# Faculty Research and Teaching Interests

Students who are looking for a Thesis Supervisor, Independent Study Supervisor, or Volunteering Opportunities, are encouraged to visit <u>Faculty Profiles</u>. for Supervisor availability.

The Psychology department consists of following areas of concentration;

- Brain, Behavior and Cognitive Sciences (<u>BBCS</u>)
- Social Psychology and Personality (<u>SP</u>)
- Historical, Theoretical, and Critical Studies of Psychology (<u>HTC</u>)
- Developmental Science (DS)
- Clinical Psychology (C)
- Clinical-Developmental Psychology (CD)
- Quantitative Methods (QM)
- Clinical Neuropsychology Stream (CNS) which is CPA accredited.

The following list of faculty members includes a brief description of their teaching and research interests. Detailed information on each faculty member can be found on <u>Faculty Profiles</u>.

# **❖ SCOTT A. ADLER** - DS, BBCS

My research focuses on infants' visual, attentional and perceptual development from a neuroscience perspective. Specific topics include the relation between various cognitive processes in young infants' formation of future - oriented expectations for the spatial, temporal, and content information of visual events; the interface between visual expectations and memory processes; development of mechanisms for selective attention and visual search; development of object recognition; and the processes involved in infants' control and execution of eye movements. More information can be found at <a href="mailto:my">my</a> website.

#### **♦** BARRANTI, M.

My research and teaching interests are about understanding the ways in which people see themselves and their social world. Specifically, I explore if and when self and others' perceptions converge, why perceptions fail to converge, and whether shared reality has consequences for the self or other people. For example, do people know what they are like? Are some people better judges of character than others? Is self-knowledge adaptive?

#### **❖** JAMES M. BEBKO - C, CD, DS, BBCS

My research group is studying how variations in attention, language and cognition may affect the development of children with developmental challenges such as autism, and searching for possible early indicators for risk of the disorder. Our team has found that children with autism have difficulty combining the auditory and visual parts of speech, in particular. Also researching the roles of metacognition and language development in the memory processing of non-handicapped children, children with autism and children who are deaf. An underlying theme is how these research themes can be used to inform intervention and assessment. Visit my website.

#### ❖ <u>ELLEN BIALYSTOK</u> - DS

My research examines the effect of bilingualism on cognitive and linguistic processing across the lifespan. We use behavioural and neuroimaging methods, including electroencephalography (EEG) and magnetic resonance imaging (MRI) technology to investigate the neural underpinnings of cognition in individuals with diverse language backgrounds. The goal is to document the changes in cognition attributable to bilingualism and determine the mechanism by which those effects take place. Our studies include children, younger and older adults, and patients. The overall framework is neuroplasticity, the idea that brains and minds are constantly shaped by experience. Visit my website.

#### **❖ YVONNE BOHR** - CD

Research and teaching interests include: Child and family mental health; Cognitive-behavioural interventions; Infant mental health, parenting and attachment in vulnerable communities; Economic and social determinants of mental health; Culture and parenting in a globalized context. Visit my website.

### ❖ R. PHILIP CHALMERS – QM

My research area is in the application and development of quantitative methods for psychology. The methods I study include item response theory, psychometrics, structural equation modeling, measurement bias, computerized adaptive testing, and computational methods in statistics. I am also interested in projects related to statistical pedagogy, as well as empirical projects utilizing innovative statistical methods in psychology. Additional information can be found on my website.

## **❖** JAMES V. P. CHECK - C, CD, SP

I am interested in applied social and personality psychology, from a social issues perspective. My general research interests are in the areas of sex and aggression. Specific interests include aggression against women, (e.g. rape), the measure and developmental antecedents of the sexually aggressive personality, sex roles and stranger versus acquaintance rape, sexual communication processes and sexual scripts, sexual arousal, attitudes, and behaviour, attitude change, the social content and effects of pornography, pornography and the law (e.g. obscenity legislation), loneliness and interpersonal relationships, Type A and aggression/hostility as it relates to coronary heart disease. Effects of child sexual abuse, expert testimony.

## **❖** JOEY CHENG - SP

Dr. Joey Cheng researches the psychological underpinnings of social hierarchy, competition, and collaboration. She explores questions such as: How do people rise to influence in groups? What vocal signals do people use to communicate status? What causes people to become overconfident? What are the social costs and benefits to being competitive? To learn more, please visit: <a href="https://www.joeytcheng.com">www.joeytcheng.com</a>.

# **❖** JI YEH CHOI - QM

My research focuses on the technical development and applications of quantitative methods to diverse issues and topics in psychology and other social science. Particular research interests lie in areas of structural equation modeling, functional data analysis, multivariate statistics, high-dimensional data analysis, cluster analysis, and Bayesian statistics. In recent work, I have focused on topics in related to the analysis of functional data analysis and a component-based approach to structural equation modeling.

