

1. Record Nr.	UNINA9910298409803321
Autore	Kumazawa-Manita Noriko
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
Pubbl/distr/stampa	Tokyo : , : Springer Japan : , : Imprint : Springer, , 2018
ISBN	4-431-56615-5
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (149 pages)
Collana	Brain Science, , 2570-0197
Disciplina	616.8047548
Soggetti	Neurosciences Behavioral sciences Animal anatomy Human physiology Behavioral Sciences Animal Anatomy / Morphology / Histology Human Physiology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
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 evolutionary 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.
