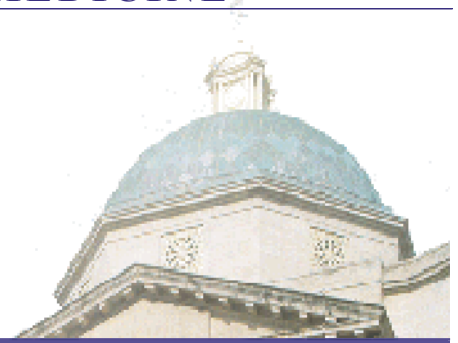


THE DEPARTMENT OF
**INTERNAL
MEDICINE**



Newsletter of the Department of Internal Medicine

Volume 1 • Number 21

Holiday Greetings

During this holiday season, I would like to take the opportunity to thank the faculty, staff, and trainees in the Department of Internal Medicine for your generosity and steadfast pursuit of excellence. I have been continuously struck during my tenure as Interim Chair by your example, accomplishments, and sense of purpose. We are reminded at many times of the year, but particularly during the holidays, of the strength of family, community, and tradition. I appreciate your many contributions to the Department and to our community. I hope you and your families share in the joy of the holiday season and have a healthy and productive New Year!

David L. Coleman, M.D., Interim Chair

Department of Internal Medicine Annual Report

Academic Year 2003-04

Overview:

The Department of Internal Medicine's clinical, education, and research programs continued to improve during 2003-04. Clinical income increased by 4.6% to \$20,275,235 and research grant income increased by 11.6%. The Department's educational programs were aggressively repositioned to conform to regulatory requirements, and changing needs of academic medicine and clinical practice. The Department's major challenges during the year were increasing financial pressure due to decreased GA support and increased costs of clinical practice, recruitment and retention; revision of our training programs to comply with regu-

latory requirements and to meet the changing needs of clinical practice; development of a strategic plan for research and clinical programs with YNHH and YSM; identifying office space for faculty who are currently distributed widely throughout the campus; and recruitment of the finest trainees and faculty, particularly women and under-represented minorities.

Research:

The Department's laboratory-based faculty moved into The Anlyan Center during 2002-03. The Department's research grants income increased by \$7,201,878 (11.6%) to \$69,187,537. The Department ranked 14th among Department's of Medicine in the US in NIH support. The Department had 93 (82) RO1's, 6 (6) PO1's, 5 (3) P30's, and 2 (1) P50's. The figures for 2002-03 are listed in parentheses. As noted, the Department's faculty significantly increased the number of R01, P30, and P50 grants.

The goals for the coming year for the Department's Research Program include:

1. Increase collaboration and program development with basic science and clinical departments.
2. Optimize space utilization and program development in TAC.
3. Improve co-localization and infrastructure of investigators in patient-oriented research.



The Anlyan Center

4. Work with YSM to develop a research strategic plan.
5. Improve recruitment and career development efforts for junior faculty.

of YNHH to improve quality and efficiency of care on the inpatient medical service.

Clinical Care:

The Department's clinical practice exhibited continued growth during 2003-04. Clinical income increased by 4.6% despite considerable service to the underinsured population of greater New Haven. The inpatient medical service at YNHH grew at a faster rate than projected and more than any other department besides Pediatrics. The Department of Medicine accounted for 14,973 of the 46,776 discharges from YNHH and average length of stay declined to 5.50 days. The average daily census for medical service was 226 with 204 assigned beds. The Department's outpatient specialty practice and Yale Internal Medicine Associates (YIMA) continued an increase in the productivity of the practice.

Implementation of the Department's RVU-based incentive plan appeared to result in a substantial increase in productivity in the Dana 3 Specialty Practice. Collections increased by 31%, costs decreased by 12.4%, and RVU targets based on MGMA private practice benchmarks were exceeded by 15%. As a result of the increased productivity, the Dana 3 physician-related costs of practice went from a net loss of \$260,000 to a net gain of \$122,000.

