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News Article

The New Malta Neuroscience Network Programme

Interview with the Coordinator Prof. Giuseppe Di Giovanni

University of Malta, Department of Physiology and Biochemistry

“The human brain has been described as the “last frontier” in medical research and one of the most difficult areas in medicine. Unravelling the brain’s secrets could change the lives of millions of people of all ages suffering from neurological and psychological conditions, addictions and lesions of the central nervous system for the better. Brain diseases can affect anyone of any age, socio-economic status or gender. One in three Maltese people and about 1 billion people worldwide will find themselves having to face a psychiatric or neurological disease at some point in their lives, and while treatments exist, currently there are no cures. From autism to multiple sclerosis and Alzheimer’s disease to brain trauma, brain disorders represent the most important challenge to public health in the 21st century” says Professor Di Giovanni, Co-ordinator of Malta Neuroscience Network.

“With the creation of the Malta Neuroscience Network, we will be keeping up with the most important developments with regard to brain research worldwide: multi-disciplinary collaboration. Understanding the way the brain works, and above all brain diseases is extremely complicated, and requires the involvement of researchers coming from a number of different scientific disciplines and clinical areas collaborating in new ways. Just as important is the participation of patients, families and health workers as well as the organisations that represent them such as the Richmond Foundation and we hope many more” continues Professor Di Giovanni.

Currently, we are in a time which scientists have defined “The Golden Age of Neuroscience”. Revealing the brain’s secrets is a global concern involving scientists worldwide. Now we have a much deeper understanding of the complexity of the brain which has greatly improved human health. Over the last few years, we have made important discoveries, like for example, bettering our understanding of the mechanisms that underlie human consciousness, we have discovered mirror neurons and created technologies which allow communica-

tion between the brain and computers (brain-computer interface). In addition to these innovative developments, we have increased our understanding of the genetic basis of complex diseases such as autism, schizophrenia, Parkinson’s disease and Alzheimer’s.

While these efforts are promising, it is important to realise that success will be most easily assured if researchers receive funding which allows for them to translate their research into a clinical setting enabling them to work with clinical researchers ensuring that new discoveries pass from the bench to the bedside. This is the only approach which will get us closer to our objectives of understanding the brain and its incredible influence more fully and which will allow us to protect brain health and therefore benefit patients, their families and health workers.

The challenges facing research in neuroscience today can only really be overcome with strong support from the community (government and society). Global collaboration efforts such as the BRAIN initiative in the USA and the Human Brain Project in Europe have been fundamental in fast tracking discoveries in brain research. Malta is a key player and in fact many Maltese researchers publish high quality research on the brain. This has happened despite the Maltese Government’s, relatively small investment in neuroscience research in the last ten years.

There has also been wide debate with regards to maximising the impact that research funding can have: should the focus be on basic research or research which is in an advanced stage with commercial potential? The answer is logical: both. However, the Government has decided to finance the applied one exclusively. In truth, research is a process and progress is necessary at every stage to enable new or better diagnoses, prevention strategies, and treatments and finally cures. We need to understand how the brain works as a single system from the biological bases of the disease, with the aim

of identifying and developing potential diagnostic tools and therapies.

“With the creation of Malta Neuroscience Network and its Research Fund by RIDT will raise awareness and understanding of the brain and brain disease, and increase support for Malta’s excellent and innovative brain research,” continued Prof. Di Giovanni. “Every Maltese will benefit from Malta’s leadership and vision in this important area. We hope that the Government of Malta will match on 1:1 basis, private and non-governmental donations. The Fund will be first single investment in brain research ever made in Malta.

There has never been a more exciting time to be part of the global brain research and brain health community. We thank all of our supporters over the past year—and especially our dedicated Board and staff. We look forward to advancing Malta’s central role in the coming year.”

Information about the Malta Neuroscience Network

“The new Malta Neuroscience Network is a web based community made up of researchers (neurologists, psychiatrists, radiologists, biomedical scientists, engineers, psychologists, cognitive and ICT scientists. . .) and others from different faculties at the University of Malta working on neuroscience. Prof Giacomo Rizzolatti has agreed to be present at the launch of the Brain Awareness Week (December 1-6) and will be attending the Malta Medical School Conference (IX MMSC). He is one of the most important scientists in the world; he is then MD, neurologist who discovered mirror neurons. His discovery has changed Neuroscience in the same way that the discovery of DNA changed biology.” He will be awarded by the Rector the Affiliate Professorship and he will be list among the members of our Network.

The Programme for Malta Neuroscience Network, under the aegis of the Faculty of Medicine and Surgery, is a joint initiative among the Faculty of Medicine and Surgery, Faculty of Engineering, Faculty of Health Sciences, Faculty of Information & Communication Technology, Faculty of Media & Knowledge Sciences, Faculty of Science, the Faculty for Social Wellbeing and the Centre for Biomedical Cybernetics and the Centre for Molecular Medicine and Biobanking.

1. The aims of the Program are:

- (a) To encourage and facilitate interdisciplinary research that brings together academic members from all the Faculties of the University of Malta with an interest in in the rapidly growing field of Neuroscience.
- (b) To promote interdisciplinary dialogue among all the disciplines involved with Neuroscience.

- (c) To foster research and training in neuroscience at University of Malta.
- (d) To hold regular meetings, seminars and conferences (Neuroscience day @ University of Malta) in which to present research ideas, discuss work in progress and generally promote the sharing and dissemination knowledge.
- (e) To sponsor and coordinate seminars by leading neuroscientists from home and abroad.
- (f) To create and maintain an electronic portal for the publications, discussion and dissemination of research.
- (g) To offer study-units in Neuroscience that may be included in both undergraduate and post-graduate programmes.
- (h) To collaborate with local and overseas centres/Universities, programmes and individuals with similar purpose and scope.
- (i) To raise public awareness in Neuroscience, brain disorders and mental health and other related areas through public talks, evening courses, Annual Brain Awareness Week, Brain Research Fundraising in conjunction with RIDT and different NGOs and scientific associations.

2. The Programme has the following structure:

- (a) A coordinator appointed by Council (Prof Giuseppe Di Giovanni) and a Board appointed by Senate on the recommendation of the Faculty Boards of Faculty of Medicine and Surgery, Faculty of Engineering, Faculty of Health Sciences, Faculty of Information & Communication Technology, Faculty of Media & Knowledge Sciences, Faculty of Science, the Faculty for Social Wellbeing, the Board of the Centre for Biomedical Cybernetics and the Centre for Molecular Medicine and Biobanking.
- (b) The Board consists of the Coordinator and eighteen other members, two each from the Faculty Medicine and Surgery, Faculty of Engineering, Faculty of Health Sciences, Faculty of Information & Communication Technology, Faculty of Media & Knowledge Sciences, Faculty of Science and the Faculty for Social Wellbeing and from the Centre for Biomedical Cybernetics. Chairpersonship of the board shall be held jointly, with the joint chairpersons being chosen by and from among the members.
- (c) The appointment of the Coordinator and the members of the Board is for one year, which can be renewed.

3. The MNN Programme will operate as a cost

centre with the ability to raise its own funds, subject to the University's financial regulations. An edited extract from this interview with Prof Di Gio-

vanni is published in July issue of the magazine Think.

Malta Neuroscience Network Programme (MNN) GOVERNANCE

COORDINATOR:

PROFESSOR GIUSEPPE DI GIOVANNI,

Faculty of Medicine and Surgery, Department of Physiology and Biochemistry.

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