



Pediagogue

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FOCUS ON INTERNATIONAL CHILD HEALTH:

In this Issue:

The Global Pediatrician: Is there such a person, or can there be?

A Visit to The Sustainability Institute and Stellenbosch University Institute for Advanced Studies

Prevention of Rheumatic Fever in the Developing World

Prenatal Exposure to alcohol dulls pain response in newborns: UBC-led study conducted in South African wine region

A Glimpse into Maternal and Child Health

International Strides in Pediatric Palliative Care



Pediagogue

A publication of the Department of Pediatrics at the University of British Columbia and BC Children's Hospital providing news, updates, and information about faculty members, residents, trainees, staff and alumni.

We welcome submissions and feedback.

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Department Head's Message



Dr. Bob Armstrong, Head
Department of Pediatrics

This is my last column as Head of the Department and it is with very mixed emotions that I leave the Department. Mixed because there are things that did not get done that should have been completed and mixed because it was a really great job and I will miss the job and the faculty and staff who I have had the pleasure to work with.

I am pleased that Dr. Ralph Rothstein has agreed to step into the Acting Head position as I know things will run smoothly and we will have an effective transition to the new Head. I really appreciated the send-off event held for me at the University Golf Club. Thanks to all of you who were able to attend and also to those who were not there but in various ways wished me well.

In my two weeks on holidays I have "moved in" to our home in Nairobi and begun to get to know the people and the job. I hope to be able to return at some point in the not too distant future and present the really innovative programs that we are and will be implementing here and of course I have captured the names of all of you who in one way or the other have an interest in contributing to the evolution of clinical care and academics in East Africa.

I will be in touch. All the best.

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Administration News



Marcelle Sprecher,
Acting Director of
Administration

As many of you know, I will be relocating to West Kelowna in July to spend more time with my family.

When I reflect on my time in the Department of Pediatrics, I am tremendously grateful to all of the faculty, staff and trainees for their support and collegiality. I am grateful as well, to all of our partners who are also working so hard with us. It has been an incredibly rewarding opportunity to work with you as part of the Pediatrics team to advance clinical and academic initiatives to the health of our children, ergo the health of our future. We have a unique place in the health system to make a difference at the early stages of a person's life - a difference that can impact their entire futures and those of their families.

I am very grateful for the support that the Department receives from the Foundation, Research Institute, Hospital, Health Authority and University. In all of my interactions with the people in these organizations, I am struck by how much they really want to support our success.

I want to take a moment to discuss leadership. Leadership is not easy. Leadership roles are filled with responsibility and risk, yet they also have reward and renown. We are fortunate to have incredibly supportive leaders in the Department, Hospital, Health Authority and University. However, our leaders need our nurturing and support, too. I encourage all of you to consider taking leadership roles as the opportunities arise. I also encourage those of you not currently in leadership roles to support those who are.

The warmth and encouragement of all of you is what I will take with me to remember. Thank you.

I will continue to follow your progress and wish you all the very best.



The global pediatrician: is there such a person, or can there be?

Robert W. Armstrong, MD, PhD, FRCPC

As pediatricians, our concern for the health of children and youth starts with our individual encounters with patients and their families and extends to the community in which they live and the broader systems of society that influence their health. This concept of a pediatrician is captured in one of the “bibles” of our profession and in the words of Richard Behrman when he defines pediatrics as being “concerned with the health of infants, children and adolescents, their growth and development, and their opportunity to achieve full potential as adults.” Health, growth and development, and opportunity as adults encompass the breadth and importance of our interests and responsibilities. Many institutions training our future pediatricians interpret this responsibility as not only encompassing the children in their community, but also expanding to a global concern for the health of children and youth. Indeed, many medical students and residents are encouraging faculty to pay more attention to global child health, and we are responding by creating more informal and formal opportunities for trainees to engage in global health issues. Our academic societies also have devoted more time to the issues of global child health and how we might more effectively contribute to this agenda; for example, the Federation of Pediatric Organizations, the International Pediatric Association (<http://www.ipa-world.org>), and the International Pediatric Academic Leaders Association (<http://www.academicpediatrics.org>). If we are to have training programs for this “global pediatrician,” what should the core elements of the curriculum look like? Can we begin to integrate these core elements into our training programs in a way that builds a common vision of the global pediatrician while also recognizing the distinct nature of practice in various communities? We might first define a global pediatrician as a pediatrician who understands the state of child health locally and globally and has the knowledge, skills, attitudes and behaviors necessary to improve the lives of children individually and in the world community. The pediatrician will have the knowledge and skills to diagnose and treat the diseases and disorders of childhood, both those common globally and those unique to their region. In addition, either directly through individual effort or indirectly through the support of engaged professional organizations, the global pediatrician will gain through training and will sustain through professional development a knowledge base that includes the following elements.



Convention on the Rights of the Child

The United Nations’ Convention on the Rights of the Child is the most important document framing the position of children in the global community. The global pediatrician should understand and use this document as an advocacy tool and as a measure of a society’s commitment to their children. No matter where or how we work as pediatricians, the near-universal endorsement of the Convention provides powerful language and a basis for our advocacy. There are increasing efforts to provide practicing professionals with the knowledge, tools, and strategies to effectively promote the principles of the Convention.

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The Global Pediatrician

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Population-Based Child Health Information

Population-based information about children and their health and social status is an essential resource for the global pediatrician. The pediatrician must be able to access and integrate information from authoritative sources to address key questions of importance. In addition to standard information on mortality and disease occurrence, we now have an increasing capacity to map important demographic, health, and social information at the community, nation, and global levels. The information necessary to remain current and knowledgeable about the state of the world's children can be gained from reports such as those produced by United Nations Children's Fund. Understanding, having access to, and knowing how to use information about child health must be core elements of any training program aimed at producing a global pediatrician. When a resident admits a child to hospital with sepsis, he or she not only should understand the mechanisms, diagnosis, and treatment of sepsis, but also should be able to describe the importance of this disease to the health of children globally and understand appropriate strategies for addressing this problem at a population level.



Child Development

Fundamental to our role as pediatricians is our understanding of the processes of child development, the biological and environmental influences that affect successful development, and the importance of global initiatives to improve outcomes across different communities. A chapter in the World Health Organization's Commission on the Social Determinants of Health is devoted to the importance of early child development and education as powerful forces in addressing inequities in children's developmental outcomes. We have increasing access to globally available, population-based measures of development that capture important periods in the life of children and serve to focus attention on those systems that support healthy development. For example, the Early Development Index, which captures the proportion of children who are developmentally ready to succeed in school, is being used regionally and nationally in several countries. As we teach child development and see children with developmental problems in our clinic, we also should be aware of and interested in the global issues related to child development, such as detailed in the important Lancet series that estimated that more than 200 million children in the developing world are not meeting their developmental potential. A broad perspective on factors influencing the healthy development of children should be common across a global community of pediatricians.



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The Global Pediatrician

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Global Goals Impacting Children

The Millennium Development Goals were established by the United Nations as achievable targets for the global community to reach by 2015. Many of the goals that have been set (e.g., elimination of poverty, universal education, child health, maternal health) relate directly to children and youth, and there is a very active world community working toward and monitoring the achievement of these goals. Global goals will be intermittently set by such world bodies, and the global pediatrician should understand these goals and the actions required to meet the goals, and also be actively engaged in helping set the goals themselves.



Children in the Health Care System

The global pediatrician will have an understanding of the range of health care systems that exist worldwide and the impact of these systems on issues of access and the quality of care that children will receive. There are enormous gaps in care for children and there is opportunity to examine and understand how different models of care can achieve better outcomes for children.

Classification

As clinicians, we are familiar with the International Classification of Diseases for describing the diseases and disorders of childhood because all countries use this system of classification. As pediatricians, we need to understand the value and power of collecting this data. Equally important is the evolving International Classification of Function, which not only encompasses impairment, but also classifies activities and participation of the child. These classification systems are intended to be universal in their design, and the global pediatrician will have a good understanding of their applications and limitations, while using them as a common tool of communication.

There is enormous variability in the manner in which pediatricians from different societies and nations of the world address Behrman's expectations for supporting the lives of children and youth. Beyond their individual encounters with children and families, pediatricians have an important role to play in global child health. Therefore, we should include content in our training programs and in continuing professional education that advances our understanding of global child and youth health and gives us the tools to be more effectively engaged. It is encouraging to see our trainees, our practicing pediatricians, and our professional societies focus on global child health issues. Increasingly, the answer to the questions of whether there should be and can be a global pediatrician is a definitive "yes."

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Education Program Updates

Dr. Joan Fraser, MB.Ch.B, FRCPS

The Undergraduate team looks forward to nearing the end of another very busy academic year, as the postgraduate year comes to an end and we look forward to welcoming new residents and fellows.

In the post-graduate program, we regretfully say goodbye to Drs. Jenny Druker and Grace Yu for their dedication and hard work, and I wish them well in their next career phase, although I am sure we will still be seeing them.

The medical school expansion project has enabled us to engage with distributed sites across the province and our local partner community sites. The locally engaged sites; Richmond, Royal Columbian, Lions Gate, Surrey now have a consistent presence of clerkship students. The sites are providing the kind of opportunities for learning general pediatrics that were becoming problematic on our own site. The success of these programs relates to our DSSLs, (discipline-specific site leaders) being able to develop programs, engage local physicians, and coordinate student activities.

All our sites have DSSLs and they are as follows: Dr. Erik Swartz, Richmond; Dr. David Ou Tim, Royal Columbian, Dr. Glenn Robertson, Lions Gate; Dr. Venkatesh, Surrey Memorial. The DSSLs are also in charge of developing and co-coordinating post-graduate programs. In respect of our distributed sites: Dr. Jennifer Balfour serves as our DSSL at the IMP, and Dr. Vincent Arokiasamy in Prince George.

The Year 3 clerkship program in Chilliwack sends its students to Abbotsford for Pediatrics, and we hope to continue to develop programs out there as the new hospital and population grows. Also new to our local program, St Paul's general pediatrics group has started a newborn rotation for Year 3, under the guidance of Dr. Antoinette Van Brekel. The continuing expansion and success of these programs enables us to plan for post-graduate presence; Surrey is accepting more residents, and we are in the process of developing our other sites for community-based training, in an attempt to address the critical shortage of generalists in smaller communities. Our next expansion site will be into the Southern Interior, as this site will open its medical school doors in Sept 2011, taking a yearly cohort of 32 UBC students.

Onto local site news: CW awards "Excellence in Education" yearly, for innovative educational initiatives. Congratulations to: Christy Hay, Dori Van Stolk, Dr. Paul Korn, Dr. Jenny Druker, Dr. Hal Siden, Dr. Rob Everett, Ronnalea Hamman, Heather Fowlie and Susan Murphy for their 2010 Excellence in Education Award with Distinction for education initiatives to support Family Centred Bedside Rounds. Congratulations also go to Dr. Linda Huh, Neurology, for developing a practice OSCE for our post-graduate trainees and to Dr. Osman Ipsiroglu, Developmental Pediatrics, for the development of the interdisciplinary "Sleep(y) Rounds".

A new initiative for the Department has been the developing of a 'Medical Education Interest group', the gathering of those interested faculty on site with an interest in medical education. The intent is to foster a collegial networking group for the exchange of ideas, projects and hopefully to advance the concept of teaching and education being an academic activity. Now that the Faculty of Medicine has opened CHES (the Centre for Health Education Scholarship) there is greater opportunity for collaboration, support and training in medical education. I take this opportunity to mention one of our SSRs, Dr. Roona Sinha, Division of Hem/Onc/BMT has applied and been accepted as a Clinical Educator Fellow at CHES.

Finally, the medical schools across Canada are undertaking a major Curriculum Renewal project; work has started at UBC with a Dean's Task Force, moving shortly into an implementation phase. No details yet, but stay tuned!



The Development of a Pediatric Residency Global Child Health Curriculum

Dr. Jennifer Druker, Residency Program Director, UBC Pediatrics

With globalization, medicine is no longer limited by geographical or political borders, making international health and social responsibility important to all physicians. Pediatric residents and CARMs applicants show increasing interest in global child health.

To address this, an International Curriculum Committee was established within the Department of Pediatrics at UBC, to increase knowledge and understanding of global health issues and provide a structured framework for international health electives. An academic curriculum can expose all Pediatric residents to the basic issues of global child health and guide selected residents to further academic experiences in the field.

The Global Health Curriculum occurs at 3 levels:

Level 1:

All residents are exposed to basic global child health information through modules developed and piloted by the CPS International Child Health section, presented at academic half day, and pertaining predominantly to immigrant populations within Canada. International health grand rounds, seminars and journal clubs provide further exposure.

Level 2:

Pediatric residents with a deeper interest can select a supervised international elective or local academic project. We have collaborated with many international partners to ensure that this occurs in a sustainable and mutually beneficial manner.

Level 3:

Pediatric residents with a career interest in global child health can pursue a track leading to an advanced degree in collaboration with the UBC School of Population and Public Health.

Pediatric residents are developing an international website, and qualified faculty members serve as mentors. This program is unique in Canada within a Pediatric Residency program, and has attracted academically strong candidates to our program.

I would like to thank members of this committee: Drs. Bob Armstrong, Jane Schaller, Charles Larsen, David Speert, Laura Sauve; and senior resident, Dr Shreya Moodley, for developing the website.

Dr. Druker can be reached at: jdruker@cw.bc.ca.



Operation Rainbow, India



Residents' Review

Dr. Deepak Manhas and Dr. Jonathan Sam
Pediatric Chief Residents

2010 has been a busy and exciting time for the Pediatrics Residents.

We are all very excited to work with our 13 new incoming Pediatric Residents, 3 Neurology Residents and 1 Genetics Resident on July 1, 2010! We would like to thank all the participants, interviewers and volunteers who helped make this years CaRMS process a success.