# **❖** JULIE CONDER

My teaching and research interests include writing in psychology and critical thinking in psychology. My research focuses on the scholarship of teaching and learning, including pedagogical processes, factors in student success, and the effects of collaborative learning in the classroom. I am also interested in first-generation academic experiences at undergraduate, graduate, and faculty levels

#### JENNIFER CONNOLLY – CD

### Chair, Department of Psychology

Teen Relationships Lab studies adolescents' social development and mental health. Dating, romantic relationships, friendships and peer groups are the main focus and I am interested in both normal development and atypical or high-risk pathways. Current projects examine dating and romantic development of highly vulnerable youth, dating violence, peer mentoring. <u>Visit my website</u>.

#### DOUG CRAWFORD - BBCS Distinguished Research Professor, Canada Research Chair, VISTA Scientific Director

My laboratory studies the neural mechanisms of spatial cognition and sensorimotor control. Specific topics include visuospatial memory, eye-hand coordination, and gaze control. We study these topics using computational models, visual psychophysics and behavioral measurements in healthy and brain damaged people, brain imaging, transcranial magenetic stimulation, and direct recordings of neural activity during behavior. Although students normally focus on one of these areas, I try to promote a collaborative, interdisciplinary environment within the lab. My students also collaborate with other investigators through the Vision: Science to Applications (VISTA) Program, the York Centre for Vision Research, The Canadian Action and Perception Network, and the Brain in Action International Research Training Group. More information can be found on my website.

### ❖ ROBERT A. CRIBBIE - QM

My area of research is in the field of quantitative methodology. My primary research interests are in equivalence testing, multiplicity control, and robust ANOVA, although I am also interested in projects related to the teaching of statistics as well as empirical projects utilizing innovative statistical methods. Additional information can be found on my website.

#### JOSEPH FX DESOUZA - BBCS

Our research program falls within the realm of multisensory neuroscience and it's modulation by attentional mechanisms. I examine these brains and behaviour relationships using eye tracking, functional Magnetic Resonance Imaging (fMRI), magnetoencephalography (MEG), neurophysiology, and most recently EEG. If interested visit my website

#### ❖ MARY DESROCHER - CD

Developmental neuropsychology is my research specialization. In particular, the cognitive neuropsychology of memory and executive functions and their underlying neural circuitry underlies the core of my work. Patient populations I work with include children with epilepsy, stroke, fetal alcohol spectrum disorders, and neuroendocrine diseases (e.g. diabetes). Through my collaborations at local hospitals, I am also exploring neurorehabilitation of memory and executive function, as well as interventions to help parents deal with the challenges that can come with a child who has neurodevelopmental disorders. Visit my website.

# JOHN EASTWOOD - C

The overarching objective of Dr. Eastwood's current research is to understand how emotion and attention processes interact. More specifically, he studies how attention is allocated to affective and socially relevant information, the influence of mood and motivation on attentional processes, as well as affective consequences of attention failures. Currently, Dr. Eastwood is actively pursuing two research projects. The first examines how a person's emotional state impacts attention processes – with a focus on boredom in particular. The second project seeks to understand, measure and model how emotional states change, moment by moment, over small periods of time within psychotherapy. Visit my webpage.

#### **❖ JAMES H. ELDER** - BBCS

Our laboratory is part of the York University Centre for Vision Research, and conducts research in human and computer vision. This research involves psychophysical experiments on human subjects, mathematical analysis of problem constraints, and development of computational models and algorithms. Our goals are to develop better theories of visual processing and to improve machine vision systems through a better understanding of visual processing in biological systems. We collaborate with a number of companies and government organizations on this applied research. Specific areas of interest include: natural scene statistics, perceptual organization, contour processing, shape perception, single-view 3D reconstruction, face detection, attentive vision systems and machine vision systems for dynamic 3D urban awareness. Please see - www.elderlab.yorku.ca for more information.

#### **\*** KAREN D. FERGUS - C

My research focuses on the coping and adaptation processes of individuals affected by life threatening illness in general, and cancer specifically. I have a strong interest in intimate relationships and how couples adjust to illness, adversity, and loss. I employ qualitative methods in order to derive in-depth understanding of these experiences. These findings in turn inform the development of psychotherapeutic and psychoeducational interventions (individual, couple, group, and internet-based) intended to reduce distress and suffering associated with illness. Visit my webpage.

# SKYE FITZPATRICK - C

My research involves identifying and refining ways to treat borderline personality disorder (BPD) and suicidality, with and without comorbid posttraumatic stress disorder (PTSD). I have two streams of research that work towards this goal. First, I use experimental, ecological momentary assessment, and other translational science paradigms to identify which specific strategies work in the treatment of BPD and how. Second, I directly study BPD and PTSD treatments themselves with a particular focus on dialectical behaviour therapy. To this end, I have recently become particularly focused on harnessing the power of relationships to treat BPD and/or PTSD through conjoint and dyadic interventions.

#### ❖ GORDON L. FLETT - C, CD, DS,SP

Canada Research Chair – Director LaMarsh Centre for Child and Youth Research

Primary research interests focus on the role of personality factors in health and mental health with a particular focus on the personal and interpersonal aspects of perfectionism. These issues are examined in children, adolescents, university students, and older adults. <u>Visit my webpage</u>.