The goals for the Department's Clinical Programs during the coming year include:

1. Implement a RVU-based incentive plan on the inpatient medical service at YNHH.
2. Refine the Dana 3 incentive plan based on one year performance data.
3. Aggressively build the clinical programs in Cardiology and Digestive Diseases.
4. Increase capacity of the Endoscopy Unit.
5. Work with the Departments of Surgery and Pediatrics to develop interdisciplinary programs in Organ Transplantation and Inflammatory Bowel Disease.
6. Further develop the academic and clinical identity of the hospitalist service.
7. Increase ICU staffing at YNHH.
8. Explore new models and sites of clinical practice such as the Shoreline Clinic in Guilford.
9. Reform the departmental tax structure to provide greater incentives and feasibility for clinical practice.
10. Develop long-range approaches to improve efficiency and quality of care in the Department's clinical programs.
11. Hire a Medical Director for the East Pavilion

Education:

The Department's education programs continue to attract outstanding candidates to all three residency training programs and to subspecialty fellowships. The Department developed and tested a plan to achieve full compliance with the new ACGME requirements including the work hour restrictions. Additional foundation support for the International Health Elective and the Clinical Scholar Program was acquired during the past year.

The goals for the Education Program for the coming year include:

1. Refine and implement the recommendations of the departmental committee on house staff training.
2. Increase teaching and modeling of professionalism in the Department's clinical training programs.
3. Develop an improved triaging system for guiding admissions to the house staff inpatient service at YNHH.
4. Refine the Department's approach to meeting ACGME requirements.
5. Improve house staff recruitment, particularly of underrepresented minorities.
6. Improve education in quality of care and patient safety.

General Goals for the Coming Year:

1. Initiate a departmental development effort.
2. Improve and coordinate strategic planning with YSM and YNHH.
3. Recruit a Section Chief in Cardiology.
4. Continue recruitment in Digestive Diseases, Medical Oncology, Nephrology and General Medicine.
5. Reduce costs in the Department where possible.
6. Improve coding by the faculty and billing practices by the Department.
7. Improve training and career development of support staff in the business office of the Department.
8. Increase research programmatic and space planning, particularly with the goal of consolidating clinical investigators.

David L. Coleman, M.D.
Interim Chairman

Leadership Changes at the GI Procedure Center

Dr. Priya Jamidar, Associate Professor in the Section of Digestive Diseases, was recently appointed the Director of the Center. In addition, Dr. Harry Aslanian, Assistant Professor in the Section of Digestive Diseases, was named the Associate Director.

Dr. Jamidar completed his fellowship in Gastroenterology at the University of Southern California Medical Center and in biliary endoscopy at Indiana University Medical Center. Dr. Jamidar was recruited to Yale earlier this year because of his nationally recognized expertise in endoscopic retrograde cholangiopancreatography (ERCP), and has served as the former Director of Pancreaticobiliary Endoscopy at UCLA.

Dr. Aslanian attended the Brown University School of Medicine, followed by a residency in Internal Medicine at the Mayo Clinic. Subsequently he trained in Digestive Diseases and completed an advanced endoscopy fellowship at Yale. Dr. Aslanian has particular expertise in endoscopic ultrasound (EUS) and directs Yale's advanced fellowship program in EUS and therapeutic endoscopy.



Dr. Harry Aslanian

Over 8,000 procedures are performed annually at the GI Procedure Center, and satisfaction scores for patients treated there are typically among the highest in the hospital. Drs. Jamidar and Aslanian are committed to continue this tradition of excellence, while improving access and responsiveness to physicians as well. Routine as well as complex tertiary endoscopic procedures can be promptly scheduled through the GI Procedure Center. For additional information please call the Center at 203-688-5458 or Drs. Jamidar or Aslanian at 203-785-6228.



Dr. Priya Jamidar

LIBRARY NOTES:

ISI Web of KnowledgeSM - is it part of your research toolkit?

