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The Beat Newsletter

College of Medicine

The Beat

University of South Alabama
College of Medicine

July 1995

BIOMEDICAL LIBRARY RENOVATION AT USA MEDICAL CENTER

The Medical Center site of the USA Biomedical Library is currently in the middle of a renovation project. Half of the renovation was completed in May and the remainder is expected to be completed in July. Although the renovation does not include any additional space, it will allow better access to medical information.

The renovation began in March when books and journals were moved to the west area of the library so that the east area could be renovated. The east area of the library now contains reference, circulation, CD-ROM and SOUTHcat terminals. Also planned for this area is a microcomputer lab to benefit College of Medicine students and faculty. Books and current issues of journals are temporarily shelved in this area.

While the journals are in storage, individuals should bring their requests for journal articles to the circulation desk. The articles will be photocopied and ready for pick-up at the circulation desk within four hours. At night and during weekends, this access will be available only for patient care emergencies.

After the renovation of the west area is completed, the Medical Center site will be closed for a few days as the materials are moved from the storage facility. The renovated west area will also include a study and journal reading area. The renovation will not only result in a more attractive facility, but will allow for easier access to the materials located in the Medical Center site.

NEW DIRECTOR OF THE OFFICE OF TECHNOLOGY TRANSFER APPOINTED

New technologies have resulted in dramatic quality of living advances around the world. These technologies include microelectronics, materials sciences, miniaturization and biotechnology - and are widely recognized as the areas of expertise that will produce the standards of living for the twenty-first century. Leaders in government and industry recognize that technological innovation in key industries will increasingly be based on the contributions of academic research.

The Office of Technology Transfer has been launched with three principal goals:

1) to deliver technologies for public use and benefit with the optimum utility
2) to stimulate research and innovation
3) to provide a source of income to support research and education

Garold Breit

With this in mind, the College of Medicine has appointed **Garold Breit** as Director of the Office of Technology Transfer. For the past three years, Breit has directed a similar office which he developed at Creighton University School of Medicine in Omaha, Nebraska.

Breit is an experienced manager who has functioned in manufacturing and service organizations, including health care and consumer products organizations. He has been responsible for the development, manufacture and marketing of diagnostic devices and therapeutic products.

Breit says, "that the OTT can be an effective interface between the University and industry." The Office will provide a range of intellectual property services including patents, copyright assistance, licensing, and non-disclosure agreements.

The office is located in CSAB 238; Mr. Breit can be reached by phone at 460-7932 or FAX 460-6071.

MISHA RICHTER AND HARALD BARKEN

"If I were you, before I'd show it to anyone else, I'd check it out with someone who knows a lot about intellectual-property rights."

INSIDE: 20th Class Graduates · Research Studies · Orthopaedic Surgery Update · Summer Programs · LCME Review

USA RESEARCHERS STUDY HOW PRECONDITIONING HELPS IN HEART DISEASE

Heart disease is presently the number one cause of mortality in the United States.

Despite this grim statistic great strides have been made in reducing deaths from myocardial infarction over the last two decades. However, infarctions still occur and the extent of myocardial necrosis is the most important factor in determining outcome and prognosis.

There have been many strategies proposed over the years to limit the occurrence of myocardial infarction, but none have been universally successful until the phenomenon of ischemic preconditioning was first described in 1986 by researchers from Duke University. Researchers noted that preconditioning a dogs heart with a standardized ischemic insult, limited infarct size by 75%. The observation that a little ischemia can be beneficial in treating coronary occlusions has been confirmed in multiple animal models.

The laboratories of **Drs. James Downey** and **Michael Cohen**, of the Departments of Physiology and Medicine, have been instrumental in dissecting the mechanism of this phenomenon which could potentially have widespread clinical impact. Their work has methodically explored how brief periods of ischemia can protect the heart and the mechanisms involved in this phenomenon.

They have demonstrated that ischemia releases several agonists including adenosine and bradykinin which stimulate receptors on the myocardial cells. The receptors then interact with specific G proteins which in turn stimulate intracellular phospholipases to metabolize membrane phospholipids resulting in generation of diacylgycerol, a potent activator of protein kinase C (PKC). Activation of PKC causes it to be slowly translocated from the cytosol to the cell membrane where it must reside in order to phosphorylate critical proteins associated with protection of the ischemic cell. It is this readiness of PKC which appears to tag the cell as being protected.

