



QMR

QUEEN'S MEDICAL REVIEW

The Queen's Medical Review gratefully acknowledges the financial support of Queen's Alma Mater Society

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From the Editors

Friends, Romans, Countrymen,

It's that time of year: the grass is green, the midges are on their way out, and the pre-clerks are antsy in anticipation of summers spent travelling abroad, canoeing Algonquin, pipetting aliquots, culturing probiotics, or simply lazing without pants on. In just days, the class of 2016 will be rejected, and then accepted, and the current students will feel the swell of pride that comes with having an extra layer of hierarchy below us.

This issue contains the results of this year's creative writing contest. Turn to page 13 to see the first place winner (we won't give it away here!), who will receive \$50 cold, hard cash. Read through for second and third place winners, winners of \$10 each. Our honourable mentions are included in this issue, too. We were bowled over by the creative skills of our classmates and had a terrible time trying to pick just one first-place winner ... but we could only afford to award one first-place winner, so congratulations.

As the year comes draws to a close, we are preparing to hand off the Queen's Medical Review to two new junior editors-in-chief. Jennifer Kwan and William Reginold will be taking over as fearless leaders in the upcoming school year. Thanks for a great year.

With love,



Seth Climans



Sarah Lockett-Gatopoulos

Editors in Chief

External News

COMPILED BY JANETTE SPEARE

MANY FIRST NATIONS RESERVATIONS STILL LACK CLEAN WATER

In a survey of 571 Canadian reservations, 39% were found to have major deficiencies in their water supply and treatment facilities, putting the residents at high risk of problems like skin rashes and diarrhea. Abysmal conditions on reserves are Canada's not-so-secret shame; federal allocations often do not cover the cost of maintaining a functional water and sewage system, and reservations are not solvent enough to make up the remainder.

ETHNICITY-SPECIFIC GROWTH CURVES RECOMMENDED

In the February 15th, 2012 issue of the *Journal of Obstetrics and Gynecology Canada*, new ethnicity-specific guidelines for infant weights were put forward by a group headed by physician Dr. Joel Ray. The authors claim that some immigrant populations, especially South and East Asians, normally have babies with lower birth weights. They speculate that misclassifying healthy ethnic babies as small for their gestational age leads to unnecessary tests and stress for new parents. Using the current Canadian guidelines, one in ten healthy South Asian male babies would be classified as small for his gestational age.

OXYCONTIN DISCONTINUED IN ONTARIO

Drug benefit plan coverage for the highly successful and highly addictive

painkiller OxyContin ceased for most recipients on February 29th, 2012. The move is an effort on behalf of the government of Ontario to curtail rampant over-prescription and abuse of the drug, which is especially devastating in northern communities. The manufacturer, Perdue Pharma Canada, has discontinued production of OxyContin, and is producing a replacement drug, OxyNeo, which has the same active ingredients but is allegedly more difficult to inject or snort.

NEWFOUNDLAND WOMEN SUE OVER UNNECESSARY BREAST REMOVAL

Nine mistakenly-mastectomized women from Newfoundland and Labrador are suing Eastern Health, claiming their misdiagnoses of breast cancer constitute negligence. A 2005 investigation found major problems with estrogen and progesterone receptor testing of breast cancer biopsies, leading to hundreds of samples being re-tested at Mt. Sinai Hospital in Toronto. According to the inquiry, lab mistakes, poor oversight, and faulty tests resulted in over four hundred women receiving erroneous results. The women hope to recover damages for having undergone unnecessary chemotherapy, x-rays, and surgeries.

GENERIC DRUG SHORTAGE FEARED AFTER QUEBEC PLANT INSPECTION

Sandoz Canada, one of Canada's leading suppliers of injectable generic heart and cancer medications, has

suspended production at a large Quebec manufacturing plant following an FDA investigation. The U.S. regulator indicated that the plant had not done enough to prevent contamination, although no products were recalled. While the suspension is in effect, doctors and pharmacists will have to find replacement therapies for their sick patients. Since most drug plans will not cover a brand name drug when a generic version is available, some patients may be unable to afford critical pharmaceuticals.

ONTARIO'S AIR AMBULANCE SYSTEM RIDDLED WITH PROBLEMS

Ontario's ORNGE air ambulance system has come under scrutiny following revelations that in February of this year a newborn boy waited more than 4 hours to be transferred from Windsor to a London hospital for lifesaving treatment. According to the Globe and Mail, the delay was caused by the ambulance being sent to the wrong hospital. The baby was eventually transferred by ground to Detroit for emergency surgery. The OPP is investigating the Liberal McGuinty government's management of ORNGE amid allegations of financial mismanagement, operational troubles, and lack of transparency. One whistleblower alleges that ORNGE air ambulances have sometimes been grounded for days on end due to a lack of available pilots.

A Weekend-Long Debauch

BY SETH CLIMANS

Three medical students perch themselves on the hotel's luggage trolley as a fourth student pushes them full-speed down the crowded hallway of Hôtel Le Président in Sherbrooke, Quebec. As the trolley jostles its way through the crowd, there is a cascade of students who narrowly escape injury by pressing their bodies firmly into doorframes. The passengers begin to yell. Up ahead, there is a large, immovable crowd. The driver quickly plants his feet to stop the trolley's momentum. The trolley nearly careens under the unevenly-distributed weight of its passengers. Luckily, the trolley stops, and the passengers manage to safely hop off. Two other students take advantage of the commotion to sneak into a hotel room; they kiss on their way through the door.

Up ahead, in front of the parked trolley, there is a crowd of students from several medical schools. The students from Saskatchewan are wearing matching green t-shirts. The Queen's students are sporting tri-colour facepaint. Quebec students are interspersed throughout. The main attraction is a row of ironing boards, placed end-to-end down the hallway. There are plastic red cups atop the makeshift table. The students get into formation: green on one side of the boards, tri-colour on the other side. The familiar pre-battle ritual begins and the noise escalates, "Olé, olé olé olé, olé, olé..."

MedGames is an annual Canadian medical school tradition in which students from schools across Canada gather in Quebec to compete against one another in sport. While sports (and even a few "para-sports") play a pivotal role in the weekend, there is another aspect to the weekend that, while not as openly discussed, is equally deep-rooted. Debauchery is the "vicious indulgence in sensual pleasures" [1]. MedGames, as well as being a sports competition, is a weekend-long debauch.

Upon arrival, participants are handed their welcome package. It includes an information booklet, a toque, a t-shirt, and a pair of condoms and a mug. From the very beginning, the tone is set: this is a weekend for sex, booze, and the occasional sport.

The culture of drinking at MedGames is relayed to participants even before they step foot in Quebec for the weekend. Three years of MedGames websites and promotional materials have made claims such as: "A forty of hard liquor per person is a great way to make friends" [2], "We

promise it will be a memorable night... for all those who can remember" [3], and "Forget about your so-called hangover and give your liver a second chance to enjoy itself!" [4]. These are clearly quips, meant to be funny. Nonetheless, it is worth considering the implications of a conference for future medical students, during which promiscuity and revelry in alcohol is not only tolerated, but encouraged.

Drinking culture is not something that is unique to medical students. A quick look at Queen's Engineers' Golden Words newspaper reveals that binge-drinking culture is perpetuated throughout university. That said, we, as medical students, are at least three years older than our first-year undergraduate counterparts. Shortly, we will also be practicing physicians.

It would be far too easy to fault MedGames participants for their pursuit of sensual pleasures. It would also be far too easy to fault MedGames organizers for not doing more to curtail the weekend's binge-drinking culture. The reality of the situation is far more subtle. Medical students do not get many opportunities to truly let loose. There is nothing *prima facie* wrong with debauchery, or even hedonism. As long as medical students enjoy themselves safely and do not harm others, the weekend's "after-hours activities" become difficult to criticize. MedGames organizers ought to be praised for distributing condoms to all participants. Throngs of like-minded, highly-eligible bachelorettes and bachelors congregate at MedGames – let them find STI-free love. Perhaps the organizers should even be praised for their honesty in describing the event in their promotional materials. It does no-one any good to expect a wholesome weekend of sports only to show up to two nights of Bacchanalia.

