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► **COVER:** 'In the grip of stress' by Kirsten Lee, inspired by this month's Focus on stress.



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Stress research arguably began with Hans Selye's 1936 description of a 'general alarm reaction' in rats exposed to a range of unpleasant or harmful stimuli. It really took off in the 1960s, but in the past three decades we have seen a true explosion of articles describing the effects of stress on the brain and the body.

This issue highlights different aspects of stress in the CNS. Ulrich-Lai and Herman (page 397) describe the neurocircuitry that regulates autonomic and hormonal stress responses. In a Perspective article on page 459, Joëls and Baram argue that steroid, neurotransmitter and neuropeptide modulators of stress interact to fine-tune the response to different stressors.

Two Review articles describe the effects of stress on cognition. Roozendaal and colleagues (page 423) discuss how the effects of stress on amygdala structure and functioning underlie improved memory for stress-related information but might also lead to anxiety. On page 410, Amy Arnsten focuses on the prefrontal cortex, describing the molecular pathways that underlie stress effects on working memory.

Stress at particular times in life has long-term consequences. In a comprehensive Review on page 434, Lupien and colleagues propose that different psychiatric disorders might arise because particular brain areas were undergoing development or degeneration at the time of exposure to stress. Nevertheless, many people cope well with stress; Feder and colleagues (page 446) review data from human and animal studies showing that resilience is an active process of adaptive changes in specific brain regions and systems.

We hope that this issue is a testament to the enormous progress that has been made in understanding the effects of stress and the mechanisms that underlie them.

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