The ribosomal translation of genetic material into protein polymers serves as an archetype for the elegance and complexity possible in biological processes. Effraim et al. (p 947) probed the limits of substrate selection in this process, studying translational efficiency with misloaded amino acids. In an unrelated study, Kawakami et al. (p 888) further employed misloaded amino acids to create a self-cycling peptide sequence. The enabled keyboard featured on the cover highlights both our current paradigms in ribosomal translation as well as the open questions and engineering potential that remain. Cover art by Erin Dewalt, based on an original image from iStockphoto.com, © Paul Cowan.
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