#### ❖ <u>DAVID FLORA</u> - QM

My primary research area is the application of quantitative methodology to psychological research. The methods I study include factor analysis, structural equation modeling, item response theory, and longitudinal data analysis. I am particularly interested in psychometric applications involving scale development, scoring, and score validation (e.g., for personality and psychopathology assessment), measurement equivalence and the impact of non-equivalence, and didactic demonstrations of advanced quantitative procedures. Visit my webpage.

# **\*** KATHLEEN FORTUNE

My teaching and research interests coalesce around cultivating active learning strategies, student engagement, and critical thinking skills. In teaching a foundational course like Introduction to Psychology, I endeavor to provide students with a breadth of knowledge about psychology as a discipline, but also to equip them with a toolkit of concrete, translatable skills. My approach to teaching is student-centered, Socratic, and grounded in the fundamentals of transition pedagogy. I'm interested in understanding what aspects of course structure, communication style, and assessment best meet the varied needs of first year students as they navigate the difficult transition from high school to university.

#### ❖ MICHAEL FRIENDLY - QM, HTC, BBCS

My major research interests concern the development and application of quantitative methods in psychology. A particular area of focus is the development of methods of data visualization and statistical graphics to aid the understanding of multivariate methods (e.g., HE plots) and categorical data analysis (e.g., mosaic displays). Other related interests concern the history of data visualization and statistical graphics, as represented by the Milestones Project. See <a href="http://datavis.ca">http://datavis.ca</a> for further information. In addition, I have research interests in cognitive psychology, particularly as they relate to graphical perception and communication. <a href="Visit my webpage">Visit my webpage</a>.

#### ❖ <u>EREZ FREUD</u> - BBCS

My research is in the areas of Cognitive Neuroscience of vision, with a focus on the cognitive and neural processes that mediate object perception and visuomotor control of objects. The goal of my work is to gain a better understanding of the processes that give rise to these fundamental visual abilities, and their development over the life-course. To this end, I am using cognitive, neuropsychological, and functional neuroimaging methods in healthy individuals, patients with brain lesions and children.

### ❖ INGO FRUEND – BBCS

I use psychophysical experimentation and computational modeling to study how the visual system processes information. In particular, I heavily rely on computational methods such as computer simulations and machine learning to derive hypotheses about visual processing that generalize from simple stimuli used in many laboratory experiments, to the complex images we encounter in our natural environment.

# KRISTINA GICAS - C

My research focuses on understanding brain-behaviour relationships in the context of mental illness and addiction, with an emphasis on using clinical neuropsychological and neuroimaging methodologies. I am pursuing two complementary avenues of research in complex and vulnerable populations across the adult lifespan. First, I am interested in characterizing neurocognition in homeless and precariously housed individuals, and identifying the risk and protective factors that moderate functional outcomes. Second, I am interested in better understanding the brain and neurocognitive features of persons with psychosis and concurrent substance use.

# Faculty Research and Teaching Interests

#### ❖ VINOD GOEL - DS

I am interested in understanding the cognitive, computational, and neural basis of human rationality, and more recently, how it is modulated by noncognitive factors such as emotions, and instinctual biases. My primary methodologies include brain imaging (fMRI), patient studies, and computational modelling. I also take an active interest in the philosophical/foundational issues that beset cognitive science. More information can be found on <a href="mailto:my webpage">my webpage</a>.

# **❖** JOEL O. GOLDBERG - C

My research interests include CBT for psychosis, EEG correlates of shyness and emotion perception in schizophrenia, smoking management and healthy lifestyles in schizophrenia, functional outcomes and 'recovery' in schizophrenia and development of a 'voices' questionnaire. For more information, please refer to my website.

### ❖ CHRISTOPHER D. GREEN - HTC, DS, BBCS, QM

Research interests include the history and the methodology of psychology. Members of my laboratory are creating statistical visualizations (e.g., social networks) of historical digital databases (e.g., journal contents, membership lists) to better understand the development of psychology as a science and practice. We are also examining the controversies that the social and clinical sciences are currently experiencing around the issues of statistical analysis and interpretation, replicability of research findings, conventional publication practices, etc. View my personal webpage.

#### ❖ <u>ESTHER GREENGLASS</u> - SP

Present research interests include the study of positive affect, resilience, optimism, social support and their relationship to psychological functioning. Other interests include burnout, work engagement and their implications for mental health and psychological well-being. Additional research areas are stress and coping using the Proactive Coping Inventory (Greenglass). Recently we are studying the psychological effects of the economic recession both in Canada and abroad using the transactional theory of stress. In our research we integrate the study of stressors with psychological resources in order to gain an understanding of how individuals cope with economic adversity and uncertainty. More information can be found on my personal web page.

