

Translational Research and Spinal Cord Injury

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GUEST EDITORIAL

Translational research in spinal cord injury: Moving from animals to humans

Welcome to this special issue of the *Journal of Rehabilitation Research and Development (JRRD)*. Herein lie the proceedings of a conference, entitled “Translational Research in Spinal Cord Injury: Avoiding Potential Pitfalls,” sponsored by the Miami Veterans Affairs Rehabilitation Research and Development Center of Excellence in Spinal Cord Injury (SCI), the South Florida Model SCI System, and The Miami Project to Cure Paralysis. The meeting was held 3 April 2003 in Miami, Florida, cochaired by W. Dalton Dietrich, PhD, Professor of Neurologic Surgery and Scientific Director of The Miami Project to Cure Paralysis, and Marca Sipski, MD, Project Director, Miami Veterans Affairs Rehabilitation Research and Development Center of Excellence in Functional Recovery and Spinal Cord Injury; Project Director, South Florida Model SCI System; and Associate Professor and Interim Chairman, Department of Rehabilitation Medicine, The Miami Project to Cure Paralysis, University of Miami School of Medicine. The conference also served as the official precourse to the American Spinal Injury Association Annual Meeting, held in Miami 4–6 April 2003, and we are grateful to the editors of the JRRD for their interest in publishing the information.

The goal of this conference was to stimulate discussion between basic scientists and clinicians about the steps needed to move promising research related to SCI from laboratory animals into clinical trials. Marca Sipski, MD, first presented an overview of the issues associated with translational research in SCI. This was followed by a discussion of outcome measures in animal models with neurologic dysfunction by Timothy Schallert, PhD. Edelle Field-Fote, PhD, discussed the topic of measurement of motor function in animals and humans and the benefits of using motion analysis techniques. Christine Thomas, PhD, spoke about the measurement of motor function in humans versus animals. Alberto Martinez-Arizala, MD, discussed the measurement of sensory function in humans versus animals, providing insight



Marca L. Sipski, MD and W. Dalton Dietrich, PhD

into the benefits of using quantitative sensory testing. Mary Eaton, PhD, addressed animal models of pain and spasticity, and the morning ended with an update on neuroprotective techniques by John Bethea, PhD.

The afternoon session began with a discussion of neural regeneration by Mary Bunge, PhD. This was followed by a presentation on the ideal process for confirming that a therapy works in animals prior to transfer to humans by Dalton Dietrich, PhD. Jacqueline Sagen, PhD, next spoke about cellular therapies in SCI and what the Food and Drug Administration (FDA) will require to approve moving therapies from animals to humans, and Edward Hall, PhD, discussed drug development in SCI and working with the FDA. To round out the day, Irene Estores, MD, spoke about the consumer perspective—what

we know from the professional literature; then Marc Buoniconti gave his comments, as a leading consumer, on the needs of patients with SCI.

All in all, it was a productive day filled with new ideas about this important topic. We are delighted to share our efforts with you and hope you enjoy reading the proceedings. Even more, we hope

you will join us in another couple of years, when we plan to get together again to discuss progress in this important area.

Marca L. Sipski, MD

W. Dalton Dietrich, PhD