

ELocally synthesized steroids in facial skin modulate skin functions

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We analyzed the local estrogen synthesis systems and estrogen receptors in female rat facial skin tissues. RT-PCR analysis revealed mRNA expressions of representative enzymes and receptors. We compared the skin steroidogenic enzymes/receptors with those of the brain hippocampus which also has the local estrogen synthesis systems and estrogen receptors. In the hippocampus, a center for learning and memory, locally synthesized estrogen plays a crucial role in modulating memory-related synaptic plasticity. Locally synthesized estrogen could also play a significant role in female facial skin condition in addition to plasma estrogen.