### **♦ LAURENCE R. HARRIS** - BBCS

Laurence Harris is studying the way that different senses are combined by the brain to generate our perceptions. Examples include the visual and vestibular system's role in orientation and self-motion perception; vision and hearing's role in localizing events in space and time; and how knowledge of our body affects our perception of stimuli. Dr. Harris is particularly interested in the way these combinations can adapt to changing demands brought about by unusual environments. His laboratory employs a number of techniques to address these questions including psychophysics and physiological measurements such as blood pressure, reaction times and eye movements. Unusual environments are created using various means including virtual reality, and moving and unusually constructed rooms. Additional information can be found at my website.

#### ❖ R. WALTER HEINRICHS - C

The general field of interest is in understanding schizophrenia as a neuropsychological disorder. I am especially interested in using cognitive tasks to define sub-groups within the schizophrenic spectrum and in the relation of these tasks to psychosis, neural systems, functional outcome and adjustment. Research is conducted at clinical sites in the GTA and on campus. Please see my faculty profile on the departmental website for publications and information on current projects.

# ❖ MICHAELA HYNIE - HTC

Dr. Haynie's teaching interests are social psychology, community - based research, and cultural psychology. Dr. Haynie's research is framed by the concept of healthy communities, the importance of social networks and social inclusion, and interventions that can strengthen them, both in Canada and abroad. She focuses particularly on communities facing disruption, conflict, or poverty due to war, migration, or environmental change from both a social and structural perspective, using health and health care access as markers of inclusion. Visit my webpage.

# JOEL KATZ - C, CD Canada Research Chair

Psychological, emotional, and biomedical factors involved in acute and chronic pain with a particular emphasis on (1) understanding the psychological and physiological processes and mechanisms involved in the transition of acute, time-limited pain to chronic, pathological pain; (2) identifying factors involved in the establishment and reactivation of "pain memories" after amputation (phantom limb pain) and other traumatic events; (3) pre-emptive analgesia and other preventive pharmacological interventions designed to minimize acute post-operative pain and to elucidate the mechanisms involved in post-operative sensitization; (4) developing pharmacological and non-pharmacological interventions to minimize pain and stress in hospitalized infants; and (5) gender differences in acute post-operative pain and analgesic consumption. Visit my webpage.

#### ❖ <u>KERRY KAWAKAMI</u> - SP

My research focuses on social categorization processes. In particular, I investigate factors that influence when we perceive others as individuals or group members and the consequences of this perception. These consequences include both implicit and explicit processes related to stereotyping, prejudice, and discrimination. A primary goal of this research is to examine factors that decrease intergroup biases. I use a variety of social cognitive methodologies to study these processes including reaction time paradigms, eye tracking, psychophysiological measurements, and behavioral indices. More information can be found on my webpage.

#### **❖** MATTHEW KEOUGH

Dr. Keough's research focuses on improving our understanding of the etiology and treatment of addictive behaviour, including both substance use and behavioural addiction (e.g., problem gambling). His work is mechanism-focused and is rooted in motivational models of personality and cognitive theory. He uses laboratory-based experiments, correlational studies, and prospective designs to identify who is at risk for addiction and the mechanisms underlying this risk. One specific aim of his work is to elucidate coping or self-medication pathways to substance use among young adults. Moreover, he is currently conducting a series of randomized clinical controlled trials to examine new treatments for addiction and co-occurring mental health issues (e.g., depression and anxiety).

#### ❖ PETER KOHLER - BBCS

Our lab focuses on the domain of mid-level visual processing, which begins in primary visual cortex ~100 ms after stimulus onset, and then unfolds over the next several hundred milliseconds, in several, mostly topographically organized visual brain areas. In this deceptively short time-span, the visual system infers information about the shape, location and movement of the elements in the visual world, but also resolves the perceptual organization of the scene: figure-ground relationships, perceptual grouping, constancy operations and much more. These distinct classes of information are encoded by separate neural populations, but are also deeply interdependent, and in many cases represented at multiple stages of visual processing. We probe this dynamic and complex network of brain areas in humans using functional MRI, EEG and visual psychophysics, to better understand how the brain builds the representation of the visual scene that is the foundation for our vivid visual experience of the world.

#### ❖ RICHARD N. LALONDE - SP

My research addresses different processes involved in the social psychology of culture and intergroup relations. Current studies focus on the role of culture and collective identity in interpersonal and intergroup relationships. More information can be found on my webpage.

#### **SUZANNE E. MACDONALD** - BBCS

Dr. MacDonald's research interests are primate memory and cognition, and psychological well-being of captive animals. Her teaching interests are animal behaviour, human and animal cognition. Personal webpage.

#### ❖ JODI MARTIN

My primary research interest is to better understand the impact of innovative teaching methods on undergraduate students' learning experience, engagement in the classroom, and academic performance. In particular I am interested in how experiential education and active learning approaches affect student outcomes. A secondary interest involves examining the factors influencing job satisfaction, employee engagement, and performance outcomes in the workplace.