The past academic year saw the introduction of the long awaited Night Float! First it was introduced for the resident and then, because of its great popularity, it was extended to include the medical student class as part of the CTU experience. Night Float has decreased the number of clinics missed by post-call residents and strengthened patient continuity of care during the night hours.

UBC Pediatrics is proud to continue the training of residents in International Health. Karen Trudel, Kirsten Ebbert and Kathryn Leccese were all able to experience the eventful and demanding education at the Red Cross Hospital in South Africa. Jonathan Sam was selected to work at Sydney Children's Hospital in Australia on a resident exchange program with Marion Mateos. Deepak Manhas also recently returned from India with Dr. Nazmudin Bhanji where they worked with Operation Rainbow to care for children undergoing Cleft Lip and Palate repair.

Congratulations to Sarah Freedman who tied the knot on May 9, 2010. Sadhana Balakrishnan had a gorgeous baby boy named Kiran Krishnan Mattocks on June 1, 2010 and Alexandra Faber had another beautiful baby boy named Pearce Simmons on May 8, 2010. Congratulations to our expectant mothers Cristina Bigg and Francine Ling! On a separate note, Deepak Manhas also had a unique opportunity to perform in the Vancouver 2010 Opening Ceremonies and to be part of the opening act for Nelly Furtado. Hearty congratulations to Joanne Yeung who won the UBC Celebrate Pediatrics Research Day Resident Research Competition and represented our program at the National Pediatric Research Competition held in Winnipeg on May 14, 2010. The fourth year residents completed the written portion of the Royal College Exams and we wish them the best of luck during the oral section!

This year's annual Pediatric Resident Spring Retreat was held on April 13, 2010 at Monk McQueens on Granville Island with a focus on procedural skills that are essential for all residents.

We would like to thank Dr. Jennifer Druker and Dr. Grace Yu for all the hard work and dedication they have put into the training of residents over the past few years. Their effort to improve resident well-being, along with their unconditional support and caring for all the residents is immensely appreciated. They have touched the lives of the residents and we look forward to working with them in the future.

We would like to thank Cristina Bigg and Shelina Jamal for the countless hours they have put into the residency training program. They played an integral role in implementing the Problem-Based Learning Academic Half Days as well as Night Float. Best of luck in your future endeavors. They have significantly contributed to the education of the pediatric residents, and we look forward to continuing on in this tradition.

Deepak Manhas, MD and Jonathan Sam, MD, Pediatric Chief Residents



*CaRMS Candidates 2010 with Dr. J.P. Collet and
Wendy Cannon (far right)*



Trainees - Scholarly Activities Updates

Wendy Cannon, Scholarly Activities Coordinator

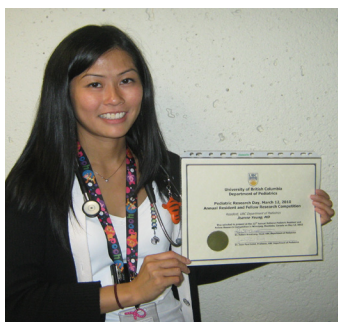
THE 2010 CELEBRATE PEDIATRIC RESEARCH DAY

CELEBRATE PEDIATRIC RESEARCH DAY was held at the BCCH Chan Centre on March 12, 2010.

This Departmental education day was chaired by Research Director, Dr. Jean-Paul Collet and was coordinated by Wendy Cannon, Scholarly Activities Coordinator. Residents, sub-specialty residents and fellows have the opportunity to present their research in a formal setting before peers, faculty researchers and educators. Dr. Bob Armstrong was the invited faculty speaker and he gave an inspiring talk about building a career in clinical and health services research. Dr. Ran Goldman was invited to describe research activity in the Division of Emergency Medicine and resident, Dr. Badri Narayan spoke about the evaluation of our pediatric research curriculum now completing Year 3.

The remainder of the morning's program consisted of resident research project presentations, some of which are currently in progress. Dr. Collet then announced the results of the First Residents' Research Project Operating Grant Competition held in December 2009. From a total fund of \$3000, partial support towards their research projects was obtained by the following residents in alphabetical order: Scott Cameron, Dawn Gano, Jennifer Gelin, Sara Leo, Krystal O'Byrne and Surabhi Rawal. Congratulations to the recipients and good luck with your ongoing research!

The program continued during the afternoon with resident and fellow research papers which were entered into our Pediatric Research Day Competition - a key component of the day. The quality and level of



Resident winner: Dr. Joanne Yeung

the presentations was excellent and projected the varied research undertaken by our trainees. The judges selected winning papers by Resident Dr. Joanne Yeung: *Serial Measurements of Exercise Performance in Pediatric Heart Transplant Recipients* and Fellow Dr. Adam Fleming from Division of Hematology/Oncology/BMT: *Redefining the Incidence and Outcomes of CNS Atypical Teratoid Rhabdoid Tumours at BC Children's Hospital*.



Fellow winner: Dr. Adam Fleming

We would like to thank this year's competition judges: Dr. Chris Maxwell, Dr. Sandra Dunn and Dr. Spogmai Wassimi. And congratulations also to both Joanne and Adam!

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Trainees - Scholarly Activities Updates

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The best resident paper and the best fellow paper represent the department at the annual National Pediatric Resident and Fellow Research Competition each May in Winnipeg at the Manitoba Institute of Child Health. We congratulate Dr. Adam Fleming who was awarded honorable mention as the runner up in the Fellow Category at the 22nd Annual National Pediatrics Resident and Fellow Research Completion in Winnipeg on May 13, 2010.

Research Day continues to provide a platform for our trainees to describe the varied research being in which they are involved and the high standards that have been achieved. A big thanks to all our speakers and also to the staff who assisted with this annual department event!



*National Fellow Honorable Mention Award—
Dr. Adam Fleming*

RESIDENTS' FUNDRAISING and WORLD AIDS DAY

“Stop AIDS. Keep the Promise!”



Residents Shreya Moodley, Badri Narayan and Sara Long-Gagne promote calendar sales to support an education scholarship for the African Hearts Association in Uganda

December 1, World Aids Day is observed worldwide to promote awareness of the HIV/AIDS pandemic. The pediatric residents encouraged us to wear red or a red ribbon on that day as an international symbol of AIDS awareness. Funds obtained from donations for the red ribbons and sales from the popular 2010 calendars were used to support local AIDS organizations and for an education grant for The African Hearts Association, a community of youth in Uganda orphaned by HIV/AIDS. We are pleased to announce that \$1,300 was raised this year for the 2010 African Hearts Association Education Grant sponsored by the Residency Program.

Thanks go out to residents Shreya Moodley, Saadoun Hasan, Sara Long-Gagne and Badri Narayan for their efforts in fund raising and the promotion of awareness for this cause. Many thanks also to all who purchased calendars or donated monies to make this year's fundraising so successful!

Wendy Cannon can be reached at: wcannon@cw.bc.ca.



An Elective Experience in Paarl, South Africa

Dr. Kirsten Ebbert, Year 4 Pediatric Resident

As my plane descended into South Africa, I was awed by the lush landscape and the magnificent waves crashing into the shores of the Western Cape. A trip to Kenya and Tanzania during medical school had sparked my interest in international health. Now, those memories were overpowered by a great surge of excitement about beginning another adventure into learning on this colourful, amazing continent. I was finally here. South Africa.

My elective was in Paarl Hospital, a secondary level hospital about an hour northeast of Cape Town. The hospital was in the midst of being rebuilt, and a tour of the new Pediatrics ward and nursery was a definite contrast to the old Casualty (Emergency) department. The pediatric department included a medical ward, gastroenteritis ward, and a level two nursery totaling 68 beds, as well as an outpatient clinic. When on call, we were responsible for these wards, deliveries, admissions from Casualty, and outside calls. We were the IV team, phlebotomists, and respiratory therapists for these patients as well. Overnight, a single intern or registrar was responsible for all of these patients, with no other in-house pediatric medical students or registrars, and a pediatrician on-call from home.

It did not take long to realize that the fresh paint on the ward walls did not mean resources were plentiful. After checking the ears on one of my first patients and throwing away the otoscope tip, I learned that the few pieces in the ward's single portable otoscope case were to be swabbed off and reused. When unable to find any otoscope piece in Casualty on a number of subsequent occasions, I regretted tossing that piece. Now back in Canada, my arm always hesitates a little before throwing away those "reusable" pieces.

My time on the ward in Paarl Hospital provided exposure to many general pediatrics problems, many of them being infectious. Admitting a few patients with bronchiolitis, pneumonia, or gastroenteritis was guaranteed every call. I saw more HIV and TB than I have seen in my entire residency, and learned about the many ways these diseases may present. I saw patients with sepsis, meningitis and hepatitis. Non-infectious presentations included seizures, congenital heart disease, intentional and accidental overdoses (e.g., TCAs, organophosphates), neonatal jaundice (including a baby with probable kernicterus), hemophilia and child abuse, to name a few.

Paarl is known as the "centre of Afrikaans." As a result, communication with patients was sometimes difficult. The majority of patients spoke Afrikaans or Xhosa, although some were able to communicate in English. Although I found the language hard to speak, a few basics like *koors* ("fever"), *rooi* ("red"), and pronouncing "water" with a v



Paarl Hospital: Dr. von Delft and Dr. Kirsten Ebbert

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An Elective Experience in Paarl, South Africa

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("vater") made histories a little easier. Sisters and nurses were often helpful in translating. By the end of my elective, I was worried that I might lapse into cooing "*baba*" to settle babies back home.

Despite the language barrier, hearing people's stories and lives was one of my most appreciated experiences. Nearly everyone I spoke with had opinions on South Africa's past and current political situation. I enjoyed listening to the variety of thoughts people expressed about their country, and was impressed by the political interest and knowledge even young South Africans had. On call, I learned even more about people's personal situations – from those who had to wait for a family member or employer to drive them great distances to seek medical attention, to those who explained that their family lived in a horse's stall, minus the horses. I also began to understand the gravity of the HIV epidemic and its attached stigma, listening to hushed stories behind the curtain in Casualty of mothers who had contracted HIV through sexual assault.

My experiences on call, while often busy and difficult, provided me with the opportunity to triage and manage patients who were at times very sick. I attended a delivery for undiagnosed twins, resuscitated a premature baby who was born before arrival, and managed meconium aspiration. I was called to stabilize a child with newly diagnosed seizures who had arrived in Casualty after being in status epilepticus for four hours, having stopped taking antiepileptics when she ran out. I improved my skills in IVs, arterial bloodwork, and intubations, often with little assistance. All of these opportunities improved my confidence in being able to manage difficult situations in a peripheral centre with limited support. Sadly, some cases presented too late for help – I vividly recall an apneic and pulseless 8 month baby boy, carried up to me by his father in the Casualty department. The baby had Trisomy 21 which was not diagnosed, and his father had driven him to hospital by car from a neighboring town after what sounded like an aspiration earlier that morning. Despite our efforts at resuscitation, the child passed away.

Despite some difficult experiences, I was impressed at the support that the South African people provided each other. After being transferred to Paarl Hospital earlier in the day for assessment of her newborn's edema, one mother collapsed on the ward and was admitted to the ICU. She passed away the following morning from a brain aneurysm. In the face of this tragedy, the other mothers in the ward took over feeding, changing, and holding the baby until the extended family arrived. Even in less drastic cases, this was the norm. If a child was crying and his or her mother was not at the bedside, the other mothers in the room cared for the child until her return.

In addition to clinical experience, I loved getting to know the medical and nursing team. The team was welcoming, happy to teach me about their practice, and interested in sharing ideas. I was often invited out with them, most usually to the infamous "*Braai*" (barbeque). I enjoyed sharing a home with a lovely South African family, who were also wonderful about including me in their activities, and teaching me about Paarl and South Africa. Outside of work, I spent some time exploring the beautiful countryside around Paarl. Despite my best attempts at seeing various parts of South Africa, I know I have seen just a glimpse of the beauty and cultural depth that South Africa has to offer.

I thank the people who allowed me that glimpse into their lives and their country, as it has broadened my understanding of both the unique people and culture in South Africa, and of life and health in a developing country. It has provided me with a broader lens with which to view medicine and global health, and I believe this journey to South Africa has had a positive impact on my personal development and the kind of pediatrician I will become. In the words of Nelson Mandela, "Education is the most powerful weapon which you can use to change the world."

Dr. Ebbert can be reached at: kebbert@cw.bc.ca.

A Visit to The Sustainability Institute and Stellenbosch University Institute for Advanced Studies

Kathryn Leccese MD, Kirsten Ebbert MD and Andrew Macnab MD

During our rotation at Paarl Hospital in South Africa in the Fall of 2009, we had the opportunity to visit an NGO run sustainability project at The Sustainability Institute in Stellenbosch. This project combines a number of educational and demonstration projects, several of which have special relevance in the area of fetal alcohol spectrum disorder (FASD). This wine producing region has a tradition of practices which make the local population particularly vulnerable to the many consequences of alcohol consumption. As a result, the area has one of the highest incidence rates for FASD in the world.

Our group on this visit included David and Sarah Speert, Andrew Macnab, Kathryn Leccese and Kirsten Ebbert. We had the opportunity to speak with the director of the project, attend his lecture to a group of students on the principles of sustainable development, listen to a presentation from the educators who were training teachers in Montessori methods of education, and spend time in the project's crèche (child care centre). The dialogue amongst our group was far-ranging and provided context for the project we were visiting; we discussed the spectrum of cultural and medical issues in South Africa, other parts of Africa, and amongst BC aboriginal populations. Sarah Speert is an experienced special needs educator, so it was particularly interesting to hear her perspective of the innovative work being done at the Sustainability Institute's crèche.



