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   Titolo   The 3D Stereotaxic Brain Atlas of the Degu : With MRI and Histology
                        Digital Model with a Freely Rotatable Viewer / / by Noriko Kumazawa-
                        Manita, Tsutomu Hashikawa, Atsushi Iriki

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   Descrizione fisica   1 online resource (149 pages)

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   Soggetti   Neurosciences
                        Behavioral sciences
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   Lingua di pubblicazione   Inglese

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   Note generali   Includes index.

   Nota di contenuto   Chapter 1: Introduction, Materials and Methods, and References --
                        Chapter 2: List of Structures -- Chapter 3: The Degu Brain Atlas --
                        Chapter 4: SG-eye Operation Manual -- Index of Structures and
                        Abbreviations.

   Sommario/riassunto   This is the first digital atlas of the degu brain with microscopic features
                        simultaneously in Nissl sections and magnetic resonance imaging (MRI).
                        As an experimental animal model, the degu contributes to a variety of
                        medical research fields in diabetes, hyperglycemia, pancreatic function,
                        and adaptation to high altitude, among others. Recently the degu has
                        gained increasing importance in the field of neuroscience, particularly
                        in studies evaluating the relationship between sociality and cognitive
                        brain functions, and in studies pertaining to the evolutional aspects of
                        the acquisition of tool-use abilities. Furthermore, aging-related brain
                        dysfunction in humans can be studied using this animal model in
                        addition to mammals with much longer lifespans. This brain atlas is
                        constructed to provide histological and volume-rendered information

simultaneously, fitting with any spatial coordination in brain positioning. It can be a useful guide to degus as well as to other rodents for studies of brain structures conducted using MRI or other contemporary examination methods with volume-rendering functions.