#### ❖ RAYMOND A. MAR - SP

Dr. Mar's research interests center on imagination, empathy, and social processing. More specifically, much of his work focuses on how experiences with narrative fiction (e.g., novels, movies, videogames) provide a simulation of social experience that can have an impact on our actual world. To investigate these topics, he relies upon methods from personality psychology, social psychology, developmental psychology, and cognitive neuroscience. Visit Dr. Mar's Profile web page

# ❖ DOUG MCCANN - SP, C, DS

Dr. McCann's research interests lie at the interface between clinical and social psychology. He is interested in the application of social psychological theories and methods to clinical phenomena. His current research program examines childhood trauma, complex trauma, and the implications of trauma for emotional processing/affective forecasting. His work takes a social information processing and social-cognitive approach to issues more broadly in personality, social, and clinical psychology (e.g., the self, depression, and interpersonal communication). Graduate students in his lab include members drawn from both the Social/personality and Clinical-Developmental areas of the Graduate Programme in Psychology at York University. More information can be found on my webpage.

#### **❖ JENNIFER S. MILLS** - C

My research interests are in the area of body image and eating disorders. I study malleable risk factors for disordered eating, including body dissatisfaction and dieting. I am particularly interested in the factors that influence how women perceive their bodies and the psychological consequences of social media use. Other recent research projects include the study of women's reactions to eating disorder prevention messages, motivational interviewing as an adjunct to hospital treatment of eating disorders, and the nature and prevalence of disordered eating among women with physical disabilities. Visit my website for more information.

# **★** MYRIAM MONGRAIN - C, SP

I am interested in positive psychology interventions to increase resilience and reduce vulnerability to depressive states. I have focused on compassion and ways to increase compassion towards the self and others. I have been particularly interested in finding a good fit between the person and exercises designed to increase subjective well-being. I have examined disagreeableness, dependency and self-criticism and published on the contributions of positive psychology for these vulnerable populations. More information can be found on <a href="mailto:my website">my website</a>.

#### ❖ AMY MUISE - SP

My research focuses on romantic relationships and sexuality. I am interested in understanding the personal and relationship factors that are associated with the maintenance of sexual desire and relationship satisfaction over time. I primarily use dyadic and longitudinal methods to investigate the role of motivation, perception and behaviour in how couples keep their spark alive over time and navigate challenges and conflicts of interest. For more information visit my website: <a href="https://www.amymuise.com">www.amymuise.com</a>.

## **❖** ROBERT T. MULLER - CD, C\*

My research is in the area of developmental psychopathology and intervention strategies for children and adults who have experienced intra-familial trauma and abuse. In collaboration with local treatment centers, I am addressing the question of how to better help such vulnerable individuals. Specifically, my research is oriented toward examining effective models of treatment, as well as understanding the role that important relationships (i.e., attachments) have on treatment process and outcome. Additional information can be found on my website.

#### RICHARD F. MURRAY - BBCS

My research uses perceptual experiments and computational models to study human visual perception. Most of my current research investigates how we perceive 2D and 3D shape, colour, and lighting. The 2D images on our retinas are highly ambiguous, and so we can perceive the world correctly only by already knowing something about the shapes, colours, and lighting conditions we are most likely to encounter. My research investigates what assumptions we implicitly make about the world, in order to correctly perceive shape, colour, and lighting from 2D retinal images. Visit my webpage.

## ❖ SUSAN MURTHA - DS, BBCS

My research explores aging from a cognitive and neuropsychological perspective. In particular, I am investigating factors, such as cognitive/physical activity and/or cues that focus attention, and how these factors can ameliorate age related declines in attention and memory. Visit my webpage.

#### ❖ NORMAN W. PARK - C, BBCS

I am interested in the neuropsychological rehabilitation of brain-injured individuals and the cognitive neuropsychology of attention, memory, and purposeful action. In particular, I would like to understand how it is that we perceive, represent in memory, and enact goal-directed actions, and what this might teach us about memory. I am also want to develop neuropsychological rehabilitation programs based on a better understanding of the psychological processes underlying purposeful action. My teaching interests are memory, cognition, and statistics. Visit my webpage.

### ❖ THANUJENI PATHMAN – DS

My research interests are in cognitive development and developmental cognitive neuroscience. I direct the MDLaB (Memory Development Lab; Memory Development Learning and Brain). We study the development of declarative memory. We are especially interested in learning about the development of contextual memory (e.g., memory for time and space), and the development of the processes and neural substrates involved in episodic, semantic and autobiographical memory.

More information will be available at <a href="my\_website">my\_website</a>.

#### DEBRA PEPLER - CD, DS Distinguished Research Professor

My areas of interest within clinical-developmental psychology are aggression and victimization in childhood and adolescence, as well as children in families at risk. My ongoing research includes: 1) bullying and victimization in childhood and adolescence, 2) interventions for aggressive behaviour problems, and 3) interventions for substance using women and their young children. The most exciting project I am currently involved in is co-leading a national network of 65 researchers and 50 national youth-serving organizations – PREVNet (Promoting Relationships and Eliminating Violence Network). PREVNet is working to promote safe and healthy relationships for all Canadian children and youth (www.prevnet.ca). Through PREVNet, I have built a collaborative research project with the Canadian Red Cross on their Walking the Prevention Circle, a violence prevention program developed by and for Aboriginal peoples in Canada. I am interested in involving Aboriginal students in this project. Visit us at <a href="https://www.prevnet.ca">www.prevnet.ca</a> and join us in "Creating a World Without Bullying".

