



Michael Sokoloff/Corbis

# Ideas

## ENGINEERING

### Cleaning Up the Scum

**S**ummer: The perfect time to break out the boat and get out on the open water. But barnacles and other ocean scum have been busy in the off-season, clumping up and corroding the hull. Fortunately, Pratt professors Xuanhe Zhao and Gabriel Lopez have a solution. They've developed a multilayer anti-scum laminate that can be applied like paint to anything from commercial liners to catheters and other biomedical devices—basically, any device that could be impaired by biofilms. Bacteria or algae growth can cause major damage, ruin energy efficiency, and potentially affect foreign ecosystems. The new material is constructed from elastomers and conductors that activate the surface through an electric field, mimicking biological protection techniques such as cilia—the tiny beating hairs that keep debris off our lungs, or off mollusks and coral, for that matter. Anchors aweigh!

—Elissa Lerner