There are two Caritas approval forms:

- The Request for Research Administrative Approval form has to be completed for requesting Caritas approval for research studies.
- The Chart Review Request for Research and Education form has to be completed for chart review requests.

You can receive a copy of these forms by contacting us at 930-5274. We can either email, mail or fax a copy of the forms to you.

For the Health Research Ethics Board application form you can contact Judith Abbott at 492-9724 or visit their website at http://www.hreb.ualberta.ca

Research Website

A Caritas-wide website development project is currently underway. As part of this project we will develop a Research-specific website where the approval forms can be printed or downloaded. We look forward to making this site available to you in 2005.

Research Summary Statistics

The following table highlights the types and volume of research studies that received approval in the past two years.

Type of Research Study	2003	2004
Chart Review	15	17
Clinical Trial	34	28
Drug Study	20	14
Epidemiological	4	10
Pilot Study	4	10
Qualitative Study	9	5
Survey	0	3
Technological Assessment	3	5
Other (Observational, Validation, Prevalence)		4

There are studies taking place in an extensive cross-section of areas:

• Cardiology • COMPRU • Pulmonary • Women's Health • Oncology • Orthopedics • Radiology • Emergency Medicine • Nursing • Dietary • Rehabilitation Medicine • ICU/CCU • Family Medicine • Psychiatry • Palliative Care • Child Health • Obstetrics and Gynecology • Surgery • Medicine • Geriatrics

The Caritas Hospitals Foundation

Supporting Research and Education

The Caritas Hospitals Foundation is pleased to provide financial support and, in turn, to advance the century-long tradition of innovation and compassion that typifies the Caritas approach to health care. Since its inception in 1992, the Foundation has financially sponsored a variety of world class research and education initiatives of the Caritas Health Group. A pioneering spirit, a drive for innovation, and a passion to continually improve health care services to individuals and communities forms the bedrock of such research initiatives. It is this very link to the Caritas mission and pioneering tradition that invites and challenges us to continue to underscore research and education as funding allocation priorities. In partnership with the community we serve, we are proud to celebrate and to encourage the outstanding work of our Caritas research community.

John Boucher,
Executive Director, Caritas Hospitals Foundation

CARITAS HEALTH GROUP

Caritas Hospitals Foundation

Caritas Research

At the heart of the Caritas mission is the desire to restore people to wholeness. This respect for the complexity of the human make-upthe physical, spiritual, and mental dimensions of healthhas led to the development of innovative models for care and the Caritas Research Centre (CRC). Articles in this 2nd issue of the CRC Newsletter profile innovative research taking place under the umbrella of the Caritas Child Health Clinic.

We will be seekers, restless in our determination to respond to needs and opportunities, relentless in our search for understanding, and driven to create and share knowledge.

—Caritas Corporate Vision

Caritas Child Health Clinic

At the Misericordia Community Hospital, a busy Child Health Clinic offers an effective model for community health promotion and community-based research. Established in 1997, the clinic tackles many of the challenges to children's health and wellbeing that tax the resources of the community and impact the day-to-day life of many families.

With support from the region, the program was developed to meet the urgent need for community-based programs to promote physical and mental health, prevent disease progression and advocate for children and their families within their communities. Today it offers a variety of services to address complex health issues that affect a child's education, social development and emotional wellbeing.

Dr Lola Baydala

The clinic offers support for such pervasive childhood challenges as asthma and learning disabilities. It is also home to such unique programs as Canada's only pediatric environmental health program and the only clinics for enuresis and encopresis (bedwetting and soiling) in Western Canada.

"These kinds of services are difficult to develop within the offices of pediatricians or family physicians in private practice," says Pediatrician Dr. Lola Baydala, the clinic's Medical Director. "Individual physicians just do not have the supporting personnel or the tremendous amount of time it takes to explore all the options."

Physicians working in the clinic offer specialized expertise to the Child Health Clinic programs, and provide support for the Misericordia's high-risk deliveries and emergency cases. In total, 8,700 visits have occurred through the clinic programs since April 2003.

