ANNUAL REPORT
UNIVERSITY OF SOUTH ALABAMA
COLLEGE OF MEDICINE

October 1, 1999 through September 30, 2000
# TABLE OF CONTENTS

## I. Reports from the Departments and Laboratories
- Department of Biochemistry and Molecular Biology ........................................ 1
- Department of Cell Biology and Neuroscience ............................................. 7
- Department of Comparative Medicine ......................................................... 17
- Department of Emergency Medicine ........................................................... 20
- Department of Family Practice and Community Medicine ......................... 24
- Department of Internal Medicine ............................................................... 27
- Department of Medical Genetics .................................................................. 45
- Department of Microbiology and Immunology ........................................... 49
- Department of Neurology ............................................................................ 55
- Department of Neurosurgery ....................................................................... 63
- Department of Obstetrics and Gynecology ............................................... 65
- Department of Ophthalmology .................................................................... 72
- Department of Orthopaedic Surgery ............................................................ 75
- Department of Pathology ............................................................................. 83
- Department of Pediatrics ............................................................................ 95
- Department of Pharmacology ...................................................................... 103
- Department of Physiology .......................................................................... 113
- Department of Psychiatry ........................................................................... 125
- Department of Radiology ............................................................................ 128
- Department of Surgery ............................................................................... 133
- Office of Rural Health ................................................................................. 141
- Biomedical Library/Learning Resources ...................................................... 147
- Comprehensive Sickle Cell Center ............................................................... 152
- Electron Microscopy Center ........................................................................ 155
- Biotechnical Services .................................................................................. 158
  - Biopolymer Laboratory ............................................................................ 159
  - Mass Spectrometry Center ....................................................................... 161
  - Research Cytometry Laboratory ................................................................. 163

## II. Summary of Extramural Support ............................................................. 165

## III. Report from Office of Technology Development ................................. 195

## IV. Report from Academic and Student Affairs .......................................... 197

## V. Report from Admissions .......................................................................... 217

## VI. Report from Summer Research Program for Medical Students ........... 222

## VII. Report from the Graduate Program ..................................................... 224

## VIII. Report from Continuing Medical Education ....................................... 230
The Annual Report of the University of South Alabama College of Medicine documents the achievements of the faculty in the areas of teaching, research, and service. These efforts and accomplishments are instrumental in enhancing the health and overall quality of life of people in the State of Alabama and throughout the nation. The University welcomes the opportunity to disseminate this information and invites comments and questions related to the contents of the report.

The tradition of preparing a College of Medicine Annual Report was initiated in 1975 by Dr. Charles Baugh. The 1999-2000 Annual Report is dedicated to Dr. Baugh and his many contributions to the College of Medicine.

V. Gordon Moulton
President
I. ARTICLES PUBLISHED IN BOOKS AND JOURNALS.

A. Full-length published articles.


B. Articles in Press


II. PUBLISHED ABSTRACTS


III. BOOKS PUBLISHED

None.

IV. PRESENTATIONS


R.E. Honkanen. Serine/Threonine Protein Phosphatases and the Regulation of Cell Proliferation: PP5 as Emerging Key Regulator of Growth. Department of Biological Sciences, Florida State University, Tallahassee, FL (2000).

R.E. Honkanen. Serine/Threonine Protein Phosphatases and the Regulation of Cellular Signaling: PP5 an Emerging Key Regulator of Both p53 and Glucocorticoid Mediated Growth Arrest. Division of Pulmonary and Critical Care Medicine, Northwestern University, Chicago, IL (2000).


R.E. Honkanen. Protein Phosphatase Type 5, a Key Regulator of Cellular Proliferation. Department of Pharmacology, East Tennessee State University, Johnson City, TN (1999).


V. NATIONAL PROFESSIONAL RECOGNITION.

Biochemistry faculty participated on a number of national committees this past year. Dr. S. Barik was a reviewer for several journals: BioTechniques, Journal of Virology, and Biochemical Pharmacology. Dr. Barik also was a candidate for Vice President for the Southeastern Society for Parasitologists; Dr. Jane Funkhouser served on the Editorial Board of the American Journal of Physiology, Lung Cellular & Molecular Physiology and served as a reviewer for the NIH Lung Biology & Pathology Study Section; Dr. James Gaubatz reviewed grants for the National Institutes of Health, Nutrition Study Section, and was a Member of the National Scientific Advisory Council of the American Federation for Aging Research. Dr. Aronson is a member of the Board of Directors of the Associate of Medical and Graduate Departments of Biochemistry.
VI. BRIEF SUMMARY OF DEPARTMENT ACTIVITIES AND PROGRESS.

Biochemistry Graduate students achieved excellent progress in the 1999-2000 academic year. Two students attended the FASEB Protein Phosphatase Copper Mountain, Colorado, Conference to present their research: Sean Dobson (S. Barik’s laboratory) made a poster presentation: “Cloning and Expression of a Novel Phosphatase (PPJ) in Plasmodium falciparum”; and Mark Swingle (R. Honkanen’s laboratory) described his work on: “The Pharmacological Characterization of Bovine Serine/Threonine Protein Phosphatase 5.” John Rodriguez (R. Honkanen's laboratory) was awarded a 5-year NIH predoctoral fellowship. Brian Adams, who graduated from the USA Biomedical Sciences program, is our only new biochemistry Ph.D. graduate student for Fall 2000.

Three medical students completed summer research projects in Biochemistry. Alicia Logue, a first-year student, made an oral presentation: “Investigation of Ectopeptidase Expression in Epithelial Cell Lines,” based on work with Dr. J. Funkhouser; Beth Miller, a second year student, spoke on: “Characterization of Serine/Threonine Protein Phosphatases Associated with Fosfriein Mediated Protection to Ischemic Cardiac Tissue,” from studies done with Dr. R. Honkanen; and Nagma Khan, an MD-Ph.D. student, had a poster presentation: “Identification of Genes of Human Lung Epithelial Cells Regulated by Respiratory Syncytial Virus Infection,” based on her summer project with Dr. S. Barik. Nagma Khan won the best poster presentation award for the Summer Research Program.

The Biochemistry Department spent a significant effort trying to recruit a new faculty member in the area of cancer research. Currently, the position remains open. A number of Biochemistry faculty are involved in patents and other aspects of university/industry collaborations. Dr. Honkanen continues work with ISIS Pharmaceuticals in Carlsbad, California on antisense RNA drugs directed at regulating protein phosphatases. In addition, the College of Medicine and Rigel Pharmaceuticals in San Francisco culminated a licensing agreement related to one of Dr. Honkanen’s patents on medical applications for protein phosphatases. Educational efforts and accomplishments of the Biochemistry faculty were recognized by the College of Medicine graduating class of 2000. Over 50% of the faculty members, Drs. Aronson, Barik, Funkhouser, and Lane, were honored for excellence in teaching at the Senior Honors Convocation.
1999-2000  
SUMMARY OF SCHOLARLY ACTIVITIES  
DEPARTMENT OF CELL BIOLOGY AND NEUROSCIENCE  

I. ARTICLES PUBLISHED IN BOOKS AND JOURNALS  

A. Full-length published articles.  


B. Articles in press.


II. PUBLISHED ABSTRACTS


A.E. Ferry, D.A. Morgan, and B.S. Pace. γ-Globin Induction by a Novel Fetal Stage Specific Transcription Factor. 24th Annu. Sickle Cell Prog., # 70A (2000).


B.S. Pace, A.E. Ferry, and D.A. Morgan. γ Globin Induction by a Fetal Stage Specific DNA Binding Protein. 12th Conf., Hemoglobin Switching, p. 240 (2000).


III. BOOKS PUBLISHED

None.

IV. PRESENTATIONS


S.P. LeDoux. CNS Cell-Specific Responses to Oxidative Insults: Role of Mitochondria. Center for Research on Environmental Toxicology, Oregon Health Sciences University, Portland, OR (2000).

S.P. LeDoux. CNS Cell-Specific Differences in Response to Oxidative DNA Damage. Ohio State University, Columbus OH (2000).


B.S. Pace. Transfusion Therapy, Pain Management in Pediatric Sickle Cell Patients. Sickle Cell Disease Association of America, (1) Huntsville, AL; and (2) Montgomery, AL (2000).


G.L. Wilson. Factor Influencing Mitochondrial DNA Repair. Cancer Center, Ohio State University, Columbus, OH (2000).


V. NATIONAL PROFESSIONAL RECOGNITION

Dr. Ron Balczon is a Study Section Member for the American Cancer Society and is on the Editorial Board of Frontiers in Bioscience. Dr. Mohan Bhattachar is on the Editorial Board of Biology of Reproduction. Dr. Phillip Fields is on the Editorial Board of Trends in Reproductive Biology. Dr. Tony Gard is on the NIH-CSIR Study Section: Molecular, Cellular and Developmental Neuroscience 6 (MCDN-6). Dr. Steven Goodman is on the Editorial Boards of Brain Research Bulletin and Cellular & Molecular Biology Letters. Dr. Goodman is also a Member of the State of Alabama Sickle Cell Oversight and Regulatory Agency. In addition, he has been elected as Councillor for the Association of Anatomy, Cell Biology, and Neuroscience Chairs. Dr. Steve Kayes is on the Editorial Board of the Journal of Parasitologists and is Section Editor of the Journal of Parasitology. Dr. Susan LeDoux is a Member of the State Legislative Committee for the American Association for Cancer Research. Dr. Betty Pace served on a Study Section involved in Minority Research Training Review, Special Emphasis Panel, for NHLBI. Dr. Glenn Wilson is an Associate Editor for Clinical Science. Dr. Warren Zimmer is on the American Heart Association Peer Review Committee. He also Co-organized an AHA Conference on Molecular, Cellular and Integrated Physiological Approach to the Failing Heart, Snowbird, Utah.

