In This Issue...

Sara B. Rosenbaum
Albert Einstein College of Medicine
Bronx, New York

ORIGINAL ARTICLES
The Risk of Fracture in Patients Undergoing Androgen Deprivation May Be Overstated: Analysis of an Unselected Cohort of Patients (p.51)
Androgen deprivation therapy (ADT) is used for prostate cancer treatment and has several known side effects, including increased rate of bone loss; this increased bone loss has previously been shown to increase fracture risk. In this retrospective cohort study, Clerkin and colleagues analyze the prevalence of bone fracture in a hospital-based practice population undergoing ADT. The authors report a fracture-free survival rate of 95.1% at three years post-treatment. Moreover, as a secondary endpoint, they report that use of bone densitometry scans does not seem to have a statistically significant impact on fracture prevalence. They conclude that this study demonstrates a lesser extent of fracture risk in patients with a history of ADT, and suggest that the risk of fracture associated with ADT might be exaggerated in the literature to date.

Protein Damage and Antioxidant Status Alterations Caused by Oxidative Injury in Chronic Myeloid Leukemia (p.55)
To investigate the role of oxidative damage in the pathophysiology of chronic myeloid leukemia (CML), Pande and colleagues measure serum levels of antioxidant enzymes (catalase and superoxide dismutase), nonenzymatic antioxidants (vitamins A and E), and essential micronutrients (selenium, magnesium, and zinc) in CML patients and healthy controls. Additionally, they evaluate extent of lipid peroxidation by assaying serum levels of malondialdehyde, and protein damage by assaying levels of protein carbonyls. The authors find evidence for increased lipid peroxidation and protein damage as well as decreased serum total antioxidant status, levels of antioxidants, and micronutrients in CML patients relative to controls. They conclude that accumulation of reactive oxygen species and decreased levels of antioxidant enzymes and key micronutrients are important to the pathophysiology of CML.

MEDICAL REVIEWS
Congenital Melanocytic Nevi and the Risk of Malignant Melanoma: Establishing a Guideline for Primary-Care Physicians (p.59)
In this review of congenital melanocytic nevi (CMN), Nikfarjam and Chambers discuss the relationship between size of CMN and risk of malignant transformation to melanoma. The authors conclude with recommendations for primary-care providers in terms of monitoring and referral for small, medium, and giant CMN.

Engaging Healthcare Providers to Help Mothers with Eating Disorders Create Healthy Eating Environments for Their Children (p.67)
Campol discusses the various adverse physical and psychological sequelae that maternal eating disorders can have on offspring, both while in utero and thereafter. Ultimately, studies demonstrate an increased eating disorder diathesis in children whose mothers suffer from anorexia, bulimia, or binge-eating disorders. The author makes an argument for increased screening for eating disorders in the primary-care setting and presents an algorithm for screening, treatment, and referral threshold.

BRIEF MEDICAL REVIEWS
Brain-Spleen Inflammatory Coupling: A Literature Review (p.74)
Brain-spleen inflammatory coupling is a phenomenon that takes place in the aftermath of ischemic or traumatic injury, when adrenergic stimulation of splenic macrophages results in release of the proinflammatory cytokines tumor necrosis factor-alpha and interleukin-1 beta. This response is of particular importance in the setting of ischemia, sepsis, and traumatic brain injury, where increased inflammation can lead to adverse secondary sequelae. In this review, Rasouli and colleagues discuss the pathophysiology of brain-spleen inflammatory coupling, and review evidence that suggests that inhibition of this response might lead to better outcomes in the setting of neurological injury.

BRIEF SCIENTIFIC REVIEWS
Optogenetic Technology and Its In Vivo Applications (p.78)
Optogenetics is an important research tool that employs optical and genetic methods to control the spatial and temporal expression of selected cellular and subcellular events. In this review, Gelman describes several in vivo applications of optogenetic technology to the field of neuroscience, and how optogenetics can be coupled with other methods to link particular neural populations to specific behaviors. Examples of such in vivo applications include the study of ChR2 and the escape response in Caenorhabditis elegans and Danio
rerio, the study of the cholinergic interneurons in the nucleus accumbens and their relationship to reward behaviors in rodents, and pyramidal cell activity in macaque monkeys. The author concludes that opto-genetic technology holds great promise for the study of neuroscience, in terms of basic science as well as translational research.

ON THE WARDS
Your Practical Survival Guide to Surgical Internship (p.82)
Amanatullah presents a guide to surviving surgical internship from the candid perspective of a veteran surgical intern. Insightful and educational, this piece holds value for the presurgical medical student, medical students interested in nonsurgical fields, those who have experienced internship in any field.

INNOVATIVE GRADUATE EDUCATION
From Bio 101 to Pillars of Biology: A Pedagogical Experiment (p.86)
Maxson and colleagues discuss the conception and evolution of the first student-run course at Einstein, Pillars of Biology: Classic Problems and Modern Concepts. First introduced in October 2007 as a journal club, "Bio 101," the course was piloted in 2009, designed for the dual purpose of allowing students to gain invaluable teaching experience and discussing the historical and logical progression of important scientific concepts. The course continues to be a success today, and speaks to the importance of allowing for student-generated curriculum design in the graduate school setting.

REFLECTIONS
Sole Searching (p.94)
Winner of the Trachtenberg Essay Contest on Ethics and the Patient-Physician relationship, Strunk’s essay explores one's capacity to engage in “doctoring” both with and without a medical license.

It Could Have Been Easier (p.96)
Winner of the 2010 Trachtenberg Essay Contest on Ethics and the Patient Physician Relationship, Pabbati’s essay is written from the perspective of both the physician and the patient, and discusses the delicate process of relaying bad news and treating a patient with a terminal illness.

Poem
Maternal Love (p.99)
Lalani illustrates the bond between mother and child during pregnancy and the human bond that solidifies through childbirth. In this poem the mother is a physician who yearns and awaits her baby.