



**MRU's Integrative Health Institute proudly partners with the Telus World of Science - Calgary re: Dr. Gunther Von Hagens' BODY WORLDS & the Brain Exhibit**

Dr. Gunther von Hagens' *BODY WORLDS & The Brain* makes its Calgary debut at TELUS World of Science – Calgary on April 30. This exhibition offers profound insight into the human body and puts anatomy in clear context. Dr. Gunther von Hagens' *BODY WORLDS & The Brain* features over 200 authentic human specimens including whole-body Plastinates, organs and translucent body slices, and featuring a special presentation on the brain highlighting some of the latest findings in neuroscience on brain development, function and disease. Nearly 30 million people have experienced this critically acclaimed exhibition in over 50 cities across the world.

**May 8, 2010; 7:30 pm                      Presentation: Early brain development**

Early experiences positively affect emotional well-being and social skill development and lay the groundwork for developing cognitive abilities. The emotional and physical health, social skills, and cognitive-linguistic abilities that develop in the first five years of life are critical for success in school, the workplace and community.

Let's discuss how to build the best brain from the bottom up focussing on the latest research about how the brain develops in the early years.

**Facilitator:     Joanne Baxter, PhD**  
**Chair and Associate Professor**  
**Department of Child and Youth Studies**

Joanne Baxter has taught at Mount Royal for twenty five years in both Disability Studies and the Early Learning program. She is the co-author of two text books: *Working with Families: Perspectives for Working with Early Childhood Professionals* and *Children First: Working with Young Children with Special Needs in Group Care Settings*. Joanne is active in a number of early learning initiatives in the community including accreditation in child care and communities of practice for practicing professionals.

**May 15, 2010; 7:30 pm      Presentation: What Our Brains Remember as Our Bodies Age**

New science is discovering that adverse childhood experiences can actually affect the structures of our developing brains to the point where we can face medical conditions, health concerns, and addictions in adulthood. While not all stress is bad, even in childhood, chronic stress and anxiety can manifest itself as long as fifty years later. This session will discuss the Adverse Childhood Experiences (ACE) study conducted with 17,000 middle class Americans attending a health clinic in San Diego. The results are changing the way we look at medical conditions such as obesity and heart disease as well as the origin of addictions.

**Facilitator:      Dawne Clark, BEd, MA, PhD**  
**Associate Professor, Department of Child and Youth Studies**  
**Coordinator, Centre for Child Well-Being**

In her 35 years of teaching and research experience, Dawne's primary areas of focus have been in early childhood education and early intervention, diversity and intercultural education, play and child development, and children's mental health. Dawne has researched and published extensively in these areas and has presented at international conferences in Israel, China, Brazil, France, Scotland, Turkey, and the United States.

**May 22, 2010; 7:30 pm      Presentation: "Crazy by Design"**

The challenge for the teen and those living and working with teens is to "stay afloat" while the brain makes an exuberant burst forward in what seems like crazy mayhem but what is actually careful design.

Understanding the adolescent brain process of sculpting and pruning, reorganizing and prioritizing, and actually growing the brain, at rates and in ways not previously realized or understood, can assist in understanding what is helpful and what is counterproductive when living or working with teens.

This fascinating presentation sheds light on the complex, exciting and at time devastating years that precede the leap into adulthood. Understanding the adolescent brain can be life saving for the teen themselves, their parents, educators and community professionals.

**Facilitator:      Gail Smillie, MEd, CCC**  
**Lecturer, Department of Child and Youth Studies**

Gail Smillie, completed her Master's Degree in Counseling Psychology at the University of Victoria, and practiced for approximately 25 years in BC as a Registered Clinical Counselor with youth serving agencies and as a Mental Health Therapist with the Ministry for Children and Families, Child and Youth Mental Health. Since moving to Calgary 11 years ago, she has build on a practice interest in trauma and attachment with Calgary Family Services where she does direct clinical practice, supervision of psychologists, social workers, early childhood educators

and counselors, program development and implementation, as well as presents workshops on practice related topics. Gail is a part-time instructor at Mount Royal University in the Child Studies Degree program.

