As life expectancy increases and population ages, the already enormous impact of neurodegeneration on society will become even larger without better prevention and treatment. Developing strategies to prevent degeneration of neurons and to promote a healthy nervous system is, thus, critical. The development of pharmacological agents that would increase production of new neurons was recently facilitated by the identification of the hormonal regulators of various steps of adult neurogenesis.

The proposed book is written by a group of top world experts involved in the study of the mechanisms of hormonal control of brain damage and repair. The effects of thyroid and steroid hormones (estrogens, androgens, progestins, gluco-mineralo-corticoids, various neurosteroids) or polypeptide hormones (CRF, urocortins, somatostatin, GH/IGF, leptin, prolactin, PACAP, erythropoetin) on neuronal survival and neurogenesis in various neurodegenerative conditions and in brain aging will be discussed in detail. The proposed book is unique because it gives a comprehensive account of the neuroprotective and neurogenic effects of steroid and polypeptide hormones. Furthermore, new pharmacological approaches for treatment of neurodegenerative conditions are presented, based on the neuroprotective and neurogenic properties of natural and synthetic hormones.

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