The **Web of Knowledge**, a product from Thomson ISI, offers a “fully integrated environment that provides one source for high quality content and tools to access, analyze and manage research information” (source: <http://isiknowledge.com>). This suite of research tools includes established and well-respected databases including Science Citation Index and Current Contents, as well as citation analysis tools such as “Essential Science Indicators” and “Journal Citation Reports”. I want to focus on two of the more unique resources included in the Web of Knowledge –Web of Science and Journal Citation Reports.

Web of Science is the best known resource in the ISI lineup. It contains the online version of the Science Citation Index, SCI Expanded, a database of citations from 5,900 journals across 150 scientific disciplines. Web of Science also includes citation databases for the social sciences, arts and humanities. Although the database can be used to verify citations in the indexed publications, the most powerful feature is the cited reference search, allowing the researcher to track the historical development of concepts and theories and to analyze the impact of specific published articles.

Though it does not have the depth of coverage in the biomedical sciences that MEDLINE offers, SCI Expanded has strong coverage in many areas, especially in clinical medicine and molecular biology. The “cited references” include all bibliographic references from the indexed articles although only basic citation information is available for those titles not included among the 5,900 indexed titles. The “times cited” data is also limited to only those titles selected for full indexing. Bearing these limitations in mind, the Web of Science may be effectively used to assess the influence of a particular paper or author or to follow the development of scientific thought and debate.

Creating a Citation Alert - ISI’s Web of Knowledge offers a variety of alerting options once you have created a personal account. You may create a citation alert which will notify you by e-mail whenever a designated article has been cited by a new article. When you click the “Create Citation Alert” button, the displayed record is added to My Cited Articles List in ISI Web of Knowledge. You must be signed into your personal account to setup a citation alert.

Journal Citation Reports is a comprehensive and unique tool that allows researchers to evaluate and compare journals using citation data drawn from over 7,000 scholarly and technical journals (including around 5,700 journals in the sciences and technology). The Yale Library has data online for the past five years, currently from 1999-2003. The Cushing/Whitney Medical Library has print editions of this annual analysis back to 1991. Of the several indices calculated, the “impact factor” – the frequency with which the average article in a journal has been cited in a particular year – is the best known and most widely used. Journal Citation Reports can be used to get absolute and relative measures of how fast and how extensively citations to articles from a specific publication appear in other peer reviewed journals. Rankings by the various indices are done for broad subject areas within medicine and related sciences.

The caveat that the data and analysis are limited to the pool of titles selected by Thomson ISI is probably even more significant for Journal Citation Reports than it is for users of the Web of Science. A number of articles have been written concerning the use and abuse of data from Journal Citation Reports. The misuse charges have come most frequently when the indices are used to evaluate the quality of journals or even of individual articles and authors. A recent review of the issues surrounding the use of the journal impact factor measure can be found in JBJS¹.

When used judiciously along with other research databases, these and other tools within ISI Web of Knowledge can enhance your search for knowledge in significant and unique ways.

Links*:

Web of Knowledge - <http://isiknowledge.com/>

JBJS article - <http://search.epnet.com/login.aspx?direct=true&an=11570953>

*To access any of the Web of Knowledge resources or the JBJS article you must be connected to the university or YNHH network or, if outside the medical center, be using one of the remote access methods such as the VPN or the Proxy Server.

For more information on this topic or assistance on any library-related matter, contact the Department of Internal Medicine’s Library Liaison, Mark Gentry. Email: mark.gentry@yale.edu --- Telephone: 785-2163 --- Office: Cushing/Whitney Medical Library, Room 113B (Morse Periodical Room)

¹ Kurmis, Andrew P. Understanding the limitations of the journal impact factor. *J Bone Joint Surg Am.* 2003 Dec;85-A(12):2449-54.

