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In mitochondria, respiratory supercomplexes (blue) pump protons across crista membranes to create an electrochemical gradient, fueling adenosine triphosphatase (ATP) synthase (pink) to regenerate ATP—the energy currency of life. Now, cryo-electron tomography captures these supercomplexes in their native organization, illuminating how



the coordinated action of these molecular machines drives life's fundamental energy conversion. See page 1296. Credit: *F. Waltz* et al., *Science* **387**, 1296 (2025); *Verena Resch/luminous-lab.com*

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