VI. BRIEF SUMMARY OF DEPARTMENT ACTIVITIES AND PROGRESS

The department underwent a name change to the Department of Cell Biology and Neuroscience. Two students received their Ph.D.'s from our department this year. Dr. Scott Hollensworth completed a thesis entitled "CNS Cell-Specific Responses to Oxidative mtDNA Damage," under the sponsorship of Dr. Susan LeDoux. Dr. Amy Ferry completed her thesis entitled "Identification of Stage Specific Transcription Factors That Regulate the γ to β Globin Gene Switch During Erythroid Maturation," under the sponsorship of Dr. Betty Pace.

The department has also recently exchanged laboratory and office space in the CSAB for equivalent space on the MSB second floor. As a result, the Department is, for the first time, primarily in contiguous space on the second floor of the MSB. In the process, we have consolidated the CBN and Sickle Cell Offices, both of which Dr. Goodman directs, into a single space in MSB 2015.
1999 - 2000
SUMMARY OF SCHOLARLY ACTIVITIES
DEPARTMENT OF COMPARATIVE MEDICINE

I. ARTICLES PUBLISHED IN BOOKS AND JOURNALS

A. Full length published articles.


B. Articles in press.

None.

II. PUBLISHED ABSTRACTS


III. BOOKS PUBLISHED

None.

IV. PRESENTATIONS


L.E. Williams. Increased Cage Size Affects Aotus Time Budgets and Partner Distance. ASP, Denver, CO (2000).

V. NATIONAL PROFESSIONAL RECOGNITION

Christian R. Abe, D.V.M., Chair of the Department, became The Charles M. Baugh Professor of Comparative Medicine (March 30, 2000); he is also a member of the Council on Accreditation of the Association for Assessment and Accreditation of Laboratory Animal Care International, 2000-2003; member, Comparative Medicine Group of the Association of American Veterinary Medical Colleges; and served as Special Guest Editor of the National Research Council’s ILAR Journal, Volume 41, 2000.

Alan G. Brady, D.V.M., Associate Professor, is a member of the Board of Directors, American College of Laboratory Animal Medicine Foundation, and head of grant reviews for the ACLAM Foundation; a member of the Board of Directors, Alabama Association for Biomedical Research, 1992-present; secretary, Association of Primate Veterinarians; member of the Board of Directors, and editor of the APV Newsletter, 1997-present; and ad hoc member of the site visit team for the Association for Assessment and Accreditation of Laboratory Animal Care International, 1991-2000.

Susan V. Gibson, D.V.M., Assistant Professor, is chair of the Committee on Continuing Education, American College of Laboratory Animal Medicine, 1999-2000.

Lawrence E. Williams, Ph.D., Associate Professor, is a member of the Membership and Finance Committee and the Education Committee, American Society of Primatologists, 1994-1999.
VI. BRIEF SUMMARY OF DEPARTMENT ACTIVITIES AND PROGRESS

The Department of Comparative Medicine is one of the six basic medical science departments of the College of Medicine. In addition to research and educational responsibilities, the department provides professional and technical support for all animal research laboratory facilities and for the administration of the laboratory animal care and use program for the University. Comparative Medicine occupies approximately 47,000 square feet divided between two geographically separate sites. Renovation of existing facilities within the Medical Sciences Building Biologic Research Laboratory was completed in 1996 and has increased the overall size of this facility to approximately 35,000 square feet. The Primate Research Laboratory occupies 12,000 square feet. The department is composed of five core units. These are the laboratory animal medicine core, the animal diagnostic laboratory core, the biological resource core, the computer operations/database core, and the administrative core.

The department’s Primate Research Laboratory maintains a large breeding and research colony of Bolivian squirrel monkeys (Saimiri boliviensis). Departmental research efforts are primarily in two areas. Studies of the reproductive biology of the squirrel monkey have been carried out as a multi-disciplinary program, including investigators from the Departments of Pharmacology and Comparative Medicine. A second area of investigation is focused on development of medical and husbandry management strategies to optimize squirrel monkey reproduction in captivity. This is a major program for the department, which has resulted in the development of one of the largest neotropical primate breeding colonies in the United States.

The department is carrying out a major research program aimed at improving our understanding of blood product safety. With the emergence of a new variant of Creutzfeldt-Jakob Disease (vCJD) associated with Bovine Spongiform Encephalopathy in Europe, considerable concern has been raised regarding the safety of human blood products. This research program is investigating the transmissibility of CJD and vCJD from blood and tissues obtained from patients suffering from these diseases.

The department is committed to meeting the needs of the complex biomedical research program within the College of Medicine and providing an environment conducive to departmental and interdepartmental research. Comparative Medicine is composed of four full-time, one joint, and three adjunct faculty members. Dr. Jonathan Scammell, Professor, has a primary appointment in the Department of Pharmacology with a joint appointment in the Department of Comparative Medicine. Dr. Dan H. Lochner, Adjunct Assistant Professor, serves on a part-time basis in the departmental pathology laboratory. Dr. Julio Ruiz, Director of the Argentine Primate Center (CAPRIM), serves as Adjunct Associate Professor. Dr. Sezer Aksel served as Adjunct Professor through September 2000. In addition, there are 21 administrative, technical, and research staff.
1999-2000
SUMMARY OF SCHOLARLY ACTIVITIES
DEPARTMENT OF EMERGENCY MEDICINE

I. ARTICLES PUBLISHED IN BOOKS AND JOURNALS

A. Full-length published articles.
   None.

B. Articles in press.

II. PUBLISHED ABSTRACTS.


III. BOOKS PUBLISHED.

None.

IV. PRESENTATIONS.


V. NATIONAL PROFESSIONAL RECOGNITION.

F.S. Pettyjohn served in the following positions: Cardiology Consultant to the Federal Aviation Administration; Board of Directors, Mobile County Emergency Medical Services, Inc., Mobile, Alabama; Board of Directors and Chancellor, International Academy of Aviation and Space Medicine; and President of Medical Staff, University of South Alabama Medical Center.

M.L. Sternberg served in the following positions: Member, Council on Medical Education for State of Alabama; Board of Directors, Southwest Alabama Emergency Medicine Services; Board of Directors, American College of Emergency Physicians (Alabama Chapter); Chairman, Bylaws Committee; and American College of Emergency Physicians (Alabama Chapter).

R.J. Cox served in the following positions: Board of Directors, American College of Emergency Physicians (Alabama Chapter); Councilor, American College of Emergency Medicine (Alabama Chapter); and Education Committee, American Academy of Emergency Medicine.

VI. BRIEF SUMMARY OF DEPARTMENT ACTIVITIES AND PROGRESS.

The overall direction of the Department of Emergency Medicine continues to emphasize excellence in Clinical Emergency Medicine, education of housestaff and medical students, and Academic Faculty Development. The primary goal of the Department is to develop and implement a broad-based educational program. The goal of acquiring a full Residency Program in Emergency Medicine remains tentative due to the lack of Graduate Medical Education funding for new programs. Recruiting additional faculty is essential to maintaining clinical capabilities and enhancing the teaching program.

EDUCATION: The Faculty of the Department of Emergency Medicine continues to be recognized by the graduating medical school class of the College of Medicine. Frank S. Pettyjohn, M.D., Michael L. Sternberg, M.D., and Robert J. Cox, M.D., were again selected to receive recognition at the honors ceremony graduation for having had a significant role in the growth, education, and development of the graduating class of 2000. The medical students continue to select the Emergency Medicine rotation as one of the most-sought-after training areas. The graduating class of 2000 selected Michael L. Sternberg, M.D., as Best Clinical Instructor.

The Department of Emergency Medicine participates in the Introduction to Clinical Medicine Course for the College of Medicine. This adds to the educational experience of the Medical Students and provides initial interaction with Emergency Medicine Attending Faculty. Michael L. Sternberg, M.D., has developed a teaching syllabus for the fourth-year medical student elective.
RECRUITING PROGRESS: A viable recruiting program has been implemented. The goal is to obtain Emergency Medicine Residency Trained and Board Certified Emergency Medicine Physicians. Robert J. Cox, M.D., and Marion C. Berg, M.D., are Emergency Medicine Residency Trained Physicians, and were appointed primary contact persons for the Department. Additional staff physicians have been recruited. J. Randall Adair, D.O., Internal Medicine, and W. Scott McNair, M.D., Internal Medicine/Pediatrics, joined the department as Attending staff physicians.

Additional staff physicians, Thomas Kelly, D.O., and E. Scott Morrison, D.O., joined the Department and provide Emergency Medicine care at the USA Knollwood Park Hospital Emergency Department.

FACULTY DEVELOPMENT: Joint faculty activities within the Departments of Pediatrics, Medicine, and Radiology are ongoing. Dr. Sammy Saleeb provides overall emergency medicine radiology educational programs for the department. Photographic capabilities have been enhanced with the acquisition of a scanner, a digital camera, and an LCD projector. The Nikon N60 camera is used as the primary still photograph capability. Graphic and audiovisual equipment is available to all house and faculty. Dr. Sternberg is the primary contact faculty member for this activity.

CLINICAL FACILITIES: During the 1999-2000 program year, the Department of Emergency Medicine continued to be responsible for the operation of the University of South Alabama Medical Center, Level I Trauma Center and Emergency Department. The Department is also responsible for the Emergency Department at the USA Knollwood Park Hospital.

A core group of Clinical Faculty provides support for the University of South Alabama Knollwood Park Hospital Emergency Department. Mario F. Guillen, M.D., Thomas Kelly, D.O., Barbara C. Mitchell, M.D., E. Scott Morrison, D.O., and Terry N. Rivers, M.D., provide the Emergency Medicine services. These physicians are appointed as clinical faculty in the Department of Emergency Medicine.

