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The neuro-symphony of stress.

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Source

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Abstract

The impact of stress on brain function is increasingly recognized. Various substances are released in response to stress and can influence distinct neuronal circuits, but the functional advantages of having such a diversity of stress mediators remain unclear. Individual neurotransmitter, neuropeptide and steroid stress mediators have specific spatial and temporal niches, but these niches also overlap. In addition, the effects of individual mediators on neuronal function and plasticity are integrated, and emerging evidence suggests that there is crosstalk between them. Together, this results in the stress instruments producing an orchestrated 'symphony' that enables fine-tuned responses to diverse challenges.

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