anesthesia-induced hypothermia (Patwardhan et al., unpublished data). As is the case with any drug development, potential adverse effects on organ function can be monitored during clinical testing. Initial studies would be done in patients who are otherwise relatively young and healthy; later studies would be done in specific “at-risk” populations with careful monitoring.

Finally, preclinical literature has suggested a role for transient receptor potential vanilloid 1 in numerous, diverse biologic processes such as immune modulation, renal injury, anxiety, dementia, cognitive function, pancreatic function, airway reactivity, pulmonary hypertension, and gastrointestinal transit, to name a few. Anticipation of all possible side effects of transient receptor potential vanilloid 1 antagonism is not possible. Like all pharmacologic therapies, risks will have to be weighed against benefits in specific patient populations and with use in specific circumstances. Importantly, however, multiple transient receptor potential vanilloid 1 antagonists have been advanced past phase 1 safety studies and evaluated further in clinical settings where the only reported outcomes were analgesia, decreased thermal sensation that is not a problem in the intraoperative setting, and hyperthermia. We look forward to clinical evaluation of transient receptor potential vanilloid 1 antagonists for perioperative use.

Research Support
This research has been supported by a Foundation for Anesthesia Education and Research grant (to Dr. Patwardhan) and a University of Arizona, Tucson, Arizona, Career Development grant (to Dr. Patwardhan) and in part by the Research Fund of the Medical School, University of Pecs, Pecs, Hungary (grant No. KA-2016-15, to Dr. Garami) and the New National Excellence Program of the Hungarian Ministry of Human Capacities (grant No. UNKP-16-4-III, to Dr. Garami).

Competing Interests
Drs. Patwardhan and Porreca declare a financial interest in Catalina Pharmaceuticals Inc. (Tucson, Arizona), which licenses the intellectual property involved in this research. This interest has been properly disclosed to the University of Arizona Institutional Review Committee, Tucson, Arizona, and is managed in accordance with its conflict of interest policies. Drs. Patwardhan, Porreca, and Romanovsky are founders of Catalina Pharmaceuticals Inc. and hold a provisional patent for the use of transient receptor potential vanilloid 1 antagonists in prevention of anesthesia-induced hypothermia. Dr. Romanovsky has consulted for Abbott Laboratories (Chicago, Illinois), AbbVie (Chicago, Illinois), Amgen Inc. (Thousand Oaks, California), Japan Tobacco Inc. (Tokyo, Japan), Teva Pharmaceutical Industries Ltd. (Petah Tikva, Israel), and other pharmaceutical companies, and his research has been supported by Abbott Laboratories, AbbVie, and Amgen Inc. The other authors declare no competing interests.

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(Accepted for publication May 8, 2018.)

Postoperative Analgesia after Shoulder Surgery

To the Editor:
Dr. Hussain et al. have recently published a review and meta-analysis on suprascapular and interscalene nerve blocks for shoulder surgery.1 The primary objective of the study was to compare postoperative analgesic efficacy between the interscalene nerve block and the suprascapular nerve block. We would like to comment on this very interesting research question.

It is well accepted that the shoulder joint is mainly innervated by the suprascapular and the axillary nerve, but receives contributions from the subscapular and the lateral pectoral nerves.2–4 Two nerves provide the cutaneous innervation of...
the shoulder: the supraclavicular and the axillary nerves. The first of these is not derived from the brachial plexus, but arises from the superficial cervical plexus. In theory, to achieve optimal postoperative analgesia, all sensory nerves should be blocked.

Interscalene nerve block has been the gold standard for shoulder surgery, as it covers all relevant nerves except the supravacular nerves. We believe that supravacular nerve block should, particularly for patients receiving total shoulder arthroplasty, be supplemented with additional blocks. Leaving one or more of the pertinent nerves without any local anesthetic may cause unnecessary postoperative pain after shoulder surgery.

Competing Interests
The authors declare no competing interests.

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(Accepted for publication May 1, 2018.)

Intraoperative Considerations of the Suprascapular Nerve Block

To the Editor:
Hussein et al.1 make a strong case for the utility of the suprascapular nerve block for analgesia after shoulder surgery, and the substitution of this block for those who cannot undergo an interscalene block. However, it should be noted that, in all of the studies the authors reviewed, these blocks were placed for analgesia, to supplement general anesthesia, rather than for surgical blockade. This is an important distinction, because many practitioners utilize the interscalene block as a primary anesthetic, in combination with propofol for sedation. Given its limited area of innervation, a suprascapular block alone cannot be used in this fashion, and even the addition of a peripheral axillary nerve block does not provide complete anesthesia for the shoulder capsule and skin overlying the area of the incisions for open or arthroscopic shoulder surgery. In considering the differences between a suprascapular and interscalene nerve block, there are a number of advantages to the use of deep sedation, typically with propofol, with the more comprehensive interscalene block, versus that of general anesthesia with a more limited block. These advantages include reduced incidence of postoperative nausea and vomiting2–5; earlier return of eating, drinking, and ambulation2; significantly shorter discharge times2,3,5; higher likelihood of bypassing the postanesthesia care unit3,4; and a lower incidence of unexpected admissions for ambulatory procedures.3,4

Competing Interests
The authors declare no competing interests.

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(Accepted for publication May 1, 2018.)