The Departmental offices are on the 10th floor of the University of South Alabama Medical Center. These facilities continue to be updated to include audiovisual capabilities, a photographic still and digital laboratory, a slide development and presentation production area, and a computer driven learning system. A computer system has also been placed in the University of South Alabama Medical Center Emergency Department to provide Faculty and Housestaff with immediate access textbooks on CD-ROM as well as a stand-alone Micromedex system.
The Department of Emergency Medicine provides support to the University of South Alabama Children's and Women's Hospital. W. Scott McNair, M.D., provides Attending coverage for the Children's Evaluation Center. The close coordination between the University of South Alabama Medical Center, Level I Trauma Hospital, and the Children's and Women's Evaluation Center has been maintained to provide rapid response for patient transfer requests. Coordination is also maintained between the Department of Obstetrics/Gynecology at the University of South Alabama Children's and Women's Hospital and the University of South Alabama Medical Center Emergency Department to provide rapid treatment capabilities for patients presenting to Children's and Women's Hospital with medical or surgical conditions.

**RESEARCH:** The Division of Clinical Research entered its fifth year of operation with the primary clinical site in Medical Office Park Three at the University of South Alabama Knollwood Park Hospital Campus. The program is directed by Frank S. Pettyjohn, M.D., with administrative support by Afifa Halim Kirolos, M.D. All members of the Attending Faculty support the ongoing clinical research studies. The current projects cover a wide range of clinical research areas ranging from comparative Antibiotic Trials, comparative Anti-hypertensive agent Trials, community acquired pneumonia treatment trials, and cardiovascular treatment trials.
1999-2000
SUMMARY OF SCHOLARLY ACTIVITIES
DEPARTMENT OF FAMILY PRACTICE & COMMUNITY MEDICINE

I. ARTICLES PUBLISHED IN BOOKS AND JOURNALS

A. Full-length published articles.
None.

B. Articles in press.


II. PUBLISHED ABSTRACTS
None.

III. BOOKS PUBLISHED
None.

IV. PRESENTATIONS


V. NATIONAL PROFESSIONAL RECOGNITION

R. A. Perkins was a member of the Study Section for Academic Administrative Units, Health Resources, and Services Administration and served as Co-Chair of the Society of Teachers of Family Medicine Community Medicine Section.

E. Lee Taylor served as ACGME Site Surveyor for Residency Training Programs.

VI. BRIEF SUMMARY OF DEPARTMENTAL ACTIVITIES AND PROGRAMS

E. Lee Taylor, M.D. was appointed permanent Chair on March 1 after having served as Interim Chair since June 1999. Allen Perkins, M.D., was appointed Vice Chair while continuing his responsibilities as Residency Director and Medical Director. S. Chris Kerby, M.D., and Mary Katherine (Kitti) Barfield, M.D., joined the faculty in July after having completed their respective residencies at USA and Florida Hospital (Orlando). Dr. Kerby’s special interests include Sports Medicine, and Dr. Barfield’s special interests lie in Student Medical Education and Preventive Medicine. Deborah Kennedy, Pharm D., joined the faculty in an adjunct position after having completed her training in Pharmacy Practice and Geriatrics at Methodist Hospital in Houston and the Durham Veteran’s Administration Medical Center in Durham, NC. She replaced Dr. Eileen Holland, who relocated to Indiana. Stephen Andrews, M.D., and Steven Schepens, M.D., left the department for private practice in Mobile and Gulfport, Mississippi, respectively.

Leadership in our undergraduate medical education program underwent change this year. Kelly S. Derbin, M.D., who served as Predoctoral Director, left at the end of September to relocate to Chicago. During her last year with us, she earned a Master’s of Medical Education from the University of Southern California, Los Angeles. Dr. M. K. Barfield has assumed responsibility for administration of the third-year clerkship and fourth-year elective.

Educationally, the Department continues to offer core courses and has begun expanding. For example, a survey course which includes a health fair at Hillsdale Middle School is offered within the first-year course, Medical Practice and Society. Additional plans for the third-year clerkship and fourth-year electives include more emphasis on distance learning, with the development and testing of a web-based textbook. The Department now has responsibility for the second-year Behavioral Science course, and Martha Adams, Ph.D., and Diana Snow, Ph.D., part-time faculty, will participate. Faculty continue to be involved with Physical Diagnosis. A new longitudinal patient care experience, currently in the planning stage, is targeted to begin in February, 2001.
For the fourth consecutive year, our faculty was recognized by the American Academy of Family Physicians with the Bronze Achievement Award for outstanding efforts in producing graduates who enter the specialty of Family Practice. Dr. Allen Perkins and Dr. Kelly Derbin were also recognized by the College of Medicine students as Distinguished Faculty Members at its Honors Convocation.

The Residency Program offers an innovative curriculum and incorporates new technologies with one-to-one teaching. The program continues to produce outstanding physicians for the state of Alabama and the surrounding region. This past year, our graduates accepted positions in Phenix City, Alexander City, and Troy, among other areas of the state. A successful Match produced six outstanding new residents.

The Department continued its student summer research tradition by sponsoring students through grants from the Alabama Family Practice Rural Health Board, The Alabama Academy of Family Practice, and Bristol-Myers Squibb. Projects this year included the effect of an on-site psychiatrist in the Family Practice Center, web-based instruction, and an evaluation of the residency. A study was also completed on the effect of a school nurse intervention on asthma-related school problems.

The clinical practice has also been very successful, averaging more than 2,000 visits per month at the Springhill Avenue Campus site with high patient satisfaction and delivery of good patient care. The practice is moving toward evidence-based patient care in the clinical setting, with the adoption of protocols for common ambulatory diseases, such as diabetes, asthma, and congestive heart failure.

The Department has assumed clinical responsibility for the Student Health Center on the main campus, with Thomasina Sharpe, M.D., providing clinical leadership. Plans include web access for students as well as enhanced services.
1999-2000
SUMMARY OF SCHOLARLY ACTIVITIES
DEPARTMENT OF INTERNAL MEDICINE

I. ARTICLES PUBLISHED IN BOOKS AND JOURNALS.

A. Full-length published articles.


J.L. Herrera. The Role of the Primary Care Provider in Diagnosing and Managing Chronic Hepatitis C. Am. J. Managed Care (S1):S22-S32 (2000).


**B. Articles in press.**


II. PUBLISHED ABSTRACTS.


III. BOOKS PUBLISHED.


IV. PRESENTATIONS.


M.A. Alpert. Obesity Cardiomyopathy. 7th World Congress on Heart Failure: Mechanisms and Management, Vancouver, BC (2000).


R.M. Culpepper. Hypertension in the Southeast. Columbus Medical Center, Columbus, GA (2000).


J.A. DiPalma. Lactose Intolerance and IBS. Course Director, Digestive Issues in Primary Care, Mobile, AL (1999).

J.A. DiPalma. Medical Grand Rounds: (1) NSAID Injury (1999); and (2) Irritable Bowel Syndrome (2000), Keesler AFB, Biloxi, MS.


J.L. Herrera. Update on the Diagnosis and Management of Viral Hepatitis. Grand Rounds, Department of Family Practice, Eglin AFB, FL (2000).


J.L. Herrera. Medical Care of the Patient With Cirrhosis. Flowers Hospital Staff Mtg., Dothan, AL (2000).

J.L. Herrera. (1) Overview of the Epidemiology and Diagnosis of Hepatitis C; and (2) Current Strategies for the Treatment of Chronic Hepatitis C. New Outlook on the Management of Hepatitis C Conf., Orange Beach, AL (2000).

J.L. Herrera. (1) Evaluation and Diagnosis of Hepatitis C: Past and Present; (2) Combination Therapy for Hepatitis C. Advances in Hepatitis C Management, Speakers Bureau, Orange Beach, AL (2000).

J.L. Herrera. Program Chairman (1) Update on Hepatitis C; and (2) Role of the Office-Based Gastroenterologist in the Diagnosis and Treatment of Hepatitis C Infection. Focus on Community Pract. Nat. Mtg., Las Vegas, NV (2000).


M.A. Pasha. Exhale Nitric Oxide (NO) and Serum Cytokines Level During the Early and Late Phase Allergic Reaction After Pulmonary Allergen Challenge. Thomas Jefferson University, Division of Allergy/Immunology, Philadelphia, PA (2000).


K.M. Ramsey. (1) Cold or Flu: Recent Advances in the Diagnosis & Treatment of Influenza; and (2) Community Acquired Pneumonia in an Era of Resistance. A Practical Pulmonary Review for Primary Care Providers. University of South Florida, Captiva Island, FL (1999).


B.A. Warner. ACTOS. South Area Speakers Training, Atlanta, GA (1999).


B.A. Warner. The Evolving Faces of Type 2 Diabetes: A Focus on Microvascular Complications. Faculty-led Teleconference, University of Miami School of Medicine and Health Care, Miami, FL (1999).


B.A. Warner. Estrogen Replacement Therapy. St. Louis University School of Medicine, Division of Endocrinology Update in Diabetes and Endocrinology Conference, St. Louis, MO (1999).


B.A. Warner. ACTOS. Family Physicians, (1) Hot Springs, AK; (2) Nashville, TN; and (3) Seattle, WA (2000).


B.A. Warner. The Continuum Care: A Guide to Type 2 Diabetes. Internal Medicine Family Practice Physicians, Pascagoula Hospital, Pascagoula, MS (2000).

B.A. Warner. 75/25. Family Practice/Primary Care Physicians, Destin, FL (2000).

B. A. Warner. ACTOS. Primary Care Physicians, Decatur, AL (2000).

B. A. Warner. Target and Treatment of Type 2 Diabetes. Internal Medicine and Family Practice Physicians, Marion General Hospital, Columbia, MS (2000).

B. A. Warner. Target and Treatment of Type 2 Diabetes. Internal Medicine and Family Practice Physicians, Anthony’s, Ocean Springs, MS (2000).

