



#### From the Dean for Research

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**"Research" has its roots in the Latin word circare,** meaning "to go about, to wander." Our modern definition of research as a "systematic investigation" sounds reassuringly goal-oriented, but we should not forget that research is fundamentally a voyage into unknown territory, not just in science and engineering but also in the humanities, social sciences and the arts, and that the results are often serendipitous and far-reaching.

Research defined broadly, as an exploration to uncover knowledge, lies at the center of all of Princeton's scholarly endeavors, from ballooning in Antarctica for the study of the cosmic microwave background radiation, to focusing a scanning-tunneling microscope on a never-before-seen subatomic particle, to combing through government archives for evidence of an ancient public cemetery beneath the modern city of Athens. In each case, the goal is to map uncharted territory, the result enriches our understanding of the world around us, and we cannot know today what transformative insights will occur as a result.

As you read this issue of *Discovery: Research at Princeton*, I hope you'll wander through its pages on your own voyage of exploration. You'll find a sampling of Princeton's historical strengths, such as mathematics and economics, as well as areas in which Princeton is growing, such as bioengineering. You'll also get a sense for how research at Princeton permeates our teaching mission. All Princeton undergraduates are required to produce a work of art or an original piece of research as their senior thesis, and many have achieved recognition in the form of articles published in scientific journals.

This issue highlights the diversity of research at Princeton — some of it is in the lab, some on the theater stage, some in the ice or on a tropical sea, some, as in math, in the mind. Nearly all of it involves leaving offices and classrooms behind to wander, experience and share, as we uncover new information and push the boundaries of knowledge.

# 2

**Research news** 

## 40

Books

### 42

Selected faculty honors



Dean for Research Annual Report