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Nota di contenuto	State-of-the-art microwire array design for chronic neural recordings in behaving animals / Gary Lehew and Miguel A.L. Nicolelis -- Surgical techniques for chronic implantation of microwire arrays in rodents and primates / Laura M.O. Oliveira and Dragan Dimitrov -- Technology for multielectrode microstimulation of brain tissue / Timothy Hanson, Nathan Fitzsimmons, and Joseph E. O'Doherty -- Strategies for neural ensemble data analysis for brain-machine interface (BMI) applications / Miriam Zacksenhouse and Simona Nemets -- Chronic recordings in transgenic mice / Kafui Dzirasa -- Multielectrode recordings in the somatosensory system / Michael Wiest, Erik Thomson, and Jim Meloy -- Chronic recording during learning / Aaron J. Sandler -- Defining global brain states using multielectrode field potential recordings / Shih-Chieh Lin and Damien Gervasoni -- Multielectrode recording in behaving monkeys / R.E. Crist and M.A. Lebedev -- Neural ensemble recordings from central gustatory-reward pathways in awake and behaving animals / Albino J. Oliveira-Maia, Sidney A. Simon, and Miguel A.L. Nicolelis -- Building brain-machine interfaces to restore neurological functions / Mikhail A. Lebedev, Roy E. Crist, and Miguel A. L. Nicolelis -- Conceptual and technical approaches to human neural ensemble recordings / Dennis A. Turner, Parag G. Patil, and Miguel A.L.

	Nicolelis.
Sommario/riassunto	In the last ten years neural ensemble recording grew into a well-respected and highly data-lucrative science. New experimental paradigms, including the fabrication of high-density microelectrodes, new surgical implantation techniques, multi-channel signal processing, and the establishment of direct real-time brain-machine interfaces, hold promise not just for neurophysiology research, but also for new-generation prosthetic devices aimed at restoring mobility and communication skills in severely disabled patients.Extensively updated and expanded, Methods for Neural Ensemble Recording, S