Kudos

DR. STEFAN SOMLO to receive the Lillian Jean Kaplan International Prize for Advancement in the Understanding of Polycystic Kidney Disease



On Tuesday evening, December 7, the Section of Nephrology surprised their chief, Dr. Stefan Somlo, with a reception to congratulate him on being named the co-recipient of the second Lillian Jean Kaplan International Prize for Advancement in the Understanding of Polycystic Kidney Disease. This prize was created by The International Society of Nephrology (ISN) and the Polycystic Kidney Disease Foundation (PDKF) to be awarded every two years to a medical professional or researcher exhibiting excellence and leadership in PKD research.

Dr. Somlo has been a leader in the identification of human disease genes causing inherited cystic diseases of the kidney and liver. He has also been a pioneer in the development of knockout and transgenic mouse models of disease that he and others are using to investigate pathologic mechanisms and to test experimental treatments. The co-recipient of the Kaplan Prize will be Dr. Gregory Germino of Johns Hopkins, who is a graduate of the Yale internal medicine residency program. Both Dr. Somlo and Dr. Germino trained together in polycystic kidney disease research as Yale nephrology fellows in the laboratory of former faculty member Stephen Reeders. Drs. Somlo and Germino will be presented with the \$50,000 prize at the biennial congress of the ISN in Singapore in June 2005.

DR. SHARON K. INOUE, Professor in the Section of General Medicine, has been selected to serve as a member of the Aging Systems and Geriatrics Study Section, the Center for Scientific Review of the National Institutes of Health. The term of her appointment is from December 2004 through June 2007. Dr. Inouye is the Co-Director of the Yale Program on Aging and Claude D. Pepper Older Americans Independence Center, Director of the Yale Mentorship Program in Patient-Oriented Research on Aging and Director of the Hospital Elder Life Program National Dissemination Program. Her work is focused on translating "...clinical investigation from its theoretical basis to practical applications that will improve clinical care and quality of life for older persons."



DR. SIEGFRIED KRA, Associate Clinical Professor, has published his 13th book, entitled "A Doctor's Visit." It is a collection of 3 novellas and 5 short stories that "...explore the emotional lives of doctors and their patients."

New Grant Awards

Frederick L. Altice, M.D. Associate Professor in the Section of Infectious Diseases and the AIDS Program, has been awarded three large federal grants to study the interface between infectious diseases and substance abuse. To build upon his research on developing programs for directly administering antiretroviral therapy (DAART) for HIV-infected drug user in a community setting, Dr. Altice has recently been awarded \$3,770,570 from the National Institute on Drug Abuse (NIDA) to conduct a randomized controlled trial of DAART among HIV-infected prisoners who are released from the correctional setting over the next five years. This work has evolved from similar research demonstrating superiority of DAART on HIV outcomes in a community setting and recent studies demonstrating the lack of benefit of antiretroviral therapy after release from prison.



The Substance Abuse and Mental Health Services Agency (SAMHSA) has provided a five-year grant of \$2.5 million to develop novel models of care for opiate dependent patients, especially for those with co-morbid mental illness and HIV infection in a community setting. This project is directed by Dr. R. Douglas Bruce, an Associate Research Scientist with the AIDS Program and is developed in collaboration with the Chemical Agency for Substance Abuse (CASA) and their Multicultural Ambulatory Addiction Services program in New Haven. Dr. Altice was also awarded \$1.5 to develop and evaluate strategies to integrate buprenorphine treatment for opiate dependent patients in an HIV clinical care setting over the next five years. This project is funded by the Health Resources Services Agency (HRSA) as part of their Special Projects of National Significance demonstration program. Drs. R. Douglas Bruce and Lynn Sullivan will be the co-directors of this project.

