

RGI NEWS

Volume 11. No 1. 8.12.2004

Ragnar Granit Institute, P.O. Box 692, FIN-33101 Tampere, Finland, Tel. +358-3-3115 2524, Fax +358-3-3115 2162

Editor: Jaakko Malmivuo, jaakko.malmivuo@tut.fi, www.tut.fi/rgi/news ISSN: 1456-4343

Ragnar Granit Foundation 10 years

The Ragnar Granit Foundation was established in 1994. It was established on the initiative of the Ragnar Granit Institute to promote bioelectromagnetism and biomedical engineering at an international level. As founder members of the Ragnar Granit Foundation serve the institutions, where the Finnish-born Nobel Laureate, professor Ragnar Granit (1900 - 1991) pursued research, or which in some other way are closely connected to his life-work. These are:

- the University of Helsinki, where he studied medicine, pursued research and served as a Professor of Physiology from 1937 to 1940,
- the Academy of Finland, which awarded him the honorary degree of Academician in 1985,
- the Nobel Institute for Neurophysiology at Karolinska Institute, Stockholm, where he served as Professor of Neurophysiology from 1940 to 1967,
- Oxford University, where he conducted research in 1928 and 1932 - 1933,
- the University of Pennsylvania, where he served as "fellow in medical physics" from 1929 to 1932.

In addition to the aforementioned, the Finnish Ministry of Education made a donation to the founding capital of the Foundation.

It is the purpose of the Foundation to promote at an international level, basic and applied research, international education, and other development of bioelectromagnetism and biomedical engineering. To realize its purpose the Ragnar Granit Foundation supports The Ragnar Granit Institute and awards grants to Finnish and international scientists and research institutes conducting research and development within the field of the Foundation. The Foundation also publishes scientific publications and it supports financially scientific publishing of other institutions and persons.

The Ragnar Granit Foundation also awards the Ragnar Granit Prize for distinguished scientists in the field of bioelectromagnetism. Ragnar Granit Prize for Young Scientists is also awarded.

During the past decade the Foundation has supported the researchers of the Ragnar Granit Institute with research grants and publication grants, which are given for scientific publications in journals having an impact factor. The publication grant is given for the first author provided that he/she is from the Ragnar Granit Institute.

The Foundation has also supported the arrangement of the international, scientific Ragnar Granit Symposia (www.rgi.tut.fi/edu/symposia.htm). It has also supported publication of the International Journal of Bioelectromagnetism. (www.ijbem.org)

The Foundation's finances have been based on donations made by private persons and corporate bodies. Donations of more than 850 € and less than 25.000 € are income tax deductible (www.rgs.fi/rgs_fi.htm). Within the Foundation it is possible to set up funds named according to the wish of the donating party, and this possibility has in fact been availed of.

Professor Jaakko Malmivuo, Director of The Ragnar Granit Institute serves as Chairman of the Board of the Foundation.



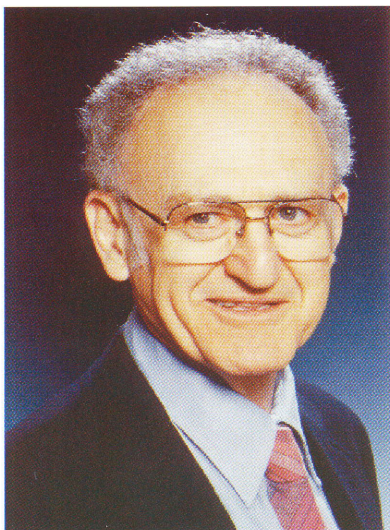
Ragnar Granit 1900-1991

Robert Plonsey Received the Ragnar Granit Prize

In connection to the 10th anniversary of the Ragnar Granit Foundation the Ragnar Granit Prize was awarded to Professor Robert Plonsey. He is Emeritus Professor of Biomedical Engineering of Duke University, Durham, North Carolina, USA.

Professor Plonsey has made large number of fundamental contributions to the theory of bioelectromagnetism. He has written the first textbook in this discipline: *Bioelectric Phenomena*, McGraw-Hill, NY, 1969. In addition to which he has been author or co-author of several other scientific books in this field.

