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## JANE COFFIN CHILDS FELLOW

Medication for chronic pain often leads to addiction. Dr. Nitsan Goldstein thinks this may be because around one third of people experiencing chronic pain also suffer from anxiety. Additionally, anxiety is a strong predictor of chronic pain development. Dr. Goldstein predicts that targeting pain and pain-induced anxiety together may reduce chronic pain symptoms. She has identified neurons that are anxiolytic and will test their functional relationship with pain-induced anxiety and a chronic pain-like state. Goldstein will conduct her experiments in [Dr. Fan Wang's lab](#) at the Massachusetts Institute of Technology. Dr. Goldstein hopes that investigating both the central and peripheral causes of chronic pain and anxiety will open avenues for more effective pain treatments.

As a graduate student in [Dr. J. Nicholas Betley's lab](#) at the University of Pennsylvania, Goldstein investigated how the brain regulates food intake. Specifically, Dr. Goldstein discovered that the [activation of hunger circuits enhances dopamine release](#), which is critical for [motivating humans to seek rewards like food](#). These studies helped reveal new relationships between neural programs and have prepared Dr. Goldstein to investigate the relationship between chronic pain and anxiety.

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