmonary fibrosis (IPF). Idiopathic means that we’re unfamiliar with the cause, the pulmonary refers to the lungs, and fibrosis indicates scarring, so altogether, pulmonary fibrosis describes scarring of the lungs. Micro injuries in the lung induced by environmental exposures to particulates or viruses initiate the wound healing process. In the absence of particulate or virus, micro injuries fail to be resolved and fibrosis indicates scarring, so altogether, pulmonary fibrosis describes scarring of the lungs.

What about your learning in academia or even about yourself? What kind of lessons did you gain in this regard?

Philipp: Science is extremely complicated and intricate and usually, there isn’t a conclusive answer to your research question. So, first of all, I gained a vast amount of knowledge to be able to apply in a real-life setting. But I later realized that what you read in textbooks and papers is not always what you expect. For example, seeing a patient undergoing a mycocardial infarction is a completely different case than reading about it in a textbook. I learned that I should take my learning with a bit of caution and that not everything can be taken as literally as they are represented in books. Second, I realized the importance of collaboration. I collaborated with many professionals from various institutions and was able to organize and display findings with several individuals. As well, I learned the importance of communicating in a professional setting. One of my projects required interviewing patients, and recruiting them, I was required to ask very personal and sensitive questions, like those pertaining to a mother’s medical history. There have been instances where patients were in tears, and not at all comfortable with the uncertainty of the direction a project will go.

Firdouse: This was one of my first research projects and, in the beginning, I felt a lot of pressure. I felt that I was flying by the seat of my pants. When I started a new research project, it takes quite some time to figure out what you are doing and, personally, I didn’t even know what the end goal of my project would be. One of the challenges was to understand that there is room for ambiguity and mistakes when confronting with the uncertainty of the direction a project will go.

Firdouse: In order to engage intellectually with my project, I needed a foundation of understanding of the research I was working in. I did not want to go wrong and make mistakes. I needed to have the technical steps that have to be done successfully, procedures such as adding fluorescent antibodies or extracting RNA to run the PCR (polymerase chain reaction), so there is always the possibility of technical error, like adding the wrong reagent or not digesting the sample correctly. So, for coursework, when performing experiments, some steps have to be completed at certain times. For instance, if the data needs to be measured in 24 hours, you have to be available to do so in 24 hours and you have to ensure it doesn’t conflict with your classes.

Everett: This was one of my first research projects and, in the beginning, I felt a lot of pressure. I felt that I was flying by the seat of my pants. When I started a new research project, it takes quite some time to figure out what you are doing and, personally, I didn’t even know what the end goal of my project would be. One of the challenges was to understand that there is room for ambiguity and mistakes when confronting with the uncertainty of the direction a project will go.

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Everett: For 3H03, my area of focus was on examining novel treatments for congenital heart defects, including pulmonary hypertension in mouse models and evaluating the different effects of these drug treatments. Because it was a library-based literature search, I wasn’t in the lab very often. By the end of third year, I wanted to try something else. I emailed numerous professors, but I could not secure a thesis supervisor for 4A09, and I was getting very nervous. The summer break arrived, and I began doing research at the Children’s Hospital of Eastern Ontario in Ottawa, where I met some people who were able to put me in contact with different physicians at McMaster Children’s Hospital. Eventually, I got into touch with researchers who were also interested in a research and educational center that studies all types of childhood disability, such as cerebral palsy and autism. When I got involved, I joined the Stay-FIT program, which aims to expand from children to adults. I worked closely with a Master’s student, looking at cardiovascular health in adults with cerebral palsy and their physical activity. I assisted in participant evaluation, helped with data collection and analysis, and learned more about the cardiovascular dynamics lab found in IHC with the kinesiology program.

Firdouse: My research primarily concerns pediatric cardiology. My research for 3H03 and thesis work for 4A09 consisted of a crossover protocol that explored a congenital heart defect called hypoplastic left heart syndrome. Essentialy, in this disorder, a child is born with a congenital heart defect; only one is functional. This means the functional ventricle is responsible for pumping blood for both systemic and pulmonary circulation. You can imagine that this design gives rise to many problems, and so the purpose of the project was to evaluate the outcomes in these patients. I took on this project with three goals in mind: firstly, I wanted to look at the incidences of thrombotic complications in these three procedures; secondly, I wanted to figure out if there were any risk factors involved causing these poor outcomes; and lastly, I wanted to develop some sort of protocol that could be published for physicians to establish an international gold standard.