Still, there is something unsettling about the weekend. First, 24% of Queen's medical students do not get drunk: a recent Queen's Medical Review poll showed that 15/63 respondents have not imbibed more than four drinks in a day since beginning medical school [5]. Could MedGames be an event that ostracizes nearly a quarter of its participants come night time? Second, how might our future patients react if given a glimpse of the weekend's events?

Continued on page 7

Fighting Microbes with Microbes

THE CONTINUING BATTLE AGAINST *CLOSTRIDIUM DIFFICILE* INFECTIONS

BY CLARISSA SUGENG

As doctors, we will be given the privilege of prescribing potent medications to help our patients. Among these medications are antibiotics, bug-busters extraordinaire! Our years of scientific breakthroughs, however, are still humbled by the capacity of bacteria to adapt and become resistant. *Clostridium difficile* is one bacterium that has capitalized on our use of antibiotics. *Clostridium difficile* infections (CDI) are now the most common antibacterial-associated cause of enteric disease [1]. The bacteria thrive after antibiotics, particularly broad-spectrum antibiotics, disrupt the normal gut flora. In mice, just one 200 µg dose of clindamycin was sufficient to drastically and persistently change the gut flora from the norm, predisposing these mice to subsequent infection by *C. difficile* [2].

A particularly troublesome aspect of controlling this bug is that it forms spores: structures that can persist at length in the environment. Spores are highly resistant to physical and chemical treatments, including many common disinfectants. Thus, as hospital patients come and go, their bacteria remain. Like many other gastrointestinal pathogens, the transfer of *C. difficile* occurs by shedding via fecal matter into the environment and then eventual ingestion by another host. Spread of *C. difficile* can occur through many avenues, including the hands of healthcare workers, environmental surfaces, and medical devices such as rectal thermometers. With the abundant use of antibiotics and immunocompromised patients, the hospital environment is ripe for *C. difficile* outbreaks [3].

Paradoxically, the primary treatment for this antibiotic-associated infection is antibiotics. Doctors have to cautiously bring out the “big-guns” like vancomycin, as most pathogenic strains have become resistant to fluoroquinolones and even metronidazole [4]. Even when the infection seems to be cleared, resilient spores may persist in the gut and reactivate when they find themselves once again in a supportive environment. Approximately 20–30% of people who have recovered from CDI have at least one recurrence. Unluckier patients have even more frequent occurrences [5].

For those with frequent relapses that do not respond

to primary treatments, early trials have revealed a surprisingly effective alternative. An expensive novel drug? A shiny new medical instrument? No! This discovery reverted to the old adage, “if you can’t beat ‘em, join ‘em”. That is, if killing bacteria isn’t effective, try adding some back. They call it fecal transplantation – introduction of an allogenic fecal matter emulsion that contains the bacteria found in a normal gut. It sounds distasteful, but to suffering patients, it is a welcome hope for recovery. A tube, per colonoscopy protocols, is used to bypass the gastric system and the emulsion is delivered directly to the intestines in the hopes of regenerating a healthy balance of gut flora. The donor is usually an intimate, live-in family member who would have commensal bacteria mostly congruous with that of the recipient. A recent review of the literature on fecal transplantation efficacy suggested immediate relief and even complete cures in at least 83% of the patients in all published reports [6]. Scientists like to call such straightforward and effective methods “elegant”. Perhaps the term doesn’t fit this procedure quite so well, but research continues on how to refine the donor matter content while maintaining or even improving efficacy.

Of course, the most effective approach to reducing antibiotic use and combating CDI is to prevent infection altogether. Alcohol-based disinfectants are ineffective at reducing spore burden, so with suspected *C. difficile* contact, thorough soap and water treatment is paramount [3]. When considering prescribing or using antibiotics, bear in mind that among the risks and benefits, they will endanger our commensal biota [4]. The effectiveness of fecal transplantation goes to show that our body’s natural defences can be quite impressive. Treat them well so that they can return the favour!

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Continued on page 7

Big Pimpin'

THE TIME-HONOURED TRADITION OF BELITTLING RESIDENTS

BY JANETTE SPEARE

I thought it was too funny a name to be true, but I guess I was just ignorant. Then again, revealing your ignorance is the name of the game in pimping, the ancient ritual in which attending physicians grill their residents ruthlessly about befuddling medical minutiae. The function of pimping is to reinforce the pecking order among physicians on which the institution of medicine is based. Let us plunge together into the bizarre depths of the pimping world to learn its rules and ways.

Pimping was first described by the physician William Harvey, who was also the first to describe the systemic circulation in detail, publishing his treatise *De Motu Cordis* in 1628. Incidentally, it was the very same year in which he wrote the following words regarding his lazy medical students: "Drunkards, sloths, their bellies filled with Mead and Ale. O that I might see them pimped!" Harvey's insightful assessment of medical students holds true to this day. Historical pimping is also attributed to Nobel prize-winning microbiologist Robert Koch, who in 1889 developed a series of "Pümpfrage" ("pimp questions"), with which he would later terrorize underlings on rounds in Heidelberg. Revered Canadian physician William Osler is also known to have been a consummate pimper. Now think about it: our best and most illustrious physicians have been demonstrably pimping for almost 400 years. It's safe to assume that the institution will still be around when you and I are in residency.

Much of what I have learned about pimping stems from a seminal 1989 paper published by Frederick Brancati in *JAMA* [1]. This article, like all others I found on the subject, is written with a thin veneer of humour overlying a yawning void of remembered shame. Brancati bitterly delineates several categories of acceptable pimp questions. Obscure historical facts about specific conditions and procedures are high yield. So are eponyms, effective because the names are devoid of descriptive hints. Where is Traube's space? McBurney's point? What is Castell's sign? Why does Douglas have a pouch? Pimp questions may range from the impossibly specific to the maddeningly broad and unanswerably philosophical. What nucleotide sequence does EcoR1 recognize? What is the differential diagnosis for fatigue? Why don't people have tails? Brancati is joking – kind of – but the internet is full of real-life pimping horror stories. One

dejected medical student blogs with nightmarish intensity about not being able to recall the names of the structures that run behind the medial malleolus. Another is ecstatic that she was able to expound on the history of a Lis Franc's fracture to her ER preceptor, because she had already been pimped on the subject previously. Medical students, like most people, typically don't like to have holes in their knowledge exposed. How, then, to deal with a testing situation where the whole of medical knowledge is fair game?

Luckily, another *JAMA* paper from 2009 outlines pimping avoidance tactics [2]. Hide behind another, larger student, and don't make eye contact with the attending. Always carry a muffin, and take a big bite if the physician poses a question to which you don't know the answer. In this technological era, it may be possible to look up the answer discreetly on your mobile device. There are also two widely acknowledged escape tactics once a question has already been posed. These are to answer the question with another question, or to give an answer to a different question altogether. Given their presence in the medical literature, it is safe to assume that most physicians are hip to this kind of trickery. If one is on the spot in a pimp situation and does not know the answer, it is common etiquette that one must not appear sulky afterward, no matter how obscure the question might have been. Sulking arouses the ire of physicians, and invites future pimping.

The posing of pimp questions also has its own etiquette. The lowest-ranked learner is always questioned first, to avoid the shame of a medical student correctly answering a question that a resident has gotten wrong. By the same token, learners are expected not to break rank and correct a more senior peer. Fellow attending physicians are never called upon, because they must not be made to look bad. Such is the hierarchy of pimping.

But why pimping? If pimping has been passed down by generations of medical practitioners for centuries, it must have some evolutionary advantage. The fact is that physicians have a lot of important practical knowledge they need to communicate to their trainees.

