

**Synthesis-Enabled Investigation of
the Amphotericin B-Based Ion Channel**

Daniel Palacios and Martin Burke

The treatment of choice for systemic fungal infections over the past three decades has been and continues to be amphotericin B. Evidence suggests that amphotericin B inserts into sterol-rich lipid bilayers and self-assembles into a transmembrane ion channel that can disrupt transmembrane electrochemical gradients. We have utilized degradative organic synthesis to interrogate the structure/function relationships that underlie this prototypical small-molecule based ion channel.