Psychology at U of T Scarborough: A Research Hub

The Department of Psychology at University of Toronto Scarborough is a powerhouse of psychology and neuroscience research. The majority of our professors not only teach, but also lead research teams. Their chief areas of scientific interest include:

**Behavioural Neuroscience:** How the nervous system produces thought, emotion, and behaviour, both in humans and in other animals

**Clinical Psychology:** The biological and contextual causes of psychological and neurological disorders, and treatments for these disorders

**Cognitive Neuroscience:** The biological processes related to attention, memory, learning, decision making, and perceiving and interacting with the world

**Developmental Psychology:** How people learn, develop, and grow, from conception throughout the entire human lifespan

**Social Psychology:** The nature of interpersonal interactions and relationships, and of individual (personality) and socio-cultural differences among people

Our research – By the numbers

- >$2 million Research grants awarded annually by external agencies
- 100+ Research papers our researchers publish in journals each year
- 109 Master’s, PhD, and postdoctoral researchers supervised by our faculty
- 1,300–1,400 Year 1 psychology students who take part in our research studies each year

See research highlights – next page

Community Members Are Vital Research Partners!

Research is a team sport!

Research in psychology at U of T Scarborough is a group effort involving not only our scientists and students, but also members of our local community. To answer questions about human nature, our researchers regularly seek volunteer research participants who represent a wide range of ages and life experiences.

If you are 18 or older, we warmly invite you to join our **Adult Volunteer Panel**. It’s a registry of adults who are willing to be invited to come to take part in research studies at U of T Scarborough from time to time. We especially seek participants aged 40 to 80.

When you take part in a study as a research volunteer, our researchers typically pay you a nominal fee for this service. You also have the satisfaction of knowing that your participation contributes to society’s knowledge of human behaviour and of ways to promote well-being. If you think this might interest you, please visit our Adult Volunteer Panel information page: [http://uoft.me/AVPInfo](http://uoft.me/AVPInfo)

Want to take part in our research? For more information, visit [http://uoft.me/AVPInfo](http://uoft.me/AVPInfo) or email psychadultresearch.utsc@utoronto.ca
ZINDEL SEGAL
Distinguished Professor of Psychology in Mood Disorders

Zindel Segal is a pioneer of mindfulness-based cognitive therapy (MBCT), a treatment for people who are vulnerable to recurring major depression. For those with lingering depressive symptoms who cannot tolerate antidepressant medications, MBCT can help to prevent relapses into depression.

But accessing such therapy can be difficult. To address this, Segal and his team have created an online version of MBCT. A recent trial involving 400+ adults found that adding online MBCT to usual depression care reduced symptoms of depression and anxiety, and improved quality of life, well beyond the effect of usual care alone.

RUTSUKO ITO
Associate Professor

Rutsuko Ito’s research focuses on the limbic system—a brain network that processes emotions and memory—and the role it plays in our decisions and goal-seeking behaviour.

Ito and her team study how humans and other animals approach or avoid certain stimuli in their environments based on their learning experiences. To investigate how we seek rewards and how approach/avoidance decision making goes awry in addiction, depression, and schizophrenia, she and her colleagues use a variety of research techniques, including optogenetics, chemogenetics, and pharmacological models.

KONSTANTINE ZAKZANIS
Professor

People with conditions such as schizophrenia, dementia, and traumatic brain injury show various deficits in relation to memory, motivation, planning, and decision making. Using neuropsychological assessment and other methods, Konstantine Zakzanis and his colleagues explore the cognitive profiles of people living with such impairments.

One challenge in assessing these individuals’ cognitive functioning is that the tests typically given are not very reflective of real-world tasks and abilities. This can make it difficult to conclude how well they will be able to carry out their actual daily tasks. Zakzanis and his team aim to validate that cognitive tests measure what they are intended for and are not subject to people faking illness.

SUZANNE ERB
Associate Professor

Both short-term and chronic stresses can lead to significant changes in our brains and bodies. Suzanne Erb studies the relationship between stress and the ways we approach rewarding situations.

Her team has investigated how childhood adversity (including abuse and neglect) may be linked to greater impulsivity and vulnerability to substance use problems later in life. Erb’s neuroscience research team examines these relationships in both humans and other animals.

Her team also studies how the use of addictive substances can alter the structures and neurochemistry of mammals’ brains in ways that shift their typical goal-oriented behaviour. These changes can intensify the motivation to seek drugs to the point that it can overwhelm the impulse to avoid danger and other negative consequences.

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