One of the future research goals of the collaborative efforts of Drs. Downey and Cohen is to identify this protein. Prolonged treatment with agonists triggering the above pathway quickly results in tolerance and loss of protection. Development of a strategy to protect the heart for extended periods of time is critical if this research is to have promising clinical benefits.

Drs. Downey and Cohen have written nearly 50 journal articles and book chapters describing their work and have presented their data in meetings and conferences around the world. Their current research is funded by grants from the National Institutes of Health and additional support from the pharmaceutical industry.

RESEARCH HOLDS PROMISE FOR PREVENTING BLINDNESS

Steven Pittler started out with fruit flies. What he learned from them led to his international recognition.

Pittler, 35, won the internationally prestigious Cogan Research Award for his research on the vision disorder retinitis pigmentosa, a degenerative disease that eventually leads to blindness.

But his international success had humble beginnings. The assistant professor at University of South Alabama College of Medicine said his work with trained responses of fruit flies led to his interest in their vision, which in turn interested him in the degenerative diseases of mice and Irish setter dogs.

Established in 1988, the Cogan award commemorates the work of David G. Cogan, M.D., and is presented annually to one researcher under the age of 40 who has made "important and worthwhile" contributions to research in ophthalmology directly related to disorders of the human eye and who shows substantial promise for the future.

"It's really the highest international award for a young vision scientist," said Dr. Matthew LaVail, professor of anatomy and ophthalmology at the University of California at San Francisco.

The recipients represent the best young researchers in ophthalmology: an elite corps of scientists from Harvard and Johns Hopkins Medical Schools. Pittler was the first Cogan Scholar from a school in the South.

"A majority of these previous winners have gone on to be leaders in their field," LaVail said.

Pittler said the Cogan was an award he had joked about winning while still a graduate researcher.

"I never really thought I had a shot at it," Pittler said, with characteristic modesty. "It was a motivating factor, I suppose, but I didn't really think about it."

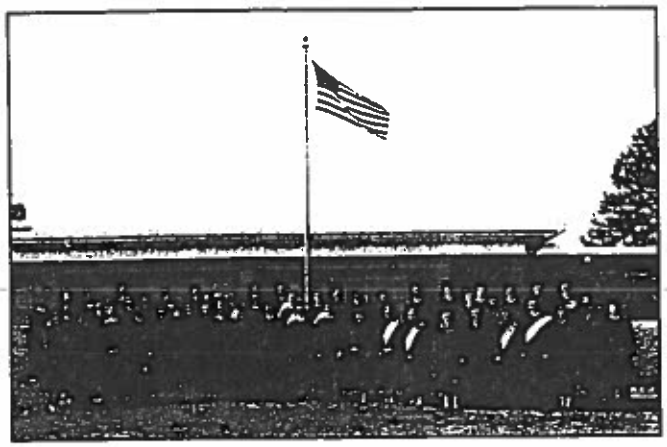
Through an analysis of the DNA sequence response for proteins essential to sight, Pittler proved that a difference in this sequence lead to the production of a protein which caused blindness in the animals. His conclusion: Irish setters with a particular kind of deficiency in the retina contain a mutation in the gene.

Although his research dealt with animals, there are similar vision defects in humans, in both the beta-subunit and the alpha-subunit of the gene. With the help of graduate student Xizhong Huang, Pittler hopes to expand his research and its applications to human blindness.

With this finding, there's hope that blindness can be eliminated from the setter population.

"The animal lovers will be glad to know that there is a group in the U.K. now trying to develop a screening method for this mutation so they don't spread this defective gene," Pittler said.

20TH CLASS GRADUATES



The College of Medicine graduated its first class of students in 1976. The 20th class received their degrees on June 4, 1995. In keeping with previous years, 60% of this year's graduates will enter into residency programs in primary care medicine (family practice, internal medicine, pediatrics or medicine/pediatrics). A total of 1,188 students have graduated from the College of Medicine since 1976.

