U3A

Dunedin Charitable Trust

A LEARNING OPTION FOR THE RETIRED

in association with

Series 3 2010

THE NERVOUS SYSTEM

Dates: Thursday, 9 September – Thursday, 28 October 2010

Time: 10.00 am – 12 noon

Venue: Salmond College, Knox Street, North East Valley

Enrolments for this course will be limited to 50

Course Fee: $30.00

Tea and Coffee provided

Course Organiser: Sue Harvey (471 0546)

Course Assistant: Bill Wilson (477 2282)

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You may apply to enrol in more than one course in each series (subject to numbers). If you wish to do so, you must indicate your choice preference on the application form, and include payment of the appropriate fee(s).

All applications must be received by noon on Wednesday, 11 August 2010, and you may expect to receive a response to your application on or about 20 August.

Any questions about these courses after 20 August should be made to the Secretary, U3A Dunedin, telephone 471 9913 or on email at <graysinn@clear.net.nz>

Please keep this brochure as a reminder of venue, dates, and times for the courses for which you apply.

THE NERVOUS SYSTEM

This course aims to provide some answers to questions such as: what is it? How is it put together? How does it work? How and why does it sometimes go wrong? What can be done to fix it? We will be covering many aspects of neuroscience and neurology to try to give some understanding of what makes it tick.

The Programme

9 September Why have a nervous system? – what the nervous system does, how it develops and some history of the progress of knowledge about the nervous system. We will have some models and specimens of the nervous system for participants to look at during the coffee break and at the end of the session.

16 September How the nervous system works – how the cells of the nervous system interact with each other and how their operations combine together to provide "useful" functions.

Dr Robin Harvey, formerly of the Department of Anatomy and Structural Biology University of Otago

23 September Chemicals in the Brain – the discovery of the large number of different molecules that are used in the brain for the transfer of information, and the complex biochemistries that are associated with each of these, has provided hope that we may eventually understand how the brain works. The hopes that this knowledge will lead to new pharmacological treatments for brain disorders remain to be fully realized.

Emeritus Professor Dick Laverty, formerly of the Department of Pharmacology

30 September Brain mechanisms of memory: the good, the bad and the ugly- this lecture will cover the basic brain mechanisms of memory, including the contributions made by synaptic change. The question of how and why memory function becomes impaired with age and with Alzheimer's disease.

Professor Wickliffe Abraham, Department of Psychology

7 October Stimulating the brain to treat disease – as a means to manipulate cerebral plasticity or as a means to block activity in areas which are over-functioning. Transcranial magnetic stimulation (TMS) stimulates the brain non-invasively with brief magnetic pulses. It is being used to treat depression and is being studied in a range of disorders including stroke and epilepsy.

Dr Graeme Hammond-Tooke, Department of Medicine

14 October Insights into Multiple Sclerosis and Parkinson's Disease – the clinical symptoms and signs of Multiple Sclerosis and the diagnostic tests we use plus a discussion of current treatment and future possibilities. Some of the interesting features of Parkinson's Disease including some discussion of diagnosis and treatment.

Dr Alan Wright, Department of Medicine

21 October Strokes – the mechanisms of strokes and some major stroke "syndromes". How recovery from stroke occurs and how rehabilitation can speed and improve recovery.

Professor John Campbell and colleagues, Department of Medicine

28 October Relationships between the body and the mind – some brief presentations and discussion on various ideas on the ways in which the mind and body might interact.

Professor Grant Gillett, Department of Medical Ethics
Professor Alan Musgrave, Department of Philosophy
Dr Robin Harvey