Pimpin' continued from page 6

But why must it be through pimping? One reason, I suspect, is inertia. Doctors teach through pimping because that is how they learned. Also, pimping is perfectly calibrated to preserve the established medical hierarchy; attending physicians must be respected in order to have their orders followed, and pimping commands that respect. As well, I suspect that older physicians forget how bad being grilled can feel, like the fading memory of the pain from a passed kidney stone. Anyway, there's a comforting inevitability about the whole institution. You can't fight it, so lay back, relax, and take your pimpin'.

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Last, what impact, if any, might events like MedGames have on future physician mental health and substance abuse?

There are no clear answers to these questions, but one thing is certain: MedGames is a well-entrenched Canadian medical student tradition, and its twin cultures of athleticism and hedonism are likely to remain strong for years to come.

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Museum of Health Care

FROM PAST TO PRESENT

BY AISHA GHARE

If you've ever listened to a lecture by Dr. Jacalyn Duffin, chances are you've heard of the Museum of Health Care. Even if you've never been inside the Museum, you will have no doubt held some of its artefacts in your hands, brought in by Dr. Duffin during her many "History of..." lectures. Recently, the Museum has been the subject of controversy and debate surrounding the sudden increase in its rent. This has resulted in rumours regarding its survival, collections, and educational programming.

The use of medical museums to train physicians, pharmacists, and botanists began as early as the 16th century in Italy. By the 17th century, these early museums housed wax models or *moulages*, and a century later, contained large collections of wet and dry preparations and pathological specimens to be used by the medical students. The 19th century saw the appearance of museums in teaching hospitals, with collections reflecting subjects such as anatomy, pathology, *material medica*, and midwifery. By the first half of the 20th century, medical museums were established in Canada, namely at the University of Toronto, the University of Manitoba, and McGill University. Decades later, however, the collections in these museums declined as medical education moved away from a focus on gross anatomy and pathology [1]. Eventually, collections in these museums became publicly accessible, allowing the citizenry to access knowledge previously restricted to medical and scientific personnel.

While a number of museums and institutions in Canada had acquired collections related to the history of health care in Canada, by the late 1980s, there was no "mission-specific" museum of health care [2]. Thus, in 1988 Dr. Jim Low, the former head of Obstetrics and Gynecology at Queen's and the Board of Governors at the Kingston General Hospital, approached the Archives Committee of the Board to establish a Museum of Health Care. Dr. Duffin, who has served on the Museum's Board of Directors since its inception, said "KGH was a national historic site as the oldest continuously operating hospital in English Canada, and our faculty boasts the second-oldest continuously-operating medical school in Canada (after McGill). As a result, Kingston is the ideal location for such a facility." An admirer of Low, she added "[Low] began twenty-one years ago, with a small room in the basement of KGH. It was quickly filled to capacity with wonderful objects that came out of the storage rooms around our faculty. Dr. Low always was careful

to engage experts in curatorial practices and he pursued the best methods in establishing a charitable organization and in maintaining our facility."

The Museum of Health Care was open for business in 1991. Situated in the beautiful and historic Ann Baillie Building, itself an historic site as a Nurses' Home in the early 1900s, the Museum now contains over 35,000 artefacts and a searchable online database. Pamela Peacock, the recently-instated curator stated "[The Museum] has a very strong collection of pharmaceuticals and pharmaceutical advertising, as well as of obstetrics and gynaecology, dentistry, dermatology, radiology, neurology, and nursing history. We are lucky to be the caretakers of a fantastic set of medical *moulages* created by Marjorie Winslow. The exhibitions present diverse topics from the scientific advances of the 19th century and the concomitant changes in medical practice, to joint replacement, to the development of the x-ray." The Museum also funds a six-month graduate research program through its Margaret Angus Research Fellowship program. Upon completion of this term, the student presents a manuscript and presentation illustrating the health-care history represented by the various artefacts in the museum's collection.

Since its creation, KGH has only required the Museum to pay \$2 annually as rent. All this recently changed, putting the Museum's future in jeopardy.

"Last year KGH stopped being a supporting patron and raised the rent from a symbolic \$2 to \$65,000 a year. This is a daunting amount for a non-profit organization and it is an extraordinary gesture as similar organizations in the United States and England are not required to pay rent to their host hospitals. It is sad that our hospital does not seem to recognize the great potential of the Museum as a contribution to culture and learning which can only enhance the reputation of KGH in our community and around the world. Consequently, the Museum's future is in jeopardy," said Duffin.

Kathy Karkut, the Collections Manager for the Museum, agrees. "We do not have the funds to hire an Executive Director, now that long term Executive Director and founding member Dr. Low has stepped down from his duties at the age of 87 as of the end of 2011.

He was a volunteer through this time and over the past couple of years our reserves were used to pay rent. Now

four staff are running the Museum.” Dr. Low is continuing as a member of the Finance and Advancement Committee.

Though Peacock has clarified that the rent technically remains the same in that the new cost has been titled a “building fee”, the Museum will feel the crunch regardless of how the \$65,000 amount is labelled. “With such a tight budget, the number of summer students and interns we can hire and the breadth of exhibits we can plan for both on-site and outreach programming will have to be cut back due to decreased funds,” said Karkut.

Currently the Museum receives the Community Museum Operating Grant (CMOG) from the provincial Ministry of Tourism, the Department of Canadian Heritage, and the Provincial Government through the Ontario Ministry of Culture. Unfortunately, this financial support covers only a portion of the operating costs. The grant is critical to the continued existence of the Museum. When asked about the possibility of further grants, Karkut replied, “Currently there are no grants for this aspect of operating a Museum. Usually grants are one-time, project specific offers with a maximum funding capacity that is nowhere near the cost of the projected rent based on our eligibility.”

For those of us already expecting the worst due to numerous circulating rumours, we can breathe a sigh of relief – the Museum is neither in danger of closing down nor of being moved from the Ann Baillie Building. Peacock further clarified: “Though I anticipate that it will continue to be the case that cultural institutions face tough economic challenges, I believe that the Museum has a strong membership and volunteer base that will help to ensure the ongoing vitality of the organization.” If the Museum were to shut down due to non-renewal of lease on the Hospital’s part or the inability to renew the lease or to find a new location, the contents of the Museum would be deaccessioned and given to charity organizations that carry on work in Ontario.

The Museum’s outlook is currently positive. Catherine Toews, the Museum Manager and Program Director, is hopeful for the future, commenting “Despite any obstacles we may face, I’m confident that the Museum of Health Care has a very bright future. Our schedule of activities gets busier every year, our annual visitor numbers are consistently strong, and educators are increasingly choosing the Museum as a learning destination for their students. So much has been accomplished in the Museum’s 20+ years, and there is still much more to be done.”

Nevertheless, Dr. Duffin encourages student and faculty to all become members. “It costs very little. One idea would be to make an automatic membership part of the bundle of activities mandated by the Aesculapian Society or AMS. Medical, nursing and rehab students could become our

strongest advocates leading their teachers and colleagues by example,” urges Duffin. Continued patronage from students and faculty, use of the Museum and its collections for research and teaching, volunteering and monetary donations are all ways to ensure that the Museum is seen as a priority by the Hospital and the University.

It is interesting to note that similar health care museums in the United States are not burdened by such fees, as we have learned through emailed comments from Scott Podolsky (Director of Center for the History of Medicine at Harvard University), Stacy Peebles (Curator-Lead Archivist for the Historic Library at the Pine Building, Pennsylvania Hospital) and James M. Edmonson (Chief Curator for the Dittrick Medical History Center at Case Western Reserve University).

As medical students, we are already seeing the declining interest in the history of health care. We are regularly reminded that we are lucky to have a medical historian in Dr. Duffin, and that few other schools have this luxury. A greater number of medical schools are cutting down on medical history lectures to make room for more “essential” classes in the time-restricted curriculum. Surely, the security of our education in medical history and the future of our Museum hinge on the interest shown by us and the faculty. As Queen’s students, we are lucky – we don’t need a trip to Washington to immerse ourselves in the history of medicine; we can do so in our own backyard. This was evidenced by the “staycation” trip to the Museum of Health Care and the Archives organized by Amanda Lepp from class of 2015.