CLASS OF 1995 RESIDENCY ASSIGNMENTS

ALABAMA

Baptist Health Systems, Birmingham
- Ellousie Cotton - *Internal Medicine*
- Javed Qureshi - Transitional

Medical Center East, Birmingham
- Jonathan Mize - *Family Practice*

University of Alabama Hospital, Birmingham
- Bayer Cheng - *Anesthesiology*
- Raju Danthuluri - *Anesthesiology*
- Mat Hoang Ho - *Anesthesiology*
- Steven Smith - *Neurology*

University of Alabama Hospital, Huntsville
- John Millspaugh - *Family Practice*

University of Alabama Hospital, Montgomery
- Rodney Smith - *Internal Medicine*

University of South Alabama, Mobile
- John Burgess - *Internal Medicine*
- Janice Camp - *Internal Medicine*
- Mark Caylor - *Family Practice*
- LaDonna Crews - *Pediatrics*
- Clayton Davis - *Family Practice*
- Amy Eubanks - *Pediatrics*
- Mark Holbrook - *Family Practice*
- Janet Lewis - *Family Practice*
- Tracy Neal - *Internal Medicine*
- Dawn Nye - *Pathology*
- Tracey Pinkston - *Internal Medicine*
- Holly Pursley - *Internal Medicine - Preliminary*
- Edward Reed - *Obstetrics/Gynecology*
- Eric Robinson - *Surgery - Preliminary*
- Andrene Sellers - *Pediatrics*
- Joseph Sewell - *Family Practice*
- Suzanne Tormoen - *Internal Medicine*

ARIZONA

Univ. Arkansas for Medical Sciences, Little Rock
- Christine Davis - *Opbthalmology*
- Paul Davis - *Orthopedics*

CALIFORNIA

Long Beach Hospital, Long Beach
- Anthony Dinh - *Transitional*

FLORIDA

University of Florida, Gainesville
- Lisa Haab - *Pediatrics*

GEORGIA

Emory Univ. School of Medicine, Atlanta
- Victor Jiminez - *Urology*
- Stephanie Jiminez - *Radiology (Diagnostic)*

Floyd Medical Center, Rome
- Tamara McIntosh - *Family Practice*
- Hiren Patel - *Family Practice*

HAWAII

Tripler Army Medical Center, Honolulu
- Charles Taylor - *Surgery*

ILLINOIS

Univ. of Illinois Col. of Medicine, Peoria
- Praveen Deshmukh - *Neurosurgery*

LOUISIANA

Alton Ochsner Foundation, New Orleans
- Patrick McDonald - *Internal Medicine*
- Edward Sterling - *Radiology (Diagnostic)*

MARYLAND

Franklin Square Hospital, Baltimore
- Mark Moers - *Family Practice*

MICHIGAN

Providence Hospital, Southfield
- Joseph Lee - *Family Practice*

MINNESOTA

Univ. of Minnesota Hospital, Minneapolis
- Randall Nations - *Family Practice*

MISSISSIPPI

Univ. Mississippi Hospital, Jackson
- John Witcher - *Obstetrics/Gynecology*

NORTH CAROLINA
Bowman Gray Med. Center, Winston-Salem
Gregory Ledbetter - *Internal Medicine*
Duke University Medical Center, Durham
Christopher Ackley - *Pathology*
East Carolina Univ. Med. Center, Greenville
Bradford Bowls - *Emergency Medicine*

OREGON
St. Vincent Hospital & Med. Center, Portland
James Harris - *Pathology*

SOUTH CAROLINA
Greenville Hospital System, Greenville
Ricky Keizer - *Family Practice*
Medical Univ. South Carolina, Charleston
Renee Acker - *Pathology*

TENNESSEE
East Tennessee State Univ. Johnson City
Karen Bartley - *Family Practice*
Marcia Harris - *Family Practice*
University of Tennessee, Chattanooga
John Bonner - *Ophthalmology*
University of Tennessee, Memphis
K.C. Brewington - *Neurosurgery*
Vanderbilt Univ. Medical Center, Nashville
Tiffany Hines - *Medicine/Pediatrics*

TEXAS
Baylor College of Medicine, Houston
Terry Wilsdorf - *Internal Medicine*
Univ. Texas Health Sci. Center, San Antonio
Mrudula Thangada - *Psychiatry*

VIRGINIA
Medical College of Virginia, Blackstone
Clifford Lowe - *Family Practice*
Medical College of Virginia, Richmond
Gene Cheng - *Pediatrics*

