Introduction

Atlases on the central nervous system (CNS), or collections of brain maps, had their origin in studies made by the German school around the turn of the century. Since then, maps of the cerebral cortex and subcortical structures have become standard references for studying brain anatomy and function. Further improvements in experimental work have demanded greater accuracy in locating and reaching the deepest structures within the brain and, so, stereotaxic atlases for practically all laboratory animals were developed. They are routinely referred to for stimulating, recording, lesion-making and delivering tracers or other substances inside the brain. Maps have even been constructed for different structural or cytological particularities that show definite patterns inside the brain.

Most cytoarchitectonic maps, whether stereotaxic or descriptive, outline brain structures based on differences in the arrangement, number and shape of cell bodies obtained from Nissl-stained preparations. But, without dismissing the importance of these aides in experimental work, cytoarchitectonic maps have always seemed to me as roadmaps without roads. The most important characteristic of the nervous system, the connecting pathways, is missing, and no less faulty is the information pertaining to dendritic architecture, axonal arborizations and the structure of the neuropil.

I have always been impressed with the ability of preparations based on the Golgi method to display in the most realistic way the three-dimensional structure of the brain. With the aid of this method, I have studied for many years different aspects of brain anatomy in several mammalian species having collected large amounts of information based on notes from observations, photomicrographs and drawings harvested from a large collection of more than 2000 brains from different mammalian species. I was persuaded by many colleagues to organize part of this information into a form suitable for publication; thus, the attempt to synthesize graphically the structure of the brain based on observations from Golgi preparations and present it in the form of comprehensive, instructive drawings seemed an attractive enterprise.

The great advances in molecular neurobiology and genetics are increasingly based in the use of the mouse as a laboratory animal. Experimental studies using modern fluorescence tracing techniques are standard in many research laboratories and novel aspects of brain development and behavior are the subject of many studies. All these, as well as many other reasons, make it to consider the mouse as the ideal laboratory animal. The present atlas shows a complete series of camera lucida drawings representing the entire telencephalon and upper brain stem of the mouse in 24 transverse, 11 sagittal and 15 horizontal planes. It is intended to illustrate all major structures of the brain that can be identified by means of the best Golgi preparations, with the aim of being useful not only for students at the educational level but also for research colleagues in the field of neuroscience.

F. Valverde, *Golgi Atlas of the Postnatal Mouse Brain*