I encourage you to take a trip down to the Museum of Healthcare and browse through their collection of Marjorie Winslow moulages and the pharmaceutical ads from the late 1800s. Surgery enthusiast? Check out Zweifel’s hemostatic forceps or an instrument roll from 1915. Do your part to ensure that the only museum in Canada solely devoted to preserving and showcasing the artifacts of our medical history, therapies, and health care practices remains a part of our educational future.

As Dr. Duffin says, “All cultural endeavours are vulnerable in these times.”

“PRE-CLERKSHIP EDUCATION SHOULD

Point

BY SARAH LUCKETT-GATOPOULOS

Imagine this: five years old, you walk into your kindergarten classroom for the very first time. It's an exciting period in your life. This year, you'll master the letters and sounds of the alphabet and you may learn to decipher those funny, meaningless scribbles that your older siblings recognize as words. You'll learn to hold a pencil and you'll express yourself on paper. Maybe you'll begin to learn the basics of mathematics – a secret code you are not yet even aware there is to be cracked. Then imagine your teacher greets you, hands you a book, and tells you that you must learn to read – on your own – and by next week. Sounds ridiculous, doesn't it?

We may resist the analogy, but pre-clerkship is a lot like kindergarten. Notably, there is the thrill of a new beginning and a sense of standing at the edge of the unknown. There are new clothes to wear and new people to meet. More importantly, there's a lot to learn, some of which we know of but don't yet understand – like writing a prescription for antibiotics, or examining a badly-injured ankle. There is also much of which is completely new to us – like estimating glomerular filtration rate, or determining volume of distribution. As importantly, pre-clerkship students are not on equal footing when it comes to the basic knowledge underlying the clinical reasoning that lies ahead. For some, pre-clerkship marks our first exposure to anatomy; for others, it's the first time we've thought about immunology. Given the limited resources of time, teaching faculty, and student attention, independent learning is an attractive option. Like handing kindergarteners books and telling them to read, however, it can be a poorly considered and ill-conceived pedagogical technique.

Self-directed and directed independent learning are not intuitive concepts, and not every student arrives at medical school with the skills to learn effectively outside of an environment in which key concepts are explicitly taught. Self-directed learning is more than just reading a textbook chapter or completing an online module; learners must identify learning needs, formulate goals, locate and assess resources, select and implement learning strategies, and evaluate outcomes [1–3,5]. This is an active process and all components are necessary for success [1,3]. According to the prevailing model of self-directed learning proposed by Malcolm Knowles [2], whereas the student is responsible for content

learning, the role of the educator is to facilitate the acquisition of these learning, or metacognitive, skills [3]. Indeed, the most successful programs at all levels of education explicitly address metacognition as core content, teaching strategies for evaluating the application of learning acquisition [1,3,4]. Yet pre-clerkship curricula do not consistently address the need to teach these skills [5], perhaps because it is erroneously assumed that they come pre-packaged as part of the standard undergraduate curriculum. In other words, the tools necessary for self-directed learning are often simply not available to pre-clerkship students.

It's tempting to suppose that because students will eventually need these metacognitive skills (as clerks, residents, and practicing physicians), pre-clerkship is an appropriate time to learn them. This may not be so. Like kindergartners – some of whom arrive on their first day knowing how to read, or having learned basic math from Sesame Street – pre-clerkship medical students vary widely in their familiarity with and knowledge of a variety of subject areas and skill sets. Pre-clerkship is valuable “catch-up” time; during the two year period before clerkship begins, students have an opportunity to learn basic anatomy, immunology, pharmacology and more. It is unreasonable to also require students to learn and immediately apply complex knowledge-acquisition skills. Further, it supposes that medical students have excess motivation to apply to learning additional material within an already-overloaded schedule. Moreover, to imagine that, as pre-clerkship students, we can decide what is important enough to spend our time on and what can be de-emphasised, without guidance from instructors in a classroom setting, presupposes more insight and judgment than can be rightly ascribed to most of us at this early point in our medical education.

The bottom line is that patients suffer if pre-clerkship students don't learn. Independent learning requires strategies for learning and a well-designed pedagogical framework that accounts for previous exposure, insight, and motivation to learn [5]. Until we're sure that we have a curriculum that addresses these needs, pre-clerkship education should take place in the controlled environment of the classroom.

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“PRIMARILY OCCUR IN CLASSROOMS”

Counterpoint

BY EVE PURDY

One hundred years ago, the Carnegie Foundation for the Advancement of Teaching spearheaded the reform of medical education by publishing the Flexner Report, which focused on standardization, integration, the promotion of habits of enquiry, and the creation of an environment for professional identity formation [1]. At the time, the resultant changes to medical education, now considered standard, were revolutionary, and without question they have created better physicians. For progress to continue, a new model is needed – one that builds on the old to offer a new vision [1]. Medical education is again ripe, not for revolution, but for evolution.

Since the call for standardization of medical schools in the original Carnegie Foundation study, the success of medical education has been judged by evaluating the structure of medical programs [1]: How exhaustive is the curriculum? How much lecture time is allocated for each topic? With a well-founded shift toward the evaluation of standardized learning outcomes and delivery through a competency-based curriculum, we are now less focused on what or how students are taught and more focused on what they have learned [1]. The majority of students entering medical school are members of the “net generation” and evidence suggests that learning tools that include multimedia, actively-engaging tasks, and immediate feedback are most effective for this cohort [2,3]. An arsenal of well-validated medical education tools including e-learning resources, narrative medicine workshops and simulation exercises will better cater to these unique learning needs [2,4,5]. In an interesting twist, to standardize what medical students have learned, medical educators need to individualize how it is delivered.

A second observation of the Flexner Report focused on the misplaced reliance of medical curricula on transmitting information to students through lecture [1]. Flexner hypothesized that patient and laboratory exposure would help students integrate scientific knowledge into the care of their patients; as a result, clerkship was born. However, recent trends and evidence in medical education have suggested that clerkship should not represent the beginning of clinical integration. For example, in a comparison by Remmen et al.[6], students attending schools with longitudinal clinical skills training programs

performed significantly better throughout clerkship than students learning from a lecture-based curriculum, defined as a curriculum relying as lecture for the primary method of learning. A more thorough integration of clinical experiences and reasoning during the pre-clerkship curriculum allows for greater contextual appreciation of the basic sciences. Lectures, when used as one tool of many in a dynamic and innovative curriculum, may be effective but obstruct efforts to build upon Flexner’s early, but wise, recommendations when used as the primary method of teaching.

Flexner also stressed the importance of developing habits of inquiry and the discovery of professional identity. Now more than ever, physicians are expected to take on multiple professional roles. Doctors are expected to be educators, advocates, innovators, investigators, administrators, and life-long learners – not simply medical experts. Students should be better prepared for this exciting reality, but these complex roles are less effectively explored through lecture than through other means. Novel medical education models allow for the acquisition of knowledge with the concurrent development of an inquiring mind and opportunity to embody other roles. Through narrative medicine, a student becomes more aware of the patient’s perspective, making her a more effective advocate. In a team-based learning exercise, one student asks a question and his classmate answers; the first is testing the waters of the investigator role while the other acts as an educator. The successes of novel educational methods are measurable; the delivery of medical education through problem-based learning has been shown to improve interpersonal, cognitive, and general work-related skills that are important for success in professional practice [7–9]. As the expectation for medical professionals grows, so too must the ability of medical education to meet those demands.

Flexner’s report and subsequent publications clearly outline the need for learning beyond the walls of a lecture hall. I am the first to admit that this type of learning is often uncomfortable.

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We are each all too familiar with the uninvited silence that works its way into a group session, the embarrassment of not knowing the answer to a given question, and the hard work associated with determining where we went wrong. It is familiarity with this intangible discomfort that, to me, indicates the most significant of successes. Instead of being provided with the “answers” and an associated false sense of security through lecture, alternative methods challenge us to ask the right questions of the material and of ourselves. With diligent guidance and mentorship, this new-found approach will shape the early development of humble, astute, and more capable physicians.

