Examples of \( n \)-dimensional Ricci flat manifolds are Riemannian manifolds whose holonomy groups \( \text{Hol}(g) \) are subgroups of \( \text{SU}(n) \), for \( n=2m \), and subgroups of the exceptional Lie group \( G_2 \), for \( n=7 \). We call them Calabi-Yau and \( G_2 \) manifolds, respectively. They are also examples of manifolds with special holonomy. Calibrated submanifolds of Calabi-Yau and \( G_2 \) manifolds are volume minimizing in their homology classes and their moduli spaces have many important applications in geometry, topology and physics. In this talk we give a report of recent research on the calibrations inside the manifolds with special holonomy. (Received January 31, 2016)