AWARDS

Janice W. Camp	Deans Award
Jancie W. Camp	American Medical Women's Association Glasgow Memorial Award
Paul A. Davis	Upjohn Achievement Award in Pharmacology
Paul A. Davis, James B. Harris	Merck Award
Janet I. Lewi	Obstetrics/Gynecology Award
Janet I. Lewis	John W. Donald Memorial Award in Surgery
Lisa M. Haab	Hollis J. Wiseman Ward for Excellence in Pediatrics
Christine A. Davis, Lisa M. Haab	American Medical Women's Association Scholarship Achievement Citation
Ricky J. Keizer	Honors Award in Biochemistry
Marcia L. Harris	Family Practice and Community Medicine Student Award
Dawn M. Nye	Pathology Award
Bradford J. Bowls	Excellence in Emergency Medicine
Bradford J. Bowls	Medical Alumni Leadership Award
Steven C. Smith	Neurology Award
Janice W. Camp	Outstanding Student in the Anatomical Sciences
Eric P. Robinson –	Lewis D. Anderson Award in Orthopaedics
Ellouise M. Cotton	SNMA Leadership Award
Gregory K. Ledbetter	Lange Award for Superior Academic Achievement
Amy H. Eubanks	Mutual Assurance Award
Tracy L. Neal	Charles W. Urshel Achievement Award in Physiology
Tracy L. Neal	Community Service Award

SUMMER PROGRAMS

MINORITY HIGH SCHOOL STUDENT/TEACHER SUMMER RESEARCH APPRENTICE PROGRAM

These eight promising local high school students and one high school science teacher will do research in medical sciences this summer. They will participate in on-going research projects under the direction of a faculty mentor. The overall purpose of this program is to develop minority students' interest in research and the health professions, and to enhance the research skills of minority high school teachers so that they can pass on these skills and an enthusiasm about scientific research to their students. The following is a list of the students, their research team mentor(s) and their department:

STUDENT NAME	HIGH SCHOOL	MENTOR	DEPARTMENT
Leticia A. Carlisle	*JOHN SHAW*	*Ms. Rose Peterson*	*Sickle Cell Disease Association*
Tiffany Callier	*LEFLORE*	*Dr. Zarrinta Aliabadbi*	*Structural & Cellular Biology*
Mary S. Kim	*DAVIDSON*	*Dr. Clara Massey*	*Medicine*
Takia L. White	*BAKER*	*Dr. Clara Massey*	
Tynisba Kinard	*WILLLIAMSON*	*Dr. Donald Culberson & Dr. Elizabetb Manci*	*Pathology*
Krisbna M. Morrissette	*LEFLORE*	*Dr. Charles Hoff*	*Pediatrics*
Wendy Washington	*BAKER*	*Dr. Charles Hoff*	
Brannan Sanders	*LEFLORE*	*Dr. Aubrey Taylor*	*Physiology*
Brenda McMillian, Teacher	*BLOUNT*	*Dr. Aubrey Taylor*	

In addition to these two major programs, the College of Medicine will host twenty (20) six through eleven grade students from West Alabama Health Services through a cooperative Junior Health Careers Opportunity Program grant to participate in a one-week mini medical school experience. These young people will attend seminars and activities intended to stimulate their interest in health professions careers. They will participate in classes and discussions on such topics as:

> The Brain, Introduction to the Heart and Circulatory System, Health Lifestyles, Disease, Pathophysiology of Drug and Alcohol Abuse, Critical Thinking Process, Writing and Speaking Skills, "Booster Shots", etc.

These students will be taught by medical school faculty, staff, and students.

UNIVERSITY OF SOUTH ALABAMA COLLEGE OF MEDICINE SUMMER PROGRAM PARTICIPANTS

The Office of Special Programs of the University of South Alabama College of Medicine is proud to announce the following successful candidates who are participating in Phase I of the 1995 summer Biomedical Enrichment and Recruitment program:

Student's Name	Hometown	Undergraduate Institution Currently Attending
Ingrid Bones	*Mobile, AL*	*USA*
Daphne Bilbrew	*Ridgeland, MS*	*TOUGALOO*
Felexis Ellis	*Mobile, AL*	*XAVIER*
Yvette Gulley	*Mobile, AL*	*PRAIRIE VIEW A & M*
Jennifer Henderson	*Huntsville, AL*	*ALABAMA A & M*
Clanford Johnson	*Chicago, IL*	*XAVIER*
Djuana Locklayer	*Hillsboro, AL*	*ALABAMA A & M*
Kittra Owens	*Mobile, AL*	*TUSKEGEE*
Frederick Phillips	*Helena, AR*	*XAVIER*
Lakeisha Price	*Winston, MS*	*JACKSON STATE*
Tralia Rahmaan	*Fort Walton Beach, FL*	*ALABAMA STATE*
Randall Tibbs	*Huntsville, FL*	*ALABAMA A & M*

These rising junior premedical students will participate in abbreviated medical school courses, Medical College Admission Test-taking skills development, clinical and behavioral medicine seminars, medical rounds, physician shadowing, and medical facilities tours. The program will be conducted by College of Medicine faculty and staff.