V. NATIONAL PROFESSIONAL RECOGNITION.

M. A. Alpert served as Associate Editor of the American Journal of the Medical Sciences and as Assistant Editor of the Southern Medical Journal. He continued to serve on the editorial boards of the American Journal of Cardiology and Angiology, and was recently appointed to the editorial board of the Journal of Heart Failure. Dr. Alpert served as Chairman of the Cardiology Section of the Southern Medical Association and as guest editor of a Symposium entitled “Cardiovascular and Pulmonary Complications of Obesity” to be published in the American Journal of the Medical Sciences.

J. B. Bass served in the following capacities: Received a Mastership in the American College of Physicians; Member: Centers for Disease Control Advisory Committee for the Elimination of Tuberculosis; Member ATS/CDC Community-Acquired Pneumonia Statement Committee; CDC Data Safety and Monitoring Board; Executive Committee, National Lung Health Education Program; and consultant to the Institute of Medicine.

W. A. Broughton served in the following capacities: Member: ATS/ISDA Consensus Panel For the Statement on Community Acquired Pneumonia (Diagnosis of C.A.P.); Secretary/Treasurer: Alabama State Thoracic Society; Board Member: Tri-state Respiratory Conferences.

M. V. Cohen served on the editorial boards of Basic Research in Cardiology and Heart Disease: A Journal of Cardiovascular Medicine. He was a member of the Clinical and Integrative Cardiovascular Physiology Study Section of the American Heart Association.

M. E. Conrad served in the following capacity: Associate Editor: American Journal of Hematology, Editorial Board: Journal of Trace Elements in Experimental Medicine, Ad Hoc member NIH, Hematology Study Section, Executive Committee of Southwest Oncology Group, Recipient of NIH Merit Award, Principal Investigator for MBCCOP and for affiliations with Southwest Oncology Group (SWOG), National Surgical Adjuvant Breast and Bowel Cancer (NSABP). Appointed as member of Appeals Board for Fellowship Programs of the Accreditation Council for Graduate Medical Education. Selected for Best Doctors in America, Who’s Who in America and International Who’s Who of Professionals.
R. M. Culpepper was awarded the title of Clinical Specialist in Hypertension from the American Society of Hypertension, ASH, Specialist Program. He continues to be an active member of the National Kidney Foundation serving on the Board of Directors until the end of 1999. He remains Assistant Editor of the Southern Medical Journal and reviewer for American Journal of Physiology: Renal, Fluid and Electrolytes and Kidney International.

J. A. DiPalma serves on the Board of Trustees of the American College of Gastroenterology. He chairs the ACG Publication Committee. He is a member of the ACG Membership Committee and the Task Force on Clinical Practice. He is on the Expert Advisory Panel on Gastrointestinal Drugs of the United States Pharmacopeia. Dr. DiPalma was appointed to the editorial board of the Southern Medical Journal, is the Series Editor on Diagnostic Physiology Testing for Practical Gastroenterology and is Editor-in-Chief of GastroNewsOnline and Online Journal of Digestive Health.

T. M. Fan served as a grant reviewer for the March of Dimes and the Southeastern Affiliate of the American Heart Association. Dr. Fan was selected to present a paper entitled "Cyclosporin A Inhibits Cytochrome C Release and Prevents Myocardial Cell Death" at the highly-selective and prestigious 6th Annual Astra-Zeneca Young Investigators Forum.

J. Haynes served in the following capacities: Chairman: ATS Planning Committee; ACP "Internist of Today" Steering Committee; ATS Subcommittee for Program Review.

J. L. Herrera was appointed to the Board of Directors of the Alabama Chapter of the American Liver Foundation. He serves on the Education Committee of the American Association for the Study of Liver Diseases.

R. L. Martino served in the following capacities: Member of the Lung Committee and Gastrointestinal Committee of the Southwest Oncology Group, Member of the Medical Oncology Committee, Special Populations Subcommittee and Medical Oncology Lung Subcommittee of the Radiation Therapy Oncology Group.

C. V. Massey served as a District Councilor for the Alabama Chapter of the American College of Cardiology and was elected to Strathmore's Who's Who in America.

C. McCombs: The Sequella Global Tuberculosis Foundation has contracted with the University of South Alabama for Dr. McCombs to expend 50% effort designing and administering a new grants program to support research on a vaccine for tuberculosis.

J. P. Michalski served as an NIH Study Section member for the Prevalence and Diagnosis of Celiac Disease. He is also a reviewer for the Journal of Investigative Dermatology; Southern Medical Journal; Journal of Medical Genetics and is on the Medical Advisory Board of the American Behcet's Association.
J.A. Painter was elected to Strathmore's Who's Who in America.

K. Ramsey was elected to the Council of the Southern Society for Clinical Investigation, to serve a three-year term (2000-2003). Dr. Ramsey completed his term as Chairperson of the Nominating Committee for the Society for Healthcare Epidemiology, and is currently chairing a Task Force on Volunteer and Staff Resources.


B.A. Warner served on Editorial Review Boards for the following journals: Biological Psychiatry Journal; Mayo Clinic Proceedings; Life Sciences; Primary Care Reports; The Southern Medical Journal and Journal of Adolescent Health Care.

VI. BRIEF SUMMARY OF DEPARTMENT ACTIVITIES AND PROGRESS.

Educational efforts of the Department of Internal Medicine were recognized by this year's College of Medicine graduating class. Seventeen faculty members were honored for excellence in teaching at the Senior Honors Convocation. The Junior Medicine Clerkship won the award as the Best Clinical Course.

Dr. Steve Greenberg serves as Director of Medical Education and Division Director of the Division of Medical Education. This division has as its mission coordinating all the general medical educational activities where necessary. Dr. Ronald Allison continues as Director of the Junior Medicine Clerkship; Dr. John Vande Waa serves as Director of the Introduction to Clinical Medicine; Dr. Richard Esham serves as Medical Director for the Physicians Assistant Program; and Dr. Keith Ramsey serves as Medical Liaison for the Nurse Practitioner Program.

The Department is presently in year four of the Residency Review Commission certification of its core internal medicine program and all the fellowships. Fellowship programs remain active in Gastroenterology, Cardiology, Pulmonary Medicine, Infectious Diseases, and Hematology/Oncology.

Faculty development efforts are continuing. Dr. Stacey Wing and Dr. Martin Cunningham joined the Division of Medical Education. Faculty departures this past year included Drs. Maryella Sirmon and Lori Russell.

There was considerable improvement in the financial position of the Department of Internal Medicine over the past year. Mr. Tim McElroy assumed the position as Business Manager for the Department with the departure of Ms. Katherine Shanks. Financial losses have been eliminated and a balanced budget has been presented for the upcoming year.
I. ARTICLES PUBLISHED IN BOOKS AND JOURNALS

A. Full-length published articles.


B. Articles in press.


II. PUBLISHED ABSTRACTS.


III. BOOKS PUBLISHED.

None.

IV. PRESENTATIONS.


V. NATIONAL PROFESSIONAL RECOGNITION

Dr. W. Wertelecki was re-elected Secretary-Treasurer of the World Alliance for the Prevention of Birth Defects.

VI. BRIEF SUMMARY OF DEPARTMENT ACTIVITIES AND PROGRESS.

The COM II Medical Genetics Course has been modified to provide a greater emphasis on case-based teaching. The mandatory practicum (review of clinical materials) has also been expanded. A web site with over 3000 links to selected sources of information has been launched. Teaching of nursing students, medical technology students, and residents continues.

Clinical core services are augmented by regional outreach clinics located in Brewton, Dothan, Montgomery, and the Children’s Rehabilitation Centers in Mobile. The Clinical Cytogenetic Laboratory has experienced a considerable growth in cancer cell studies. The Molecular Genetics Diagnostic Laboratory has a new Director and Faculty member, Dr. Tian-Jian Chen. Dr. Chen is a Board Certified, recognized expert in medical DNA diagnostic procedures, particularly mitochondrial disorders. Demand for the recently expanded array of DNA diagnostic tests (HFE, BRCA1/2, Connexin26, SMN genes among others) and FISH studies continues to grow. Several research projects on cancer genetics have been initiated.

Our Alabama Birth Defects Surveillance team has compiled the first population-based data in Alabama and joined the National Birth Defects Prevention Network. For the purpose of better translating birth defects surveillance into care and prevention, our team was awarded a Special Project of Regional and National Significance Grant. USA surveillance activities will be expanded to most South Alabama Counties, and health and prevention implementations will be funded by a grant from the Centers for Disease Control and Prevention. Funding by USAID for USA to continue leading the Ukrainian Birth Defects Surveillance Project has been extended. Population-based data for the year 2000 will provide a basis for studies to assess environmental impacts on the development of children in Ukraine (including Chornobyl).
I. ARTICLES PUBLISHED IN BOOKS AND JOURNALS

A. Full length published articles.


B. Articles in Press.


II. PUBLISHED ABSTRACTS.


III. BOOKS PUBLISHED.

None.

IV. PRESENTATIONS.


D. A. Dean. Overcoming Cellular Barriers for Nonviral Gene Delivery. (1) Northwestern University School of Medicine, Chicago, IL; and (2) University of Southern California School of Pharmacy, Los Angeles, CA (2000).


J. W. Foster. The Art of Survival: Genetics of Acid Tolerance and *Salmonella* pathogenesis. Texas A&M University, College Station, TX (2000).  


V. NATIONAL PROFESSIONAL RECOGNITION.

This past year, Dr. David A. Dean served as special reviewer for NIH SBIR/STTR Study Section and also, as ad hoc reviewer for Förderung der wissenschaftlichen Forschung (Austrian equivalent of NIH). He also served as reviewer for Biotechniques, Quarterly Review of Biology, Cellular and Molecular Life Sciences.

Dr. John W. Foster continues to review for a number of scientific journals including: Journal of Bacteriology, Molecular Microbiology, Infection and Immunity, Electrophoresis, and Food Microbiology.

