

▶ **COVER TO COVER****In This Issue...**

Lloyd D. Fricker
 Department of Molecular Pharmacology
 Albert Einstein College of Medicine
 Bronx, New York 10461

▶ **MEDICAL REVIEW:****Contrast Echocardiography (p.2)**

Echocardiography is used for the evaluation and diagnosis of a wide range of cardiac conditions such as the assessment of left ventricular wall motion, systolic and diastolic function, valvular structure and function, and imaging of the great vessels. Intravenous ultrasound contrast agents are used to enhance images, and much research has gone into the development of better agents that enable the evaluation of myocardial perfusion. Mark A. Friedman reviews the development and current indications for contrast echocardiography and discusses possible future uses of the technology.

▶ **SCIENTIFIC REVIEW:****Retrotranslocation: Endoplasmic Reticulum's Junk Disposal Mechanism (p.9)**

If a biologist were to design a cell, he or she would probably leave out retrotranslocation, not because of the lack of importance but because it does not initially make sense to have a system to remove newly-synthesized proteins from the endoplasmic reticulum. However, in the real world things do not always go according to plan, and proteins do not always fold into a functional state. In these cases, it is necessary to efficiently remove the mistake or else it can cause subsequent problems. Partha Ray reviews the retrotranslocation process by which mis-folded or unassembled proteins are removed from the endoplasmic reticulum so that they can be destroyed by proteases in the cytoplasm.

▶ **INNOVATIVE MEDICAL EDUCATION:****What's Ahead for Med Ed? (p.14)**

Medical education is constantly changing in order to accommodate new developments in medical and scientific knowledge. Albert S. Kuperman discusses the educational changes involving the integration of the disciplines of genomics, prevention and population health, global health, and integrative medicine.

▶ **MEDICAL REVIEW:****Building a Multidisciplinary Cochlear Implant Team (p.19)**

The old adage that "too many cooks spoil the broth" does not always apply to multidisciplinary medical teams. The multidisciplinary team of Sanjay Parikh, Daniel Machleder, Janie Chobot-Rodd, Kelly Girouard, Alan Shanske, Elissa Stern, Nancy Tarshis, and Elizabeth Dinces discusses how experts in audiology, otolaryngology, speech pathology, pediatric genetics, social work, and child life can work together to improve patient and family understanding of cochlear implantation.

▶ **HISTORICAL PERSPECTIVE:****Jews of the Sahara (p.25)**

Ronald Nagel reflects on a trip he took many years ago to the Sahara in which he discovered a town with a vanished Jewish population. His narrative is a fascinating story that combines a first-hand account of his travels, with subsequent research done to uncover the origin and fate of the M'Zab Jews.

▶ **ETHICAL COMMENTARY:****Hippocrates Revisited (p.33)**

This ethical commentary written by Gary Schwartz addresses the basic tenets of beneficence and non-maleficence. He also discusses the potential problems when these two tenets conflict.

▶ **ETHICAL COMMENTARY:****The Price of Professional Integrity—Ethics of the Physician-Patient Relationship (p.35)**

Enko Kiprilov provides a historic and personal account of conflicts that arise when social and/or legal rules prevent the physician from acting in the best interest of their patients.

▶ **COMMENTARY:****It is a Small World: Global Medical Education for the Twenty-first Century (p.38)**

The much publicized Severe Acute Respiratory Syndrome (SARS) outbreak last year has helped to bring the field of international health to the forefront of medicine. Stephen J. Atwood discusses ways in which medical education can better train physicians on issues in global health.

▶ **BOOK REVIEW:****Seeing in the Dark: How Backyard Stargazers are Probing Deep Space and Guarding Earth from Interplanetary Peril (p.42)**

While the title of this book gives the impression that backyard astronomers have superman-like powers to save the earth from peril, this review by Daniel Stupak describes a more humble but still very exciting glimpse into the world of amateur astronomers.

▶ **BOOK REVIEW:****Einstein: The Passions of a Scientist (p.44)**

The life of Einstein has been the subject of numerous books. Chris Carpenter reviews the recent work of Barry Parker that focuses on the greatest passions in Einstein's life.

▶ **BOOK REVIEW:****Eat to Live: The Revolutionary Formula for Fast and Sustained Weight Loss (p.46)**

It is well accepted that some of the diseases common in the U.S. are affected by lifestyle choices, specifically diet and exercise. Derek Amanatullah reviews a book by Joel Fuhrman that provides evidence that the typical "American" diet contributes to a wide range of ailments.

▶ **HUMOR:****The Twelve Years of Grad School (p.48)**▶ **IN MEMORIAM:****Pat Model (1930-2003) (p.49)**

Pat Model spent many years at Einstein, starting in 1967 as a post-doctoral fellow and then continuing in 1974 as a founding member of the Department of Neuroscience. Steve Walkley pays tribute to her distinguished career and provides a personal and moving reflection of her life.