Professor Plonsey is Founder Member of the International Society for Bioelectromagnetism and its Honorary President.



Robert Plonsey

Prasun Dastidar Defended his Doctoral Thesis

Prasun Dastidar from the Tampere University Hospital defended his doctoral thesis April 15th 2004 in the Faculty of Medicine, University of Tampere. The topic of the thesis was: *Volumetric Estimation of Structures and Lesions of the Respiratory, Reproductive and Central Nervous Systems*. The thesis was prepared in co-operation with the Ragnar Granit Institute. Supervisors for the thesis were Professor Erkki Laasonen from the faculty of Medicine, University of Tampere, and Professor Hannu Eskola, Ragnar Granit Institute.

<http://acta.uta.fi/pdf/951-44-5921-0.pdf>



Prasun Dastidar

Studia Generalia Lecture Series on Measurement of the Electric Operation of the Heart and the Brain

In connection to the 10th anniversary of the Ragnar Granit Foundation a Studia Generalia Lecture Series was arranged at Tampere on April 24. and 29. 2004. The lecturers were Professors Jaakko Malmivuo and Jari Hyttinen as well as Docent Ville Jäntti from the Ragnar Granit Institute and Professor Jari Hietanen from the Institute of Psychology at the University of Tampere. The lectures discussed the measurement of the electric fields of the heart and the brain. A lecture on visual observation of the face was also included to the program.

Research Project on Emergency EEG

The National Technology Agency of Finland, TEKES, has agreed to fund a three year project where the importance of EEG-recording on the emergency site is studied. This has been made possible the fast development of EEG recording technology and the miniaturization of the instruments.

The project is performed at the Ragnar Granit Institute in co-operation with Tampere University Hospital, General Electric Medical (Instrumentarium), Tammlans ambulance build-up company and Medi-Heli emergency medicine service company. Professor Jaakko Malmivuo serves as scientist in charge in the project.

International Summer Course in Bioelectromagnetism

The Board of European Students of Technology, BEST, (www.best.eu.org) organized a summer course 9.-20.8.2004 at the Ragnar Granit Institute. The topic was: "*Bioelectric Signals of the Human Body*". BEST organizes summer courses in all European countries and offer annually over 50 different courses. Our course received about 300 applications. It is the rule that only 20 participants were accepted and not more than two from the same country.

The academic part of the course included lectures and laboratory exercises. The teachers of the course were from the personnel of the Ragnar Granit Institute. Excursions to the hospital Coxa in Tampere and Instrumentarium/GE Medical in Helsinki were also included.

The local BEST organization arranged a very active social program for the course participants. It included e.g. nurse party, international night party, barbeque evening, sauna night to mention a few.

www.rgi.tut.fi/kurssit/best/

Ragnar Granit Symposium: Neuromonitoring Technology in OR and ICU

Ragnar Granit Institute is organizing the 9th International Ragnar Granit Symposium on the topic: *Neuromonitoring Technology in Operaion Room and Intensive Care Unit*. The symposium will be on 21.-22. April 2005 at Tampere Hall, Tampere, Finland.

Millions of patients have been monitored with modern EEG- and EMG- based hypnotic indices. New methods are continually introduced to monitor sedation and pain in these patients. These methods are based on the cognitive neuroscience of anaesthesia i.e. cognitive anaesthesiology. This field closely relates to the cognitive neuroscience of sleep and epilepsy.

The symposium is intended to bring together anaesthesiologists, neurophysiologists, engineers, and researchers, who are using, developing, or studying cognitive anaesthesiology and modern neurophysiological monitoring technology. Senior Scientist, Docent Ville Jäntti, MD PhD, from the Ragnar Granit Institute serves as Symposium president.

www.rgi.tut.fi/symposia/9th/



Participants of the international BEST summer course on *Bioelectric Signals of the Human Body*



Season's Greetings

*The personnel of the Ragnar Granit Institute wish to thank all their friends
for their co-operation during 2004 and wish everyone a
Merry Christmas and successful New Year.*