Were there any difficulties starting off? And as you continued your work with your research, did those challenges evolve?

Philipp: In my first year, I wasn’t performing any experiments, I made buffer solutions and I was gathering some sort of data. I could probably change for my actions, such as booking the necessary equipment and ensuring sufficient amounts of reagents. As well, in the lab, they tend to go wrong and make mistakes. I needed to have the technical steps that have to be done successfully, procedures such as adding fluorescent antibodies or extracting RNA to run the PCR (polymerase chain reaction), so there is always the possibility of technical error, like adding the wrong reagent or not digesting the sample correctly. So, for coursework, when performing experiments, some steps have to be completed at certain times. For instance, if the data needs to be measured in 24 hours, you have to be available to do so in 24 hours and you have to ensure it doesn’t conflict with your classes.

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Everett: When I first couldn’t find a supervisor for 4A09, I experienced extreme stress. Looking back now, the anxiety was unnecessary. I committed myself to see it through with people and things I like, much that could go wrong. As I progressed in my research and I began to design my own experiments, I realized I could take action for my actions, such as booking the necessary equipment and ensuring sufficient amounts of reagents. As well, in the lab, they tend to go wrong and make mistakes. I needed to have the technical steps that have to be done successfully, procedures such as adding fluorescent antibodies or extracting RNA to run the PCR (polymerase chain reaction), so there is always the possibility of technical error, like adding the wrong reagent or not digesting the sample correctly. So, for coursework, when performing experiments, some steps have to be completed at certain times. For instance, if the data needs to be measured in 24 hours, you have to be available to do so in 24 hours and you have to ensure it doesn’t conflict with your classes.

Firdouse: I took advanced anatomy courses, such as anatomy of the musculoskeletal system. When I started working in the lab, I realized doing things step-by-step was very important, but I often find opposing views and information, which makes it difficult to decide what to focus on and what is applicable to the research setting so it would definitely be helpful to really pay attention to what you are learning in those courses. Another thing that is important to understand is that research requires a lot of long-term gain and things do not always happen very quickly or as quickly as you may like them to. It can be slow but progressive and it is important to focus on the entire process rather the potential end results. But I believe that being persistent and not giving up on anything is very important as research is so self-directed.

Any advice you would like to give students or those interested in getting involved in research?

Philipp: There are a lot of things in research that can go wrong - from looking in the wrong area or investigating the wrong gene or protein to experiencing technical errors. That being said, you can’t take it personally. I would like to note that when searching for supervisors, be mindful of the fact that the Project Investigator (PI) can tell if you have written a generic email and sent it out to many faculty members. If you don’t get a response after a couple of days, I recommend elaborating on their research focus and providing your own ideas for potential projects. You must demonstrate to the PI reasons as to why they should take time off their busy schedule to meet with you. Second, if you get a rejection, don’t feel bad at all. I didn’t have sporadic one hour chunks of classes or breaks as it wasn’t enough time to go to the lab and just do research, so you are better off waiting easier to go on a Saturday and set up.

Everett: If you really want to get involved, ask for volunteer positions. Getting a paid position can be a little tricky at times. Start with volunteering to get your name out there. Also, as you work in the lab, it is important to take the time to understand the process and how the lab works. The last thing I would say is that you must have very different dynamics and it was very important for me to keep up with the kinesiology program. Other challenges included coordinating meeting times with a variety of inter-professional groups who had varying roles and very busy lives. Finally a third and very important hurdle I found was having to work with a variety of individuals: students, colleagues, and faculty. As you and other students in the program have realized, groups have very different dynamics and it was important to realize the expectations of both you and the professionalism, and adapt to the needs of the group.