Dr. Kirsten Ebbert with one of the children

The crèche was a remarkable place to visit. The photo above depicts Kirsten with one of the children. The children include a high proportion with special needs due to FASD, but the atmosphere and focus of the children on their activities was nurturing and calm. The methods being applied are based on the Montessori concepts with a strong adaptation to local need. The children are obviously helped to develop skills and practices that make it easier for them to function in a group setting. The intention in the longer term is that they will be able to integrate better and learn more effectively within a regular school environment. The crèche and school at the project are also used to provide a training environment where teachers can learn these approaches, with the aim of applying the principles and approaches when they teach in regular community schools, where a high proportion of children have special needs and must learn alongside other children.

In the afternoon, we went to the Stellenbosch University Institute for Advanced Studies (STIAS) where Dr's Speert and Macnab are currently affiliated, and are working on collaborative research and service delivery projects in the field of infectious disease, the application of novel technology to issues in Africa, and the use of 'Health Promoting' schools to expand community-based child health education. This was an insight into the academic environment available to leading researchers. Then it was back to Paarl to continue our elective rotation, which has also been a valuable and enriching experience.



Operation Rainbow 2010: India

Dr. Deepak Manhas,
Chief Pediatric Resident, UBC Pediatrics, BCCH

Operation Rainbow Canada (ORC) is a non-profit medical organization established in 1998 by Dr. Kimit Rai, a plastic surgeon. ORC provides reconstructive cleft-lip and cleft-palate surgery for children in developing countries and, to date, has helped children in Mexico, Lebanon, the Philippines, Cambodia, and India.

ORC missions consist of volunteer medical teams that include health care professionals as well as non-medical support personnel who travel to developing countries where they are hosted by local hospitals. ORC medical teams perform reconstructive surgery for children and young adults whose families could otherwise not afford them. The patients are drawn from the indigenous population of the host country, and families often travel days from their homes in order to have their children treated. In addition to cleft lip and palate surgery, ORC also performs reconstructive surgery for burn and post contractures.



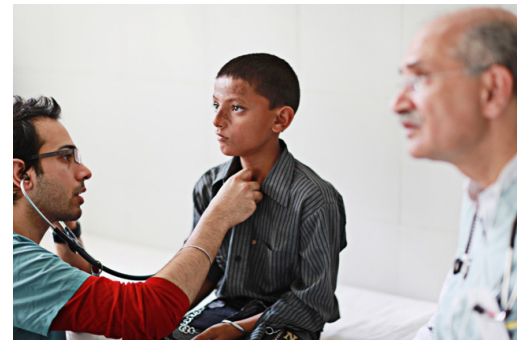
Dr. Manhas teaching the nursing students

Asthma Clinic as well as a Rash Clinic and teaching sessions with the nurses from the local nursing school. A great need for general pediatric care was identified, with deficiencies in nutrition, clean and safe environments for children, as well as immunizations.

This was a great experience to learn about international health, and reminds us of how much work remains in order provide basic medical care for all children. We appreciate Operation Rainbow Canada's continued effort to involve pediatric residents to improve children's health worldwide.

Dr. Deepak Manhas, UBC Pediatrics, R3, Pediatric Chief Resident

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Dr. Manhas and Dr. Bhanji assessing a patient

In addition to the surgical services ORC performs, they also offer an educational program for Canadian plastic surgery, pediatric, and anesthesiology residents. This year, Dr. Nazmudin Bhanji and Dr. Deepak Manhas from pediatrics and Dr. Robert Purdy and Dr. Katherine Brand from anesthesia were among the volunteers during this year's mission to Baru Sahib in Northern India.

As pediatricians, we were involved in the pre-operative screening as well as the post-operative management of these patients. Common problems encountered were infection, malnutrition and dehydration. Dr. Bhanji also organized an



Prevention of rheumatic fever in the developing world

Dr. Andrew Steer, Clinical Fellow, Infectious & Immunological Diseases

Rheumatic heart disease affects more than 15 million people worldwide, 2.5 million of which are children, with an estimate of over 200,000 people, who die annually from the disease. In terms of global disease burden, that represents approximately 10% of the number who die by HIV or malaria each year, yet rheumatic heart disease receives very little global health attention.

Rheumatic heart disease is an inflammatory disease of the heart that can lead to heart failure. It occurs when the bacterium, group A streptococcus, causes an autoimmune response following a streptococcal throat infection – this inflammatory response is called rheumatic fever. The exact pathogenic mechanism of rheumatic fever remains poorly defined. Rheumatic fever can affect multiple body tissues including skin, subcutaneous tissues, the basal ganglia and the joints. However, it is the longer term effects on the heart valves that can lead to heart failure and eventual death if left untreated.

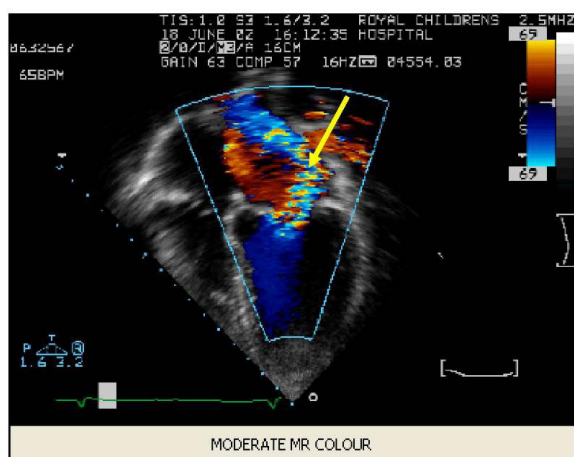
Rheumatic heart disease is a disease of poverty. It is most prevalent in developing regions of the world, especially in Africa, the Pacific and in the Aboriginal population of the Northern Territory of Australia. This is most likely due to sub-standard living conditions, particularly poor hygiene and overcrowding, which can facilitate transmission of the bacteria, causing



*Dr. Andrew Steer listening to a child's heart
in Fiji*

the disease's development. Rheumatic heart disease causes premature death with mortality rates peaking in young adults in their third decade of life.

I have had a longstanding interest in rheumatic heart disease and its prevention since I spent time in Samoa, a small Pacific island nation, between 1995 and 1997. The children's ward at the main hospital in Samoa always had several children admitted with acute rheumatic fever. In 2005, I moved back to the Pacific to undertake a PhD studying the clinical and molecular epidemiology of group A streptococcal infections, with a focus on rheumatic heart disease – this time I moved to Fiji. I spent three years in Fiji with my family, and it was during this time that I witnessed firsthand the devastation that the disease can cause, both as a researcher and as a pediatrician. Ten percent of patients admitted to the hospital with rheumatic heart disease died, and many of these patients were young people.

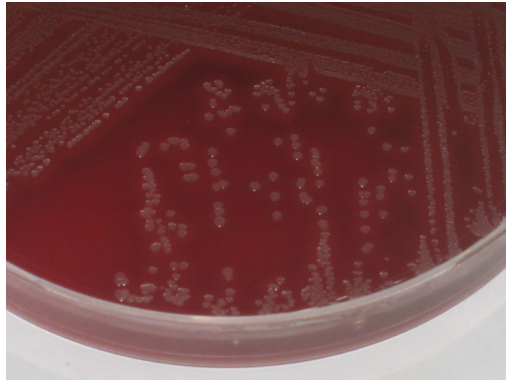


Typical findings of rheumatic heart disease (mitral regurgitation) on echocardiogram

It is not all dire news however. There is headway being made in the fight against rheumatic heart disease on a number of fronts – part of this headway is through revived efforts of well-known control methods, and another part is through

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Typical colonies of the group A streptococcus on an agar plate

improve coordination of prevention methods for rheumatic heart disease – more information about this program can be found at www.worldheart.org/rhd. Similar programs in other Pacific island nations, and in Africa, are also being implemented.

There is very exciting progress being made in the development of a vaccine against group A streptococcal infection. A vaccine could provide the greatest hope for curbing rheumatic fever and rheumatic heart disease in many developing countries. Our research team conducted a series of studies that provided information crucial to the development of a vaccine specifically tailored to developing country populations. However, the vaccine development process is difficult. A commercially viable vaccine against group A streptococcal infection remains at least several years away, and a vaccine that is effective and affordable in developing countries is an even more distant possibility. Therefore, there is an urgent need to bolster existing preventative methods in developing countries.

Parts of this article are highlights of an article published in 2009: Steer AC, Carapetis JR. Prevention and treatment of rheumatic heart disease in the developing world. *Nat Rev Cardiol* 2009;6(11):689-98.

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novel prevention methods including a vaccine against group A streptococcal infection.

Public health measures are crucial in controlling rheumatic heart disease in developing countries. The most important aspect of disease control is the establishment and strengthening of secondary prophylaxis programs. Secondary prophylaxis refers to the regular (monthly) administration of long-acting penicillin to prevent ongoing or repeated streptococcal infections. It is well established that secondary prophylaxis can prevent worsening of disease status. There is renewed interest internationally in developing improved and sustainable secondary prophylaxis programs. In Fiji, a new program developed by the World Heart Federation in collaboration with the Fiji Ministry of Health has been established that aims to



The group A streptococcal research team in Fiji



Prenatal exposure to alcohol dulls pain response in newborns - UBC-led study conducted in South African wine region

Dr. Timothy Oberlander, Professor, Department of Pediatrics,
Division of Developmental Pediatrics

Excessive prenatal alcohol consumption and fetal alcohol syndrome have been documented as all too common in the picturesque, wine-producing region of South Africa's Cape Town. This region of South Africa has the highest prenatal alcohol use in the world and as a consequence, has been reported to have a disturbingly high rate of fetal alcohol syndrome. In the early 1900's, farm labourers received daily wine allocations as part of their remuneration. This practice has since been outlawed; however heavy drinking, even among pregnant women continues to persist. UBC researchers, headed by Dr. Tim Oberlander, in collaboration with a team at Wayne State University headed by Sandra Jacobson and colleagues in South African, set out to study the effects of prenatal alcohol exposure on newborn's pain behavior.

In a paper published in the April issue of the journal *Alcoholism: Clinical and Experimental Research*: Vol. 34, No 4 2010, pp 681-692, entitled: **"Prenatal Alcohol Exposure Alters Biobehavioral Reactivity to Pain in Newborns"**, Dr. Tim Oberlander, Professor of Pediatrics, examined biobehavioral responses to an acute painful event in a Cape Town, South Africa cohort consisting of 28 newborns heavily exposed to alcohol during pregnancy and those born to abstainers.

These data provide the first biobehavioral examination of early pain reactivity in alcohol-exposed newborns and has important implications for understanding neuro/biobehavioral effects of prenatal alcohol exposure in the newborn period. A number of key findings emerged from the study. As expected, the results indicate that prenatal exposure to alcohol blunts pain responses. The painful event in question was pricking the babies' heels and squeezing to collect drops of blood-standard screening tests for metabolic diseases like hypothyroidism. Infants whose mothers consumed at least 14 drinks per week while pregnant or had been binge drinking before delivery did not react to the pain the way babies born to a control group of non-drinking moms did. Heart rate, facial grimacing and other measures of pain were observed.

The alcohol-exposed babies were considered healthy. Their vital signs were within normal range and they were not intoxicated or suffering from withdrawal. They were, however, at risk of an eventual diagnosis of fetal alcohol syndrome. Along with observable pain responses, researchers also checked for stress levels by analysing saliva samples taken before and after the heel prick. Samples from 28 babies were sent to a UBC lab for analysis of cortisol (a stress hormone) concentrations. Surprisingly, alcohol-exposed infants had decreased cortisol levels after the heel prick, while there was no change in the levels of control infants not exposed to alcohol. These data provide the first biobehavioral examination of early pain reactivity in alcohol-exposed newborns and have important implications for understanding neuro-/biobehavioral effects of prenatal alcohol exposure in the newborn period.

The findings are interesting because studies have shown that as adults, people with fetal alcohol syndrome have increased anxiety, depression and aggression and altered responses to stress. Yet as infants, as shown by the current study, they have a dulled response. While it might seem like a good thing that alcohol-exposed infants shut down or withdraw in response to pain, symptoms of fetal alcohol syndrome (emotional and cognitive impairment) indicate there is very likely a turning point in the development of the stress response system. But when and how must be the subject of future research.

The \$40,000 study was funded by the UBC Child and Family Research Institute, Wayne State University and the state of Michigan.

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Commentator's Corner

Physicians and Quality Improvement

Dr. Anton Miller, Clinical Associate Professor
Division of Developmental Pediatrics

Is it simply a coincidence that two consecutive presentations at the Department of Pediatrics Grand Rounds series in May dealt with topics of quality improvement in health care? The Developmental Pediatrics presentation dealt with what could be done to improve continuity of care and care coordination for complex patients in the hospital and in the province, while the ICU presentation dealt with actions taken to improve communication among members of the team during daily rounds with complex patients in the Intensive Care Unit. Whatever the differences, these presentations overlap in their focus on the quality domains of continuity and efficiency; in addition, both show significant interest and engagement by members of the Department of Pediatrics in examining and potentially transforming the processes and systems of care that we work within, and which determine how we provide day to day clinical care. This, in essence, is what contemporary medical quality improvement is all about. ,

Hopefully, it is not just a coincidence. Rather, it seems to fit with an increasing awareness globally, that improving patient care and improving health care systems requires the involvement, if not the leadership, of physicians, and locally, with the establishment of an on-site Health Care Quality and Safety Journal Club.

This is also a time of increasing interest in an emerging field of quality improvement research, which can be loosely characterized as research that incorporates rigor in design and measurement to understand how to implement effective changes in processes and systems of care, and which aim to produce knowledge that is relevant to people outside of the immediate institution.

