


# ANESTHESIA & ANALGESIA®

*The Gold Standard in Anesthesiology*

**IN THIS ISSUE:**

- Cardiac anesthesiologists will be interested in the report by Karkouti and colleagues demonstrating that in high risk patients aprotinin has a better risk-benefit profile than tranexamic acid.
- We know that sugammadex should reverse vecuronium-induced neuromuscular block, but it's reassuring to read the report by Khuenl-Brady and colleagues demonstrating this.
- Our pain medicine section rebuilds our knowledge base of the long-term benefits of aggressive perioperative pain management with a study by Buvanendran and colleagues showing a long-term benefit from perioperative pregabalin, but at the cost of increased perioperative sedation and confusion.
- This issue of *Anesthesia & Analgesia* contains two historical articles of interest. In "References to Anesthesia, Pain and Analgesia in the Hippocratic Collection," Astyrakak and colleagues search the ancient Greek texts by Hippocrates and his students for references to "anesthesia," which was adopted 2000 years later by Oliver Wendell Holmes to describe the state of insensibility required for surgery. In Elton Romeo Smilie, the not-quite discoverer of ether anesthesia, Dr. Stone and colleagues share their research on Elton Smilie, a medical doctor specializing in tooth extractions. Dr. Smilie reported the anesthetizing effects of opium mixed with ether in the *Boston Medical Surgical Journal* a few weeks before Bigelow's revolutionary report in the same journal. There was only one problem: Dr. Smilie attributed the insensibility to the opium, not realizing that the ether vehicle was responsible for the loss of consciousness.

Articles selected for the Anesthesia & Analgesia CME program are designated with .

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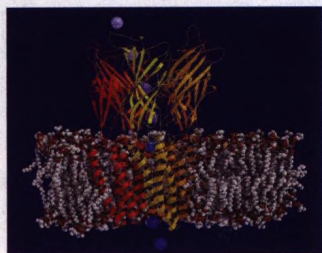
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**ON THE COVER:** This issue of *Anesthesia & Analgesia* highlights the effects of anesthetics on the proton gated ion channel of the ancient cyanobacterium, *Gloeobacter violaceus*. The protein gated ion channel on the cover was provided by Hugues Nury, part of the team that identified the structure using x-ray crystallography. These anesthetic-sensitive ion channels share considerable morphology with ligand ion channels in all plants and animals. By characterizing how anesthetics act in this very simple system we may learn the exact molecular mechanism by which anesthetics affect cellular function. We may also discover why unicellular organisms that date back billions of years and do not have nervous systems respond to inhaled and intravenous anesthetics, drugs that do not exist in nature.

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