**May 29, 2010; 7:30 pm      Presentation: Am I losing my mind?**

This has become the mantra of many a baby boomer as we age, we wonder... is forgetting my bank code a sign of dementia? What about completely forgetting to meet a friend for lunch? Our ability to understand how the brain ages is frontier work in the neurosciences, medicine and humanities. People live longer than ever before and the World Alzheimer's Report (2009) stated that we are facing a crisis of growing numbers of people who will have dementia as they age.

But is this true? We are also seeing studies uncover the physiological evidence of Alzheimer's Dementia the legendary plaques and tangles, with no evidence in the lifetime of the person of any dementia. Conversely we see people demonstrating losses of memory, function and social awareness with no identifiable plaques and tangles. Signs and symptoms of probable dementia will be discerned from normal ageing related changes.

Join us for a lively discussion about what we know about how our brain grows old, about what we know that contributes to healthy brain ageing, and what remains a mystery.

**Facilitators:**

**Sandra Gordon, MN**  
**Assistant Professor**  
**School of Nursing**

**Joyce M. Woods, RN, BN, BA, MEd, PhD**  
**Associate Professor**  
**School of Nursing**

Sandra Gordon is an advanced practice nurse in the area of ageing. Her Master's thesis research was *Understanding dementia through the eyes of adult children as caregivers*. Dementia has long been an area of interest and practice as Sandra has worked in from outpatient assessment, diagnosis and management to complex continuing care settings with older adults. Her most recent practice work was at Sunnybrook Veteran's Care Centre in Toronto, where she worked with the interprofessional teams, residents and families to recognize and understand the impact on dementia and ageing. Sandra currently teaches full time in the Mount Royal University School of Nursing Senior's Health program.

Joyce Woods completed her doctoral work in the area of environmental wellness which is closely related to functioning and wellness. She has worked in the area of Seniors Health for more than 20 years, as a nurse, clinical nurse educator, Assistant Director, and Director of two Senior's homes, and was instrumental in the early development of the Senior Health nursing course at Mount Royal University. Joyce continues to be involved in senior's health issues through research and speaking at numerous agencies regarding aging and the use of complementary and alternative health practices.

Joyce currently is an Associate Professor with Mount Royal University, School of Nursing and is responsible for the coordination of the 4<sup>th</sup> year of the AU@MRC Baccalaureate Nursing Program.

**June 5, 2010; 7:30 pm                      Presentation: A Moving Experience - the Nervous System and Your Body in Motion**

Ever wonder how your nervous system gets you to move, whether it be walking, skating, swimming, throwing, jumping or stumbling (and recovering)? The last 100 years of neuroscience have taught us a great deal about how we sense the world and about how we control our muscles to move through it. Sometimes we move with grace, e.g. elite athletes or dancers. Sometimes we look clumsy, such as when we are starting to learn a new and difficult skill. How can we help our brain to help us move better?

This presentation will show the basics of how our nervous system controls our muscles and how the same system senses the world in order to determine whether the commands to the muscles are producing the desired effects. The key points will be illustrated with fun kinesthetic “body tricks” that the audience can try at home.

**Facilitator:     Sean Maw, PhD**  
**Associate Professor of Engineering**  
**Department of Math, Physics and Engineering**

Shawn Maw has taught at Mount Royal for five years in the Engineering Program, after having worked at the Calgary Olympic Oval as their Director of Research and Development for several years. He has coached in speed skating for over 15 years, and has taught biomechanics and neuroscience at the UofA and UofC. He completed his PhD. at the UofA on artificial muscle fibres, after finishing engineering degrees at the University of Waterloo. Currently researching crash pad protection in speed skating, as well as biotelemetry on performing athletes, he most recently designed the speed skating crash mats used at the 2010 Vancouver Winter Olympics.