There is much to be done and many challenges facing this field. However, enormous progress seems possible if physicians, other health professionals, researchers, and the quality and safety infrastructure that already exists on site, can examine our interests and goals collectively, and look for ways to maximize synergies as we move forward.

Dr. Miller is a Clinical Associate Professor with the Division of Developmental Pediatrics. He is also Senior Associate Scientist with the Child and Family Research Institute.

Dr. Miller's research aims to measure and describe the health status of children with developmental disorders and disabilities; to understand the determinants of their health status from a population health perspective; and to understand and enhance the role that health, social and educational services can play in improving the health and well-being of these children and their families.

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Emeritus Happenings

Dr. David Smith, MD, FRCP(C), Associate Professor
Department of Pediatrics

“A damn fool”

In the “good old days”, some older Canadian hospitals, along the line of British hospitals, contained small amphitheatres which were set up for medical students to learn how surgery was performed. A circular gallery of sorts in which trainees looked down from above was constructed above a central operating area. The operating surgeon could thus periodically look up from his work and address the students at various stages during a procedure. For those readers who follow TV shows regularly, there was an episode of “Seinfeld” in which Gerry and Kramer observe an abdominal operation from above in just such a set-up and in the process, dropped a candy into the surgeon’s operating field. The setting for that episode is the same visual picture I’m trying to create. A couple of older Quebec hospitals have contained surgical amphitheatres and one was the location for this story.

“Willy” was a frustrated surgery resident at a Montreal hospital. A free spirit at the best of times, Willy had long-term surgical ambitions with a short-term training tolerance. As explanation, and without trying to appear too critical, a few surgeons from many years ago had fairly rigid ideas about how things should be done on their service, and even more rigid ideas regarding their own self-importance. It was this latter aspect of his surgical training that troubled Willy, who was now planning a break at the end of this, his second year. A keen aviator, Willy had found a job as a flying MD in Tanzania, and was looking forward to a temporary departure from a training position that had become progressively more troublesome. June was approaching and the residency year coming to an end, but there were more “on-call” duties to come, and more operations on which to assist. Willy’s job enthusiasm at this point had however, gone missing.

The woman patient had a complex medical history with abdominal pain her presenting complaint. After an extended evening observation in emergency, an operation was begun finally in the early hours of the morning in a surgical amphitheatre. As first surgical assistant, it seemed to Willy that this procedure was taking forever, and his lack of sleep didn’t help. The surgeon was slow, painfully methodical, and to Willy, he appeared pompous as he explained in a slow and condescending voice, his reasons for each surgical cut, each ligature tie-off, and each new area of surgical attack.

Surgery went on all night. At 7:30 a.m., the medical students on the surgical service arrived in the amphitheatre and the surgeon had a whole new audience for his teaching. Finishing up following the repair of the abdominal contents, he started to close, but instead of using the usual suture materials, he started to apply loops of stainless steel wire around the longitudinal abdominal muscle groups in order to pull them together. One of the medical students, unusually brave for the time, called down to the surgeon; “Why are you using stainless steel wire?”

The surgeon looked up from his work, and in a magnanimous voice directed to the gathered throng, he stated; “One hundred years from now, when they dig up this woman’s body, this stainless steel wire will still be in place!”

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Emeritus Happenings

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Willy had finally had enough, and his tolerance point reached. He broke his self imposed silence. "And when they dig up her body," Willy said quietly, holding a retractor and looking up at the students, "they are going to say,"

He paused, before speaking in a much louder voice.

"What damn fool put stainless steel wire in this poor woman's body?"

There was a lengthy period of silence. "Where are you going next year?" asked the surgeon. "Tanzania;" said Willy. "Good;" said the surgeon.

Willy proved to be a very competent General Practitioner and Emergency Physician. He was never accepted back into a surgical training position anywhere in spite of significant efforts on Willy's part to return to training.

And the lesson? While it's generally understood that it is not a good idea to publicly criticize the Pope, or the Dalai Lama, or anything related to Mohammed, not everyone knows that you should also not criticize an important surgeon at a top Canadian Hospital. Not in front of students.

Not if you want to become a surgeon.

David F Smith MD FRCPC

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ADVENTURES IN THAILAND

Dr. Shreya Moodley, Pediatric Resident, R3

In October 2009, I had the opportunity of travelling to Thailand to complete an elective in Pediatric Tropical Medicine. I spent five weeks under the wings of the Department of Pediatric Tropical Medicine, Mahidol University. During my stay I worked at 1) The Hospital for Tropical Diseases, Bangkok 2) Queen Sirikit



National Institute of Child Health (QSNICH), Bangkok and 3) Ratchaburi Hospital, Ratchaburi.

My first two weeks spent at the Hospital for Tropical Diseases involved learning about the common infectious diseases in Thailand. I had lectures and laboratory sessions learning about the epidemiology, pathophysiology, diagnostic testing, treatment and research for illnesses such as malaria and dengue fever. At this hospital I saw adult patients on the malaria ward, tuberculosis ward and in specialised I.D. clinics such as

the Gnathostomiasis Clinic run by Dermatology. I was also invited to attend journal clubs and case discussion sessions hosted by the Department of Pediatric Tropical Medicine. The remainder of my elective was clinical work at QSNICH and Ratchaburi Hospital.

QSNICH is the largest and only tertiary care center for children in Thailand. The hospital has over 1000 beds and provides most subspecialty services. I joined the residents and staff who kindly rounded in English for my sake (in context- all training is done in Thai language). This was a great experience with exposure to a variety of interesting cases such as TB meningitis with seizures, HOCM in heart failure, H1N1 with Pneumonia, Infantile spasms, Congenital



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Adventures in Thailand, cont'd from p. 21

Adrenal Hyperplasia, Transesophageal Fistula, Dengue fever, HIV and many, many cases of pneumonia and diarrhea.

QSNICH is similar to BCCH in that there is one senior resident and two junior residents per CTU team. However, the patient load and acuity is very different. The three residents cover 60 inpatients when on call, plus all the new admissions. In addition, the ICU is often full resulting in the pediatric ward having to accept ventilated patients! Junior residents are on call 1:2-1:3 and are expected to work a full day post call! Interestingly, residents really are RESIDENTS as they must live on the hospital premises during residency training; dorm rooms are provided as part of their salary.



Ratchaburi is a city outside of Bangkok. It is currently the site of important phase 2 clinical trials for a dengue vaccine. Ratchaburi is famous for its pottery. There are beautiful pots all over the city. During the rainy season, these pots are excellent breeding grounds for aedes aegypti (the mosquito vector for dengue) likely contributing to Ratchaburi being a dengue endemic area!

While in Ratchaburi, I attended ward rounds and teaching sessions for residents, including morning report. I learned the management for interesting cases such as severe kwashiorkor, scrub typhus, dengue fever, thalassemia, GBS meningitis, TB. The staff and residents were eager to hear about different management strategies employed in North America and to share their knowledge and experience with me. At the end of my rotation, I did a powerpoint presentation about residency life in Vancouver and shared our top three most common infectious diseases (RSV bronchiolitis, viral gastro, pneumonia) as well as two unusual and interesting infectious diseases cases (neurocysticercosis, HIV with abdominal T.B.) seen during my years at BCCH. This was well-received and sparked interesting discussions.



While in Thailand, I was fortunate enough to have made really great friendships. My friends in Thailand provided me with the social and cultural context to better understand Thai people and their society. I learned about the cultural and political determinants of health, such as the limited health care provided to Myanmar illegal immigrants, the xenophobia associated with refugees, and the active competition between local and American infectious disease researchers. Through friends, I also learned the importance of religion in everyday Thai life and the value placed on family and friends. Numerous discussions helped me to understand this proud yet humble society - the only country in the region to have never been colonized. I visited countless Buddhist Temples, ate delicious spicy Thai meals and shared conversations with incredibly hospitable and caring people.

Visiting Thailand has been an amazing learning experience. I love traveling to a new place and experiencing the people, culture, food and environment. As a doctor, it helps me understand the world we live in and provides me with a global perspective on healthcare. I return to Vancouver richer in medical knowledge, life experience and unforgettable memories.

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Photography Courtesy of Shreya Moodley



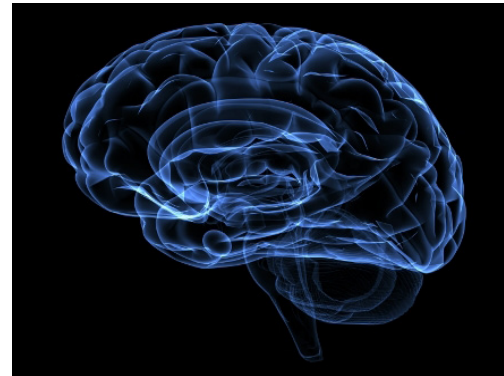
Developmental Neurosciences & Child Health: Neurons to Neighbourhoods

Ruth E. Wilson, Managing Director
Developmental Neurosciences & Child Health - Neurons to Neighbourhoods

We would like to take this opportunity to thank Dr. Bob Armstrong for his vision, leadership and support for research the past 15 years.

In July 1995, Dr. Bob Armstrong founded the Centre for Community Child Health Research (CCHR). There were seven founding members and the following four, Dr. Ruth Grunau, Dr. Anton Miller, Dr. Tim Oberlander and Dr. Maureen O'Donnell, are still members.

In May 1996, CCHR was established as a core Research Centre of the BC Research Institute for Children's and Women's Health with Dr. Armstrong as Director. Membership within the centre continued to grow and attracted a diverse group of investigators. A basic principle of functioning within CCHR was that it promoted interactive collaboration by facilitating interactions among disparate professions, scientific methodologies, and areas of investigation. Dr. Ron Barr became the Director on January 1, 2003. At its dissolution on March 31, 2009, Community Child Health had 44 members and over 70 research staff.



On April 1, 2009, the Child & Family Research Institute restructured its seven major programs and six cross-cutting themes into seven clusters and one partner organization. Previously, Community Child Health was a program and Mental Health & Neurobiology was a cross-cutting theme. Developmental Neurosciences & Child Health was established as a cluster with Dr. Ron Barr as Head and Dr. Bruce Bjornson as Associate Head.

We currently have 77 members. Thirty-seven are in the Department of Pediatrics, within six various divisions. The others come from 14 different University Departments. In addition to the University of British Columbia, we also have members at Simon Fraser University, University of California, Wilfred Laurier University and York University. A full listing of our members can be found on the CFRI website at: http://www.cfri.ca/our_research/clusters/neuro_child/default.asp.

During this past year, we have established an eight member advisory committee whose terms of reference are reviewed annually. These members were appointed for the first year and elections have recently been run to replace four members. The Advisory Committee for 2010-2011 includes: Rollin Brant, Mariana Brussoni, Bruce Carleton, Jana Davidson, Debbie Giaschi, Louise Masse, Steven Miller and Hal Siden. The Advisory committee has met a total of eight times and the full membership was invited to a Strategic Planning Day, as well as one social event.

We have a vision and a mission statement. **Our Vision: Connect. Create. Contribute. Our Mission: Developmental Neurosciences & Child Health brings together a diverse group of researchers who make discoveries that enable innovative interventions to improve the well-being of children, youth and families.**

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Developmental Neurosciences & Child Health - Neurons to Neighbourhoods

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Our diversity promotes synergy among developmental, neurobiological, behavioral, pharmacological, psychosocial and environmental sciences: in short, from neurons to neighbourhoods. Our focus is improved medical and surgical treatments, rehabilitation, prevention and health promotion.

We initiated a pilot project with Genetics & Health to have monthly Site-wide Research Rounds. At the end of this pilot project we will have had seven very interesting noon hour presentations with opportunities for discussion. Presenters include Jan Friedman, Ron Barr, Steven Miller, Neal Boerkoel, Michelle Demos, Clara van Karnebeek and Bruce Lanphear.

Some of our challenges are: meaningful integration of 74 diverse members into a cohesive cluster; timely, meaningful 2-way communication among members as well as trainees and research staff; increasing the number of trainees; contributing to the Maternal Child Theme at the School of Population and Public Health, and of course, the final frontier, space.

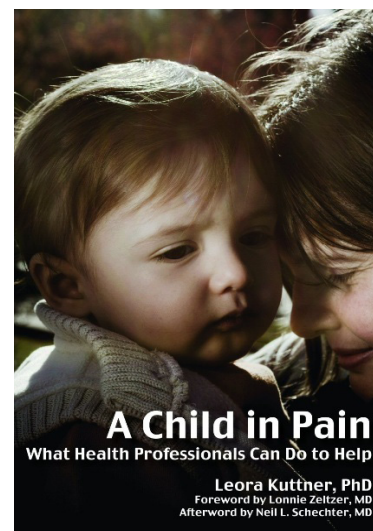
We are proud of the success that all our investigators are having with their research. We need diversity to evolve, and this is true in the workplace as well as in nature.

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Book Reviews/Launches

Dr. Kuttner has just authored, “A Child in Pain: What Health Professionals can do to Help”

This comprehensive book is designed to help health professionals of all disciplines who work with children gain understanding and skill in how to approach and treat children’s pain, and help children understand and cope with their own pain. Pain is the most common reason for children to seek a medical consultation – and sometimes the most common reason for avoiding it. This book examines children’s fears and anxieties that accompany their need for pain relief, and gives health professionals communication skills and words to calm these fears. Without doubt, this volume will become a standard on pediatric pain management for many years to come.