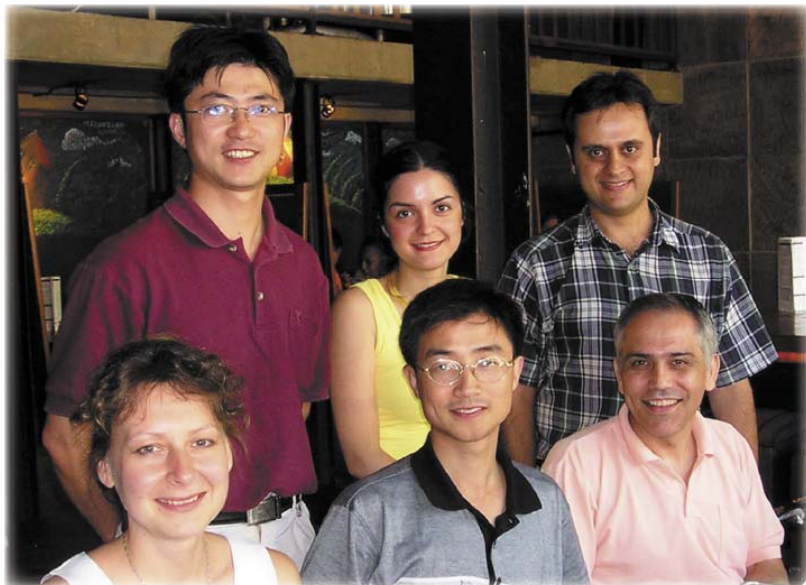


Dr. Zhenhua Dai, Research Scientist in the Section of Nephrology, was recently awarded a new grant from the Juvenile Diabetes Research Foundation. This three-year project will enable Dr. Dai and Dr. Xuyang Cheng to design protocols for the induction of islet allograft tolerance and to understand its mechanisms. Pancreatic islet transplantation is a promising approach for treating patients with type I diabetes. However, recipients always reject islet grafts unless they take immunosuppressive agents, necessitating the need to develop strategies to induce islet allograft tolerance or long-term survival without continuous immunosuppression. Current tolerance-inducing strategies fail to consistently induce islet allograft tolerance in normal animals. The goal of this study is to understand the mechanisms by which immune privilege promotes successful islet engraftment. Drs. Dai and Cheng collaborate with Dr. Fadi Lakkis, Associate Professor in the Section of Nephrology.

Dr. Ali Hariri, postdoctoral fellow in the Section of Nephrology, has received a five-year Fellow to Faculty Transition Award from the American Heart Association. His mentor on this award is Dr. Richard Lifton, Chairman of Genetics and Professor of Medicine. The grant is entitled "Mitochondrial Dysfunction Leads to Hypertension and Hyperlipidemia." and is based on studies that demonstrate a mitochondrial mutation leads to hypertension and hyperlipidemia in a large kindred. Funding from this grant will be used to pursue the role of the mitochondrial



genome in regulation of blood pressure and cholesterol in the general population. Additionally, the interaction between the nuclear and mitochondrial genomes will be investigated to further elucidate the exact pathways in the pathogenesis of these disorders. The ultimate goal of this research is to have better understanding of how mitochondrial dysfunction due to aging contributes to hypertension and dyslipidemia.



Dr. Sadeghi's research group

Dr. Mehran Sadeghi, Assistant Professor in the Section of Cardiovascular Medicine, has received a four year Scientist Development Grant from the American Heart Association, National Center. The grant entitled "Imaging alpha v beta 3 integrin in injured arteries" is focused on in vivo imaging of vascular remodeling. Vascular remodeling is a common feature of a broad spectrum of vasculopathies. Alpha v beta 3 integrin expression and activation is critical to the remodeling process. Dr. Sadeghi's group will target integrin activation in vivo using highly specific radiotracers to detect early remodeling induced by immune or mechanical injury. This grant, in conjunction with a recently funded VA Merit grant will support ongoing research in the Cardiovascular

Molecular Imaging Laboratory. In collaboration with Drs. Albert Sinusas and Yi-Hwa Liu, the laboratory is dedicated to developing novel molecular imaging techniques for cardiovascular disorders.

