

THE PYRAMIDAL NEURON OF THE CEREBRAL CORTEX: MORPHOLOGICAL AND CHEMICAL CHARACTERISTICS OF THE SYNAPTIC INPUTS

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CONTENTS

1. Introduction	563
1.1. Introductory remarks	563
1.2. Classes of neurons and synapses in the cerebral cortex	564
1.3. What is a pyramidal cell?	565
1.4. Neurotransmitters in the cerebral cortex	568
1.5. Synaptic circuitry: Limitations of electron microscopy	569
1.6. Synaptic inputs on pyramidal cells	569
2. Synapses on the cell soma	570
2.1. Morphology of the axosomatic synapses	570
2.2. Number of axosomatic synapses	571
2.3. Sources of axosomatic synapses	574
2.4. Chemical characteristics of axosomatic synapses	574
3. Synapses on the axon initial segments	575
3.1. Morphology of the initial segment synapses	575
3.2. Number and distribution of initial segment synapses	576
3.3. Sources of initial segment synapses	580
3.4. Chemical characteristics of initial segment synapses	583
4. Synapses on the dendritic shafts and dendritic spines	583
4.1. Morphology of the axodendritic and axospinous synapses	583
4.2. Number and distribution of axodendritic and axospinous synapses	584
4.3. Sources of axodendritic and axospinous synapses	589
4.3.1. Cortical origin	590
4.3.1.1. Other pyramidal cells	590
4.3.1.2. Spiny nonpyramidal neurons	592
4.3.1.3. Aspiny nonpyramidal neurons	592
4.3.2. Cortical afferent systems	594
4.3.2.1. Thalamocortical afferent fibers	594
4.3.2.2. Nonthalamic afferent fibers	597
4.4. Chemical characteristics of axodendritic and axospinous synapses	597
4.4.1. Asymmetric synapses	597
4.4.2. Symmetric synapses	599
5. Are anatomically-defined or chemically-defined populations of pyramidal cells innervated preferentially by certain types of aspiny nonpyramidal cells?	600
6. Concluding remarks	601
Acknowledgements	601
References	602

1. INTRODUCTION

1.1. INTRODUCTORY REMARKS

Information in the cerebral cortex flows through synapses in a finely organized network, formed between the extrinsic cortical afferent fibers on the one hand, and the cell bodies, dendrites and axons of a variety of morphological types of cortical neurons, on the other. Processed information leaves the cortex through the axons of the so-called pyramidal cells to reach other cortical areas or

subcortical nuclei. Current understanding of the synaptic organization of the cerebral cortex and of how this information flow occurs depends to a large extent on knowledge of the synaptic inputs to the pyramidal cells. Although many morphological, chemical and functional characteristics are common to the pyramidal cells of the three major divisions of the cerebral cortex (palaeocortex, archicortex and neocortex), in this review we shall deal only with the pyramidal neurons of the neocortex. The term "cerebral cortex" will thus be used as a synonym of "neocortex".