“ Like a breath of fresh air, Dr. Kuttner brings clarity, authority, and evidence to this crucially important area of pediatrics. She allows the patient’s voice to be heard, grounds her advice in what is known about best practice, but remains sensitive to the needs of the health professionals, who are only trying to help. Bravo!” Christopher Eccleston, PhD, Director, Centre for Pain Research, The University of Bath, UK

“ Dr. Kuttner has provided simple, clear guidance for health professionals of every discipline, with just the right balance of research made real by countless patient stories that bring it to life. It will be required reading for students and residents rotating through our clinic. There is no other book that fills this niche – easy to read, yet packed with practical advice and strategies that every pediatric clinician can use every day.” G. Allen Finley, MD, FRCPC FAAP, Professor of Anesthesia and Psychology, Dalhousie University Medical Director, Pediatric Pain, IWK Health Centre, Halifax, Canada

“ This is a unique and marvelous book. By reading this book, we can better understand the complexity of pain, and can find numerous ways to improve the pain of a child. This book is a must read for all professionals who work with children, and should be translated into many languages in order to help the children in whatever country they live.” Chantal Wood, MD, Paediatrician and Pain Care Specialist, Unité d’Evaluation et de Traitement de la Douleur, University Hospital Robert Debré, Paris, France.

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Out of Africa – A Mother's Journey

Niranjan Kissoon, MD, Professor, Department of Pediatrics
University of British Columbia

As a part of a recent sabbatical, I spent May and June 2009 working in South Africa and visiting health facilities in Uganda and Kenya. I wanted to better understand the plight of the acutely and critically ill child in the developing world and to gain insight into systems of care for the critically ill. I saw children die daily due to the ravages of poverty and deprivation. Critical illness is very common in areas of the world plagued with minimal resources to deal with its ravages. Most childhood deaths occur in Asia and sub Saharan Africa, areas handicapped by limited access to critical care and intensive care facilities. The comprehensive systems that we espouse and the vision of the World Federation of Pediatric Critical and Intensive Care Societies are far from being realized. My colleagues and friends back home will ask, "What were your impressions of pediatric critical care medicine in Africa?" For me the answer is elusive. I feel, however, that the best answer can be crafted by giving voices to the hopes and fears of these mothers as they journey from their homes to uncertain and unavailable medical care.



The following story depicts the journey of a mother of a critically ill child in her quest for her infant's care, and outlines the barriers faced, in addition to the disappointments and indignity of poverty. Similar scenes were witnessed several times daily in Uganda and Kenya, and while the issues are slightly different in South Africa, failures of healthcare processes resulted in similar adverse outcomes in all areas. This is a mother's story.

For simplicity, this story is told through the voice of one mother, however, the issues relating to childhood illnesses in low income countries are complex and while poverty is the major culprit, many factors contribute to critical illness in children. Socioeconomic predictors are more important than the provision of critical care and should be addressed before contemplating critical care services; however this discussion is limited to the critically ill child's journey through an imperfect and under resourced system.

In the developed world, the system is usually well resourced but scarce resources and competing priorities make this system beyond the reach of all but the richest of countries. Even so, many systems in the developed world are less than ideal for a different reason - they may be over utilized, inefficient and waste resources. Of primary importance in the developing world, however, is the comprehensive aspect of the system and not so much its expense or sophistication.

In rural Africa, the journey begins from home in a village where the first contact is with a volunteer village health worker who has basic IMCI training, and extends through district clinics of varying levels to district hospitals lacking many of essential medications, equipment and staffing. The reasons for the lack of a comprehensive system (Figure 1) are multiple. These are by no means easy decisions as underlined by the discrepancies in health indices and data from countries in which children and women bear the greatest burdens of disease. (Table 1 and Figure 2).

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Out of Africa - A Mother's Journey

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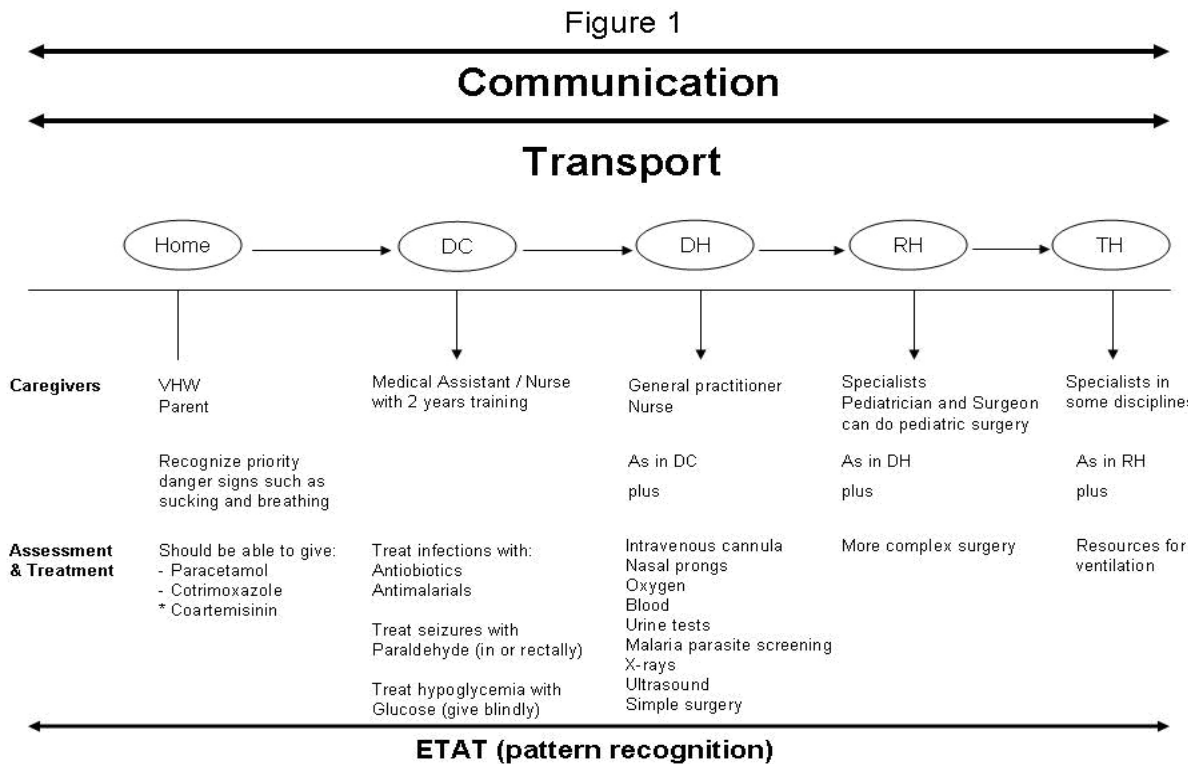


Figure 1: The journey in seeking healthcare for the critically ill child

Country	Population (millions)	Infant mortality rate (/1000 births)	Life expectancy at birth (yrs) for males	Under – 5 mortality (/1000 live births)	Maternal mortality rate (/100,000 live births)	IIIV (% of people aged 15 – 49 years infected)	Income per capita (GDP per capita in US\$)	Government health expenditure per person per annum (current US\$)	Doctors per 1000 pop'n	Nurses per 1000 pop'n
USA	298	6	75	8.3	14	0.6	\$39,710	\$2,548	2.56	9.37
India	1,103	62	63	85	530	0.9	\$3,100	\$7	0.6	0.8
South Africa	47	67	47	75	230	21.5	\$10,960	\$114	0.77	4.08
Nigeria	131	103	45	197	800	5.4	\$930	\$6	0.28	1.7
Kenya	34	78	51	120	1000	6.7	\$1050	\$8	0.14	1.14
Uganda	28	81	48	138	880	4.1	\$1520	\$5	0.08	0.61

Table 1: Health Data Indices for Selected Countries

Out of Africa - A Mother's Journey

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For instance, government health expenditure in Nigeria, Uganda and Kenya are almost 20 times less than South Africa which in turn is almost 200 times less than in the United States (Figure 2); yet staff members soldier on despite major obstacles. The nurse to patient ratio ranged anywhere from 1 to 15 to 1 to 50 with many patients being critically ill.

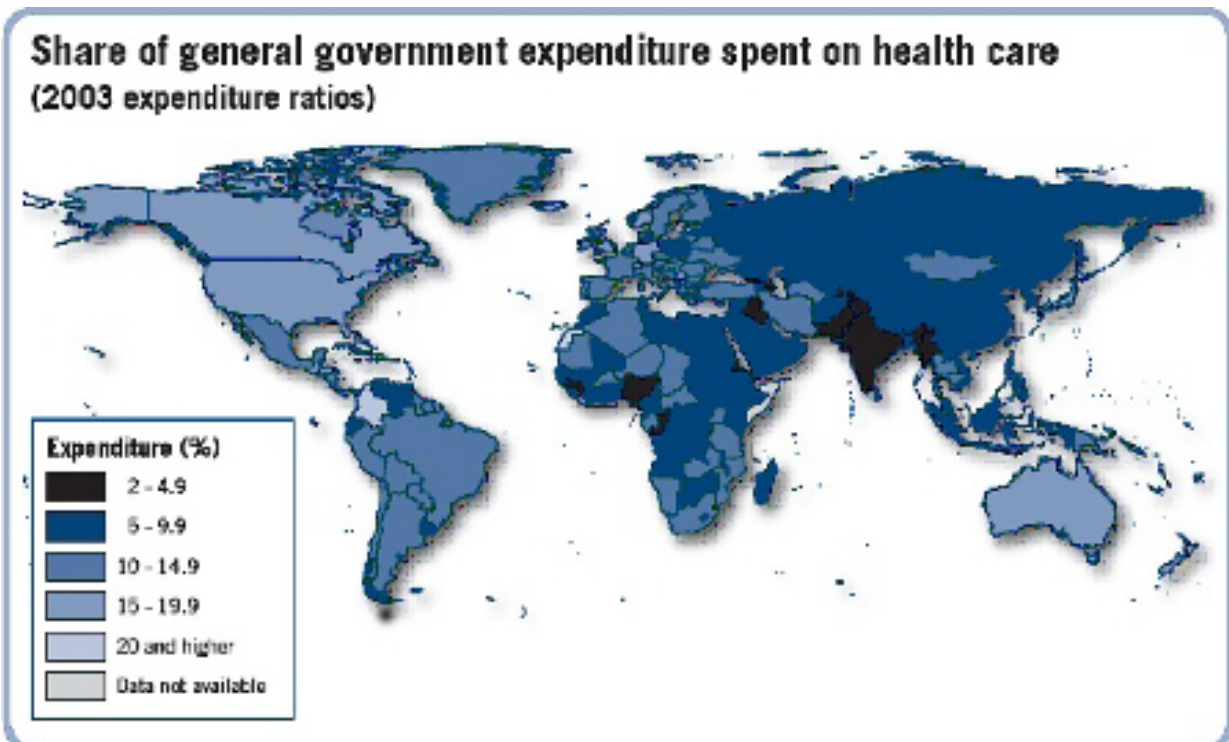


Figure 2: Share of General Government Expenditure spent on health care.

In many instances, there was one pediatrician for an entire hospital who was left to take care of 60 children on the ward, respond to the emergency area and perform all procedures (veni-puncture, lumbar puncture, blood counts, cross match, urinalysis etc) without help. Throughout all this they were cheerful, optimistic and willing to share their time and stories. One can only imagine what they can accomplish with even a modest increase in resources.

A Mother's Journey

At Home

I have little food and live in poverty where it is difficult to keep my children clean, safe and healthy. However, I do my best for my family. My four children have not been growing very well on the diet of matooke (crushed green banana) and beans. My six month old daughter has developed a swollen belly and for the past three days has been breathing fast and shallow; she constantly has a cold and she is now lying in a corner and not responding to my voice. Lately, I have

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Out of Africa - A Mother's Journey

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I seen several of my friends' children die from a similar ailment – always when the rains and mosquitoes came. Our local medicine man has been giving her medicines for two days but my child is getting worse and I have no more money so he tells me to go to the village health worker.

I walk to our village health worker's home and wait on his doorstep for three hours until he comes from work; he works in the banana plantation a few kilometers from the village. He listens to my story and tells me that my child is very ill and needs to go to the highest level of care in our district – that is, health care centre level 4. I am determined to get my child the best help.

The district health centre level 4 is about seven kilometers away; I have no means of transport to get there and I explain this to the village health worker and state that I will wait until my husband arrives. However, he tells me that treatment needs to be urgent ("time-sensitive" is the term he used) and that treatment with antibiotics and fluids are needed because my child has pneumonia. He states that with these treatments, my child should do well. I believe him so I gather some clothes, a little food, and visit my neighbours to explain the situation. I ask their help in taking care of my three other children and I instruct them to tell to my husband where I went. I also borrow some money from them, though they have little and I do not know how or when I will be able to repay them. With no transport, I start walking on a long dusty winding path down to the clinic with my daughter on my back. Finally hungry and hot I am relieved to get to the district health clinic; I think she is no worse.

The District Health Clinic

At the district health clinic, I wait in line with thirty others seeking help. Some are mothers with kids like mine; some of their kids look sicker. Hours pass before I get to the front of the line and see the nurse. I tell my story again and I am told that my child is very sick and should be seen immediately. Is it not true that there should be a system where the sickest children are seen as soon as they arrive rather than having to wait in line? The nurse confirms that "triage" should happen but there is not enough staff in this clinic to do it regularly. The nurse confirms that my child needs oxygen, intravenous fluid and antibiotics. However there is no oxygen and no intravenous fluids in the clinic and the antibiotics can only be given orally; the tablets are large so they are crushed and mixed with water for my six month old to swallow. The nurse states that they receive medications once every three months from government stocks, but most are used up by the end of the second month. The doctor is also very busy so I will have to wait again. After 4 hours, I see the doctor who tells me that my child has malaria and sepsis. He says that there are simple things that would help however, what is needed is not available here. I am told that I need to go to the district hospital since this is the highest level of care in my district. I ask if it is possible to find out if the treatment that my child needs is available at the district hospital because I do not want to go if there is no medicine. I have heard stories from others in my village of people who have walked for days in hope of a cure that was not available upon their arrival.

