

Moving TMJ Research into the 21st Century

First Annual Scientific Meeting of The TMJ Association
Bethesda, Maryland, May 22–23, 2000

This meeting was organized by the Milwaukee-based patient advocacy group, The TMJ Association, Ltd, a private non-profit foundation founded in 1986, with co-sponsorship by the National Institutes of Allergy and Infectious Diseases, Child Health and Human Development, Dental and Craniofacial Research, and Neurological Disorders and Stroke, along with the Office of Research on Women's Health. A group of over 30 scientists was brought together to explore topics relevant to the understanding of deep joint and muscle pain and dysfunction, as exemplified by temporomandibular joint diseases and disorders. The workshop, entitled "Moving TMJ Research into the 21st Century," was held at the Conference Center of the Federation of American Societies of Experimental Biology in Bethesda, Maryland, on May 22 and 23, 2000. The event was co-chaired by Dr Andrew H. Kang, University of Tennessee, and Dr Ronald Dubner, University of Maryland. Terrie Cowley, the President of the TMJ Association and a tireless patient representative, hosted this long-anticipated meeting of patient advocates, NIH agencies, and scientists from several disciplines.

Experts in arthritis; TMJ pathology; bone, joint, and muscle physiology; neurobiology; pain; genetics; endocrinology; immunology; wound healing; and tissue engineering presented papers and engaged in working groups. They were charged to identify the immediate- and longer-range research needs that will lead to a coherent body of knowledge on the etiology and pathogenesis of TMJ injury and diseases and will ultimately form the foundation of evidence-based treatment guidelines. Invited speakers included K. S. Anseth, K. M. Baldwin, D. A. Bereiter, L. deBont, A. W. English, S. E. Feinberg, J. T. Fleming, L. C. Gerstenfeld, J. Glowacki, P. Grigg, A. J. Grodzinski, K. M. Hargreaves, S. W. Herring, M. C. Horowitz, A. H. Kang, R. Landesberg, S. Milam, M. Mina, J. Mogil, M. E. Nuttall, T. R. Oegema, P. Polverini, J. E. Puzas, A. Ratcliffe, K. Ren, R. L. Smith, C. Stohler, D. R. Sumner, and M. Warren.

After the first day of oral presentations, workshop participants engaged in productive discussions, defin-

ing critical future research directions, including the obstacles that might hinder progress in respective areas. Breakout sessions, directed by Stephen L. Gordon (Scientific Advisory Board, TMJ Association, Ltd), dealt with 4 research foci: (1) tissue structure and function, (2) neural/endocrine, (3) TMJ pathology, and (4) tissue repair. Reports of working groups were presented in a wrap-up session that was followed by final comments.

Although The TMJ Association, Ltd, has not released the official workshop proceedings, some key recommendations for needed research in this field are highlighted below:

- Develop animal, cell culture, and computer models to study the intact, injured and diseased TMJ.
- Evaluate the biomechanics of the intact, injured, and diseased TMJ.
- Conduct research on the maturation, adaptation, and response to TMJ injury and disease.
- Develop a diagnostic classification system based on mechanistic understanding of TMJ pain, inflammation, and degeneration.
- Characterize the clinical TMJ injury and disease spectrum through the use of advanced biotechnologies.
- Evaluate unique tissue repair problems in TMJ patients.
- Evaluate novel reconstruction methodologies for TMJ repair.
- Screen existing transgenic models for the presence of TMJ pathology.
- Study the potential of protein and gene therapy for TMJ pain and repair.

Overall, the event was most constructive, stimulating, and best captured by Dr Harold C. Slavkin, Director of the National Institute of Dental and Craniofacial Research, as "a wonderful tribute to the value of partnership between patient advocacy groups, scientists, and federal agencies."

Christian S. Stohler
Associate Editor