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Red. Blood Red.

WINNER OF QMR'S 2012 CREATIVE WRITING CONTEST

BY EVE PURDY

A chaotic emergency room
filled with infinite patients focused on nothing but their illnesses,
hurried doctors focused on nothing but the same,
and a medical student who stands still
transfixed by the colour red.
Blood red.

The room is prepared for an endoscopy,
the machines recruited in anticipation of a gastric bleed,
the lights are dimmed to better see the screen.
But one remains on, shining brightly,
a spotlight accidentally directed at the hanging transfusion bag.
The medical student cannot force her gaze away from the beautiful red.
Blood red.

The procedure is over,
the scope removed and the patient recovers.
The team retreats but the medical student stays.
She is transfixed by the beautiful,
hemoglobin-elevating, life-saving flow of red.
Blood red.

The long shift is over,
a new team takes to the floor,
the night shift leaves, relieved to be walking out the doors
but the medical student lingers,
she worries about the red.

The medical student worries that when she leaves
the beauty of the red will go unnoticed.
Transfixed by its power,
she steals one more glimpse
and out of respect chooses a new favourite colour.

Photography

BY WILLIAM REGINOLD





Worm Song

RUNNER UP IN QMR'S 2012 CREATIVE WRITING CONTEST

BY EMILY SWINKIN

The worms were bred in fall's emotion
and buried themselves in winter's earth.
Eyeless and sleeping they waited for spring
under pounds of mud, old leaves and frozen water.
Something must have trickled down
to rouse them from cold slumber,
the Earth stirred slowly
in surprise – each thawed puddle a revelation.
Little blue flowers, no one knows their name,
were the first to put down roots and push their tiny heads
stubbornly through the muck until, gasping,
they reached open air. Along roads and in quiet valleys
people stopped to take in these blue signposts of spring
while underneath, the worms were restless, tunnelling
around slender roots, accomplices. The robin's
orange breast appeared suddenly, a shock of colour
from a forgotten season and, simply, spring arrived.

Still, the worms wait. They linger subterranean,
days spent in darkness that would leave them pale
had they not absorbed the earth's dark, moist riches.
Like little gods of fertility they cull the soil
with their mouths and sing in pitches that cannot be heard:
something organic, the song of the living.
One night each year the worms rise. Into the darkness,
from a deeper darkness, they poke up between dead leaves
to see the world that rumbles above and admire the flowers
of their handiwork. The night teems with ritual
as the worms surrender safety, moving gracefully by moonlight,
while birds sleep hungrily above.

Silver Lining

SECOND RUNNER UP IN QMR'S 2012 CREATIVE WRITING CONTEST

BY MARIE LEUNG

It's a wonderful thing, to see you.

You're unmasked, beckon me hither
 Speak around me, to me, at me – a shiver
 Truth! You cry hypnotic, fever unknown
 Perched atop so regally, you on your throne.

Who do you cry for?
 What is your decree?
 Look, you say, look at me.
 Insidious onset, hidden harmony.

You're free. What has made you ill has set you free.
 I struggle, drowning bells, feigning liberty
 No, not feigned – imagined
 A disease of the mind
 A plague of the soul
 Fragments of ego, distorted in full.

A darkness magnified in me, emotions erupt
 My body retaliates in anger abrupt.
 Mobilize the troops! Pore over flaws.
 Search for the downfall, search the cause
 Of why I have fallen.

We won't – we can't – do battle anymore.
 In a needless war, the only casualty:
 your core,
 the strings of existence,
 fibres that tore.

It's not about making peace, you've said
 But finding yourself instead in pieces
 Comfort in discomfort, delirious in diseases.

Your fingers lively, linger and jolt
 In the melody of grievous assault.
 A chance encounter with this beauty
 Muddle self and non-self, symmetry.

It's a wonderful thing, to see you.
 Indeed, the silver reply – a silver lining.

It's nice to finally meet you.

A Chat with Dr. Matthews

A SWAGGERING, TROUBLESHOOTING NEUTROPHIL

BY JENNIFER KWAN & WILLIAM REGINOLD

Dr. John Matthews, better known to medical students as a lecturer in MEDS125, Blood and Coagulation, is an accomplished hematologist at Queen's University. He is currently the Stem Cell Program director, the training program director of Adult Hematology, and an attending hematologist. In this interview, he shares with us his wisdom, the story of the beginnings of the Kingston Stem Cell Transplantation Program, a few blood jokes, and his secret life as a neutrophil.

Queen's Medical Review (QMR): How did you decide on hematology as a career?

Dr. John Matthews (JM): Well, I never planned my life, ever, so I got into it sort of by accident. It was a pragmatic decision. If you have been around for a fair bit of time, [you would understand that] there are times when there are too many doctors, and then too few, and then too many. When I was coming out of medical training, there were too many in Britain. Jobs were quite hard to get. So I looked around at what was available and what was hiring. Things like Nephrology and Cardiology were full, and people in Britain were waiting until they were in their 40s [to get] their attending jobs. I did not want to do that, and hematology was

still open, so I decided to do hematology. I had liked it because I had done an intern job (what we called a house physician job) and we did mostly heme on the south coast of Britain.

QMR: What do you enjoy about hematology?

JM: There is a huge variety in it. I see everything from some of the most serious cancers down to thrombocytopenia and clotting disorders; there is endless variety. There is also quite a lot of heme pathology, if you want to take an interest in looking at slides and bone marrow, which I enjoy and was trained to do, as a matter of fact. [Also], I like the patients. They are wonderful people, particularly the patients with malignant disease; they are quite extraordinary. It sounds depressing, but it isn't. So I like the variety, the subject matter, the science, the pathology, [and] the patients. Since I have been in it, I have learned to appreciate it more than I did when I first went in.

"Since I have been in [hematology], I have learned to appreciate it more than I did when I first went in."



QMR: You were trained in Britain. What brought you to Kingston?

JM: I trained in Britain with really no intention of coming here at all. I came over here [to Kingston] in 1981 for one year as a fellow, again fairly accidentally, and worked here with Peter Galbraith. It was a heyday of colony growth and we were growing colonies too. So we had incubators full of colonies and we had this wonderful machine called a flow cytometer, which in the early days was rare. We were playing with this flow cytometer and doing colony work. To tell you the truth, we didn't get any meaningful research out of it, although Peter Galbraith did have some fairly significant publications early on. I went back and got a job in Paddington at St. Mary's, one of the London teaching hospitals. So I got a consultant/senior lecturer job and started there in 1983 and I was responsible for Clinical Hematology. I worked there for 6–7 years and then [Queen's] phoned me up and asked me if I wanted to work here and I said, "No, I don't." But then they said, "Come over for an interview. We will pay for everything, put you up, and you will have a nice time." So my wife and I came over and it was all very, very nice and at the end of it, we decided that working in central London was okay, but the commuting was a killer, so this was a nice chance to do something different.

QMR: How do you balance your busy life?

JM: With great difficulty. I have gotten better, though. Surprisingly enough, you get better as you get older, to some extent, although you get more forgetful and you don't remember things as readily. I use my team a lot more effectively than I used to. I think I used to take [on] too much personally. Now, for example, I have an excellent primary care nurse in the cancer clinic and she can do an awful lot for me if I just let her. On the floor, you pretty much have to let the team do the work and try and make sure it happens. At times, it gets a little difficult. If you don't have house staff on the floor, [and] you are the attending [when] the RACE (Rapid Assessment of Critical Event) team calls, it is a nightmare.

QMR: Can you tell us about your experience transplanting the first stem cells in Kingston?

