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Identifying Neuroaffective Biomarkers of Cue-induced Compulsive Behaviors

Dr. Versace's current line of research focuses on investigating the neurobiological underpinnings of smoking and obesity, the two major causes of preventable disease and disabilities in the United States. By leveraging the spatial and temporal resolution of functional magnetic resonance imaging (fMRI) and dense sensor array event-related potentials (ERPs), his studies aim at characterizing the dysfunctional brain mechanisms that mediate maladaptive responses to rewards and reward-related cues. The ultimate goal of his studies is to develop more successful, tailored interventions for smoking cessation and weight-loss.

Abstract: Compulsive behaviors are often triggered by the presence of motivationally relevant cues. In humans, we measured event-related potentials to rewards and reward-related cues. Applying multivariate analytic tools to our data, we identified a robust and replicable neuroaffective biomarker that predicts cue-induced reward pursuit.

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