Dr. Robert N. Lausch served as Special Reviewer for Visual Science A Study Section, National Eye Institute. He also served on the Member Panel of Primary Reviewers for the Journal of Immunology, and still serves as a Reviewer for Investigative Ophthalmology and Visual Science, as well as American Journal of Pathology.

This year, Dr. John E. Oakes became an Ad Hoc Member of Visual Science A Study Section for the National Eye Institute and continues on the Member Panel of Primary Reviewers for the Journal of Immunology.
Dr. Herbert H. Winkler continued to serve on the Editorial Board of Infection and Immunity, and the Council Policy Committee of the American Society for Microbiology.

Dr. David O. Wood was honored by receiving the prestigious NIH MERIT Award. He also served as Reviewer for the American Journal of Tropical Medicine and Hygiene.

VI. BRIEF SUMMARY OF DEPARTMENT ACTIVITIES AND PROGRESS.

The Department of Microbiology and Immunology is pleased to welcome Hope Richard to our graduate program.

Dr. David A. Dean hosted two medical students in his lab this past summer as part of the Summer Medical Student Research Program — James Byrd and Jason Martin (both between years 1 and 2). Jason won the Clyde Huggins award for Best oral presentation from USA COM and went to Galveston in March of 2000 to participate in the National Student Research Forum, with students from medical schools around the country. He gave an oral presentation entitled, "Gene Transfer to Intact Mesenteric Arteries by Electroporation," and won the "Award for Overall Excellence of Research." Roughly 200 other presentations were competing for this award.

In September, Dr. Herbert H. Winkler visited Kaiserslautern, Germany, to visit with Dr. Ekkehard Neuhaus. The collaboration between Dr. Winkler and Dr. Neuhaus has resulted in making a connection between plants and intracellular bacteria.

Dr. David A. Dean has accepted a faculty position at Northwestern University and will be leaving us at the end of September. We wish him well and will miss him. Dr. Dean's graduate student, Jennifer Young, is also transferring to Northwestern to continue her graduate studies in his new lab.
1999-2000
SUMMARY OF SCHOLARLY ACTIVITIES
DEPARTMENT OF NEUROLOGY

I. ARTICLES PUBLISHED IN BOOKS AND JOURNALS.

A. Full-length published articles.


B. Articles in press.


J. Boggs. (1) Organ Transplantation and Seizures; and (2) Organ Failure and Seizures. N. Delanty (2000).


II. PUBLISHED ABSTRACTS.


III. BOOKS PUBLISHED.

None.

IV. PRESENTATIONS.


J. Boggs. (1) AEDS: Mechanisms of Action; (2) Emerging AEDs; and (3) Acute Seizures and Status Epilepticus. J. Kiffin Penny Epilepsy Mini-fellowships, Winston-Salem, NC (1999).


R. Zweifler. Advances in Stroke Prevention. Grand Rounds. (1) Memorial Health University Medical Center, Savannah, GA; and (2) Mercer University College of Medicine, Macon, GA (2000).


R. Zweifler. Recent Advances in the Prevention of Ischemic Stroke. (1) Mobile Neurol. Soc., Mobile, AL; (2) Grand Rounds, VA Medical Center - Biloxi, MS; and (3) Tulsa, OK (2000).

R. Zweifler. Advances in Stroke Prevention. (1) North Baldwin Hospital, Bay Minette, AL; and (2) Jackson/Madison General Hospital, Jackson, TN (2000).


V. NATIONAL PROFESSIONAL RECOGNITION.

Dr. B. A. Bassam served as a member of the American Association of Electrodiagnostic Medicine, Training Program Committee (1999-present), Liaison and Proctor for the AAEM annual examination (1994-present).

Dr. Paul Maertens is a member of the board of directors of the Mulherin Home for Children. In January 2000, he served as a member of the Neurosonology Examination Committee of the American Society of Neuroimaging in Puerto Rico. He is a member of the Editorial Board of the Journal of Neuroimaging.

Dr. Jorge Mendizabal was elected a member of the Editorial Board of Neurology Textbook Project as part of eMedicine. He continues to serve as a Fellow of the American Stroke Association Stroke Council.

Dr. John Rothrock serves on the board of directors of the American Headache Society and was program chairman for the Society's June 2000 annual scientific meeting in Montreal. He is a member of the Stroke Belt Consortium and an invited speaker at the Consortium's annual conference in Orlando. He is one of 32 physicians selected to participate in the Neurology Ambassadors Program, a national program intended to promote headache education, which is sponsored by the American Academy of Neurology. He serves as physician advisor to the Mobile chapter of the American Council for Headache Education (ACHE) and as an editor for Neurology Network Commentary.
VI. BRIEF SUMMARY OF DEPARTMENT ACTIVITIES AND PROGRESS.

During this academic year, the Department of Neurology moved its primary office operations to the USA Knollwood campus. This transition, although costly, has led to a 10% increase in patients evaluated. There has been a significant increase in outside funding, primarily through pharmaceutical sources with research studies in stroke, headache, neuromuscular disease, epilepsy, and Alzheimer’s disease funded. Drs. Bassam and Hamilton terminated a nerve growth factor study in neuropathy secondary to diabetes melitus. The results were disappointing. Dr. Jane Boggs, has launched several new studies regarding new pharmacological agents in the treatment of epilepsy. To compliment this research, she has developed a 24-hour inpatient epilepsy monitoring unit at USA-KP, which is fully booked in advance for a couple of weeks. Moreover, Drs. Boggs and Quindlen have 15 patients to receive a vagal nerve stimulator, for refractory epilepsy. This novel approach seems to have a nitch in some refractory patients. Dr. Richard Zweifler, Director of the USA Stroke Center, has continued to maintain a prolific record in collaborative and independent clinical research. Dr. Zweifler has gained national recognition for his research in stroke, and has several ongoing therapies for acute stroke treatment and for stroke prevention. With Dr. Zweifler’s assistance, Dr. Malapira has joined him as a sub-investigator. Dr. Malapira possesses unusual qualities, being fellowship trained in headache, stroke, and neurorehabilitation. Dr. Malapira has initiated a neurorehabilitative program at USA Knollwood in the Long Term Care Center. The USA Headache Center directed by Dr. Mendizabal, and in conjunction with Drs. Rothrock and Malapira, has established several new research programs for the evaluation of therapies for migraine and pervasive headaches. Dr. Rothrock is well-known nationally with regards to headache research, and has continued to provide collaboration both regionally and through national studies. Dr. Pappolla, who has a joint appointment in the Department of Pathology and in Neurology, will complete his neurology training as of September 30 of this year. Dr. Pappolla continues to receive NIH funding for basic research in the effects of antioxidants on the progression of Alzheimer’s disease. It is anticipated, upon his completion of training, that he will establish a formal Memories Disorders Clinic in conjunction with Dr. Hamilton, and will offer special expertise not currently available in this region. Dr. Nowack has recently acquired outside funding for epilepsy research from two pharmaceutical companies. Dr. Maertens has also just entered the research arena in epilepsy; but, unfortunately, his major thrust in the Department of Neurology is to provide pediatric neurology coverage, which has been an overwhelming burden.

Dr. Boggs continues to be the Director of the Residency Training Program, organizing and providing didactic lectures, and the scores on the Neurology In-Service Examination reflects this expanding education exposure. Dr. Hamilton continues to be the
Director of the Medicine Student Training Program and has received praiseworthy comments with regards to this rotation. This rotation has become more diversified, including inpatient and outpatient clinical experience, and association with private practice neurologists. A major problem existing for the department, especially with regards to its neurology residency program, is having only one slot available at the PGY-1 level, whereas two positions are seriously needed. It is impossible to acquire PGY-2s, as most programs now offer ample PGY-1s; therefore, residents do not have to switch programs. As a result, we are going to experience a shortage of residents, which will unfortunately impact our resident program. Overall, the Neurology Department has grown, showing considerable diversification, and actively soliciting and receiving more funding.
I. ARTICLES PUBLISHED IN BOOKS AND JOURNALS.

A. Full length published articles.


B. Articles in press.

None.

II. PUBLISHED ABSTRACTS.

None.

III. BOOKS PUBLISHED.

None.

IV. PRESENTATIONS.

None.

V. NATIONAL PROFESSIONAL RECOGNITION.

None.
VI. BRIEF SUMMARY OF DEPARTMENTAL ACTIVITIES AND PROGRESS.

The Department of Neurological Surgery continues to treat pediatric patients at USA Women's and Children's Hospital with mostly shunt problems, pediatric spinal problems and pediatric head injury. Dr. Eric Weber has now performed several stereotactic ablative procedures for Parkinson's Disease with excellent success and plans to continue this program along with investigation of stereotactic implantation of stimulating electrodes in the thalamus and subthalamic structures of movement disorders.

Dr. Eugene Quindlen, along with Dr. Janes Boggs in Neurology, has successfully initiated a Vagal Nerve Stimulation program for epilepsy. This is a new procedure which has produced significant improvements for seizure patients who have been unresponsive to medications or require large amounts of medications. Further support of this program continues.

Dr. Kent Sauter has been improving the spinal cord injury service at the University Hospital. He has advanced our capability in providing spinal fixation and decompression for patients with difficult spinal problems.

The Department continues to participate in the graduate education in the College of Medicine, giving lectures in Neuroanatomy and Neuropathology, and Neurophysiology. The fourth-year clinical clerkship continues to be a main, ongoing teaching function.
1999-2000
SUMMARY OF SCHOLARLY ACTIVITIES
DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

I. ARTICLES PUBLISHED IN BOOKS AND JOURNALS

A. Full length published articles.


B. Articles in press


II. PUBLISHED ABSTRACTS


III. BOOKS PUBLISHED


IV. PRESENTATIONS


S. C. Lynn, Jr. (1) Evaluation of the Abnormal Pap Smear; and (2) Abnormal Uterine Bleeding. USA OB/GYN Annu. Conf., New Directions in Women's Health Care, Destin, FL (1999)


B. Rizk. Congress President and Chairman of the Scientific Committee. Third World Congress on Microlaparascopy in Gynecology and Obstetrics, Palm Beach, FL (1999).


