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Cover picture: A tribute to Dr. Norton B. Gilula and his contributions to cell biology and the field of intercellular communication. Shown at the left is a freeze-fracture image of a mammalian gap junction recorded by Dr. Gilula in the early 1970's. At the right is a freeze-fracture image of a gap junction formed by a recombinant form of the cardiac gap junction protein ($\alpha 1$ connexin or Cx43) (Unger, V.M., N.M. Kumar, N.B. Gilula, and M. Yeager. 1999. *J. Struct. Biol.* 128:98–105). Electron cryo-microscopy and image analysis of the crystalline gap junctions yielded a projection map at 7-Å resolution (bottom), which showed a ring of transmembrane α -helices that lines the aqueous pore and a second ring of α -helices in contact with the membrane lipids (bottom) (Unger, V.M., N.M. Kumar, N.B. Gilula, and M. Yeager. 1997. *Nature Struct. Biol.* 4:39–43). Three-dimensional image reconstruction revealed that each hemi-channel or connexon is formed by 24 α -helices (gold rods) (Unger, V.M., N.M. Kumar, N.B. Gilula, and M. Yeager. 1999. *Science*. 183:1176–1180). The two white boxes represent the membranes of the two cells that are coupled by the gold gap junction channel. The connexons within each membrane dock end-to-end and span the extracellular gap, thereby forming a conduit for intercellular exchange of ions and metabolites. Computer graphics by Michael E. Pique and Mark Yeager using AVS software.

^oThe online version of this article contains supplemental material.

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