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1975	B.S. Physics and Mathematics, Massachusetts Institute of Technology, Cambridge, MA (magna cum laude)
1981	Ph.D. Physics, Massachusetts Institute of Technology
1981-1992	Member of the Technical Staff, Exxon Research & Engineering Company
1992-present	Professor of Physics & Mathematics, University of California, Santa Barbara
1994-present	Professor, Biochemistry & Molecular Biology Program, University of California, Santa Barbara
Honors	
1975	Percy D. Wilkins Mathematics Award, Bates College
1989	Co-chaired the first Materials Research Society Meeting on Macromolecular Liquids
1990	Initiated and chaired the first Gordon Research Conference on Complex Fluids
1994	Fellow, The American Physical Society
1994	Henri De Rothschild Foundation Fellow of the Curie Institute
1995-1997	Section Editor on Biomaterials, <i>Current Opinion in Solid State & Materials Science (Current Chemistry)</i>
1997	University of Wyoming Chemistry Department's Endowed Summer Lectures
1997	Fellow, The American Association for the Advancement of Science
present	Panel member of the National Academy of Sciences-National Research Council Committee on Developing a Federal Materials Facilities Strategy
present	Member, Instrument Oversight Committee, Spallation Neutron Source Project, Oak Ridge National Laboratory
present	Member of Research Council of the University of California Systemwide Biotechnology Research and Education Program
present	Editorial Board, <i>Molecular Therapy</i>

Self Assembled Structures of Lipid-DNA Nonviral Gene Delivery Systems

There is now a surge of activity in developing synthetic nonviral gene delivery systems for therapeutic applications¹, in part, because of their nonimmunogenicity and ease of production, but also because the single largest advantage of nonviral over viral methods for gene delivery is the potential of transferring extremely large pieces of DNA into cells. Although extremely inefficient, this was recently demonstrated when partial fractions on the order of 1 megabase pairs of human artificial chromosome were transferred into cells using cationic liposomes (CLs) as a vector^{2,3}. We describe recent work on the self-assembled structures of CL-DNA complexes by the quantitative techniques of synchrotron x-ray diffraction. Distinct structures have been discovered including, a multilamellar structure with alternating lipid bilayer and DNA monolayers^{4,7}, and an inverted hexagonal structure with DNA coated by cationic lipid monolayers and arranged on a two-dimensional lattice⁸. Significantly, recent confocal optical imaging has revealed that the mechanisms of gene release from complexes in the cell cytoplasm are dependent on the nature of the self assemblies⁹.

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