I.H. Thorneycroft. Oral Contraceptives. (1) Maine Medical Center, Portland, ME; and (2) University of Cincinnati, Cincinnati, OH (2000)


I.H. Thorneycroft. Contracepting the High Risk Patient. (2) Eastern Virginia Medical School, Norfolk, VA; (2) Wayne State University; and (3) Detroit Medical Center, Detroit, MI (2000).

I.H. Thorneycroft. Menopause and Beyond: Realizing the Promise of HRT. Children's and Women's Hospital, Buffalo, NY (2000).


V. NATIONAL PROFESSIONAL RECOGNITION

B. RIZK serves as President of the following: Third World Congress on Microendoscopy in Gynecology and Obstetrics, 1999, and Chairman of the Scientific Committee; The Middle East Fertility Society Chapter of the American Society for Reproductive Medicine in Toronto in 1999 and San Diego, 2000. He is representative of the Central Zone of the United States in the American Representative Committee of the Royal College of Obstetricians and Gynaecologists, London, England; Secretary of the American Representative Committee of the Royal College of Obstetrics and Gynaecology, London, England, 1998-2000; and President of the Mobile Bay Obstetrics and Gynecology Society; 1999-2000. He has been Ad hoc reviewer for ten years to the following Journals: Fertility and Sterility, Human Reproduction, Molecular Human Reproduction, and Middle East Fertility Society Journal, as well as Ad hoc reviewer for the European Society of Human Reproduction and Embryology Task Force on the perinatal outcome and the congenital malformations of intracytoplasmic sperm injection. Dr Rizk is presently on the Editorial Board of the Middle East Fertility Society Journal. He is Board Certified in Obstetrics and Gynecology by the American Board of Obstetrics and Gynecology, Royal College of Obstetricians and Gynaecology of England, and the Royal College of Physicians and Surgeons of Canada. He is Board Certified in Embryology and Andrology by the American Board of Bioanalysts. Dr Rizk was admitted as a Fellow to the Royal College of Obstetricians and Gynaecologists in London.

I.H. Thomeycroft serves as Board Examiner for the American Board of Obstetrics and Gynecology; on the Editorial Board of the journal, The Female Patient; as Reviewer for the American Journal of Obstetrics and Gynecology, Obstetrics and Gynecology, and Fertility and Sterility.

VI. BRIEF SUMMARY OF DEPARTMENT ACTIVITIES AND PROGRESS

The Department once again sponsored very successful continuing medical education programs this academic year. The Eleventh Annual Continuing Education Conference in Obstetrics, Gynecology and Neonatology, held at the Ramada Convention Center in Mobile, was widely supported and attended by physicians and nurses from a large geographic area. The Department is currently in the planning stages for hosting the Alabama State Perinatal Conference for next year.

The facilities for the Department continue to expand and develop. The library, classroom, conference room, and other educational support areas are currently being renovated in the Children's and Women's Education Building. These new facilities will supplement the educational opportunities for faculty, residents, and medical students.

In May, Dr. Lynn Groome accepted the position of Chairman of the Department. In addition, Dr. Peter Rizk was promoted to Professor, and Dr. Susan Baker was promoted to Associate Professor. The Department was also successful in adding Dr. Jennifer Cunningham to the faculty roster in August.
1999-2000
SUMMARY OF SCHOLARLY ACTIVITIES
DEPARTMENT OF OPHTHALMOLOGY

I. ARTICLES PUBLISHED IN BOOKS AND JOURNALS

A. Full length published articles.


B. Articles in press.


II. PUBLISHED ABSTRACTS

III. BOOKS PUBLISHED

None.

IV. PRESENTATIONS


V. NATIONAL PROFESSIONAL RECOGNITION

Saunders L. Hupp, M.D., is a member of the Diabetes 2000 National Operations Committee of the American Academy of Ophthalmology. He also serves on the American Society of Cataract and Refractive Surgery.


Bonnie C. Weston, M.D., serves on the Board of Directors of the Alabama Academy of Ophthalmology. She received an Award of Appreciation from the Alabama Eye Bank (2000).
VI. BRIEF SUMMARY OF DEPARTMENT ACTIVITIES AND PROGRESS

Over the last few academic years, the Department of Ophthalmology has seen increased interest by our medical students in pursuing a career in Ophthalmology. Two years ago, five USA medical students entered the match program. Last year, one USA medical student matched an eye residency program; and, this year, there have been a number of interested students. Medical students are encouraged to take electives within our Department, and our faculty are available for career counseling. Faculty members within the Department of Ophthalmology include: Dr. Leonard S. Rich, Professor and Chairman and Director of Pediatric Ophthalmology; Dr. Saunders L. Hupp, Professor and Vice Chairman and Director of the Division of Neuro-Ophthalmology; Dr. Mark S. Brown, Assistant Professor and Director of Oculoplastic and Reconstructive Surgery; and Dr. Yaffa K. Weaver, Assistant Professor and Director of Glaucoma. Dr. Murray Glusman and Dr. Duane Schrock are members of the Optometric staff who provide patient support services within the Department of Ophthalmology. The resident staff includes a second-year resident and a third-year resident from our affiliated academic institutions: the Ochsner Foundation and LSU Eye Center. The Department has played a supportive role in basic research through the Lions/USA Eye Research Institute. Dr. Robert Lausch is the Director of this research endeavor, and his group is performing outstanding basic eye research at the University of South Alabama.

On Monday evenings at the Health Services Building Media Resource room, the Department sponsors an education video conference with LSU and Ochsner. These lectures are performed not only by our faculty but also by the combined faculties of Ochsner and LSU. This provides continuity of didactic lectures to the Ophthalmology residents in all geographical locations of the Residency Programs.

The Department of Ophthalmology sponsored its annual meeting for the regional ophthalmic assistants, technicians, and nurses. Over 100 individuals from Mississippi, Alabama, and Florida attended this day-long seminar. The staff and faculty work hard to ensure a successful program.

The Department of Ophthalmology continues to see patients at their main campus facility, the Mastin Eye Clinic, and our Baldwin County/Fairhope office. Support services within the Department include ophthalmic photography, an A- and B-scan, an ocular laser center, and complete optical and contact lens facilities.

This year, the Department upgraded their website, www.USAEye.com, which is linked with the American Academy of Ophthalmology’s site so that our patients and referring doctors can obtain basic information on eye diseases. In addition, our website outlines our Department’s faculty and resources.

In May 2000, Dr. Bonnie Weston announced her resignation from the Department, to move to the Chicago area and continue her academic endeavors at Northwestern University. She was an outstanding faculty member and friend, and will be missed. Dr. Steven Roesch announced his resignation in April 2000, to enter private practice in Mobile. Dr. Roesch was with us for over seven years and will also be missed.
1999-2000
SUMMARY OF SCHOLARLY ACTIVITIES
DEPARTMENT OF ORTHOPAEDIC SURGERY

I. ARTICLES PUBLISHED IN BOOKS AND JOURNALS

A. Full-length published articles.


B. Articles in press.


II. PUBLISHED ABSTRACTS.


III. BOOKS PUBLISHED.

None.

IV. PRESENTATIONS.


A.W. Pearsall. (1) A Biomechanical Comparison of Two Different Reconstructive Techniques for Complete Disruption of the Acromioclavicular Joint; and (2) Transoesophageal Echocardiography in the Quantification of Emboli During Reamed versus Unreamed Femoral Nailing. World Cong., Orthop. Sports Trauma, Gold Coast, Queensland, Australia (2000).


A.W. Pearsall. The Surgical Evolution of Treatment of Articular Cartilage Lesions: The OATS Experience at the University of South Alabama Medical Center. Visiting Professor in Sports Medicine, University of Texas El-Paso, El Paso, TX (2000).


V. NATIONAL PROFESSIONAL RECOGNITION.

Dr. Mark Perry was inducted into the American Orthopaedic Foot and Ankle Society and was invited to serve as a faculty member for the AO North America. Dr. Viorel Raducan was selected to be listed in the National Registry of Who's Who in America.
VI. BRIEF SUMMARY OF DEPARTMENT ACTIVITIES AND PROGRESS.

The 1999-2000 year marked the departure of two faculty physicians from the Department of Orthopaedic Surgery. Dr. Arthur Manoli, II, resigned his position as Chairman of the Department, effective November 1, 1999, and relocated to private practice in Pontiac, Michigan. Dr. Russell Meldrum, Chief of Adult Reconstructive Surgery, also resigned effective July 1, 2000, to accept a position in Indianapolis, Indiana.

On November 1, 1999, Dr. Prasit Nimityongskul, Professor and Chief of Pediatric Orthopaedics, assumed the position of Interim Chairman for the Department. Dr. Nimit has served on the faculty in the Department of Orthopaedics for the past sixteen years. His commitment to the treatment of pediatric orthopaedic disorders is evidenced by his extensive involvement in patient care, not only within the University’s health care system, but also throughout the community at large. Dr. Nimit is active in research with ongoing projects focused on ultrasound in the pediatric hip and long-term follow up of clubfoot.

Dr. Albert Pearsall, Director of the Division of Sports Medicine and Shoulder Surgery, achieved promotion from assistant to associate professor during this past year. He also currently serves as a national faculty member for the United States Sports Academy in Daphne, Alabama. Dr. Pearsall is very active in research with four ongoing projects related to orthopaedic injuries of the knee, specific medication usage in the postoperative management of elderly hip fracture patients, and articular cartilage defects. During this year, he has had numerous articles published in the literature and has lectured internationally in Australia at the World Congress on Orthopaedic Sports Trauma and in the State of Bahrain, where he participated in the United States Sports Academy International Sports Specialist Program.

