

Friday 15th, afternoon

Workshop:

Neurobotic and Neuroprosthetic Motor Restoration and Substitution: Open Issues.

Chairmen: *Dr. José L. Pons, Dr. E. Rocon, Dr. Angel Gil*

15.00 h.- *Dr. Dario Farina (Goettingen, Germany).*
"Accesing the neural code of muscle control"

15.50 h.- *Dr. Dejan Popovic (Aalborg, Denmark).*
"Motor Neuroprostheses For Motor Substitution And Restoration"

Coffee break

17.00 h.- *Dr. Silvestro Micera (ETH, Switzerland).*
"Implantable Neural Prostheses To Restore Sensorimotor Functions"

17.50 h.- *Dr. Ángel Gil (Toledo, Spain).*
"Applications Of Upper Limb Biomechanical Models In Spinal Cord Injury Patients"

Hospital Nacional de Paraplégicos (HNP)
Toledo, Spain

FIRST INTERNATIONAL SYMPOSIUM

EMERGENT THERAPIES AND TRANSLATIONAL RESEARCH FOR SPINAL CORD INJURY

Thursday 14th and Friday 15th, April 2011

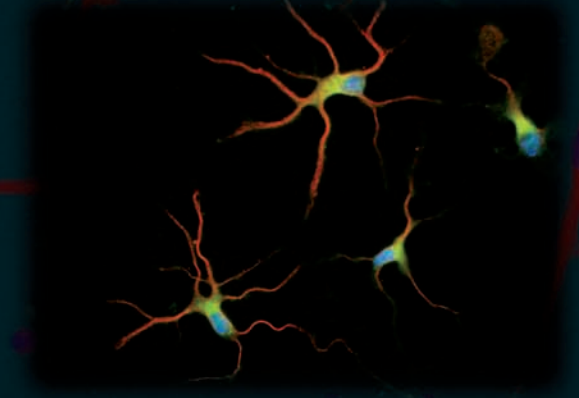
Organizer: Professor Manuel Nieto Sampedro

*Hospital Nacional de Paraplégicos de Toledo
Finca "La Peraleda" sn, 45071 • Toledo, Spain*



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Hospital Nacional de Paraplégicos de Toledo
Finca La Peraleda S-N, 45071
Toledo, Spain

Organizer:
Professor Manuel Nieto Sampedro



Thursday 14th, morning

Workshop:
Improving Axonal growth and Regeneration in the Central Nervous System

Chairman: Dr. José Abad

09.00 h.- **Dr. Carlos G. Dotti, (Leuven, Belgium).**
"Membrane Lipid Changes With Aging:
Relevance For Survival/Performance"

09.50 h.- **Dr. Ferdinando Rossi, (Turin, Italy).**
"Regulation Of Intrinsic Neuronal
Properties For Axonal Growth,
Plasticity And Regeneration"

11.00 h.- **Presentation by local authorities.**

Coffee break

12.00 h.- **Dr. James Fawcett, (Cambridge, UK).**
"Manipulating The Extracellular Matrix
To Promote Plasticity And Enable
Rehabilitation"

12.50 h.- **Dr. José Abad, (Toledo, Spain).**
"Membrane Lipids In Neuronal Polarity
And Axonal Regeneration"

Lunch/Poster session

Thursday 14th, afternoon

Workshop:
New Horizons in Mechanisms, Diagnosis and Treatment of Spasticity

Chairman: Dr. Julian Taylor

15.00 h.- **Dr. Martin Marsala, (San Diego, USA).**
"New Insights Into Cellular Mechanisms
Of SCI Spasticity And Treatment"

15.50 h.- **Dr. Jens Bo Nielsen (Copenhagen,
Denmark).** "Spinal And Cortical
Pathophysiological Mechanisms
Of SCI Spasticity"

Coffee break

17.00 h.- **Dr Hatice Kumru, (Barcelona, Spain).**
"Brainstem Reorganization And
Neuromodulation Of SCI Spasticity"

17.50 h.- **Drs. Marsala, Nielsen, Kumru, Taylor.**

SCI spasticity discussion clinic:

**1) Towards A Consensus For Basic And Clinical Definitions Of
SCI Spasticity: Implications For Correct Diagnosis And Suc-
cessful Treatment.**

**2) New Functionally Relevant Treatment Strategies For SCI
Spasticity: From Neuroprotection To Neuromodulation.**

Friday 15th, morning

Workshop:
Neuroprosthetic Approaches to Stimulate Spinal Circuits and Neural Repair

Chairman: Dr. Jorge Collazos

10.00 h.- **Dr. Vivian Mushahwar, (Alberta, Canada).**
"Reactivating Spinal Networks after
Spinal Cord Injury using Intraspinal
Microstimulation"

10.50 h.- **Prof. Dr. Wim LC Rutten, (Enschede,
The Netherlands).** "Cell Engineered
Neural Interfaces and Brains-on-a-Chip"

Coffee break

12.00 h.- **Dr. Laura Ballerini, (Trieste, Italy).**
"Engineering Cultured Neuronal Networks
With Nanomaterials: Carbon Nanotubes
And Neuronal Signaling"

12.50 h.- **Dr. Jorge Collazos Castro, (Toledo, Spain).**
"Development Of An Electrobiological
Approach To Repair The Spinal Cord"

**10.00 - 12:30 h. HYPHER Project (CONSOLIDER/INGENIO
2010). Parallel Oral Communication Session for Young Scientists
Chairman: Dr. José L. Pons**

**Presentation of 10 minute talks by predoctoral students
working within the Spanish HYPHER project (Hybrid
Neuroprosthetic and Neurobotic Devices for Functional
Compensation and Rehabilitation of Motor Disorders)**

Lunch/Poster Session