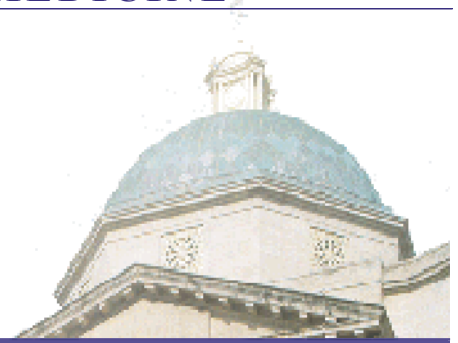


THE DEPARTMENT OF
**INTERNAL
MEDICINE**



Newsletter of the Department of Internal Medicine

Volume 2 • Number 7

New Drug Abuse Treatment Shows Promise

By Karen N. Peart, Office of Public Affairs at Yale

Patients who receive buprenorphine treatment for opioid addiction in an office-based setting are more likely than those receiving methadone treatment to be young men, new to drug use, and with no history of methadone treatment, Yale School of Medicine researchers report in a study published in *Drug and Alcohol Dependence*.

Approved for treating heroin and prescription opiate pain killer abuse in 2002, office-based buprenorphine holds the promise of bringing new patients into treatment. While heroin and prescription opiate pain killer abuse has substantially increased over the years, the availability of treatment has not increased with the demand.

Along with her colleagues, **Lynn Sullivan, M.D.**, assistant professor of internal medicine at Yale School of Medicine, evaluated whether office-based buprenorphine treatment in a primary care clinic was associated with a different patient population receiving treatment compared to patients enrolling in methadone maintenance.

“We found that individuals seeking buprenorphine did differ from those seeking methadone along sev-

eral important variables—age, sex, ethnicity, employment status, etc.,” said Sullivan. “Results suggest that buprenorphine is having some success in reaching individuals who are unable or unwilling to use methadone for opioid addiction.”

Demographic information and the individual’s history of drug abuse were compiled from 190 patients seeking treatment for opioid addiction.

Individuals that received buprenorphine, compared to those that sought out methadone treatment, were more likely to be male, employed, have five fewer years of opioid addiction, have lower rates of injection drug use, lower rates of hepatitis C infection and have no prior history of methadone treatment.

Other authors on the study included **Marek Chawarski, Patrick G. O’Connor, Richard S. Schottenfeld** and **David A. Fiellin**.

Citation: *Drug and Alcohol Dependence*, 79, 113–116 (July 2005).

New Grant Awards

Insoo Kang, Associate Professor of Medicine in Rheumatology, has an American Federation for Aging Research Grant. The study will examine the underlying cause of impaired T cell immune responses in the elderly, and to determine whether an alteration in IL-7-mediated CD8⁺ T cell homeostasis occurs with aging.





Timothy Quan, Associate Research Scientist in Rheumatology, has been awarded 3 grants: Mentored Clinical Scientist Award (K08) from the NIH (5 year award); Arthritis Investigator Award from the Arthritis Foundation (5 year award) and the Abbott Scholars Award from Abbott Pharmaceuticals (3 year award). The projects involve investigating different aspects of the relationship of the Epstein Barr virus with systemic lupus erythematosus. Although SLE has a genetic basis, environmental events contribute to disease etiology. Children and adults with SLE have increased prevalence of EBV infection compared to age-matched controls. We and others have demonstrated that patients with SLE have increased mean EBV viral load compared to controls. We hypothesize

that the elevated EBV viral loads in SLE arise as a consequence of altered immune function and that EBV then leads to enhanced stimulation of type I IFN production as the immune system attempts to control viral outgrowth, thereby promoting autoimmunity in SLE. The goal of the projects is to test this hypothesis.

Hatim Ali Hassan, Associate Research Scientist in Nephrology, received a K08 award for his project titled "Mechanisms of regulation of Anion Exchanger SLC26A6". The scope of the project is the bulk of filtered Cl is reabsorbed in the proximal tubule by passive and active pathways. SLC26A6 has recently emerged as the likely key transporter that accounts for reabsorption of this active component, and thus contributes significantly to proximal tubule and overall renal NaCl and ECF homeostasis. On the other hand, NHE3 has been identified as the main Na-H exchanger isoform mediating most of apical Na-H exchange in the proximal tubule. Thus, both NHE3 and SLC26A6 have recently emerged as the key transporters that mediate NaHCO₃ and NaCl reabsorption in the proximal tubule. The activity of SLC26A6 may be critical in determining the ratio of NaCl to NaHCO₃ reabsorption in this nephron segment. SLC26A6 has also been identified in other NaCl transporting epithelia like pancreatic duct. Thus, the general hypothesis he will test is that SLC26A6 activity in the proximal tubule and other epithelia is physiologically regulated. The overall goal is to elucidate the molecular mechanisms regulating SLC26A6, which are currently unknown.



Jack Elias, M.D., Waldemar Von Zedtwitz Professor of Medicine and Section Chief of Pulmonary and Critical Care received a NHLBI grant from the NIH to study the processes that are involved in the destruction of the lung in pulmonary emphysema. Collaborating with **Chun Geun Lee, M.D.**, Assistant Professor of Medicine at Yale, Department of Pulmonary and Critical Care, and **Robert Homer, M.D., Ph.D.**, Associate Professor at Yale, Department of Pathology, they will investigate how programmed cell death (apoptosis) contributes to this response. Specifically they will be investigating the mechanism of and role of a new form of apoptosis which is mediated by lysosomal proteases like cathepsin S. By defining these mechanisms of lung destruction they hope to validate

therapeutic targets against which new drugs can be developed to treat this and/or related diseases.

SATURDAY • SEPTEMBER 10TH, 2005 • 10AM - 2PM

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Medical Grand Rounds

- August 4, 2005 *“A 70-Year-Old Woman with Progressive Renal Failure Following Coronary Angiogram”*
Asghar Rastegar, M.D., Professor, Section of Nephrology
- August 11, 2005 *“A 35-Year-Old Woman with Recurrent UTI: The Role of Sex, Genetics and Cranberry Juice”*
Kalpana Gupta, M.D., Ph.D., Assistant Professor, Section of Infectious Diseases
- August 18, 2005 *“The Many Faces of Ehrlichiosis”*
Vincent Andriole, M.D., Professor, Section of Infectious Diseases
- August 25, 2005 *“Out of the Jaws of Death: A 48-Year-Old Woman with a Rash and Multiple Organ Failure”*
Mark Siegel, M.D., Associate Professor, Section of Pulmonary & Critical Care

Grand Rounds begins at 8:30 a.m. in the Fitkin Amphitheatre.

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Yale University School of Medicine
<http://info.med.yale.edu/intmed/newsletter/>

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