Dr. Mark Perry completed fellowship training in the area of foot and ankle surgery under the direction of Dr. Arthur Manoli, II. He serves as chief of this division within the department and is also medical director for clinical services in the department overseeing orthopaedic patient care in both the Health Services Foundation Clinic and the Stanton Road Clinic. During this past year, Dr. Perry was inducted into the American Orthopaedic Foot and Ankle Society and was invited to serve as a faculty member for the AO, an international association for the study of internal fixation. He served as co-chairman for the two CME meetings sponsored by the department during the year – The 11th Annual Southeastern Orthopaedic Foot Club Meeting and the 5th Annual Gulf Coast Orthopaedic Trauma Symposium. Dr. Perry’s current research projects include post-operative pain control following ankle surgery and diabetic ankle research.

Dr. Viorel Raducan, Director of the Division of Scoliosis and Spine Surgery, was successful in obtaining grant funding for a study entitled “Hook Claw Construct for Instrumentation of a C1-C2 Instability Model - Biomechanical Evaluation and Comparison With Other Methods,” and this research project is currently in progress under his direction. The grant amount is $26,000 cash with hardware costs provided bringing the total in excess of $50,000. Dr. Raducan was invited to be a guest lecturer at Harvard Medical
School for a symposium on low back pain and sciatica which will be held October 12-14, 2000.

Dr. George Russell, Chief of the Division of Orthopaedic Trauma Surgery, has ongoing research projects in five areas dealing with traumatic fractures to the tibia, acetabulum and hip.

Other faculty members include J. Marcus Hollis, Ph.D., departmental research bioengineer, and Dr. Jack Reagan, who serves as a part-time associate professor in the Health Services Orthopaedics Clinic.

All faculty members of the department were selected to be speakers on the program for the Clinical Orthopaedic Society Meeting held in Birmingham, Alabama, September 13-16, 2000. Faculty members also participated as speakers on the program for the annual meeting of the Alabama Orthopaedic Society held in Orange Beach, Alabama, May 12-14, 2000, where two orthopaedic surgery residents from our program tied for 3rd place in the Residents’ Essay Competition.

The department sponsored two CME events during the year; the 11th Annual Southeastern Orthopaedic Foot Club Meeting held May 11, 2000 and the 5th Annual Gulf Coast Orthopaedic Trauma Symposium held September 8-9, 2000. Both events were held in Orange Beach, Alabama.
1999-2000
SUMMARY OF SCHOLARLY ACTIVITIES
DEPARTMENT OF PATHOLOGY

I. ARTICLES PUBLISHED IN BOOKS AND JOURNALS

A. Full length published articles.


B. Articles in press.


II. PUBLISHED ABSTRACTS


III. BOOKS PUBLISHED

None.

IV. PRESENTATIONS


J.R. Stubbs. Visiting Professor. Prophylaxis and Cost-Effective Management of DVT. UAB School of Medicine, Montgomery Internal Medicine Residency Program, Grand Rounds in Medicine, Montgomery, AL (2000).


B.L. Martin Tanious. (1) Metastatic Sarcomatoid Carcinoma of the Lung Mimicking a Primary Brain Tumor; and (2) Non-steroidal Analgesic Drug Abuse Associated With Minimal Change Disease in the Kidney. South. Med. Assn. 93rd Annu. Sci. Assem., Dallas, TX (1999).


V. NATIONAL PROFESSIONAL RECOGNITION

William A. Gardner, Jr., M.D., Professor and Chair, was co-recipient of the Velvet Revolution Award (on the occasion of the 10th Anniversary of the Velvet Revolution) which was presented by the Ambassadors of the Slovak and Czech Republics during an award ceremony in Washington, DC, in the Fall of 1999. He continues to serve as International Councilor and Vice President of the International Academy of Pathology as well as Chair of their Finance Committee. He is Alternate Delegate to the American Medical Association House of Delegates and continues to Chair the Armed Forces Institute of Pathology Scientific Advisory Board and as President of the History of Pathology Society.

In 2000, Betsy D. Bennett, M.D., Ph.D., Distinguished Professor of Pathology and Vice Dean of Student Affairs and Medical Education, completed her term on the Residency Review Committee for Pathology after serving as Chair of the Committee for the past four years. She also completed her term as Member-at-Large on the Executive Board of the Alabama Association of Pathologists. Dr. Bennett continues to serve as Chair of the USMLE Step 1 Cell and Developmental Biology Test Development Subcommittee. She has also participated in several Interdisciplinary Committees set up to review test forms used in the current computer administration of USMLE Step 1.

J. Allan Tucker, M.D., Professor and Vice Chair, served as program director for the Society for Ultrastructural Pathology’s biennial meeting, Ultrapath X, held in Florence, Italy, from July 2 to 7, 2000. The program included over 32 hours of platform presentations as well as posters, and was attended by individuals from 23 countries, representing every continent except Antarctica. At the meeting, Dr. Tucker was elected to the position of president-elect of the society. He also served as the program director for a national meeting of the Society for Ultrastructural Pathology entitled Ultrastructural Pathology of the Nervous System. In addition to that society, he was program director for the History of Pathology Society, and organized the companion meeting of the United States and Canadian Academy of Pathology entitled The Microscope: Inventor of the Pathologists. He served on the editorial board of the Southern Medical Journal, and the abstract review board for the United States and Canadian Academy of Pathology, and he was selected for the editorial board of Human Pathology. He was a lead inspector for the Laboratory Accreditation Program of the College of American Pathologists.

James R. Stubbs, M.D., Associate Professor and Vice Chair, was appointed to the Editorial Board of Annals of Clinical and Laboratory Science, and continues to serve as National Contributing Editor to the American Society of Clinical Pathologists, Resident-In-Service Examination. He Chairs the Medical Advisory Board and is a member of the Board of Directors of the American Red Cross and also serves as a member of the Protection of Human Subjects of the Biomedical Research and Development Division of ARC.

Marla Brumit, M.D., Pathology Resident, was appointed to the College of American Pathologist’s Residents Forum, Alternate Delegate, for a two-year term.
Dr. Cynthia Donnell serves on the National Board of Medical Examiners - United States Medical Licensing Examination (USMLE) Step I Anatomy Committee.

Dr. Judy A.C. King was elected Secretary-elect of the Pathology Section of the Southern Medical Association.

Dr. Elizabeth Manci continues as Director of the Centralized Pathology Unit for Sickle Cell Disease and serves as a reviewer of Pediatric Pathology and Laboratory Medicine, Archives of Pathology and Laboratory Medicine, and The American Journal of Medicine.

Mr. Dale Ulmer, Pathology Assistant, was named Charter Officer Designee of the International Society of Plastination.

Miguel Pappolla, M.D., Associate Professor, received the American Association of Neuropathologists' Weil Award for the Best Paper on Experimental Neuropathology for the year 2000. He also received the Zenith Award from the Alzheimer's Association for "A Pilot Trial of Long-Term Melatonin in AD." In addition, Dr. Pappolla serves as Associate Editor of the Journal of Alzheimer's Disease and on the Editorial Board of the Journal of Neuropathology and Experimental Neurology. He was appointed to the Award Committee for the American Association of Neuropathologists and to the NIH Study Section BDCN-3 Board of Consultants.

VI. BRIEF SUMMARY OF DEPARTMENT ACTIVITIES AND PROGRESS

This year saw the retirement and promotion to Professor Emeritus status of Dr. Song Wong. Other departing faculty included Drs. Scott Riddell, Dr. Beverly Nelson, Dr. Margaret O'Brien, Dr. Julia Goodin, and Dr. Mohamed Elkhalifa. Joining the faculty were Dr. Jacek Polski, Director of Hematopathology; Dr. Kathleen Enstice, Forensic Pathology; and Dr. Maura Pieretti. Dr. Elliot Carter was promoted to Assistant Professor and Director of Clinical Microbiology Laboratory. Dr. James Stubbs was named Director of the Health Services Foundation Laboratory, in addition to his responsibilities as Director of Clinical Laboratories for the USA Hospitals. Dr. Allan Tucker, Vice-Chair of the Department, was appointed to assume responsibilities as Compliance Officer for the University. Dr. Miguel Pappolla was named the Interim Scientific and Research Director of the Alzheimer's Foundation of the South. Several faculty members received subspecialty certification by the American Board of Pathology: Dr. Marcelo Horenstein, in Dermatopathology; Dr. Carole Boudreaux, in Cytopathology; and Dr. Dwayne Wolf, in Forensic Pathology.

Drs. Bennett, Donnell, Gardner, Riddick, Roveda, Stubbs, and Tucker were honored by the 2000 Graduating Class at the Honors Convocation, and the Department was recognized for the Best Basic Science Course by the Graduating Class.
1999 - 2000
SUMMARY OF SCHOLARLY ACTIVITIES
DEPARTMENT OF PEDIATRICS

I. ARTICLES PUBLISHED IN BOOKS AND JOURNALS

A. Full length published articles.


B. Articles in press.


II. PUBLISHED ABSTRACTS.


III. BOOKS PUBLISHED.
None.

IV. PRESENTATIONS.


M.M. Zayek. Exogenous Surfactants in the Management of RDS. (1) Grand Rounds at Children’s Hosp.; (2) Ruth Chris Steakhouse to Neonatologists, Pediatricians, Nursing and Allied Health staff; (3) Pediatric Grand Rounds at Fairview Univ. Hosp., Minneapolis, MN; and (4) DeMoles Art Center to Neonatologists, Pediatricians, Neonatology Nurses, and NP’s, Des Moines, IA (2000).