Firdouse: Looking for opportunities for research is a common struggle. The biggest advice I have for students is to get involved in research just because you feel like you’re “supposed to”. Excelling in research requires enthusiasm and interest, so it’s imperative to determine what topics but the research process more or less remain the same. Additionally, a lot of BHSc students feel that there are not many opportunities that are applicable to the research setting so it would definitely help to really pay attention to what you are learning in those courses. Another thing that is important to understand is that research requires a lot of long-term gain and things do not always happen very quickly or as quickly as you may like them to. It can be slow but progressive and it is important to focus on the entire process rather the potential end results. But I believe that being persistent and not giving up on anything is very important as research is so self-directed.
COMMUNITY EMPOWERMENT THROUGH COLLABORATION AND RESEARCH - AN INTERVIEW WITH SARAH GLEN AND MARGARET SECORD

By Selina Ling Zeng, BHSc (Honours) Class of 2015

2015 marks the 8th anniversary of Engaging the City, a two-phase project offered through the BHSc (Honours) Program to encourage community participation and empowerment by bridging theory and practice. Phase I of the project is a four-month course called HTH SCI 3DDD: Engaging the City. It provides students with a foundation for community engagement and community-based participatory research (CBPR). As well, students can pursue personal interests and build meaningful research projects with partner organizations.

Upon successful completion, students can elect to pursue Phase II of the project, called the Community Collective Thesis (CCT), through a senior research project or thesis (HTH SCI 4B06 or HTH SCI 4A00) with one of the over 50 community partners. The Community Collective Thesis allows student-researchers the opportunity to explore ways of working with the Hamilton community on research projects that improve the quality of life in the city. Engaging the City helps students flourish in developing and applying their unique ideas, perceptions, passions, and skills set in a collaborative and shared process to become agents of change in the community.

I recently had the pleasure of interviewing Sarah Glen and Margaret Secord, co-facilitators of Engaging the City, on their perspectives.

What is community-based participatory research?

One of the cornerstones of CBPR is its collaborative partnership approach to research. This methodology facilitates equitable participation of all partners, including community members, organizational representatives, and researchers, in all phases of research. The sharing nature of CBPR provides mutual benefit to all partners by integrating knowledge and action, and promoting a reiterative co-learning process from diverse perspectives to address issues of social inequalities and health. Therefore, this process enables community partners to contribute their expertise and share responsibilities and ownership of the research, in order to build on strengths and resources within the community with a long-term commitment.

How did the Community Collective Thesis program come into existence?

What we heard from the Hamilton community was a real need for research. Our partners did not necessarily have the time or resources, but they knew research was important. This introduced the question of how the BHSc (Honours) Program could create a space for students who are interested in community engagement and CBPR to support our community in its goal to do more research. One of the special components of this process was the time taken to develop and execute a number of community consultations in order to gain a more comprehensive understanding through a variety of community members, from service organizations to members of the broader community, such as those who might have faced barriers in accessing various services and opportunities. Because of this preparatory work to better understand our community’s needs, we were able to create something useful to our community.

What are some pressing community needs in Hamilton that call for examination or attention?

We have a lot of requests for impact and program evaluations to measure the impact of programs and services provided by the community partners, needs assessments to determine if there is a need for a new program or service, as well as cost-benefit analyses, environmental scans, and literature reviews. There is a broad range of topic areas surrounding the social determinants of health, such as child health, mental health, immigrant or refugee communities, animals, and housing.

How have students contributed to their community through CBPR?

Students are a critical part of this process, and they inspire us to no end. By learning to reflect, be patient, and put the needs of the community partner ahead of their own, they do make a lasting impact on the community. We received a Forward with Integrity grant last year, to seek formal feedback from our community partners on the work that we do with the students. This research project has shown that the students’ research outcomes can help organizations access more funding, make changes to existing programs that will better serve their clientele, and create new programs that lead to more research. This is an ongoing process because there is not simply one answer. We are fortunate because we have new students every year that can roll into the next project, and we can build and sustain that relationship with our community partners. What is also very neat is the culture of sharing and connectedness the students have in supporting each other through the research and engagement process. This is almost like a legacy project because the students’ impact is felt so much longer after they leave, and they do not even know about their impact until much later in the process.

What are some interesting findings that you discovered through the project Forward with Integrity Meets 3DD?

