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978-0-521-18420-5 - Handbook of Experimental Neurology: Methods and Techniques in Animal Research
Edited by Turgut Tatlisumak and Marc Fisher
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HANDBOOK OF EXPERIMENTAL NEUROLOGY

Basic relevant information on methodologies used in neurological disease models can be extremely hard to find. The *Handbook of Experimental Neurology* contains 30 chapters from over 60 internationally recognized scientists and covers every major methodology and disease model in the neurosciences. The book is divided into two major sections: Part I deals with general methodologies in neuroscience research covering topics from animal welfare and ethical issues to surgical procedures, postoperative care, and behavioral testing, while Part II covers every major disease model from traumatic brain injury, ischemia and stroke, to CNS tumors, hydrocephalus, demyelinating disease, Parkinson's, motor neuron disease, epilepsy, bacterial infection, and sleep disorders. Delivering critical, up-to-the-minute, methodological information and describing small-animal models for almost all major neurological diseases, this book is written specifically for beginners and young scientists in neurosciences. It will also serve as a cutting-edge reference for more experienced researchers.

DR. TATLISUMAK received his neurology training in the Helsinki University Central Hospital. His Ph.D. was gained in experimental brain ischemia and magnetic resonance imaging at the University of Massachusetts. His research field is clinical and experimental stroke and magnetic resonance imaging. He holds board certificates in neurology and healthcare administration in Finland. He is currently an associate professor and Vice-Chairman at the Department of Neurology, Helsinki University Central Hospital and the director of the Experimental Magnetic Resonance Imaging Laboratory. Dr. Tatlisumak is a Fellow of the American Heart Association. He is an awarded teacher and holds a degree in teaching sciences.

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Wisconsin and neurology at the Medical Center of Vermont. He has been at the University of Massachusetts Medical School since 1978 and currently holds the position of Professor and Vice-Chairman in the neurology department. He performs clinical activities approximately 50% of the time with a special emphasis on patients with cerebrovascular disorders and multiple sclerosis. He has directed an animal stroke research laboratory for more than 15 years that has emphasized the use of novel magnetic resonance imaging techniques to evaluate stroke evolution and to assess therapeutic interventions in vivo. He has participated in many clinical stroke trials as a member of the steering committee. He has published extensively in both of these areas with 190 peer-reviewed publications, and he has edited 10 textbooks. He has worked closely with the pharmaceutical industry in the development of novel stroke therapies as well as in designing and implementing clinical trials for acute stroke therapies.

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Methods and Techniques in Animal Research

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