

In the case of minimum values of these interspike intervals, APs generated by coupled neurons overlapped each other; this resulted in the formation of spikes looking like “complex APs.” Within some time intervals, interspike intervals could increase, and such APs began to be decomposed.

Conclusion: The above-described data are considered the electrophysiological proof of the existence of tight functional coupling between a significant part of cortical neurons spatially close to each other, i.e., members of a micro population, which was obtained in an *in vivo* experiment.

Keywords: multichannel microelectrode recording, motor cortex of mammals, neuronal micropopulations.

SKIN AGING

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Similar to entire organism, skin aging is the imminent intrinsic process, this being also caused by exogen factors. Skin aging and photoaging are especially caused by the ultraviolet radiations, this being the main reason of skin transformation in sun exposed areas.

Despite morphological and pathophysiological differences, the intrinsic and extrinsic skin aging share several similarities on molecular level.

Primary skin aging aspects are defined by the formation of oxygen reactive species and the induction matrix of metalloproteinases. The accumulation of fragmented collagen fibrils prevents neocollagenoses and causes the deterioration of extracellular matrix through positive feedback methods.

The importance of the extrinsic skin aging initiated the development of several preventive therapeutic methods.

BIOCHEMICAL STUDY OF NASAL SECRETIONS IN CHRONIC HYPERTROPHIC RHINITIS

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Introduction: Chronic hypertrophic rhinitis (CHR) affects the air passage by the respiratory lane of the nasal fossae, making the act of respiration harder and reducing considerably the life's quality of the patients (about 16-50% of the population suffer from CHR).

Morphologically, the hypertrophy of all the nasal turbinate layers occurs including the glands and nasal mucosa.

Nowadays, the diagnosis of CHR is made on clinical examination and patient's anamnesis. However, the pathogenetic mechanisms of this disease induce important changes at the cellular and biochemical levels, undetectable in its prodromal period and which anticipates the clinical manifestations. Exactly these primary alterations are the trigger, on which the further evolution of the disease will depend.