Even though we thought we were trying to meet the needs of the community as much as we could, one key finding is that some expectations may be misaligned in the process of conducting CBPR. For example, a few community partners did not expect the lengthy ethics approval process. This could become a source of frustration for the student and the community partner. We as supervisors also had not communicated as well as we probably could have, because it was our thinking and assumption that people understood the process. We realized that this is an area we have to change and further clarify when speaking with our community partners. We have since taken steps to expedite the ethics process. Community partners also reflected that the experience of working with CBPR student-researchers was very different from that of working with other McMaster students. Because we work in a very intensive and supportive space with our students, community partners recognized from a research perspective that the research project was very useful for the organization.

What are some challenges that you have faced as CBPR researchers during this process?

One of the biggest challenges is the interplay of multiple systems. There is the university as a system, and there are deadlines, requirements, and forms, which are mandated from the university’s perspective. Then we have situations that are demanded by the community, such as the timeline. Therefore, it is always a challenge to inform and negotiate with not only the community partner but also the university. This plays out in the communication piece mentioned earlier, helping our community partner understand the interplay of the system. We become interpreters because the languages are different in these systems. For example, the word “ethics” means something different to us here on campus versus what it means to the majority of the community partners. We realized we had to translate more than we initially thought. It is also important to recognize that the timeline is different; how community partners see their research projects evolve over time is very different from the university’s perspective. We have been able to work out some details to support students in community research projects that may take more time. The phased approach, the dedication of our students to work past the academic schedule if required, is fantastic. We also have students willing to start early in the summer. This gives us more flexibility to align with the community partners’ timeline.

How has the journey of conducting CBPR impacted you personally and professionally?

It changes you. When you are invited into a space where you can share ideas and support in exploration of a possible solution, it is such an honour. It is also being invited into that space with students and community partners, and not just us who go out there and build our own relationships. It is a triangle, which can be the most exciting part, because you see the students grow, you see the community partners have a different appreciation, and we grow from learning those negotiation skills and understanding the complexities. It never ceases to amaze us that we get to be a part of it in one place, which is a collection of parts, and as
We move forward, we end up creating that whole together. We could not have done any of that with just one or two of us; it needs to be all of us together. The willingness of the students to take some risks in being uncomfortable is very inspiring as well, because it demands a lot of trust and commitment.

What do you envision to be the future for CBPR? What kind of support can help foster its growth?

It is growing, and we are at the point where we need to bring in other resources, but it is very tricky for all the reasons we have talked about. You need the commitment, the dedication, and the understanding that it is all about relationship building and meeting the needs of the community rather than someone’s professional needs. It is finding the right balance and fit.

What is wonderful is that there is a commitment from the university and the BHSc (Honours) Program to engage with our community in a responsible and ethical manner. Any conversations about what CBPR would look like in the future need to be decided not just here at this table. It is never just up to us; we cannot even envision what any of these projects would look like until we are out there, working on the relationships that move this work forward. Similarly, the conversation would need to have a lot of different voices in order to determine how the next phase looks. In the beginning, we never would have thought we would be here. The one piece is that we do not necessarily at this point foresee it stopping. We are hopeful and excited about what has already happened, and about the possibility of it continuing.

From the students’ perspective, it is very interesting to be re-connected with students who have done community-based research and start talking about how they have been using those skills in different contexts. Everyone has different paths and may or may not pursue qualitative or community research, but how can they use the skills gained in our program in other avenues of their life is absolutely fantastic. The principles of CBPR are those that you can carry forward in creating programs, and building groups or relationships beyond research projects.

BHSc CAREERS FAIR 2014
By Matthew Jessome, BHSc (Honours), Class of 2015, BHSS Academic Coordinator, 2014-2015

One of the greatest challenges encountered by BHSc students is the complex task of identifying a career path that suits one’s strengths and interests. To address this, the Bachelor of Health Science Society (BHSS) Academic Committee collaborates with the BHSc office to organize the annual Careers Fair. Taking place on two evenings in early November, Careers Fair brings back BHSc alumni who have ventured into a variety of different professional fields. This past year, alumni have returned to talk about their experiences in programs such as global health, health policy, health research methodology, medical sciences, and medicine. All career paths are more than welcome to attend the presentations and engage in the discussion provided by our generous alumni. Careers Fair extends beyond describing the prerequisites and deadlines for graduate program admission. Within these sessions, the alumni provide valuable perspectives on what spurred them to pursue their interests, providing a relatable platform for students. Alumni also offer insight into the rewards, adversities, and complexities that students can expect, should they decide to pursue a similar path. Most importantly, students are able to tailor Careers Fair to meet their specific needs, by directing the discussion with alumni to attain a more complete understanding of their career prospects. This year, students found Careers Fair both enjoyable and informative, and we hope to see the event continue to be successful for years to come!