Albert J. Sinusas, M.D., Associate Professor in the Section of Cardiovascular Medicine, was recently awarded two NIH grants. The first was a shared instrumentation grant for the purchase of a hybrid microSPECT X-ray CT imaging system for imaging of small animals ranging in size from mice to rabbits. This hybrid imaging system provides high resolution anatomical images which are co-registered with high sensitivity radiotracer images of biological or physiological function. The second grant was an R01 entitled, "Imaging of MMP Activation and Myocardial Strain", submitted in response to an RFA for cellular and molecular imaging of the cardiovascular, pulmonary and hematopoietic systems. This project will develop and validate a quantitative non-invasive approach for serial evaluation of matrix metalloproteinase (MMP) activation following myocardial infarction and relate changes in MMP activation to changes in regional myocardial strain and microstructure. Dr. Sinusas has assembled a multidisciplinary team for developing high sensitivity MMP targeted radiotracer imaging approaches and cine magnetic resonance (MR) imaging methods in order to quantify regional MMP activity and changes in left ventricular (LV) deformation and geometry post-MI. This combined molecular-mechanical approach will determine if enhanced MMP activation occurs following MI, is associated with altered regional myocardial deformation, and contributes to an acceleration of adverse LV remodeling.



Medical Grand Rounds

December 23, 2004	No Medical Grand Rounds – Recess
December 31, 2004	No Medical Grand Rounds – Recess
January 6, 2005	<p><i>“PTH–Related Protein: How a Kid Born in a Nasty Neighborhood Grew Up to Be O.K.”</i> Arthur Broadus, M.D., Ensign Professor of Medicine Section of Endocrinology</p>
January 13, 2005	<p>Professorial Grand Rounds - <i>“To Sleep, Perchance to Breathe: Vascular Implications”</i> Vahid Mohsenin, M.D., Professor, Section of Pulmonary and Critical Care Medicine</p>
January 20, 2005	<p>Hypertension Education Foundation Lecture Title to be announced Henry Black, M.D., Chairman, Department of Preventive Medicine Rush-Presbyterian-St. Luke’s Medical Center</p>
January 27, 2005	<p><i>“Understanding the Cholangiopathies: Bile Ductular Proliferation in Health and Disease”</i> Jonathan Dranoff, M.D., Assistant Professor, Section of Digestive Diseases</p>

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

Special Lectures

December 20, 2004

Seminar in Biomedical Research

“STERIODS AND HYPERTENSION: WHAT EVERY BALCO CLIENT SHOULD KNOW.”

David Geller, M.D., Ph.D., Assistant Professor, Section of Nephrology
 12:00 noon, Fitkin Amphitheater – lunch will be served

January 6, 2005

Program for the Humanities in Medicine

“THE MOLECULAR GAZE: ART IN THE GENETIC AGE”

Suzanne Anker, MFA, Chair, Art History Department,
 School of Visual Arts, New York, New York
 5:00 p.m. – Beaumont Room in SHM, 333 Cedar Street
 Contact information: Deborah Finger – 786-6102

Special Lectures (continued)

January 20, 2005

Program for the Humanities in Medicine – 2005 McGovern Lecture
“THE DOCTORS’ PLAGUE: THE STORY OF IGNACZ SEMMELWEIS”
Sherwin B. Nuland, M.D., Professor Emeritus
Department of Surgery, Yale University School of Medicine
5:00 p.m. – Beaumont Room in SHM, 333 Cedar Street
Contact information: Deborah Finger – 786-6102

January 24, 2005

Seminar in Biomedical Research
“INSULIN RESISTANCE - FAT IN THE ALL THE WRONG PLACES”
Kitt Petersen, M.D., Associate Professor, Section of Endocrinology
12:00 noon, Fitkin Amphitheater – lunch will be served

January 27, 2005

Program for the Humanities in Medicine
“MUSIC AND THE BRAIN”
Thomas C. Duffy, D.M.A., Deputy Dean and Professor Adjunct
Yale University School of Music
Thomas P. Duffy, M.D., Professor, Section of Hematology
Yale University School of Medicine
5:00 p.m. – Beaumont Room in SHM, 333 Cedar Street
Contact information: Deborah Finger – 786-6102

THE DEPARTMENT OF INTERNAL MEDICINE

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