

natureOUTLOOK

LENSES ON BIOLOGY

1 March 2012 / Vol 483 / Issue No. 7387



COVER ART: NIK SPENCER

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Even — or especially — for those immersed daily in the details of the latest advances, it's easy to lose sight of the enormous impact that biological science has on our world. In this special edition of *Nature Outlook*, we offer a reminder. Five top scientists explain how research in their specialties — cancer, climate change, stem cells, ocean health and synthetic biology — has changed our lives.

These Lenses on Biology essays are adapted from chapters in *Principles of Biology*, a new interactive undergraduate textbook, published by Nature Publishing Group's educational division, Nature Education. In their original context, these pieces are intended to help students encountering each field to appreciate the importance of ongoing research. It's an exercise in seeing forests, not trees. Grasping the intricate biochemistry of photosynthesis or the puzzle of genetics is a tough job. The Lenses essays are designed to make it clear to students why they should care.

Since these essays were written initially for readers who are at the initial stages of their science education, the authors presume less knowledge on the part of the reader than does a typical article in a *Nature Outlook*; the tone taken is more tutorial than news feature. But we believe that the refreshingly readable snapshots in these essays will be fruitful for all readers of *Nature*, no matter how advanced in their career. *Nature Outlook* has supplemented the essays with interviews with each author — Q&As in which these scientists address some of the current controversies and challenges their research faces.

The genesis of these essays in *Principles of Biology* is the belief that biology students will work more effectively if they have a strong sense of why science matters. And that's not a bad perspective for working scientists to have either.

Herb Brody

Supplements Editor, Nature Outlook.

Ilona Miko

Managing Editor, Principles of Science.

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Cite as a supplement to *Nature*, for example, *Nature* Vol XXX, No. XXXX Suppl. Sxx–Sxx (2011). To cite previously published articles from the collection, please use the original citation, which can be found at the start of each article.

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