BHSc CHARITY FASHION SHOW 2015
By Belle Cao, BHSc (Honours) Class of 2015

One of the greatest challenges encountered by BHSc students is the complex task of identifying a career path that suits one’s strengths and interests. To address this, the Bachelor of Health Science Society (BHSS) Academic Committee collaborates with the BHSc office to organize the annual Careers Fair. Taking place on two evenings in early November, Careers Fair brings back BHSc alumni who have ventured into a variety of different professional fields. This past year, alumni have returned to talk about their experiences in programs such as global health, health policy, health research methodology, medical sciences, and medicine. All career paths are more than welcome to attend the presentations and engage in the discussion provided by our generous alumni. Careers Fair extends beyond describing the prerequisites and deadlines for graduate program admission. Within these sessions, the alumni provide valuable perspectives on what spurred them to pursue their interests, providing a relatable platform for students. Alumni also offer insight into the rewards, adversities, and complexities that students can expect, should they decide to pursue a similar path. Most importantly, students are able to tailor Careers Fair to meet their specific needs, by directing the discussion with alumni to attain a more complete understanding of their career prospects. This year, students found Careers Fair both enjoyable and informative, and we hope to see the event continue to be successful for years to come!

HEALTH SCIENCES MUSICAL 2015
By Belle Cao, BHSc (Honours) Class of 2015

In 2006, a group of dedicated Bachelor of Health Sciences (BHSc) students wanted to promote and share their love of music. The Health Sciences Musical (HSM) has since grown to be a staple of the Health Sciences and wider McMaster community, with approximately 70-80 students writing, producing, and performing an original musical production every spring. BHSc students make up the entire writing team, cast, chorus, band, music arrangers, choreographers, stage crew, set/props/costumes creators, publicity, and fundraising committees. Throughout the year, students devote countless hours to working on the musical for one of the most highly anticipated events in the community. In addition, the Health Sciences Musical is a not-for-profit club and all proceeds from the show will be donated to charitable initiatives. The money raised this year will be donated to two causes. The first is the BHSc Scholarship, a scholarship for BHSc students that rewards academic excellence and community involvement. Our second charitable initiative is Art Forms, which is a program that provides youth who are “on the fringe” with opportunities to explore a full array of creative pursuits. Our support for these initiatives reflects our advocacy for the role of the arts in improving and transforming lives. The 2016 production will be held in March-April 2016 and will be open to students, staff, friends, alumni, parents, and residents of the McMaster and Hamilton community.

A few inspired individuals initially crafted the BHSc Charity Fashion Show as a 4X03 initiative in 2004, but it has enthralled the entire BHSc community over the last decade. Thanks to the creativity, commitment and dedication of the 250+ students involved, we were proud to present the 10th annual BHSc Charity Fashion Show “Carnivale” on March 21st in the CIBC Hall of McMaster University. Our extraordinary executive team, student designers, fundraisers, set designers, choreographers and models all came together on this night to put together a show that truly reflected their time, dedication and hard work. All proceeds from the show go towards the BHSc Scholarship and Camp Trillium, a year-round camp that brings children with cancer and their families together.
AN APP FOR IMPROVING MENTAL AND EMOTIONAL WELL-BEING OF STUDENTS

By Parmjit Singh, Instructor, BHSc (Honours) Program

A bunch of us (Parmjit Singh, Brian Baetz, Debbie Nifakis, Stash Nastos, Manjit Handa, Jennifer Landicho & Nathan Cooper) were recently awarded the President’s Forward with Integrity grant at McMaster University to develop a customized smart phone technology to foster mental and emotional well-being for its students. The grant recognizes the need to address the rising mental and emotional challenges among University students in the form of stress, depression and addiction. While some of these issues may have a biological contribution, a significant amount of them may also be triggered and encouraged by lifestyle choices, moving away from home, peer pressure, role modeling, a highly competitive atmosphere, and social and personal expectations.