The ambulance and gas are very expensive and I do not have enough to pay, so I decide to take a taxi to the district hospital. The taxi will cost about three days' work for my husband while the ambulance will cost about two weeks. My daughter is now breathing shallower and her feet feel cold and look dusky. I am anxious for her, so I say goodbye to the mothers at the clinic and rush to the district hospital.

The District Hospital

At the district hospital, there is a long line of many people waiting to be seen. It seems to me that the higher the level of care, the more plentiful and sick the people are, and the longer the lines. No one is around to help me, I have never been this far from home and I am unsure where to go. Most people speak English of which I know little; I am scared and want to run back to my home. However, the illness of my daughter makes me determined to try the medicines here and gives me courage. Finally, I am directed by a kindly gentleman to the area that is called the 'toto' (pediatric) ward.

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Out of Africa - A Mother's Journey

Cont'd from page 28

I see that some patients are being treated very quickly after having signed some forms. They are seen by several doctors and nurses in white coats and they seem to be working quickly as a team. I am told by the nurse that these are research teams for studies on fluids for sepsis.

The Wards

Finally my child is seen and I was told that he is critically ill and needs to go to the critical care area of the ward. There is a single nurse in charge of about 60 patients and the entire critical care area. My child is put on a table and a tube (an intravenous line) is hung in his left arm. Blood is passed through the tube and there are two other solutions (I was told that one is malaria medication and the other is Ringers Lactate) which will need to be given to her. She is given some oxygen via a tube in his nose and I am told to keep an eye on the intravenous line and inform the nurse when the blood transfusion is completed. I am scared. How do I know that the needle is in the vein? How do I know to monitor my child? Why, after all it has taken to reach this place am I left alone and without guidance in a room filled with unfamiliar equipment and my rapidly fading child? Am I the ICU nurse or am I a mother? I see other children that all seem to be dying around me. I hold my child's left arm and rub gently just above where the needle enters the skin hoping that will help the blood go through his vein easier and improve his breathing. Fortunately over a period of hours, he starts to breathe easier and improve. I wander down the ward and see that this ward has two sides. On the one side, it is clean, ordered, quiet and pleasant with few patients. This, I'm told is the study area of the ward in which studies are being conducted. The other side of the ward is chaotic with many very sick, malnourished children, some of whom are dying. This is a regular area of the ward for us all. I see a child who looks six months old but his mother says he is two years old. He is severely malnourished and barely has enough matooke and beans to eat. His mom explained that he was very sick, similar to my child, and he has now improved. However he has TB and there is very little food for him. There is also no place for me to get something to eat or wash my baby nappies. If my child may die because of lack of food even after the sepsis is treated, why should I treat him just to watch him suffer and die of starvation?

I have all these questions because I fear for my child and I fear for children of other mothers. I hear words like comprehensive health care system – I hear of a cohesive system for the critically ill from the village health care worker. It sounds wonderful but I know it does not exist. I ask all these questions because I am confused. I know the indignity of poverty and that all children should have shelter, food, education and security, regardless of colour, gender or nationality. I ask these questions because I am a mother, and I love my children as fiercely and I feel as heartbroken watching them fade as any other mother. What do I want? I want my children to be well fed, educated, secure and not die. I want to see my children treated with dignity and care. I want to see children survive illnesses that I know do not have to be fatal. I do not know how to achieve this but I know you can help; you can listen to what I have said, visit, observe, work and see firsthand that I speak the truth. You also have the resources and the knowledge to do something about this. Please make an effort to truly understand and then determine where your expertise lies and where you can help. Children will be eternally grateful for this.

Comment:

Pediatric intensivists in the developed world could do well by bringing the plight of these children to the forefront of any healthcare discussion they are involved in. They, as individuals and through associations need to lobby their governments to make good on their promises of aid to the developing world. Setting an example by donating some of their income to the developing countries via organizations with stellar track records is also a good start.

Dr. Kissoon can be reached at: nkissoon@cw.bc.ca.



A Glimpse into Maternal and Child Health

Dr. Lionel Traverse, MD, FRCPC, Clinical Associate Professor, Department of Pediatrics, UBC, Medical Director, Fraser Valley Child Development Center.

This project was sponsored by the Vancouver based International Center For Criminal Law Reform and Criminal Justice policy (ICCLR), The United Nations Mission in Sudan (UNMIS), the United Nations Office on Drugs and Crimes (UNODC) and the Government of South Sudan (GoSS).

As part of a workshop on “Life-skills and Gender Sensitivity Management for Prison Officers of the South Sudan Prison System” I was contacted to provide lectures to the South Sudanese Prison officers on Maternal Health (including basics of labor and delivery), Infant care and Child Care.

The project took place in Juba, the capital of South Sudan, between May 8 and 21, 2010.

Since its independence, Sudan has witnessed ongoing civil wars which have exacerbated the geographical, economic, cultural and religious differences between the North (Muslim and arid desert region) and the South (Christian/animist, oil rich and relatively fertile black African region). The southern SPLA (Sudanese People Liberation Army) with its political arm the SPLM (Movement), and the official northern government finally signed a ceasefire and an interim agreement in 2005. Millions of people lost their lives or were forced to relocate and the Darfur refugees’ camps are best known for their extremely difficult living conditions, along with famine. For the first time in its history, the south Sudanese people elected a parliament and State governing bodies in April 2010. A referendum on separation of South Sudan is scheduled to take place on January 9, 2011. South Sudan is emerging from over 50 years of guerilla warfare and 27 years of uninterrupted civil warfare. With no social and political infrastructure, cities lack sewage and running water, and there is no Municipal Government. The Health care system must be completely built from scratch.

The above project, in which I participated, is part of this reconstruction effort.



I left Juba with mixed feelings, as I had become very attached to these people. They all wanted a hug, and it took me a long time to be able to leave the room: “Bye doctor” and “May God be with you” were repeated again and again. I asked myself: What have I really done for them? So little: I lectured and visited their work place: the prisons of South Sudan. As a pediatrician, I was also permitted to visit the Juba Teaching Hospital and to take as many pictures as desired in each place ... a rare privilege, since taking pictures is forbidden in South Sudan.

I provided the Sudanese women and men with information on the female reproductive system, maternal care, infant care and childcare. Although the 26 women who were participating in the workshop had collectively had a grand total of 154 children, it was evident that their knowledge of their body and of their children’s health issues was minimal. They were fascinated by the explanation I gave them of menstruation, childbirth, and child rearing.

The Juba Teaching Hospital has been “teaching” only since 2009. Located in the middle of the city of approximately 1,000,000 people, the hospital is funded by the GOSS. The proposed Pediatric department budget for the 2010 fiscal year is just less than 600,000 Sudanese pounds (US \$ 1.00 equals 2.6 Sudanese pounds). The Pediatric Department consists of:

- 117 inpatient beds - 1 outpatient clinic- 1 pediatrician (a second one tries to help but is affected by a fairly severe physical handicap) - 1 registrar (currently out of the country) - 6 Medical officers (half way between a Clinic nurse and an MD) - 5

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Dr. Lionel Traverse, cont'd from p. 30



RN's, - 24 LPN's, - 3 clerks, - 9 Cleaners.

Medications, suctioning equipment, tables, chairs, vacuum extractors, NG tubes, oxygen concentrators, bedding are all either extremely old and need replacement or non-existent.

A total of 15,106 children were admitted to the hospital in 2009. With a budget of 600,000 pounds, that represents a cost of 40 pounds (US\$17.00) per patient! One single pediatrician, whose salary is US\$1,500.00 per month, takes care of all of this. In the majority of cases, therapeutic decisions and admissions are delegated to the Medical Officers.

During 2010, the hospital witnessed a sharp decrease in the admission rate due to its inability to provide food for the patients. Families provide food and water. In the pediatric wards, the mother of the child is always admitted with her child and provides most of the nursing care. In a country where 26 women have 154 children, having to stay in the hospital represents an enormous burden for the rest of the family.

We visited the administration office in order to obtain statistics, but the administration was unable to produce what I requested. At least at that level, the Juba hospital is at par with its Canadian counterparts! I had to rely on estimates provided to me by the Medical Officers and the Pediatrician.

Approximately one-third of all admissions are due to Malaria. Since roughly 10% to 15% of infants admitted for Malaria die, this represents a mortality rate of 3% to 4% of all admissions. The current hospital pediatric mortality rate is around 5%! That represents 750 children who die in this hospital each year, or two per day!

Drinking water must be pumped directly from the Nile River and trucked throughout the city. Until recently, the GoSS was providing chloride free of charge. Truckers now have to pay for it, making the water-purification process unreliable. Consequently, after a two-year decrease, there is now a sharp increase in pediatric admissions for gastroenteritis.

The official perinatal mortality rate in Sudan is 90 per 1,000. My sources however, reported quite different rates: the Obstetric Medical Officer estimated there were 1 to 2 infant deaths per week out of 10 to 15 deliveries per day; the Pediatrician, the UNMIS doctors, and my personal anecdotal review, such as the 26 women I worked with also reported losing a total of 18 infants. This places the perinatal mortality rate at between 100 and 135 per 1,000. The vast majority of women deliver alone, at home, or in the bushes. Reliable statistics are not available.



During my visit to the Juba Hospital, I met a woman who was recovering from a C-Section. The infant had died. The Medical Officer told me the CS was for fetal distress, and in these cases the infant usually does not make it. In South Sudan, fetal distress means death.

I also volunteered to insert an NG tube in a baby which I estimated to be 33 weeks gestation and 9 days old. The infant was too weak to take her mother's breast and was clearly going to die of starvation and dehydration. The nurses (LPN's) had tried to insert a NG catheter but were unable to. I inserted the catheter with sterile gloves because non-sterile ones were not available. Once the catheter was secured, it was evident that its end was incompatible with the syringes they had, which may have been donated by different countries. I created a make-do system and the mother expressed milk in her own drinking glass. I ordered 2 to 5 cc per hour for 24 hours, to be increased slowly after that. If that infant was unable to tolerate maternal milk, she would have died within 48 hours. A second premature infant was in one of the two incubators of the hospital. It was unplugged, and an oxygen concentrator was providing an unknown quantity of oxygen to the baby. The infant was immobile and I did not dare examine him.

Dr. Lionel Traverse, cont'd from p. 31

An official 2007 GoSS survey reported a mortality rate of 135 per 1,000 for children under the age of five. Adding these two age-groups together, one arrives at a grand total of between 225 and 270 deaths per 1,000 children born! One child in four dies before the age of five! Malnutrition remains a major concern and at less than 100 km from Juba, people are actually dying from starvation. Mothers are rarely better off than their children. The official maternal mortality rate stands at 4%. One woman out of every 25 dies giving birth!



The labour room in Juba hospital is also shared with the post partum women and their infants. The two “second stage” rooms each have two birthing chairs, side by side. When I was there, a woman was labouring by herself in this environment, which was the best the country could offer.



These conditions are indeed difficult to imagine, but the most difficult to tackle is the total absence of care for the mentally ill. Psychiatry is non-existent! People who seem to be a threat to others are labeled “lunatics” and are put in jail. There is nowhere else to put them. They receive no treatment and are imprisoned in extremely difficult conditions. Untreated, they stand no chance of improvement and are condemned to remain locked in their cells twenty-four hours a day, indefinitely. It is no surprise that maternal and child health is a major problem in the developing world. But conditions in South Sudan may well be as bad as they get. The need for unfettered international assistance in this war-ravaged region of the world is enormous.

As I contemplate my next trip to Juba, I invite the reader to contact me so that we can explore ways to offer practical and effective assistance.

Lionel Traverse, MD, FRCPC, Clinical Associate Professor, Department of Pediatrics, UBC, Medical Director, Fraser Valley Child Development Center.

Lionel Traverse received his medical degree from Université Paris XI, Paris France in 1980 and his training in Paediatrics at the University of British Columbia where he also received his training in Neonatology. He is currently Clinical Associate Professor of Paediatrics, at the University of British Columbia.

He has practiced in Abbotsford, BC since 1986 where he was one of the founding forces for the Fraser Valley Child Development Center, and of which he was the Medical Director between 1989 and 2009. Dr. Traverse was elected president of the Paediatric Section of the BCMA in 1989. He has served as Program Director for Paediatrics Family Practice Program, UBC (Chilliwack). After studying epilepsy at the Centre St Paul in Marseille, France (1993) he became President of the Canadian Epilepsy Alliance (2000-2007), as well as Chair of the Board of Directors of the Center for Epilepsy and Seizures Education of British Columbia. He currently serves as Secretary of the Board of Directors for the Fraser Valley Child Development Centre Foundation. In addition he served on the Board of the Canadian League for Epilepsy. He enjoys mentoring to Residents and 3rd year Medical students.

Beside his Medical activities, Dr. Traverse was candidate for the Liberal Party of Canada in the 2008 federal elections and is a strong advocate for children's health, multiculturalism and civil liberties for all Canadians. The College has recognized that it needs input from non-academic fellows in order to remain relevant to the majority of its members who work as community based consultants. As such, Dr Traverse has served on the RAC 1 and on the Fellowship Affairs Committee of the Royal College for the last 3 years, and is now standing for an elected position on the Council.

Dr. Traverse can be reached at: lionel.traverse@gmail.com



International Strides in Pediatric Palliative Care

Dr. Leora Kuttner, PhD, Clinical Professor, Department of Pediatrics

Pediatric palliative care is steadily gaining ground internationally. This is occurring in Europe, particularly Eastern Europe, some pockets in the Middle East and slowly in sub-saharan Africa. Shared knowledge, expertise and a smaller world is facilitating this process. It is resulting in changed attitudes and practices when caring for children with life threatening and life limiting conditions and their families. Here is a snapshot of some of these developments.

