**Synthesis of Prostaglandins $\text{F}_2\alpha$ and E$_2$**

**Significance:** In 1969, Corey and co-workers reported a landmark total synthesis of prostaglandins PGF$_{2\alpha}$ and PGE$_2$ which play an important role as hormones in mammalian tissue. Strategic application of a [2.2.1]-bicycloheptane enabled expedient access to the highly substituted cyclopentane core.

**Comment:** Bicycloheptane D was accessed through Diels–Alder reaction between diene B and C. Subsequent Baeyer–Villiger oxidation followed by hydrolysis and iodolactonization furnished lactone G, which was transformed into the natural products by a sequence involving two olefinations.