Family physicians and pediatricians refer children to the clinic for testing, assessment, treatment and education. These activities are supported by a multidisciplinary team, which includes physicians, nurse specialists, social workers, a dietician, psychologist, audiologist, occupational therapist, respiratory therapist, and speech-language pathologist.

"All of the information goes back to the referring physician. However, we continue to follow the child's progress and work with the physician on an ongoing basis as requested," says Dr. Baydala. "Our goal is to empower the primary care physician to provide ongoing care."

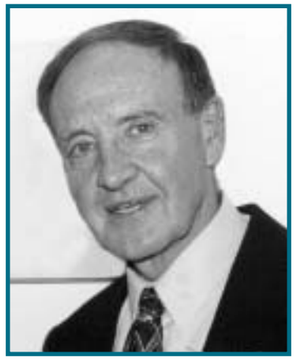
Community-based support is key to the clinic's approach. The Neurodevelopment and Behavioural Disorders Program has had 3,300 visits since April 2003, helping children with behavioural, emotional, attention and/or learning difficulties. As part of the community-based approach, team members work with parents, school, public health clinics, community groups, social service agencies and others who have the potential to contribute to the child's assessment, treatment and ongoing well-being. Effective parenting sessions, school-based group counseling, and social skills training offered through the clinic provide additional support.

"This clinic is truly about meeting the unmet needs in the community," says Dr. Baydala. The CHC's involvement in multi-disciplinary, community-based pediatric research in a variety of groundbreaking areas—including environmental health, neurofeedback, and alternative education—stems from this same goal. "Our success has come with our ability to link with community members, and, in collaboration with them, to identify and develop research questions and programs that are a priority for the people we serve."

Caritas Research Centre

Who are We?

The Caritas Research Centre was officially opened in March of 2003. The Centre is located in Room INW-23 at the Misericordia Hospital. Our office is open Monday to Thursday from 8:45-2:15. **Phone: 930-5274 Fax: 930-5674**



Dr Fred MacDonald,
Director

Anne Willans,
Administrative Manager

Leslie Crawford,
Administrative Assistant

Leslie Crawford is the newest member of the Research Centre. She started at the end of September 2004 covering for Angeline O'Neill who is on a leave of absence. Leslie also works part-time for Information Systems with Capital Health. Leslie's background has primarily been in computer training and support. Leslie previously worked for the Edmonton General (Grey Nuns) of Edmonton as a Staff Education Coordinator in the Education Services department. For Leslie this is her first regular daytime job since leaving the workforce on a fulltime basis in 1997 to focus on raising her daughter. We welcome Leslie back and are pleased to have her working for us in the Centre.

What is our Purpose?

The purpose of the Caritas Research Centre is to:

- facilitate a Research Network among established and potential researchers,
- work with the research network to encourage and facilitate implementation of research findings,
- provide study design consulting services,
- work with Health Information analysts over issues of privacy and confidentiality of patient information,
- promote regular forums to encourage the development of research ideas,
- handle the process for acquiring Caritas administrative approval for studies and chart review requests, and
- handle requests for funding from the Caritas Research Grant fund.

What is the Approval Process?

All research carried out at a Caritas Health Group site, where Caritas resources are utilized or Caritas patients are involved, must receive Ethical Approval and Caritas Administrative Approval.

Ethical approval is granted by the Health Research Ethics Board (HREB). The HREB is a joint committee of membership from the University of Alberta Sciences Faculties, Capital Health and the Caritas Health Group.

Caritas Administrative approval is provided by the Managers and Site Leaders of the relevant clinical areas and supporting departments, and by the Chair of the Caritas Research Steering Committee. The Treasury & Risk Management, Finance Office handles any legal reviews and contracts.

Dr. Erik Wikman with co-therapist "Dina"

Psychiatrist Dr. Gary Hnatko of the University of Alberta, Pediatritian Dr. Sunita Vohra of the University of Alberta Hospital and Dr. Howard Schachter of the University of Ottawa.

