Dr. Guy Debonnel passed away unexpectedly at his home in Montréal on November 4, 2006. The loss of this accomplished clinician–scientist at 57 years of age leaves an important gap in the Canadian neuroscience community. Dr. Debonnel was one of the rare individuals to carry out concomitantly fundamental and clinical research in psychiatry. From a personal standpoint, his warm, generous personality will be irreplaceable.

Dr. Debonnel completed his medical curriculum at the Université de Lyon II in 1976 after obtaining an undergraduate degree in mathematics and physics. After one year of residency in psychiatry, he spent a year as a “cooperant” physician at the French Embassy in Moscow, as part of the then-mandatory French military service. Dr. Debonnel obtained his specialty certificate in psychiatry in France and then came to Canada in 1980 as a clinical fellow at the Hôpital St-Luc in Montréal. At this point, he undertook a research career in neurobiological psychiatry, working under the supervision of Dr. Claude de Montigny at the centre de recherche en sciences neurologiques of the Université de Montréal. For 12 years, he also worked as a staff psychiatrist at the Institut Philippe Pinel, the main forensic psychiatry institution of the Université de Montréal.

In 1988, Dr. Debonnel pursued his basic research at McGill University and initiated clinical research projects in depression as an assistant professor in the Neurobiological Research Unit in the Research and Training Building of the Department of Psychiatry at the Royal Victoria Hospital. He also shifted his clinical activities to the Brief Therapy Unit at the Allan Memorial Institute.

Dr. Debonnel initially worked on the role of cholecystokinin in neuronal excitability in the forebrain. This work led to the implication of this peptide in panic disorder. Through his research interests, Dr. Debonnel determined that the “mussel toxin” that caused permanent memory and cognitive damage and deaths in the late 1980s acted through the activation of the kainate subtype of glutamate receptors in the hippocampus. A large part of his research endeavours concentrated on elucidating the role of neuropeptides in the brain. He documented the important physiological role of sigma receptors in the brain through their modulation of the function of the N-methyl-D-aspartate (NMDA) subtype of glutamate receptors. Dr. Debonnel’s group also published groundbreaking papers on the impact of sex steroids on the activity of monoaminergic neurons.

In the last few years of his prematurely abridged career, Dr. Debonnel concentrated his efforts on the mediators of the antidepressant response, largely motivated, in my opinion, by being confronted with more and more treatment-refractory patients with depression in the context of his specialized tertiary care practice. Using several novel approaches available in neuroscience research, Dr. Debonnel documented the important role of serotonin type 4 receptors and of the TREK-1 ion channel on the control of serotonin neuronal firing activity and overall transmission. One of his last endeavours consisted of demonstrating how vagus nerve stimulation, which has now been approved for treatment-resistant depression, enhances the activity of norepinephrine- and serotonin-containing neurons.

Through these multiple research accomplishments, Dr. Debonnel trained many graduate students and postdoctoral fellows and was promoted to full professor in the Department of Psychiatry at McGill University in 2004. Dr. Debonnel had recently accepted the Endowed Chair in Psychopharmacology at the Université de Montréal and was going to assume his new role on April 1, 2007. This well-deserved award was recognition by his peers and by academia for his research and clinical achievements.

Dr. Guy Debonnel leaves in mourning his spouse, Dominique, and his 2 sons, Yann, 18 and Arnaud, 23.