The National Alliance on Mental Health states that “one in three students reports having experienced prolonged periods of depression, one in four students reports having suicidal thoughts or feelings, one in seven students reports difficulty functioning at school due to mental illness.” Similar trends from Canadian campuses in recent times have been observed.

Even though there are dedicated supports and services available to students to seek help from support workers, physicians, social workers and mental health professionals at the Student Wellness Centre, a significant amount of the student population, even after positive diagnosis, do not avail themselves of these services. Part of it could be a stigma related to admitting that there is “something wrong with me” or other sociocultural factors. More so, campus facilities and resources are often stretched thin due to lack of time, staffing and resource shortages, and are often incapable of catering to the ever-increasing demand from students.

Our vision is to develop a customized smart phone technology that packages techniques, tips and resources which students can use in their own anonymous space to develop a sort of psychological immunity against lifestyle-related mental and emotional challenges. For example, one of the modalities known as Mindfulness Based Stress Reduction (MBSR) program is found to be very effective in a wide variety of mental and physical issues. Recent functional magnetic resonance imaging (fMRI) studies have also shown that sustained practice of this technique is likely to initiate positive neuromodulatory changes in the areas of the brain related to memory, attention, emotional regulation and self-referential processing.

By offering students this tool, we are hoping to highlight the importance and value of a preventative approach to mental and emotional well-being in addition to supplementing already available therapeutic resources on campus. Our ultimate goal is to extend this tool to the larger community because mental and emotional challenges are not limited to students. Even trends from Canadian campuses in recent times have been observed.

CONGRATULATIONS!

The BHSc (Honours) Program would like to congratulate Hartley Jafine who recently received an MSU Teaching Award in Health Sciences and Margaret Secord and Sarah Glen who were the recipients of the Community Engagement Teaching Award!

THE INQUIRY JOURNEY: A FACILITATOR’S PERSPECTIVE

By Tiffany Got, BHSc (Honours), Class of 2018

Many incoming first year students have never participated in a class quite like HTH SCI 1E06 (Inquiry), one of the cornerstone courses of the BHSc (Honours) Program. Each year students remark upon the experience of being exposed to a ground-breaking learning style that contrasts many of the features of the conventional undergraduate educational model. One such emphasis is on self-directed learning, where the onus is placed on students to actively structure their own learning. Despite the seemingly hands-off approach it would necessitate of the instructors, the Inquiry facilitators play a critical role in guiding students along their journeys of lifelong learning.

This year’s facilitators of Inquiry 1E06 and 2D06 are: Sarah Auchterlonie, Laurie Barlow, Lorna Colli, Hartley Jafine, Jennifer Landicho, Annie Lee, Carrie McNairy, Jennifer Nash, Stash Nastos, Debbie Nifakis, Iordan Robertson, Margaret Secord, Kristina Trim, and Mike Wong. Their goal is straightforward. As one facilitator puts it, it is simply to facilitate. However, their role is much more complex, as it depends on the group dynamic. Just as no two individuals are the same, no two groups are identical. What is required of the facilitator follows this flux. Thus, it is difficult to define the role of the facilitator to a single description, as it is constantly evolving with the group.

The varied skill sets that the facilitators must employ to fill different roles underscore their diverse backgrounds. Some have been facilitating since the inception of the program in 2000, while others actually went through the Inquiry course itself as members of the early BHSc student cohort. Aside from varying levels of experience with Inquiry, everyone has a distinctive background. From being a psychologist by training, counselling at the Student Wellness Center, practicing as chiropractor to instructing arts-based courses, each facilitator brings a perspective to the table that is complementary to the group.