Currently Ritalin is the treatment of choice for ADHD. There are only a few other conventional treatments for ADHD, but over the past fifty years a number of alternative, more natural and less invasive treatments have been developed. One of these alternative treatments is called 'neurofeedback.' While this treatment for ADHD is widely considered promising, solid, scientific research establishing its effectiveness is lacking. The new study—formally entitled "Feasibility study for a controlled, randomized trial comparing Ritalin and neurofeedback therapy in the management of Attention Deficit Hyperactivity Disorder"—will attempt to fill this gap, and to answer questions that will support further research in this area and treatment options for children with ADHD.

Neurofeedback looks a bit like something from a science fiction movie, but it is painless and non-invasive. Three small electrodes are attached to patients' unshaved heads. Through these electrodes, a devise measures electrical impulses in the brain, amplifies and displays them on the therapist's computer screen. The electrodes separately track what are known as high-frequency beta brainwaves and low-frequency theta waves, specific brainwaves that display differently in ADHD children than in normal children. Using a program which looks like a traditional computer game, but without a joystick, the child learns to control the video game display with their brain—by achieving a mental state that normalizes their brainwave patterns.

Researcher Dr. Wikman stresses that the questions about neurofeedback therapy can only be truly answered through controlled and standardized studies such as this one. For instance, each of the sixty research subjects will be screened, tested, and provided equal behavioural support and education that help to manage the symptoms of ADHD. However, half of the group will receive actual neurofeedback and the other half will receive 'simulated' neurofeedback—a placebo program that looks like real neurofeedback but is not. Neither the research technician nor the subject will be aware of which group they are participating in, making it a 'double-blind' research project.

Dr. Wikman and Research Assistant Dylan Lampman with patient

Can the brain learn independent of conscious thought? Can brainwaves be 'exercised' in ways that lead to normalized behaviour for ADHD children? The results of this ground-breaking study will help to answer these questions, and determine whether neurofeedback therapy merits a closer look from researchers, clinicians and parents regarding the treatment of children with Attention Deficit Hyperactive Disorder.

Pediatric Environmental Health

Pediatric environmental health defines itself as the protection of children from physical, biological, psychosocial, socio-economic and chemical environmental hazards within the interaction of a child's genetic background. Although in the western world infant and perinatal mortality rates have improved greatly over the last 50 years, secondary to improved public health socio-economic conditions, education and immunization programs.

Key concerns have arisen related to respiratory disease and air quality. There has been a documented fourfold rise of incidence of asthma in the last 20 years. Neurodevelopmental disorders, such as learning and behavioural difficulties, and attention deficit hyperactive disorder affect 10-15% of children and are linked to various chemical environmental factors, such as lead, mercury and PCBs. There are links between childhood cancer and environmental pollutants, such as benzene and pesticides. It is also believed that certain adult conditions, such as cancers, may be linked with exposures to low dose chemicals in childhood.

The driving forces of rapid globalization, new industrialization, excessive population growth and transboundary movement of chemicals all contribute to the driving forces that challenge human health and development, as well as global environmental change such as climate change, ozone depletion, increased use of bio diversity, forest fires, etc.

Dr Irena Buka

Dr Harold Hoffman

Children are disproportionately vulnerable through the air they breathe, the food they eat and the water they drink. Because of mounting scientific evidence of environmental pollutants affecting children's health, there have been several international declarations and recommendations on children and the environment at the United Nations, the World Health Organization, the Commission for Environmental Cooperation and others.

Our Pediatric Environmental Health Specialty Unit (PEHSU) was established in 1998. It is the only PEHSU in Canada, with ten in the U.S., two in Mexico, one in Spain and one in the

Ukraine. The PEHSUs work together to collect data, interchange ideas and share educational and research tools. The two co-directors of the Caritas PEHSU, Dr. Harold Hoffman and Dr. Irena Buka, have created partnerships with the Department of Public Health; ie. Dr. Gerry Predy, as well as with the Health and Environment Ministries of the Provincial and Federal Governments of Canada. A Caritas Research Grant supported a partnership with Dr. Alvaro Osornio, a visiting lecturer and scientist of the University of Mexico, who came for a summer sabbatical and helped with many PEHSU research programs. Clinical care of patients requiring extensive resources is offered to children from many parts of Canada. Education events, lectures, seminars and education tools are offered at a variety of venues. Advocacy projects resulting from evidence-based research permit the translation of research knowledge into policy action, eg. smoking bylaw, pesticide and arsenic reduction.