#### **❖** ADRIENNE PERRY - CD

My research (as well as teaching and clinical practice) is focused on children with autism and developmental disabilities and their families, and falls into three areas: 1) the theory and practice of assessment and diagnosis of autism and the often concomitant intellectual disabilities; 2) family stress and coping, including positive and negative impacts in parents and siblings; and 3) factors related to the effectiveness of interventions, including child and family factors, as well as quality of intensive behavioural intervention. Visit my webpage.

#### ❖ MICHAEL PETTIT - HTC

My research focuses on the history and public understanding of psychology. I examine how psychology is shaped by culture and how psychologists seek to shape society, policy, and individual subjectivity. I am particularly interested in the history of sexuality, animal behavior, and research methods. I combine research in archives (collections of unpublished documents and records) and digital methods (social network analysis, GIS, etc.). Visit my webpage.

# \* REBECCA PILLAI RIDDELL - CD, DS

Dr. Pillai Riddell's research interests are pediatric psychology; health psychology, pediatric pain, and caregivers of infants, children and adolescents who have pain. Her teaching interests are in health psychology (particularly pediatric psychology), developmental psychology, and psychological assessment. Visit my webpage.

# ❖ ALBERTA POS - C

My present research interests concern psychotherapy processes, emotional processing and the working alliance in particular, and the role they play in change during experiential treatment of depression. I am also exploring prototypical paths of emotional change that mark resolution of subtypes of depression, which would allow for more differential treatment of the disorder. I have a core interest in emotion processes in general, including nonverbal expressions of emotion, emotion regulation, interruption of emotional experience, and emotion typology. Other research interests are in the identification the client characteristics that reliably predict differential response to experiential psychotherapy. Visit my webpage.

#### ❖ <u>JENNINE S. RAWANA</u> - CD

I have broad research, clinical, and teaching interests in adolescent mental health. Specifically, my research interests are in three main areas. First, I examine the risk/vulnerability (e.g., eating- and weight-related disturbances) and protective (e.g., psychological strengths) factors that are related to mental health issues, particularly depressive symptoms, primarily in adolescence and secondarily in emerging adulthood. Second, I study the development of emotion regulation, primarily in adolescence and secondarily in emerging adulthood. Finally, I examine the promotion of mental health and school engagement in strength-based programs in schools. Within this area, I also use a participatory community-based research framework to develop, implement, and evaluate strength - based and mentoring programs that promote the mental health and educational outcomes of Aboriginal students. Visit my website.

#### ❖ JILL B. RICH - C, DS, BBCS\*

My work falls in the general domain of the neuropsychology of memory and aging. I am particularly interested in normal and abnormal memory and cognition in older adults and in neurodegenerative disease. My students and I work with colleagues at Baycrest Centre on the effects of memory changes in everyday life. We are currently evaluating the benefits of an online psychoeducational memory and aging intervention program. We are also conducting several studies of cognitive abilities in individuals with documented stroke. Visit my webpage.

#### ❖ R. SHAYNA ROSENBAUM - C, BBCS

My research is in the areas of Cognitive Neuroscience and Clinical Neuropsychology, with a focus on recent and remote memory for spatial, episodic, and semantic information and their interactions with other cognitive abilities (e.g., theory of mind, decision-making). The goal of my work is to gain a better understanding of the organization of different types of memory in the brain using cognitive, neuropsychological, and functional neuroimaging methods in healthy aging and patient populations. Visit my website.

#### ERIN C. ROSS - C, BBCS, SP,QM

My teaching interests are psychology of women, psychology of sexual orientation, psychology of family, and statistics and methodology. My research focuses on (1) minority issues, particularly related to gender and to lesbian, gay, bisexual and transgender experience, and (2) perceptions of adult survivors of childhood trauma. Visit my webpage.

# ALEXANDRA RUTHERFORD - HTC, C

I use critical historical and qualitative approaches to analyze the development and contemporary status of the human sciences. I am interested in how psychologists have used their scientific 'expertise' to impact society and how, in turn, social and political factors have shaped the nature of this expertise and its influence. In my current project I examine the relationships among feminist psychology, gender ideologies, and policy in Canada and the United States from the 1940s-present with specific attention to gender and employment, gender-based violence, and women's mental health. I welcome students interested in feminist theory and epistemology, critical history and psychology, qualitative approaches, and gender issues. More information can be found on my Faculty of Health profile page.