Europe

In 1990 a Polish anesthesiologist became a major force, with financial support from George Soros and Government support to provide training for pediatric nurses and physicians from Eastern European countries. As a result, pediatric palliative care has developed in many eastern-bloc countries such as Slovenia, Slovakia, Moldova, Albania, and Belarus. Romania has one of the finest team services in Europe, located in Brasov. Greece has developed a responsive foundation led by a psychologist that provides outreach bereavement counselling, training and supportive services.

Surprisingly, Western Europe has largely lagged behind. France and Italy have some committed pediatric professionals but no dedicated facilities or teams to care for children in palliative care. In an initiative to spearhead improvements, the Rome-based Maruzza Lefebvre Fondation with international professional pediatric input recently published ***“Palliative Care for Infants, Children and Young People: The Facts”*** for policy makers and health care professionals. Germany has recently opened its first eight-bed hospice with education facilities funded by Vodafone in Datteln. There are dedicated palliative care teams in Berlin and a few other key centres. Germany is hosting biennial educational training in pain and symptom management. Historically and currently however, the UK (England, Wales and Ireland) remain the leaders in Europe with home-care, hospice-based palliative care teams that cover the country as well as provide guidance to other countries in the optimal delivery of pediatric palliative care.

The Middle-East

PPC is practiced in main pediatric centres in Beirut, Lebanon, and throughout Israel, including Tel Aviv which has an eight-bed pediatric facility. Kuwait will soon open a free-standing state of the art facility for respite and palliative care for children and families on government granted land, but supported by local private funds. Medical and nursing expertise from Great Ormond Street Hospital will guide their first three years when they open later in 2010.



Psychologist Tamara Klikovac stands with the teens who are part of her therapeutic palliative care group on the pediatric oncology ward in Belgrade Serbia. She reports that it is an uphill battle to have the needs of her patients comprehensively addressed.

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International Strides in Pediatric Palliative Care

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Africa

The scourge of HIV/AIDS has affected children in particular, a significant number of whom are orphans. Approximate 90% of the world's HIV positive children live in sub-Saharan Africa as do a high percentage of children with cancer diagnoses. Poor government leadership, poverty and food shortages in some countries such as Zimbabwe have created added burdens. There is a strong need for the training of health care workers, and educational resources developed specifically for the African context. The provision of children's palliative care service in sub-saharan Africa is sparse, funded largely by overseas agencies, such as in Uganda, and, where present, is often nurse-led home-care services.

A brave initiative from Cape Town University to develop pediatric palliative care capacity through the country of South Africa has been making headway for a number of years. This has been privately funded by foundations such as the Canadian-based Stephen Lewis Foundation and the Soros Foundation and in part by the South African government. The South African pediatric palliative care hospice group have been instrumental in establishing the International Children's Palliative Care Network's website: <http://www.icpcn.org.uk/>

Dr. Kuttner can be reached at: kuttner@sfu.ca

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Book Reviews/Launches

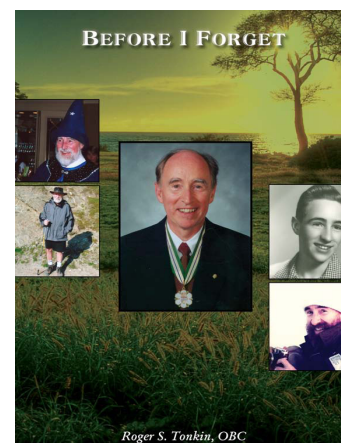
"I had to review this book while experiencing intense stomach aches and trying to figure out with what end I should address the toilet. Let me tell you something, this book really helped me understand what children go through! Buy it!" Laurence I. Sugarman, MD, Clinical Associate Professor in Pediatrics, University of Rochester School of Medicine and Dentistry, President, American Board of Medical Hypnosis

Leora Kuttner, PhD is a pediatric clinical psychologist who specializes in children's pain management. She is a Clinical Professor in the Pediatric Department of the University of British Columbia and BC Children's Hospital, Vancouver, Canada.

Dr. Kuttner has also authored, *A Child in Pain, How to Help, What to Do*, a book for parents, and has also co-produced and directed award winning film documentaries on pediatric pain management, *No Fears, No Tears, No Fears, No Tears – 13 Years Later*, and *When Every Moment Counts*.

"Before I Forget", A Memoir by Dr. Roger Tonkin

"Dr. Tonkin's memoir is an absolutely fabulous 96 page volume recording his adventures in a very full lifetime of service to children and youth. It is a beautiful and touching reflection and reflects his growing insights, many contributions, and the things he really cares about. He describes himself as a storyteller and that his intent is to inform, entertain, and guide family and others who might wonder how things worked out the way they did.



I think the book is an inspiration to all of those pediatricians retired, retiring, or who will retire that they should record their own transitions. Roger suggests that he wandered a road less traveled, but so have all members of the Department of Pediatrics. We are pioneers, each of us. Perhaps it is the setting in the Northwest, or perhaps it is the times of confusion and excess. I think Roger's book is a real inspiration to each of us to record our experiences."

Dr. Judith G. Hall, Professor Emerita of Pediatrics and Medical Genetics, UBC Department of Pediatrics and C&W Health Centre of BC.

For more information about the book and to order, please contact Dr. Roger Tonkin at: doerst@shaw.ca

Announcements



Dr. Josef Skala, Professor Emeritus, Department of Pediatrics has been awarded The Frederic Newton Gisborne Starr Award, by

the CMA. The F.N.G. Starr Award represents the highest award that lies within the power of the Canadian Medical Association to bestow upon one of its members. Achievement is the prime requisite in determining the recipient of this award.

It is awarded to individuals who have achieved distinction in one of the following ways: by making an outstanding contribution to science, the fine arts or literature (non-medical); by achievement in serving humanity under conditions calling for courage or the endurance of hardship in the promotion of health or the saving of life; in advancing the humanitarian or cultural life of his or her community; or, in improving medical service in Canada. In making this award, the CMA Board of Directors recognizes Dr. Skala's significant contributions to medical science, practice, teaching and at the same time his work in theatre arts. The CMA also recognizes that Dr. Skala has profoundly influenced and enriched the lives of the Czech and Slovak community of Greater Vancouver and Canada not only by his frequent medical education and advice but also as the founder of the Theatre Around the Corner. Dr. Skala's achievements serve as an inspiration and a challenge to the medical profession in Canada.

Congratulations to Dr. Skala!

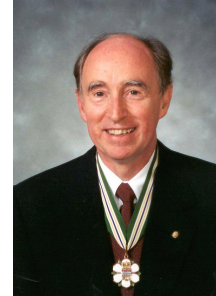


Dr. David F. Smith, Associate Professor, Pediatrics was elected to the honor of Primus Inter Pares by the Vancouver

Medical Association on March 18, 2010.

Primus Inter Pares (PIP), are persons worthy of the highest honor in that they have been proven to be always most loyal in every respect, and especially in the fulfillment of their duties to the VMA. By their work and duty, they have rendered good service to their city and their fellows. Congratulations to Dr. Smith on being granted the degree of Primus Inter Pares or, in English, first among equals by the Vancouver Medical Association.

Congratulations to Dr. Smith!



Dr. Roger Tonkin has received the Ross Award, the most prestigious CPS award for his contributions as an

“acknowledged mentor in Canada and an internationally visionary in health care standards for adolescents,” according to Dr. Johanne Harvey, paediatrician in Chicoutimi, Quebec and member of the CPS Adolescent Health Committee.

Professor Emeritus at the Department of Paediatrics at University of British Columbia since 1997, Dr. Tonkin has lived and worked in B.C. for more than 30 years. He has educated generations of UBC paediatric residents and health practitioners in the areas of adolescent medicine, eating disorders and community paediatrics.

Dr. Tonkin has also studied Aboriginal and marginalized youth, an effort the B.C.'s Child & Family Research Institute recognized through the Outstanding Achievement by Investigator Research Award. He has also been instrumental in promoting adolescent health issues, ensuring that youth are represented in programming decisions.

Congratulations to Dr. Tonkin!

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Announcements

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Appointment of Dr. Jan Friedman to Acting Associate Dean, Research, Child & Family Research Institute

UBC Faculty of Medicine is pleased to announce the appointment of Dr. Jan Friedman to Acting Associate Dean, Research, Child & Family Research Institute from February 1, 2010 to January 14, 2011. Dr. Friedman is also acting Executive Director, Child & Family Research Institute.

Dr. Friedman received his MD and MS degrees from Tulane University and his PhD in Genetics from the University of Washington. He is certified by the American Board of Pediatrics, the American Board of Medical Genetics, the Canadian College of Medical Geneticists, and the Royal College of Physicians and Surgeons of Canada. He is a Professor of Genetics at UBC and from 1989-1999, he served as Head of the UBC Department of Medical Genetics. He was the Founding President of the Association of Professors of Human Genetics and has served as President of the Canadian College of Medical Geneticists, President of the Teratology Society, and Treasurer of the American Society of Human Genetics. He is a member of the Advisory Board of the CIHR Institute of Genetics.

In his new role, Dr. Friedman will work with senior leadership in the Faculty of Medicine and its research partners to define and facilitate a province-wide health research strategy for the Faculty. Dr. Friedman has also been appointed Acting Executive Director, CFRI, responsible for setting the health research agenda for the Institute in conjunction with senior leadership at the Provincial Health Services Authority (PHSA). In these roles, Dr. Friedman will play a pivotal role in integrating the health research effort within PHSA, UBC Faculties and partner Universities. Please join us as we welcome Dr. Friedman to this interim position.



Dr. Ian Pike to Lead new CIHR Team in Child and Youth Injury Prevention

Every year in Canada, 25,500 children are hospitalized—and nearly 400 die—because of unintentional injury. It accounts for more deaths to Canadian children and youth than any other cause and, despite initiatives such as bike helmet and booster seat legislation, injuries among children and youth can cause serious, life-long disabilities.

For the new Canadian Institutes of Health Research (CIHR) Team in Child and Youth Injury Prevention, these sobering facts are a call to action. Earlier this year, CIHR and its funding partners, the Public Health Agency of Canada – Health Promotion and Chronic Disease Prevention Branch, and the Alberta Centre for Child, Family and Community Research announced \$2,000,000 in funding over five years to support this new team. Led by Drs. Ian Pike and Alison Macpherson, the CIHR Team in Child and Youth Injury Prevention is a dynamic team of national, multidisciplinary injury prevention researchers and their clinical and community partners. The goal is to harness the group's wide range of experience and expertise to create a comprehensive and multi-faceted approach to the study of injuries and their prevention among children and youth.

“We are extremely grateful to CIHR and its funding partners for their leadership in providing this unprecedented funding for injury prevention research in Canada,” says Dr. Pike. “I am very excited and anxious to engage with the members of this team, each of them outstanding researchers and experts in injury prevention. We have an ambitious agenda and are absolutely committed to better understanding and reducing injury to Canada's children and youth.”

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Announcements

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Dr. Pike is Director of the BC Injury Research and Prevention Unit at CFRI and a CFRI Clinical Investigator. He is also Assistant Professor with the UBC Department of Pediatrics. Dr. Alison Macpherson is an Associate Professor at York University in the School of Kinesiology and Health Science and an Adjunct Scientist at the Institute for Clinical Evaluative Sciences.

The team's research outcomes include: Enhanced understanding of the burden of child and youth injury. The team will look beyond mortality and hospitalization data to track the life-long impact of injury on the individual, family and society. Investigation into pediatric trauma systems to create recommendations to ensure that critically injured patients receive treatment in the right place at the right time.

Access to First Nations child and youth injury data for improved understanding of the individual and community risk and protective factors that affect Aboriginal child and youth injury. Evidence related to risks and potential strategies to reduce injury burden by focusing on specific high risk groups and injury types.

This new national team will be hosted by the BC Injury Research and Prevention Unit at CFRI.

UBC SPPH Launches new Maternal-Child Health Theme



Dr. Timothy Oberlander

Launched in April 2010, the new Maternal-Child Health Theme within the UBC School of Population and Public Health (SPPH) aims to improve the health and well-being of women, children, youth and their families. It will be the first maternal-child theme in a School of Public Health in Canada. As such, this theme seeks to apply a population-level perspective and health systems-based approach to research, education, advocacy and administration in maternal-child health on the BC Children's, BC Women's and UBC campuses.



Dr. Patricia Janssen

This new theme is led by Drs. Patricia Janssen and Tim Oberlander.

It will bring together faculty from diverse perspectives, foster cross disciplinary training and research in maternal and child health, and provide opportunities for students such as practicums, theses, financial support and career mentorship.

Dr. Janssen is Scientist Level 2, CFRI, Associate Professor, and Director, MPH Program, UBC SPPH. She is also an Associate Member with the UBC Departments of Family Practice, Obstetrics and Gynecology, and the School of Nursing. She is a Co-leader of the Interdisciplinary Women's Reproductive Health Research Training program located on the CFRI campus.

Dr. Oberlander is Scientist Level 3, CFRI; Professor, UBC Department of Pediatrics; Developmental Pediatrician at BC Children's and Sunny Hill; and HELP, Affiliate Faculty.

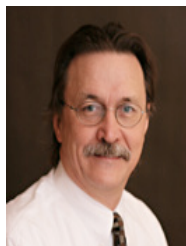
If you are interested in learning more about the new theme, please contact Dr. Janssen: pjanssen@interchange.ubc.ca or Dr. Oberlander: toberlander@cw.bc.ca.

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Announcements

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Department of Pediatrics/BCCH Adolescent Medicine Subspecialty Residency Program is accredited by the Royal College of Physicians and Surgeons of Canada



Dr. Curren Warf, Head, Division of Adolescent Medicine is pleased to announce that the Department of Pediatrics/BC Children's Hospital Adolescent Medicine Subspecialty Residency Program has been accredited by the Royal College of Physicians and Surgeons of Canada. Adolescent Medicine is a new subspecialty of Pediatrics in Canada. Our program is the fourth in Canada and the only one in Western Canada.