JM: It's kind of an interesting story and [probably] a lesson in... how not to do it (in terms of getting it set up). When I came here, I did not think autologous stem cell transplantation would survive for very long. But it became clear that it was going to and that we needed to do it because we were sending patients all over the place to get it done (e.g. Ottawa, Toronto). We did our first transplant in 2005, [but] we got together as a group five years ahead of that. [At the time], I thought I was politically savvy, so I got some high level people at KGH to form a committee, the Southeast Ontario Stem Cell Transplant Steering Committee. [We]

produced a plan, approached the hospital, lobbied the hospital CEO, and the CEO agreed and said, "You need to produce a business plan, but we will provide consultants." Consultants helped produce a business plan [with] flow diagrams. [The] stem cell unit [was mapped out] almost down to the colour of the curtains. We [priced] it out, put it together as a glossy document, and gave it to the hospital. Then the Ministry said, "We don't need a business plan, we just need a letter." [Then] nothing happened, it went quiet.

In March 2004, the Ministry said, "You can do your transplant programs, and here is funding for 13 transplants in [the remaining 2 weeks of the fiscal year]". It was a total panic because we had no protocols [and] no nurse. In the end, it was okay because they didn't expect us to do the transplants [within the 2 weeks]. [We] used the money to develop the program, hired the nurse, got the protocols, got a pharmacist involved, drew up the protocols, and pre-printed orders. We did the first transplant a year later with great trepidation. We managed to convince the hospital to give us the old burns unit. We did the stem cell harvesting here. The processing, I envisaged here, but in the end it would be better done in Ottawa because they have a fully accredited stem cell processing lab.

For the first patient, we harvested [the stem cells] here, sent [them] off to Ottawa, and the [patient] came in for the stem cell transplant. The cells came back [from Ottawa] in these salmon-pink plastic blocks of ice that you dump in [the] water bath and then just hang.... It dripped in and then we waited and I kind of couldn't believe it was going to work. I thought it was going to be terrible. But [the patient] was a poster boy for regeneration because on day 11, which is the average day, up went his neutrophils.

The transplant process was a great success. Since then we have done 130 stem cell transplants. We have it much more streamlined and now we are in the process of FACT (Foundation for Accreditation of Cellular Therapy) accreditation. I am pleased about the program. It is one of the things that we started that wasn't there before. Now it has taken on a life of its own. The patients have been pleased. We had a 100th transplant party [for the survivors].

We have done 130 stem cell transplants since [2005]

QMR: Hematologists sound a lot like vampires. Do patients worry when they get referred to hematology?

JM: Yes, mostly they do. Quite often they are told that they are going to have a bone marrow [biopsy] and they have heard that it hurts like hell. It really depends hugely on the experience and slickness of the operator.

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Faculty profile continued from page 19

If you are good at it, you anaesthetize the right spot and go into the bone marrow. It only takes a short time, and it can be done painlessly apart from the suction pain, which is unavoidable. Bone marrow [examination] is one of the many procedures internists are expected to do. So quite often it will be done by people that don't do it regularly, and that is not very good because they will often not choose the right spot. So that is why it gets awful press. The other thing that people do is they anesthetize and don't get on the bone or they get on the bone and put the needle in a different spot. Patients worry about bone marrow [procedures], [but] if you do it slickly they are relieved and will say, "Oh, it is not as bad as I thought." They are also worried that when they have to see a blood doc, that they have leukemia. Some do, but most don't.

QMR: If you could be any blood cell, which one would you be?

JM: I'd be the neutrophil because a neutrophil sort of rolls around, does not have a great long lifetime, and troubleshoots problems. That is [a bit] what clinic life is like. Not a lot of thought goes into a neutrophil, he just attacks and does it right. Whereas the lymphocytes are more cerebral, they have to think and construct antibodies and they live a long time – not very exciting, but they are important. The macrophage just sits and eats. But the neutrophil is kind of the swaggering, troubleshoot[ing] kind of guy, so I think I would want to be a neutrophil – a short life, but a merry one.

*"I think I would want to be a neutrophil –
a short life, but a merry one"*

QMR: Do you have any blood jokes to share?

JM: I have got three. One's a bit risqué.

Joke #1 [An original by Dr. Matthews]:

Q: Why were the neutrophil and red cell so sad?

A: Because they loved in vein.

Joke #2

Q: So there is a vampire that goes into a blood bank and asks for a pint of blood and a pint of fresh frozen plasma. The bartender turns around and says...

A: "Give me a blood and a blood light."

Joke #3

Q: What is the difference between a urologist and a hematologist?

A: The hematologist pricks your finger and a urologist fingers your prick.

QMR: Do you have any advice for medical students interested in hematology?

JM: The training pathway is [through] Internal Medicine and that is the first decision to make. It is a relatively easy one because internal medicine gives you a wide scope in terms of choice of career after that. Whilst as a clerk or internist, you can get elective experience in heme and see what it is really like. A lot of times you get people [going] into internal medicine saying "I want to be a hematologist" and, after a year, they decide on rheumatology and cardiology; [the] keeners become interested in hematology. I don't think that as a medical student it is terribly easy to nail a subspecialty down. Some people have personal reasons for wanting to do it [hematology] and that is fine.

The usual advice is talk to people in it... [who have] different roles. If you are a woman, talk to a woman because of the family issues and balancing work and family. Talk to clinicians, talk to researchers, talk to people who are successful in research (if you want to do research). Find out what the barriers are and how to get there. [Also], visit clinics with [physicians], but remember that is really just a snapshot. If you are keen, get elective experience outside the institution because different hematology departments work very differently. Go in with eyes open, don't do what I did. I never had a clue what I wanted to do, but it was a pragmatic decision and worked out rather nice[ly] for me. You are better off if you can plan your life. Although, the advantage of not planning is that you are always getting surprises and some of them are nice, [but] not all.

The name is Ruby

BY EMILY SWINKIN

I love you, ruby red,
ascetic beauty hailing from that alligator state.
The other fruit implore you:
what is the meaning of your tartness?
What keeps them coming back for more?
You are a ray of sunshine
in the midst of darker produce,
royal in your rotundity:
king among citrus and unfallen fruit.
You make no bones about your intentions;
there is no promise of sweetness.
The juicy secrets of your flesh
are easily shared among friends.
You arrive with quiet pomp at the breakfast table,
citric splash of colour –
the pamplemousse is here:
an understated fanfare
amidst the cacophony of coffee pots
and self-important toasters.
You glisten, waiting for undivided attention –
your succulence is only heightened in anticipation.
And when you are done,
quite settled in your new place,
you leave the keepsake peel and seeds behind
as something to remember you by.
But how could I forget?
Your scent lingers on my hands.

Better Than You Were Taught

BY JOSEPH GABRIEL

A little world of wax
Malleable with a little heat
Vibrations etched in wonder
As the motions are set again
Like those of their estranged fathers
Repetition, regurgitation are unflattering
Do not imitate but edify
Better than you were taught
The door will remain open
But the wind will not knock
Nor warm the home
Both are your duties
To push on through it all
To purse bluing lips over chattering teeth
And rhetorize
Better than you were taught
Change is not a pun
It is history
And so
May you never know
How much you'll never know
Rather, may your tools
Your lenses and scalpels and forceps and assertions
Be ever dulled by your ideas
May you make yourself foolish
Better than you were taught
May theories of solidarity
Turn to real pluralization
May you unionize not on paper
But in your life
Better than you were taught

To Tell It Like It Is

BY JOSEPH GABRIEL

I wonder when
profundity sends an invitation
for the viewing
I had
rhymes, lines
sweeping hand gestures that were specific
but not precise
build a train
throw a year's worth of coal inside
and wait
and set the gears to reverse
and turn
and walk away
four tires and the road
no tracks to follow
only tracks to leave
three chords and the truth
and all the clichés you can swing a hammer at
the new boombox
I understand the aggression
but in my day
we kept that music in our Super Nintendos
and off the subway
your touchscreen doesn't touch me
nor do your rapid transit beats
use that typewriter like a prizefighter
not like Samuel Morse
did I mention the clichés?
déjà vu times two
that was the itinerary
the hurricane became winds
and the flood stood on its toes past my window;
seen but not heard, and nothing was on its heels