#### ❖ REGINA SCHULLER - SP

The main focus of my research is directed toward issues pertaining to social psychology and law, primarily in the area of jury decision making. Specifically, I examine factors that influence jurors' decisions in cases involving violence against women (e.g., sexual assault trials), with a focus on victim blame. More recently I have been examining the impact of racial bias on jurors' decisions and legal strategies for curbing its influence (e.g., challenge for cause). Finally, I am conducting research that explores public perceptions of and reactions to wrongful convictions in Canada. Visit my website.

#### ❖ RONALD SHEESE - HTC

I am interested in the design of learning environments at the post-secondary level. I study the purposes and beliefs that people bring with them to the university community, as well as how instructor, student, and institutional practices align with those purposes and beliefs. I examine learning environments intended to develop such critical skills as reading and writing to a sophisticated academic level; and I believe that successful outcomes in this domain often depend on approaches that modify community members' naïve conceptions of the nature of knowledge and of the learning process. I am interested in both the history and the theory of educational practice at the university level. A current project involves examining in what ways the high school experience of mainland China students now studying in North America facilitate and/or obstruct the mastering of sophisticated critical skills. Visit my website.

#### ❖ JENNIFER STEELE - SP, DS

My current and ongoing research focuses mainly on the early development of intergroup biases, with a particular focus on implicit racial bias and stereotyping among elementary school-aged children. In a second line of research we are making use of eye-tracking technology to increase our understanding of attention allocation during the impression formation process. Additional lines of research address cross-cultural and individual differences in bias and face recognition, interracial interactions and the consequences of exposure to racism, gender stereotyping in science and technology, and the potential malleability of implicit and explicit biases across the lifespan. The majority of this research is conducted from a social cognitive perspective, with the goal of increasing our basic and applied understanding of what it means to be the target of negative stereotypes. For more information please see the IPSC website.

#### ❖ JENNIFER STEEVES - BBCS

My research takes three different approaches to the study of perceptual processing. We examine face, object and scene processing in both normal and neuropsychological patients who are unable to recognize faces or objects. We also study adaptive changes in visual and auditory processing following the loss of one eye early in life. Finally, we are studying sex and sexual orientation differences in perceptual processing. We use a variety of methods including psychophysics, eye movement measurement, transcranial magnetic stimulation (TMS) and functional magnetic resonance imaging (fMRI). More information can be found at <a href="majority">my website</a>.

# ❖ W. DALE STEVENS - DS, BBCS

My primary research interests are in the areas of cognitive neuroscience, functional neuroimaging (MRI), and neurocognitive aging. My program of research broadly investigates the neurocognitive specialization, organization, and interaction of brain systems that underlie human conceptual processing, and the related processes of memory and perceptual abstraction. I use a combination of behavioral, neuropsychological, and neuroimaging methodologies (e.g., MRI) to elucidate how cognitive abstraction underlies our ability to grasp, retain, and retrieve information in the form of conceptual knowledge. I also investigate how these processes are affected by healthy aging, and by developmental and neurological disorders. Visit my webpage.

#### ❖ C. WARD STRUTHERS - SP

Social motivation or how we judge and evaluate others, particularly following negative interpersonal events, and then interact with them based on those evaluations. Social and evolutionary psychology, including attributions, responsibility, forgiveness, grudge, revenge, apology, power, and welfare tradeoffs. <u>Visit my webpage</u>

#### **❖** JESSICA SUTHERLAND

My teaching interests are in the realm on writing pedagogy and writing instruction, including writing anxiety and using developmental theories for effective writing instruction. My research interests lie in adolescent development, and particularly the intersection between developmental science and the law. I study how adolescents interact with the legal system, and in particular how adolescent peer groups influence delinquent and deviant behaviour. I am also interested in the development of risk-taking behaviour and social/emotional influences on risk behaviour.

#### **❖** THOMAS TEO - HTC

I have been active in the advancement of theoretical, philosophical, and historical psychology from a critical perspective throughout my career. My research has been metatheoretical in order to provide a more reflexive understanding of the ontological, epistemological, ethical-political, and aesthetic grounds and trajectories of psychology as a discipline and profession. Conceptualizing power in psychology, my research challenges unquestioned assumptions, problematic concepts, theories and methods, and contextualizes practices. At the moment I am focusing on laying the foundations for the psychological humanities by researching the history and theory of human subjectivity. More information on my research publications can be found at my website.

#### ❖ <u>CHRISTINE TILL</u> – CD

Current areas of research interest include children's environmental health, child neuropsychology, and neurodegenerative disease in children. Related to environmental health, I am interested in studying how environmental chemicals are implicated as underlying risk factors for many emerging morbidities in childhood, including behavioural problems, such as ADHD, and other health-related outcomes, such as hypothyroidism. My team and I working with two large pregnancy and birth cohorts (MIREC, ELEMENT) to test hypotheses related to the effects of environmental exposures, such as fluoride, on child neurodevelopmental outcome. This research area is of significant public health relevance, especially as this determinant of child development can be modified through interventions directed at reducing exposures. Another aspect of my research program involves the study of childhood-onset neurologic disease on psychosocial and cognitive function. This research is focused on understanding how changes to the developing nervous system contribute to the health and well- being of children diagnosed with chronic, neurodegenerative disease. Visit my webpage.