Naturally these differences will shape the Inquiry journey since each facilitator draws on his or her unique strengths and expertise. While the learning goal is the same for all classes, these core skills are incorporated in activities that take different forms for each class. To prevent disconnect between the classes, the support that the facilitators can offer each other is critical. Just as learning from one’s colleagues is encouraged in the Inquiry class it is mirrored by the facilitators. Weekly meetings as well as yearly retreats are opportunities to establish and strengthen the collaboration between the facilitators.

Furthermore, this support comes in handy when dealing with the challenges of facilitating. A principle of the Inquiry course is the focus on the process, as opposed to the content. Thus, there are common themes that may emerge in the groups such as decision making, time management, problem solving and group dynamics to name only a few. It can be challenging for facilitators, who may have already seen a similar situation in previous years, to resist handing out the answer, since they need to allow the students to discover the answer on their own. Instead facilitators lay the foundation for these breakthroughs by building student confidence and establishing a safe space for them to experiment.

On the other hand, the facilitators identify similar themes on the rewards of facilitating. In particular, the development of the students each year is a satisfying sight to behold. It is likened to the growth of a flower. If you stare at it every day, you may not notice it blossom since the growth is gradual. However, over time, the change is impossible to overlook. By the end, you can see a beautiful flower. In particular, one facilitator, who is facilitating both first and second year courses this year, is able to directly observe the remarkable growth in a second year student who completed the course last year compared to a first year who is still navigating the process.

At the end of the day, although the focus is often on the growth of the student, the facilitators have the opportunity to embark on a journey as well. In fact, the facilitators are the first to acknowledge that they are not experts in all the core competencies in the Inquiry curriculum, and are continuously cultivating these skills in themselves. As mentioned, each group offers an opportunity to take on a novel role to address the needs that arise and to advance their skills in that context. In this light, as one facilitator says, we (facilitators) are part of the class and everyone is learning together.
As the year draws to a close, so does the undergraduate career of many students in the BHSc Program. We asked upper year students to take a moment and reflect on their journey over the past few years with one piece of direction: If you could go back in time to talk to yourself in first year, what would you say?

“Just because something doesn’t work out the first time, it doesn’t mean that it’s not worth trying again because you never know where it will lead.”

_Liz Pope, BHSc (Honours), Class of 2016_

“Don’t forget to listen to yourself. Oftentimes when you enter a new chapter in your life, you get bombarded with new information and suggestions on what you should do or who you should be, whether it’s from your parents, profs, upper years, peers, pets, etc. Sometimes, these voices can make it hard to hear the voice within you. Remember that university is about you. It is a place for self-discovery. It takes time to find yourself, your goals, what makes you happy, etc. But, you can start by listening to yourself. 4 years will fly by in the blink of an eye so make and live in your own stories. Learn from your own stupid mistakes. Don’t waste time regretting. Cherish every moment.”

_Rod Rodjanapiches, BHSc (Honours), Class of 2015_

“Budget.”

_Tosin Tomiwa, BHSc (Honours), Class of 2016_

“The big change to the university lifestyle will work out. Transitioning into the more intense academic lifestyle and living without your parents for the first time was an extremely big step. You will grow so much as an individual over the next three years, and you couldn’t be happier. First year Justin, even though you are stressed and emotional, keep in mind that your next few years will be awesome!”

_Justin Brunet, BHSc (Honours), Class of 2016_

“We all make mistakes - forgive yourself, learn from them and keep moving forward.”

_Tul-Zabra Rida, BHSc (Honours), Class of 2015_

“Devote the same level of care to your body (and all that which it houses) as you do to all that you achieve with it. Let yourself laugh out loud when you write LOL - there is no embarrassment in being happy. There is also no shame in being sad. Learn to recognize Love in all its incarnations, and when you see it, say it. Be appreciative, be humble, and always say ‘thank you’ -- even if no one else is around to hear it. And back up your hard drive.”

_Amita Mall, BHSc (Honours), Class of 2015_

“Get up, get out and get something.”

_Sherwin Wong, BHSc (Honours), Class of 2016_

“I wouldn’t say anything. All the mistakes, uncertainties and confusions I had in undergrad were necessary to make me the person I am today. Even though the journey was frustrating at times, I wouldn’t have it any easier.”

-Anonymous

_A special thank you to the faculty, students and alumni who shared their experiences and stories!_