The overall emphasis of Pediatric Environmental Health rests on preventative health care to minimize the enormous personal, family, community, social and economic burden on our society.

Dr. Buka participates in various local and international committees. She is Chair of the Expert Advisory Board for Children's Health, and the Environment for the Commission for Environmental Cooperation—the committee consists of representatives from the USA, Mexico and Canada.

PEHSU Research

Governance and Pediatric Environmental Health

International study (Canada, Mexico, Geneva, Rome, Toronto) in partnership with the World Health Organization, funded by Health Canada - a study of governance instruments, laws and regulations that affect children's environmental health (eg. Smoking bylaws, laws that protect pregnant women in the workplace, etc.) Dr. Don Spady, Principal Investigator.

Air Pollution and Hospital Visits

With Department of Public Health Sciences, with pediatric residents - a look at how air pollution affects pediatric hospital visits.

Air Advisory Warnings and Information Dissemination

In partnership with the Department of Public Health - this project reviews air advisory warnings and information flow. What happens to those advisories? Are physicians reached by these warnings? Do Physicians know how to advise patients on the relevance of this information?

Perception of Environmental Health Concerns

Assess the community's perception of children's health concerns as related to environmental exposures.

Accuracy in Identifying Neurodevelopmental Disorders

Assess the accuracy of parent and teacher perceptions of neurodevelopmental disorders in their children.

Development of Educational Tools

Development of educational tools on children's environmental health for health professionals - World Health Organization Working Group.

Lead Exposure in Canadian Children

A review of the literature and recommendations for health professionals and policy makers.

Mother Earth Children's Charter School Longitudinal Study

Low teacher expectations. Academic difficulties. Such challenges are often faced by aboriginal children in traditional school settings—due to their visual-spacial learning patterns and preference for frequent peer and student-teacher interactions. The traditional school focus on logical-mathematic and verbal intelligence fails to address the skills common in Aboriginal children. Mother Earth's Children's Charter School (MECCS), the first and only Indigenous Charter School in Alberta, is focussed on addressing indigenous children's unique learning needs through alternative instructional practice, classroom organization and motivational management.

Is MECCS's alternative approach to learning having a positive impact? How is this culturally compatible approach to teaching for aboriginal children affecting students' learning and their mental and physical health? How satisfied are students, parents and other members of the communities with the school? Should this innovative approach to aboriginal children's education provide a model for future school programs? These are some of the research questions Dr. Lola Baydala and her team hope to answer through a three-year longitudinal study, funded by the Canadian Institute for Health Research, involving a sample of 144 children and their primary caregivers.

It seems fitting that the MECCS, a school with a community approach, is being studied by Dr. Baydala, a researcher with a penchant for community-based research. "Our first encounter with school officials was simply to discuss our strengths and goals and their needs," noted Dr. Baydala. "The research questions simply evolved from there."

Can a Brain Be Trained?

Neurofeedback Study Has Potential to Foster Changes in ADHD Treatment

Unraveling the enigmas of the brain is one of the most challenging and encouraging frontiers of medicine. A Neurofeedback Research Project at the Misericordia Community Hospital is aimed at untangling some of these mysteries—a study that has the potential to change the approach to treatment of Children with Attention Deficit Hyperactive Disorder (ADHD).

ADHD is a disorder of attention, impulsivity and motor restlessness that affects up to 10% of our nation's children. Given the often devastating impact of the disorder on a child's home and school life, and considerable current debate on optimal treatments, Dr. Lola Baydala, Pediatrician and Medical Director of the Misericordia Child Health Clinic has decided to seek some answers in collaboration with Misericordia Psychologist Dr. Erik Wikman, Researcher Dr. Liana Urichuk and