#### MAGGIE TOPLAK - CD

My research program involves understanding cognitive abilities (intelligence and executive processes), rationality, and decision-making, in typically and atypically developing samples, such as, Attention-Deficit/Hyperactivity Disorder (ADHD) and offending youth. I am interested in understanding the development of these competencies and how our models can explain cognitive failures in rational thinking and decision-making. I am also interested in the applications of these models for assessment of childhood conditions. Additional information and a list of publications can be found on my webpage.

#### ❖ GARY R. TURNER - C

My research involves the design and evaluation of cognitive rehabilitation interventions to remediate executive function deficits in healthy and pathological aging and acquired brain injury. Executive functions involve coordination and integration of multiple cognitive processes (e.g. memory, sensory processing, language) in the service of more complex, goal-directed behaviours (e.g. planning, problem-solving, multi-tasking, inhibitory control). In my laboratory we adopt a rehabilitation neuroscience perspective, combining functional (e.g. fMRI) and structural (e.g. diffusion - weighted) neuroimaging measures with neuropsychological and real-world functional outcome measures to assess rehabilitation efficacy. A key component of this work involves investigating how higher cognitive processes are implemented in the brain and how these are altered by injury, healthy aging and disease processes. My teaching interests include Cognition, Behavioural Neuroscience, Functional Neuroanatomy and Clinical Neuropsychology, with specific interests in executive and frontal lobe functions. Visit my website.

# ❖ JONATHAN WEISS - CD

My research focuses on the prevention, assessment, and treatment of mental health problems in people with developmental disabilities across the lifespan (known as dual diagnosis); those with autism spectrum disorders and/or intellectual disabilities. I study how people with developmental disabilities access physical and mental health care, and the predictors and outcomes of psychiatric crisis. I am also interested in the experience of family caregivers of people with dual diagnosis, and in ways of supporting them across the lifespan. I conduct research on the benefits of Special Olympics, of psychosocial treatments, and of parent-focused interventions. I am interested in interprofessional education in developmental disabilities, and in teaching of Abnormal Development, Assessment, and Intervention. Visit my webpage.

#### ❖ HENNY A. WESTRA - C

My research is focused on psychotherapy processes, especially resistance and alliance ruptures, ambivalence about change, and therapist adherence to Motivational Interviewing principles. I have studied the integration of MI with CBT for anxiety disorders, especially generalized anxiety. Most recently, I am examining how to improve therapist skill by training sensitivity to therapy process and therapy markers using deliberate practice methods. <u>Visit my webpage</u>.

#### **❖** LAURIE M. WILCOX - BBCS

Stereopsis is the ability to see depth in images, based solely on the fact that the two eyes receive slightly shifted images of the world around us. This shift, or disparity, is processed by the brain to provide very accurate information about the relative depths of objects. This cue to depth is used to generate 3-D movies, and the auto- stereogram pictures on posters and cards. If you can see depth in these sorts of displays, then you certainly have stereopsis. Ongoing projects in my lab focus on fundamental and applied aspects of stereopsis. For instance, some studies are aimed at determining how the human brain processes this disparity information, and when it is actually used in our natural environment. To do this, I assess stereopsis using computer-generated images, under a wide variety of test conditions. In collaborative studies with industry partners we evaluate how properties of the stereoscopic system influence how we see depth (or depth distortions) in 3-D display systems, and in virtual environments. Visit my website.

#### ❖ MELODY WISEHEART - DS, BBCS

We study theory-based applications of cognitive psychology, taking into account developmental change across the life-span. Our research is focused on two primary domains: flexible higher-order thought, including critical thinking skills, cognitive flexibility, and executive function; elementary school to university education, including instructional design, academic achievement, and curriculum development. Current and recent projects investigate the effects of music, dance, and visual arts training, aerobic exercise, bilingualism, socio-economic status, mindfulness meditation, spaced study episodes, and retrieval practice. We utilize behavioral, event-related potential, and eye tracking techniques. More information can be found at <a href="mailto:my website">my website</a>.

#### ❖ MAGDALENA WOJTOWICZ – CNS, C

Clinical Neuropsychology;mild traumatic brain injury; concussion. Current research program focuses on (1) understanding how pre-morbid factors influence concussion risk and recovery, and (2) examining potential long-term consequences of multiple concussions and exposure to repetitive head trauma over the lifespan. Visit my webpage.

# ❖ GEORG R. ZOIDL - BBCS

My laboratory is working on a scientific strategy aiming at building a multi-level, genes to behavior, picture of neural circuits connecting vision with learning and memory, and most recently locomotor behavior. In focus of this research is the investigation of how members of two gene families, the connexins and pannexins, contribute to interneuronal communication. Probing for synergistic activities of the two gene families at mixed chemical and electrical synapses we are working towards a comprehensive concept which will advance the basic understanding of brain function and offer a view into the neuronal activities underlying a series of relatively complex behaviors in the zebrafish model.