The Spoon, The Saucepan, and The Square

BY JOSEPH GABRIEL

We sat in the pub
 necks craned and jaws slacked
 unblinking
 interrupted only by ourselves
 as spasms of fear and excitement overtook us
 when perspectives were optical illusions
 To be sure, we were scared
 cautious to say the least
 the last regulated 20 seconds like a self-fulfilling
 prophecy
 It happened.
 It happened and our Janus masks fell off
 and we leapt from chairs and stools
 leapt after looking
 but only truly seeing when we were on our feet
 We slapped hands and embraced one another
 our countrymen, our countrywomen
 our country
 we became vehicles
 for exuberance and joy
 and we poured into the streets
 fizzy bursts of sparkling wine
 cresting our faces like spray
 from the Pacific
 At the ready with golden leaves
 of gold leaf
 we made a point
 of learning, finally
 that flag-waving
 was no longer a facade
 performed atop hollow soap boxes,
 No.
 We waved our banner, our flag, our insignia

perched atop the shoulders
 of our beloved friends
 I armed myself
 giddily
 with an Eaton's saucepan
 made in Canada before I was
 and a well-worn wooden spoon
 and passing in the amateur parade on my block
 I proceeded to the square
 Recognition and instant recording contracts
 from the masses
 my new friends
 The saucepan, my agogô bell
 amplified smiles
 I paced, playing in an orchestra
 providing harmonies to the cowbell and the whistle and the
 djembe and the horn
 and the largest and most storied instrument of all:
 the collective voice of many
 The photographs I took
 of the flags and the jerseys and the street and the warmth
 of the game of shinny over tracks of resting streetcars
 of the signs of new history and the signs of things to come
 all are redundant
 for even when my sight is gone
 I will remember fondly
 the spoon, the saucepan, the square
 and the greatest gold medal in Canadian history.

Practice

BY JOSEPH GABRIEL

Let's play a game
 The purpose
 Is that of most games
 To take the theoretical
 Things we read about
 And dreamt of doing
 And pretend to do them
 To stage a play
 In our living rooms
 Where, if you would read the program
 You would see our names
 Actors and understudies
 We begin the game
 A dress rehearsal, I suppose
 Yes, we start
 As we were started
 An unlined, unpackaged, untouched
 Notebook
 A snowbird's backyard in January
 Crisp, virginal, new
 And we
 As snow and as paper
 Take what our mothers told us
 Hastily
 When we complained about our shoes;
 "Count your blessings"
 Sit
 And do that
 And in this scene of our play
 We do that
 As a verb and
 As a verbalization
 We do that

Today, I woke up
 Today I woke up in the heart of layers
 Of cotton and wool and polyester and
 flannel
 And plaster and glass and metal and
 wood
 I was in the heart of it all
 In the heart of the city
 And the heart of me
 Was warm
 It was beating
 I slept in
 When the shower cut out
 I regarded it as abnormal
 That clean water
 Water unfearable
 Flowed
 At a rate
 Lower than I have become accustomed
 to
 I have become accustomed to
 Holy water at my finger tips
 Sacred, wasted water
 How blessed I am
 Scrubbed and conditioned
 I robotically navigated
 Suffocating choice
 Clothes and their permutations
 The decision made easier
 By the permanent storage
 Of those which I chose to ignore
 The also-rans in a race for my approval
 These items sit
 In open tombs in open rooms

And I forget to read the markers
 And I never leave flowers
 I ate today, and often
 Let us leave that at that
 And here I sit
 Back in my fortress
 Back in my thoracic cavity
 I, the heart
 Wedged between lungs full of air
 And air full of life
 And I just keep
 Plugging away
 Insensitive to all but volume
 Doing nothing when there is enough
 And sending panicked, alarmist
 All-or-nothing chemical screams
 When there isn't
 We have long ago folded the board
 While our pieces
 The symbols of the people we portray at
 get-togethers
 Are on the mantle
 But the night is young
 We can be new again
 And the rules to this game are limber
 and few
 We can dust off the box
 And be forgiven
 For our optimistic lies
 If we can play again, perform again
 Be practical in our theorizing
 And be thankful in our time here

What's Kuala Lumpur Got to Do With It?

BY RANO MATTA

I don't get the Weather Channel. Well, actually I do get the Weather Channel; I just don't *get* the Weather Channel. In case you don't get the Weather Channel (meaning you either don't get the Weather Channel or you just plain don't *get* the Weather Channel), let me explain: you wake up in the morning, look outside and realize "sun's out" but you think "might be still cold, better check the weather." The obvious next step is turn to the Weather Channel, assuming you will have your weather needs satisfied, barometric pressure and all. Twenty minutes later, you turn off the television, now knowing the annual precipitation in Kuala Lumpur, but not whether you should wear your shorts or your slightly-shorter-than-normal pants that are all the rage. But the odd timing of weather forecasts is just the tip of the iceberg when it comes to the Weather Channel.

When they finally do get to the local weather, after the third installment of a documentary about the rainbows of Ireland, it's not enough to tell you it's just raining. Rather, it's raining, with a 50 percent chance of torrential rains and flash flooding. And tomorrow, expect sunshine... with a 10 percent chance of blizzard. And Sunday, it'll be 10 degrees with a 4 percent chance of the polar icecaps melting and ending all human life. This only serves to create an atmosphere of fear and pessimism, leaving me with no choice but to stay indoors.

During winter months, I often find myself asking, is the wind-chill something the Weather Channel invented just so they could make up ambient temperatures and then blame the wind? Doesn't this counter their pro-wind, pro-tornado, and *pro-OMG-what-was-that?!* agenda? If they tell me it's 20 degrees but feels like -33 degrees, do they think I'm going to go check to make sure the ambient temperature is correct? No. I'll take their word for it and act accordingly: stay indoors.

Also, why even report the temperature once it's below -25 degrees? Just telling me, "it's cold enough to freeze the testicles off a polar bear" will lead

me to the same conclusion: stay indoors.

What is most absurd are the series shown on the Weather Channel. They have a show called "It Could Happen Tomorrow", (not to be confused with tomorrow's forecast, obviously) which shows that New York City could be destroyed by a severe earthquake or a tsunami could strike Los Angeles by... um... tomorrow. Well, going so far as to make sensationalist claims like the ability to predict tomorrow's weather events is something I would never have imagined the Weather Channel to do.

Needless to say, we TV viewers out there (normally, a very involved and active bunch) need to make our voices heard. We will not *stand* for gloomy forecasts and overcast programming. In fact we will not, and we should not, stand for anything. We will remain seated in front of our televisions, learning about Irish rainbows, until we are satisfied with our weather programming. And, until that day we will wait, and most importantly, stay indoors.

Of Helium and Happiness

BY DANIEL MOK

It was something from a dream. Like a jungle, the balloons covered the skies above Carnivelle, a canopy of colour and candescence. Cherry red. Electric blue. Firefighter orange. They gathered in great swarms and bundles of all different shapes and sizes. Lace and ribbon rippled down, curling about poles and fences. On the fairgrounds below, crowds of carnival-goers, young and old, stood in line-ups that extended as far as the eye could see. The ever-popular cotton candy stand churned out wisps of summer on a stick for only a dime. Elsewhere, lonely game stands stood teaming with the stuffed animal prizes no one ever took home because of some sly design of carnive ingenuity. Once in a while, a renegade balloon would dare to break free for the distant horizon. It would rise quickly, spinning and swaying the way balloons do in a gust of zephyr wind. It flew with such elation, higher and higher into the sky before disappearing into that place beyond the clouds...

There was no need for clocks nor calendars, really. Somehow, you always knew when summer was coming to an end. You knew because in those last days of August glory, the skies grew sad and lonely for no good reason. The sun was tired and winded. Autumn would soon be giving chase, leaving behind a million footprints of red and orange and brown. You knew because there were whispers of books and bags, pencils and papers. There would be the last bike ride, the last sand castle by the beach, the last whiff of wings and sausage before the caging of the grill...