Ten of the students listed below are returning this year to complete the second summer of the program. Three are attending this summer only for enrichment purposes:

Student's Name	Hometown	Undergraduate Institution Currently Attending
Anitra Batie	*Dallas, TX*	*DILLARD*
Shameza Boyd	*Birmingham, AL*	*XAVIER*
Andrea Brown	*Mobile, AL*	*XAVIER*
Stephanie Carmicle	*New Orleans, LA*	*XAVIER*
Marcharia Carter	*Mobile, AL*	*XAVIER*
Adrian Deschamps	*Huntsville, AL*	*ALABAMA A & M*
Kimberly Sankey	*Grady, AL*	*ALABAMA*
Henry Lusane	*Pensacola, FL*	*USA*
Alysia Turner	*Mobile, AL*	*BROWN*
Nirav Gandhi	*Decatur, AL*	*ALABAMA*
*Amanda Jennings**	*Skokie, IL*	*XAVIER*
*James Oliviere**	*Montgomery, AL*	*MOREHOUSE*
*Shell Carter**	*Las Vegas, NV*	*JACKSON ST*

(*One year only)

The goal of this program is to increase the number of minority disadvantaged students, particularly Blacks, who are admitted to and graduated from the USA College of Medicine. The program will assess the degree to which these participants possess the quantitative and qualitative skills to perform successfully in medical school, and the personal attributes which characterize a good physician.

A FORTY FIVE YEAR DEBATE

In another aspect of his award-winning research, Pittler compared 70-year-old tissue samples from rodless mice, identified in the 1920's, with samples from mice found in the 1950's with a retinal degeneration disorder. For more than 40 years, scientists had debated whether or not the disorder in the rodless mice was identical to the retinal degeneration. Pittler's research proved the disorders were identical, ending the controversy and opening the doors to a better understanding of what causes the disease in humans.

Pittler used tissue samples from the lab of Dr. Clyde Edgar Keeler, the scientist who first identified the rodless mice. At the time when Pittler began his research, more than 60 years separated the two scientists: Pittler was 30 and Keeler 90. Pittler said Keeler was encouraging to him and offered well-preserved samples of the rodless mice for research.

Pittler's research was funded with the aid of the Lions' Eye Research Institute at the University of South Alabama and a grant form the National Eye Institute of the National Institute of Health.

Ms. J.C. Zoghby, a staff reporter for the Mobile Press Register, has granted permission to reproduce this article which was previously published in the Register.

CONGRATULATIONS...

Steven Pittler, Ph.D., was awarded the 1995 Cogan Award for outstanding scientific accomplishments for his work to identify specific defects in genes that cause blindness in mice and Irish setter dogs.

Richard deShazo, M.D., was elected to the Board of Directors of the Association of Professors of Medicine which is composed of chairs of departments of internal medicine throughout the United States.

John Bass, M.D., has assumed office as governor for the Alabama Chapter of the American College of Physicians.

Lesley Dupuy, a graduate student in the Department of Biochemistry and Molecular Biology, was awarded third place in the graduate oral presentation at the Eastern Student Research Forum on "The Catalytic Sites of a Minimal Protein Serine/Threonine Phosphatase".

B. G. Brogdon, M.D., was presented the John R. Hunt Award from the American Academy of Forensic Sciences for his "outstanding contributions to the Forensic Sciences".

Barry Warner, D.O., was inducted into the American College of Endocrinology signifying he "has achieved a level of training and experience consistent with the high standards established by the clinical endocrinology specialty".

Richard Esham, M.D., was elected into the Alpha Omega Alpha Honorary Medical Society at the University of Louisville School of Medicine as a distinguished alumnus.

Julia Jackson, a graduate student in the laboratory of Dr. Stephen Kayes, has won the Southern Society of Parasitologists' annual Byrd-Dunn Award. The award is given to acknowledge the best graduate student scientific presentation made at the annual meeting of the Society.