The successful accreditation was made possible by the support of many dedicated faculty of BCCH and UBC. We have two new faculty joining the Division of Adolescent Medicine, Dr. Peiyoong Lam from Australia who is already here, and Dr. Dzung Vo, from San Francisco, who will join us in September.



2010 Royal College Medal Award in Medicine

Dr. Steven Miller, Developmental Neurosciences & Child Health, received the 2010 Royal College Medal Award in Medicine for the publication "Effect of chorioamnionitis on brain development and injury in premature newborns" (Chau V, et al. Ann Neurol 2009). Dr. Miller is Associate Professor, Division of Neurology, Department of Pediatrics.

Co-authors for this publication include Drs. Vann Chau, Deborah McFadden, Anne Synnes and Rollin Brant.



Dr. Bruce Vallance's Canada Research Chair Renewed

Congratulations to Dr. Bruce Vallance on the renewal of his Canada Research Chair in Pediatric Gastroenterology.

Dr. Vallance is Scientist Level 2 with CFRI; Associate Professor with the UBC Department of Pediatrics and the C.H.I.L.D. Foundation Research Scholar. Dr. Vallance's research interests include: enteric bacterial pathogens, innate immunity, intestinal inflammation, host defense, inflammatory bowel disease.

UBC's chairs are among 187 federally-funded research positions awarded or renewed this year, representing a total investment of \$165.5 million distributed to 44 universities, research institutes and hospitals across Canada.

Departmental Events and Celebrations

Department of Pediatrics Awards and Recognition Dinner - March 2, 2010

Georgia Petropoulos, Communications Coordinator

On March 2nd, 2010, The Department of Pediatrics celebrated its Annual Awards and Recognition Dinner at the University Golf Club. During this event, Faculty members who have made the decision to retire from active service are celebrated for their career accomplishments and contributions to Pediatrics.

This very special celebration, emceed by Dr. Bob Armstrong, Department of Pediatrics Head, was well attended with an excess of 120 people.

The retirees for this year included: Dr. Philippe Chessex, Professor and Head, Division of Neonatology and Dr. Pete Malleson, Professor and Pediatric Rheumatologist. Dr. Mike Whitfield, Professor, Division of Neonatology presented for Dr. Chessex, and Dr. Ross Petty, Professor Emeritus, Division of Rheumatology, presented for Dr. Malleson.



Also recognized during the evening were Department of Pediatrics Division Heads, BCCH Senior Medical Directors and Centre Directors who had stepped down from their positions the previous year. Division Heads included: Dr. David Israel, Division Head, Division of Gastroenterology, Dr. Paul Rogers, Division Head, Division of Hematology/Oncology/BMT, Dr. Ralph Rothstein, Acting Division Head, Division of Adolescent Health.

Senior Medical Directors and Centre Directors included: Dr. Anne Junker, Senior Medical Director, Pediatric Specialty Medicine, Dr. Tex Kissoon, Senior Medical Director, Acute and Critical Care, Dr. Stuart MacLeod, Executive Director, CFRI, and Dr. Bob Peterson, Director, Child Health BC.

Professor Emeritus, Dr. Andrew Rigg, June 17, 1928 - January 19, 2010 was eulagized by Dr. Rob Hill, Professor Emeritus, and former UBC Pediatrics Department Head. Dr. Rigg was a pediatrician involved in numerous boards and charities, the long serving doctor at St. George's School and the past President of each of the Canadian Pediatric and the North Pacific Pediatric Societies.

Department of Pediatrics Award recipients for 2009 were also recognized and celebrated at the event.

Congratulations to all!

Photography Courtesy of Goran Samardziski



Top Shelf – Hockey at BC Children’s Hospital

Dr. Rod Rassekh, Clinical Assistant Professor,
Division of Hematology, Oncology and BMT

Ice Hockey has hit an all-time pinnacle of success at BC Children’s Hospital. Since the humble beginnings almost a decade ago where most of the players looked like giraffes on ice (and resembled the Toronto Maple Leafs I might add), we have come a long way and are now fielding competitive teams both locally and provincially. The level of play has improved dramatically over the last few years with all the playing time. We continue to have weekly pick-up games on Thursday nights where residents, fellows, nurses, attendings, and the occasional Sanatani sighting (when he is not running marathons) have fun and up-tempo pick-up games. These nights are great for socializing away from the hospital – and all skill levels are coming out to play – from Slovakian Sensations to South African Standouts who had previously not seen ice! These Thursday night games led to a core group of players wanting to play more competitively in the UBC men’s league. Since joining the league a few years ago, the **Pedihatricks** have become a competitive force to be reckoned with. The team has won their division the last two years and has made the finals both years, unfortunately losing both times in close contests. The great thing is that we are very competitive despite much of our team only picking up hockey in their adult years while playing against 20 year olds who have played all of their lives!



Malpractice Cup - April 24, 2010

All this ice time has led the **Pedihatricks** to become a dynasty in the annual Vernon Doctors Hockey Tournament, having won the Griffiths Conference trophy the last three years. This tournament has doctors from all across BC meet in Vernon for two days of intense hockey, a few beverages, and many “garden platters” (let’s just say its not a heart friendly meal!). Also of note is that Peter Trnka won the tournament MVP trophy for the second time in three years! It is with great relief for the other teams that Peter is moving to Australia this summer... what they don’t know is that we may just need to invite him to do a Nephrology locum every March in BC !

Finally, the highlight of ice hockey every year is the annual Malpractice Cup Hockey Game that pits the residents/ nurses/fellows against the Attending physicians. The 9th annual game took place on April 24, 2010, and the series was tied 4-4 heading into this year’s game. After a close first period, the staff team took control of the game and cruised to a commanding win. The Lirenman-Carter Cup for MVP of the resident team was presented to Jonathan Sam. Hopefully the lopsided score this year has sent a message to the Resident Selection Committee to make sure that Ice Hockey Skill is part of the selection criteria for future applicants to the residency program!

Hockey at BC Children’s is alive and well – and we are all looking forward to hitting the ice in September! Please join us if interested!

Dr. Rod Rassekh can be reached at: rrassekh@cw.bc.ca.



Sixth Annual Department of Pediatrics Administrative, Research and Nursing Staff Conference - May 7, 2010

Georgia Petropoulos, Communications Coordinator

The Sixth Annual Department of Pediatrics Administrative, Research and Nursing Staff Conference took place on May 7th, 2010. Wonderful weather made for an extra special day and close to 40 staff members across the hospital were in attendance.



Attendees engage in Dr. Sauve's Presentation

The focus of the day was on research being conducted at BCCH and CFRI. Dr. Laura Sauve, Clinical Assistant Professor, Division of Infectious & Immunological Diseases presented on *"The Impact of Vaccines: Research on preventing childhood illnesses."* She outlined vaccine research at BCCH, how influenza works, pre-pandemic preparation/getting ready for vaccine studies, and vaccine clinical trials. She also reviewed influenza diagnostics, the work IMPACT does and implications of the studies.

Dr. Laura Sly, Assistant Professor, Division of Gastroenterology, Hepatology and Nutrition spoke to *"Gutsy Goals in Inflammatory Bowel Disease (IBD) Research"*. She discussed the various research conducted by the GI Division Faculty members as well as

the Division's goals which include: Finding a cure for IBD; determining what factors cause IBD and developing better treatments. Dr. Sly also reviewed the value of basic research in the field and its connections with cancer, infectious diseases, the lungs, atherosclerosis, type I Diabetes, etc. Both presentations were extremely educational, engaging and thought-provoking.

The Education Team's presentation *"Who Wants to Become a Pediatrician?- An interactive look at the journey into Pediatrics"* provided an informative and entertaining glimpse along the pathway our trainees follow from undergraduate medical school students through their residency program and specialty fellowships. Guided by Education Manager Sylvia Wu, the Education Team consisting of Alejandro Huerta Rodas, Undergraduate Program, Gisela Murray, Residency Program, Helena Lee, Fellowship Program and Wendy Cannon, Trainee Research and Scholarly Activities, was able to inform the audience about their activities in the Department and have a bit of fun at the same time! Susan Prosser and Peggy Yin carried the presentation along with a funny skit and a contest "Who wants to be a Millionaire Pop Quiz?" complete with prizes for the right answers!



Education Staff Members: From left to right: Susan Prosser, Alejandro Huerta Rodas, Sylvia Wu, Wendy Cannon, Helena Lee and Peggy Yin (Gisela Murray was not available)

The afternoon session, facilitated by Carla Reiger, focused on personal development. Carla presented on: *"The Artistry of Change – The Top 5 Habits of Highly Resilient People"*. She provided tips and techniques on looking at the big picture, choosing one's attitude, letting go, staying curious, thinking in possibilities. It was a very well received presentation as attendees remarked on how practical and helpful the tools were.

Next year's Staff Conference is scheduled to take place on June 10, 2011. If you have suggestions and ideas, please contact Georgia Petropoulos at gpetrop@cw.bc.ca.

Photography Courtesy of Susan Prosser and Lana Yee

Dr. Bob Armstrong Farewell/Recognition Reception - May 18, 2010, University Golf Club

Georgia Petropoulos, Communications Coordinator

After completing a decade of service as Head of the Department of Pediatrics, Dr. Bob Armstrong stepped down as Department Head in June 2010. Dr. Armstrong relocated to Nairobi on July 1, 2010, to work for the Aga Khan University as the Founding Dean of Medicine in a new Faculty of Health Sciences for East Africa, based in Nairobi and linked to a new Faculty of Arts and Sciences being built in Arusha, Tanzania.

Dr. Armstrong has made many significant contributions provincially, nationally and internationally in the development of strategies and collaborations to improve health outcomes for children and youth. To express our gratitude for Dr. Armstrong's leadership in these vital areas and give thanks for all he has done for the great institutions that we have the pleasure and privilege to serve, the Department hosted a Recognition/Farewell Reception on May 18, 2010 at the University Golf Club.



Dr. Armstrong thanks everyone



Attendees enjoy the event

Approximately 170 people across BCCH, the PHSA, UBC and the Department of Pediatrics were in attendance. Dr. Walter Duncan, Pediatric Cardiologist, was the emcee for the evening.

The presenters included: Dr. Ross MacGillivray, Professor and Vice Dean Academic Affairs, Faculty of Medicine, Larry Gold, President BCCH and Sunnyhill Health Centre for Children, Dr. Stuart MacLeod, Vice President, Academic Liaison & Research Coordination, PHSA, Professor, UBC Department of Pediatrics, Elaine Orrbine, President and CEO, Canadian Association of Pediatric Health Centres (CAPHC) and Executive Director, Pediatric Chairs of Canada (PCC), Sue Carruthers, President and CEO, BCCH Foundation, Dr. Rob Hill/Dr. Judy Hall – Emeritus Pediatricians.

The Fraser Armstrong family was in attendance and Theodora Fraser Armstrong, Aland Fraser Armstrong, and Pierre Fraser Armstrong, the Fraser Armstrong children, provided a special presentation for their father.

Dr. Armstrong will be busy implementing new and innovative programs which will support the evolution of clinical care and academics in East Africa and is wished the very best.

Photography Courtesy of Ian Durning

23rd Annual Miracle Weekend BC Children's Hospital Foundation



BC Children's Hospital Foundation raised \$16,501,473 for BC Children's Hospital during the 23rd annual Miracle Weekend, hosted by Global BC TV on June 5-6, setting a new record. Miracle Weekend events have raised approximately \$156 million for the hospital since the first Miracle Weekend was held in 1988. Several records took place during the Weekend: the 25th annual ChildRun on June 6 set a record for attendance and fundraising with 6,100 participants bringing in over \$1 million for the first time. The Overwaitea Food Group was recognized as the largest Miracle Weekend contributor, bringing in a single-company record of \$1.6 million.

The Medical Departments of BC Children's Hospital, and the Child and Family Research Institute's faculty and staff members raised an admirable \$269,160. Congratulations!

On board for the cheque presentation were: From left to right: David Doig, BCCHF and Sunny Hill Foundation for Children Board Member, Dr. Deborah McFadden, Clinical Professor, Department of Pathology, Olivia Cabral, Dr. Lori Tucker, Clinical Associate Professor, Division of Rheumatology, Department of Pediatrics, Georgia Petropoulos, Communications Coordinator, Department of Pediatrics, Dr. Stuart MacLeod, Vice President, Academic Liaison & Research Coordination, PHSA, Agatha Jassem, PhD Candidate, Dr. David Speert Lab. Dr. Jim Potts, Clinical Assistant Professor, Division of Cardiology, Department of Pediatrics, Terry Bubb, BCCHF Governor.



Selected Faculty Publications

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Int J Inj Contr Saf Promot. 2010 Jun 17(2): 119-27: Youth injuries in British Columbia: type, settings, treatment and costs, 2003-2007. Leadbeater B, **Babul S**, Jansson M, Scime G, **Pike I**. Department of Psychology, University of Victoria, Victoria, BC, Canada.

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Drugs. 2010 Feb 12;70(3):335-46. Pharmacotherapy and weight-loss supplements for treatment of paediatric obesity. Rogovik AL, **Chanoine JP**, **Goldman RD**. Pediatric Research in Emergency Therapeutics Program, BCCH and Sick Kid's Hospital, Toronto, Ontario

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J Pediatr. 2010 Jun;156(6):882-8, 888.e1. Epub 2010 Mar 15. Tractography-based quantitation of corticospinal tract development in premature newborns. Adams E, **Chau V**, Poskitt KJ, **Grunau RE**, **Synnes A**, **Miller SP**. Department of Pediatrics, UBC, Vancouver, BC

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