It was during those last days that Cassandra and I took once more to the lights and sounds of *Carnivelle*. We ran past the barber shop, past the school yard, and down the hill on which she had fallen off her bike the summer before last. Our lungs were fire and fever all at once, but we ran on, stopping only to double-knot those stubborn laces that always managed to undo themselves. What we did not realize at the time was that we were running towards *Carnivelle* as much as we were fleeing from the last days of everything.

Funny that the younger you are, the farther and faster you can run. Houses and trees disappeared behind us in a blurry haze of brick and brown. Soon, Imagination was the only one running beside us, egging us on. Because to two twelve-year-olds, reality was only as real as we wanted it to be. Life was a storybook that you picked up to enjoy and put down whenever you wanted to break for a glass of punch.

And so, amidst the panting of our breaths and the slapping of rubber sneakers on the pavement, the sun once

again beamed upon our shoulders. We ran as fast as we could, back towards the days of lawn sprinklers and ice cream trucks. Soon, *Carnivelle* rose in the distance, a palette of cherry red and electric blue and firefighter orange. It was summer all over again...

We made our way through the crowds of *Carnivelle*, towards one of the billowing clouds of balloons. From where we stood, the balloons seemed fuller and more vibrant than ever before. We counted out what little change we had in our pockets. They were a quarter each, and we picked one out. Twenty-five cents for a helping of helium and happiness. Twenty-five cents for a little bit of endlessness and infinity that you could string and take with you wherever you went.

We parted from the balloon vendor with a new companion by our side. Satisfied, we squeezed our way through the crowd, heading for the Ferris wheel that loomed ahead. All around us, strangers carried on unfamiliar conversations, neither knowing nor caring that we were there. I glanced back at Cassandra, who had to run to keep up. She paused to brush the hair from her face, the way she always had to after running.

Strangely, in this most unfamiliar of places, I felt like I belonged.

The sun peaked as we clambered aboard the Ferris wheel. There was the clicking of metal, the ripping of Velcro, and the hissing of hydraulics. Only moments before, I had stood below and gazed upwards at the Ferris wheel spanning the horizon, overlooking the waters like a giant thrashing sea monster of spokes and steel. Now I was strapped to it.

I swallowed, fighting back my fear of heights as the car rocked back and forth in an uneasy rhythm each time the beast made its rounds. I leaned over the side as much as the safety restraint allowed. Below us, fair-goers milled about, navigating the concourses of *Carnivelle*. From the booths of carnival games, I could see the lights blinking, just like the fireflies Cassandra and I used to catch by the old playground. I thought about it for a moment, and wound the balloon string once more around my fingers, by now ice cold with terror. It would be a long fall before –

She nudged me. "I know you're scared! Chicken!"

Throwing her head back, she laughed, her short hair once again brushing across her face.

We called each other names the way children do, each one more nonsensical than the previous.

Hobo! Cassie-lumps! Gassy Cassie!

We burst out laughing. It was absurd. From where we sat, we saw the expanse, the horizon, the forever and infinity at which the sea marries the sky. We were the pinnacle of insignificance, and suddenly she laughed and everything mattered and found its time and place.

Moments later, her hand reached out for the balloon, touching mine.

I couldn't help but smile.

It was ice cold.

We spent the rest of the day re-visiting the attractions we had seen many times already during the long, warm summer days. There was some satisfaction in reliving those moments, a certain comfort in déjà vu. That was how we never flinched in the Hall of Mirrors, despite the optics and illusions. No matter what kind of monster we became, we always walked out and I would be me and Cassandra would go on being Cassandra, brushing her hair from across her face.

It was early in the evening, and we knew the sun would soon be retiring. We took one last trip down the boardwalk for some cotton candy, and to sit along the vacant docks. There was a peculiar thing about the docks. At certain times of day you could sit, pant legs rolled, and dip your feet into the water, which would be neither too cold nor too violent so as to wet your jeans. We found our place on the docks at such a time of day, and let the water immerse our ankles. She rested her head on my shoulder. We didn't think anything of it, really. We were twelve, and love was whatever it was. It was a Valentine's Day card signed illegibly with coloured pencil. It was the long walks to her home after school let out. It was the bright summer days spent at *Carnivelle*, no more pure nor lusty than the balloon that bobbed up and down by our side.

She offered me the remaining cotton candy. *The last wisps of summer*. I closed my eyes, and with the cotton candy in my mouth, wished that maybe if we held the balloon closer, things would be the same and we could...

It melted into little sugar crystals quicker than usual, before I could even finish my thought.

And that was when she told me.

She was moving. Far away. Tomorrow. Because of her father's new job.

There was a moment of silence.

"You'll come back to visit, right?" I asked. Again, with a little less certainty. "I'll see you yet, right?"

"Of course. It's what I promised," she said.

She clearly had not promised anything, but I wanted to believe her. More than anything, I wanted to believe her. But as we got up from the docks and turned our backs to the setting sun, we both knew. We knew because a sudden great gust of wind took hold of our balloon and carried it somewhere we did not know, where no amount of frenzy could bring it back. We knew because as we watched it sail away, the clouds above us took a shape and position they never once were and would never be again. We left *Carnivelle* behind and walked into the dusk. Somewhere, a gull squawked, and a great wind blew over the long beach, lonely and forlorn...

The next day, the train pulled out of the station and Cassandra was gone. It took her far, far away, scattering memories good and bad like a thick and billowing smoke. It crawled upon railroad tracks, long and winding like the years that went by.

I was thirty, a businessman travelling from one city to the next. Life was a train ride, speeding from destination to destination. It was the changing scenery from behind a sheet of window, the acres of trees, the innumerable lakes, the valleys...

But the train that brought me places inevitably returned me from whence I came.

I found myself on the evening train to my hometown on business, staring out the window. It was dark, but I could make it out. There was the pile of rubble where *Carnivelle* used to stand. I bit my bottom lip. I thought I had left it all behind...

The long summer days. The balloons. The vacant docks. A stranger named Cassandra.

I fought back the tears as the train pulled into the station. The doors opened, and I stepped out eighteen years in the past, onto the very platform from which I had so helplessly waved good-bye to the way things used to be.

Continued on page 28

Story continued from page 27

It was a bitter cold November night, and from the depths of the dark sky a great chilling wind blew in and unsettled the dust. It disturbed the serpent of construction tape that crept across the fairgrounds like an alien weed, infesting the rubble and debris, a frightening sign of things gone horribly wrong. The same Ferris wheel that had stood towering in the sky for so many a summer now lay crushed and mangled—a spider’s web of spokes and steel. Canvas, all shades of black and grey, covered the booths and merry-go-round so that they became one with the night. They were odd shapes of cold and terrifying geometry, tombstones of a time and age now forgotten after so many years of neglect. In an instant, the wind whistled and the clouds parted for a moon pure and bright, vivid like a memory of helium and happiness. Then it was darkness all over again.

Mutiny

BY SETH CLIMANS

The pastures are dying, the soil is now dry.
My sheep are not happy, they’re barely alive.
It cannot be long now till my sheep conspire,
To slay me then lay me in ritual fire.

Call For Submissions

Queen's Medical Review, your magazine, needs your submissions for the next sex-themed issue. Please submit creative works (including stories, poems, photographs, drawings), opinion pieces, or essays to queensmedreview@gmail.com. Submissions are to be sent before May 20th, 2012.

Six-Word Stories About Sex

Can you write a story about sex using only six words? Yes. Send results to queensmedreview@gmail.com before May 20, 2012. The winner of the six-word-sex-story contest will receive \$10.

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Submit your sexy caption for our upcoming sex-themed issue. Win a year's supply of condoms (if you only have sex once a year). Submissions should be sent to queensmedreview@gmail.com by May 20th, 2012 with subject heading "Sexy Caption Contest". Cartoon by Ryan Kroll (Class of 2014).



