

# Fantastic Voyage: Questions from the 21st Century

As a child, did you like reading science fiction or watching Star Trek? If so, this issue is really a treat for you!

Robots the size of small VW bugs in the operating room assisting urologists in removing a prostate. Wireless endoscopy capsules, the size of large vitamin pills, touring through the small intestine, filming a scene straight out of *Fantastic Voyage*. Preimplantation genetic testing on one cell from an embryo. Molecular-targeted therapies for cancer.

This issue of *The Permanente Journal* will explore these and other exciting new technologies, devices, tests, and drugs, but it will only scratch the surface of the plethora

of new technologies being developed in the 21st century. Many challenges for Kaiser Permanente (KP) arise from this exploding pace of development. Which new technologies should we deploy? Where and in how many medical centers? How do we retrain our physicians in these new procedures? Who are the appropriate patients to receive these new procedures? How do we monitor results?

The answers to these questions and the technology management process in KP will also be reviewed in this issue. This issue focuses on NEW technology, but we cannot lose sight of the fact that a recent study revealed that Americans in general receive medical procedures

supported by evidence-based medicine only about half the time.<sup>1</sup> The evidence-based technology management process has also been utilized in KP to address inadequate utilization of older technologies.

Finally, we also hope to help answer a burning question for clinicians—how do I keep up with such rapidly changing medical advancements? Resources to answer this question are in this issue. ♦

#### Reference

1. McGlynn EA, Asch SM, Adams J, et al. The quality of health care delivered to adults in the United States. *N Eng J Med* 2003 Jun 26;348(26):2635-45.



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## Discoveries

The most important discoveries will provide answers to questions that we do not yet know how to ask and will concern objects we have not yet imagined.

—John N Bahcall, 1934-2005, American astrophysicist