Michelle Ardell, Ph.D., a postdoctoral fellow in the Department of Biochemistry and Molecular Biology, has been awarded a $20,000 research grant by the Knights Templar Eye Foundation. Dr. Ardell's research focuses on the study of genes and a congenital hereditary blinding disorder. The Knights Templar Eye Foundation is a non-profit Masonic charity. The research will be conducted in the laboratory of Dr. Stephen Pittler, Assistant Professor of Biochemistry and Molecular Biology.

DEPARTMENT HIGHLIGHT: ORTHOPAEDIC SURGERY

The Department of Orthopaedic Surgery of the University of South Alabama is a group of ten orthopaedic surgeons and eleven orthopaedic residents. The Department has three clinics located on the University's main campus and at the USA Knollwood Park Hospital complex. Outreach programs include Crippled Children's Clinics in Mobile and Selma, general clinics at Searcy Hospital, sports medicine coverage with the USA Athletic Department and the USA Family Practice Center.

Angus M. McBryde, Jr., M.D., *(Professor and Chair)* specializes in sports medicine and injuries to the foot and ankle. He was the USA Team Physician for the 1988 Olympics in Seoul and has numerous publications in orthopaedic medicine.

Prasit Nimityongskul, M.D., *(Associate Professor)* specializes in pediatric orthopaedics. Dr. Nimityongskul treats scoliosis, cerebral palsy, spina bifida, children's trauma, developmental dislocation of the hip and is highly respected for his work on the process of ultrasounding the hip.

William D. Lowe, M.D., *(Assistant Professor)* specializes in orthopaedic problems related to the hand and upper extremities - including joint replacement, trauma, industrial injuries and sports injuries. Dr. Lowe completed a year of hand fellowship at the University of Alabama at Birmingham.

William J. Bose, M.D., *(Assistant Professor)* specializes in arthritis and adult reconstruction. Dr. Bose completed a total joint fellowship at the University of Florida in Gainesville. He treats rheumatic and other arthritic problems including post traumatic problems of major joints. He has a major research grant in this area.

Langdon A. Hartsock, M.D., *(Assistant Professor)* specializes in orthopaedic trauma. He treats major trauma (polytrauma or multiple injured patients) at the Medical Center. Dr. Hartsock received fellowship training in shock trauma at the University of Maryland. He has been honored as the recipient of an AO Fellowship allowing him international travel in 1996.

James West, M.D., *(Assistant Clinical Professor)* specializes in orthopaedic spine problems. He completed a fellowship in spine surgery at Minnesota and is the overall director of the spine service.

Frank B. Fondren, M.D., *(Assistant Clinical Professor)* specializes in sports medicine with wide experience in arthroscopic surgery and also works with Dr. McBryde at the USA Sports Medicine Clinic.

Russell A. Hudgens, M.D., *(Assistant Clinical Professor)* is a highly regarded general orthopaedist. He assists in the teaching program in the clinic and the operating room.

Jack E. Reagan, M.D., *(Clinical Associate Professor)* is a general orthopaedist with valuable and varied experience in the orthopaedic field. Dr. Reagan sees patients at the USA Orthopaedic West Clinic. One of his subspecialities is epidural blocks.

Drs. Curtis Harris and William O. Thomas are both *Associate Professors of Surgery* with joint appointments in the Department of Orthopaedic Surgery. As plastic surgeons, Drs. Harris and Thomas have with Dr. Lowe managed the University of South Alabama Hand Surgery Center.

Lewis D. Anderson, M.D., *(Professor and Chair Emeritus of Orthopaedics).* He continues to be active at teaching conferences and at Searcy Clinics. He formally held the position of Vice President for Medical Affairs.

The Department provides an excellent training program that prepares residents for orthopaedic practice in the 21st century. There is a strong faculty commitment to the teaching program supplemented by clinical practice and ongoing research programs.

COLLEGE COMPLETES SELF-STUDY

The College of Medicine has completed a self-study of the educational, research and clinical programs in preparation for the LCME (liaison Committee on Medical Education) site visit on September 25-28, 1995. The LCME represents the accreditation arm of the Association of American Medical Colleges (AAMC) and the American Medical Association (AMA).

If you would like to submit an article for publication, please forward it to:

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