V. NATIONAL PROFESSIONAL RECOGNITION.

Robert C. Boerth was elected to faculty membership in the Alpha Omega Alpha Honor Medical Society by the USA College of Medicine AOA Chapter. Dr. Boerth continues to serve on the Ronald McDonald House Charities of Mobile, Board of Directors; the Executive Committee of the Alabama Chapter, American Academy of Pediatrics; and as Interim Associate Dean for Clinical Affairs. LaDonna Crews completed a Faculty Development Fellowship at Michigan State University. Benjamin Estrada continues to serve as the Pediatric Research in Office Settings (PROS) Coordinator for the State of Alabama. He also served on the Editorial Board for the Pediatric Infectious Diseases Forum. Fabien Eval continues to serve on the Alabama Chapter, American Academy of Pediatrics Fetus and Newborn Committee. David Greensee continues to serve as Chairman of the Committee on Academic Issues, Alabama Chapter, American Academy of Pediatrics.

Paul Jansen was approved for membership in the Southern Society for Pediatric Research. Felicia Little Wilson was the First Faculty Recipient of the "Humanism in Medicine Award" at USA. She continues to serve on the Hematology/Oncology Study Section of the American Board of Pediatrics, and the State of Alabama Hemophilia Advisory Committee. Mary Manceo continues to serve as a member of the American Society of Microbiology. Keith Peevy serves on the Alabama Chapter of the American Academy of Pediatrics Fetus and Newborn Committee. Jorge Quiñonez served as President of the Mobile Pediatric Society. Kenneth Rettig was recognized by the Provider Recognition Program of the American Diabetes Association and the National Committee for Quality Assurance for the high quality care given his patients.

R. Franklin Trimm continues to serve on the Task Force on Residency Education in Developmental-Behavioral Pediatrics, Society of Developmental and Behavioral Pediatrics. Dr. Trimm was presented with the "Chair’s Award" by the USA Department of Pediatrics for his effective educational leadership as Pediatric Residency Program Director and his dedicated advocacy for Pediatric residents. Richard Whitehurst served on the Alabama Regional Perinatal Advisory Committee. Yih-Ming Yang continues to serve on the Board of Directors of the Sickle Cell Disease Association as a member and 2nd Vice Chair; State of Alabama Hemophilia Advisory Committee; Alabama Newborn Screening Advisory Council; Director of the Hemoglobin Diagnosis Laboratory, Sickle Cell Association of America, Mobile Chapter; Principal Investigator, Pediatric Oncology Group; and as Medical Director of Camp RAP-A-HOPE.
VI. BRIEF SUMMARY OF DEPARTMENT ACTIVITIES AND PROGRESS.

Four new faculty members joined the Department of Pediatrics over the past year. Dr. Judy Blair-Elortegui joined as an Assistant Professor in the area of Combined Medicine/Pediatrics. Dr. Samar Bhowmick joined the Division of Pediatric Endocrinology and General Pediatrics as Associate Professor of Pediatrics. Dr. Sheryl Falkos joined the Division of Pediatric Critical Care as Assistant Professor of Pediatrics. Dr. Renu Mathews joined the department in the Division of General Pediatrics as Pediatric Chief Resident. This past year saw the departure of Drs. Charles Hoff and R. Blaine Moore (Pediatric Research), Dr. Dana Ketchum (General Pediatrics/Pediatric Infectious Diseases), Dr. Meera Varman (General Pediatrics), and Dr. Lisa Young (Pediatric Chief Resident).

The following Pediatric Faculty members were recognized by the COM students as Distinguished Faculty Members at the 2000 Honors Convocation: Drs. Robert Boerth, David Gremse, Charles Hamm, Felicia Little Wilson, Kenneth Rettig, Franklin Trimm, and Yih-Ming Yang.

The seventh recipient of the Hollis J. Wiseman Award for Excellence in Pediatrics was Patrick L. Bosarge, Jr. Five of the graduating medical students chose residencies in pediatrics (n=4) or combined medicine/pediatrics (n=1). Of the pediatric residents completing residency this year, one joined our faculty in the Division of General Pediatrics (Chief Resident), one joined the faculty at the USA Children’s and Women’s Hospital Children’s Evaluation Center, and six entered private practice. Of the medicine/pediatric residents completing residency, one joined our faculty in Combined Med/Peds and the other joined the faculty at the USA Children’s and Women’s Hospital Children’s Evaluation Center. As of July 1, 2000, six first-year residents entered the pediatric residency program, and three first-year residents entered the combined medicine/pediatrics residency program.

Clinical activity and billed charges continued stable within the Department of Pediatrics. The Children’s Miracle Network Telethon was again successful, raising over $380,000 to benefit the USA Children’s and Women’s Hospital.

The Department of Pediatrics was productive this past year in terms of scholarly output. There were 28 original articles published or in press and 18 published abstracts by faculty members of the department.
1999-2000
SUMMARY OF SCHOLARLY ACTIVITIES
DEPARTMENT OF PHARMACOLOGY

I. ARTICLES PUBLISHED IN BOOKS AND JOURNALS

A. Full length published articles.


B. **Articles in press.**


II. PUBLISHED ABSTRACTS.


Crystal Structure of 4a-OH-Tetrahydropterin Dehydratase/DCoH Complexed With a 

J. Creighton and T. Stevens. cAMP Accumulation Dictates Calcium Inhibition of 
Adenylyl Cyclase 6 Necessary to Increase Gap Formation in Lung Microvascular 

M. El-Menshawi, T. Moore, N. Norwood, and T. Stevens. Transcytosis Through 

Disparate Effects of Exogenously- and Endogenously-Generated Reactive 
Oxygen Species on Mitochondrial DNA Integrity in Pulmonary Vascular 

V. Grishko, S.P. LeDoux, G.L. Wilson, and M.N. Gillespie. Xanthine-Oxidase 
Induced Mitochondrial DNA Damage in Pulmonary Vascular Endothelial Cells: 

Xanthine Oxidase-Induced Mitochondrial DNA Damage in Pulmonary Vascular 

J. Haynes, B. Obiabko, P. Babal, G. Brough, and T. Stevens. 5′-(N-
Ethylcarboxamido) Adenosine Rapidly Desensitizes the A2 Adenosine Receptor 

of Glucocorticoid Receptor-Mediated Growth Arrest by Ser/Thr Protein 

D.W. Kililea, V. Grishko, M. Solomon, S.P. LeDoux, G.L. Wilson, and M.N. 
Gillespie. The HIF-1 Response Element in the Pulmonary Artery Smooth Muscle 
Cells VEGF Gene Is Oxidatively Modified by Hypoxia. FASEB J. 14:A586 
(2000).

M. Li. T-type Ca2+ Channel and Pancreatic β-Cell Function. Proc., Int. Huaxia 

N. Norwood, T. Moore, and T. Stevens. Use of the Myosin Light Chain Kinase 
Inhibitor, ML-9, Reveals a Mechanism for Increased Pulmonary Artery 


III. BOOKS PUBLISHED

None.

IV. PRESENTATIONS


M. Li. Calcium Signal and Diabetes Mellitus. 3rd Med. Univ., Chongqing, P.R. China (1999).


V. NATIONAL PROFESSIONAL RECOGNITION

The Department of Pharmacology had three faculty members who served on editorial boards of major journals. Dr. Mark Gillespie served on the Editorial Board of the American J. of Physiology; Dr. Stephen Schaffer on Molecular and Cellular Biochemistry, Section Editor for Amino Acids; and Dr. Samuel Strada on CNS Drug Reviews. Dr. Jonathan Scammell was appointed to the Editorial Advisory Board of Journal of Pharmacology and Experimental Therapeutics.

A number of faculty members served on various committees for national and international conferences, review boards, and study sections. Dr. June Ayling served on the International Scientific Committee for the 12th International Conference on Pterins, Folates and Related Biogenic Amines. Dr. Mark Gillespie served on the Lung Biology and Pathology Study Section, Special Study Section on Biological Effects of Intermittent Hypoxia, and Special Study Section on STTR/SBIR grants for NIH; served on the Long Range Planning Committee; and Chaired the Nominating Committee of the American Thoracic Society; Dr. Jack Olson served as Merit Reviewer for the Department of Veteran Affairs. Dr. Jonathan Scammell is a member of the Biochemical Endocrinology Study Section, NIH. Dr. Stephen Schaffer served on the Review Board
of the Southern Consortium, American Heart Association, and Ad-Hoc member of NSBRI Study Section. Dr. Troy Stevens served as an Ad Hoc Member of the Lung Biology and Pathology Study Section, NHLBI, and the Applied Physiology Study Section, RAP; Chaired symposium on the Mechanisms Regulating Endothelial Cell Permeability for Experimental Biology; Chaired NIH Workshop on Endothelial Cell Phenotypes; and served on the Pulmonary Circulation Planning and Program Committees for the American Thoracic Society. Dr. Samuel Strada was appointed to the Nominating Committee Council of Academic Societies, AAMC; served as Representative for the Association for Medical School Pharmacology; and participated in a site visit to evaluate the Department of Pharmacology at Loyola University.

The Department received additional funding through a number of research grant awards. Dr. Jack Olson received a Grant-in-Aid from the American Heart Association, Southern Consortium for research on "Pulmonary Endothelial Cell Wound Repair and Polyamines". Dr. Danna Zimmer received two subcontract grants, one with Boston University from NIH entitled "Deciphering the Cellular Functions of Aldolase," and another with the University of Maryland from the American Cancer Society entitled "Studies on Interactions between p53 and S100 Proteins."

Patents of Dr. Steven Bailey and Dr. June Ayling have resulted in a licensing agreement with Merck KGaA, Darmstadt, Germany, to market world-wide "Food and Vitamin Preparations Containing Natural Reduced Folates." If Merck is successful in marketing the product, the royalties generated could provide a substantial source of income for the College of Medicine.

VI. BRIEF SUMMARY OF DEPARTMENTAL ACTIVITIES AND PROGRESS

Dr. Arin Bhattacharjee and Dr. David Killilea completed the requirements for the Ph.D. degree in Basic Medical Sciences. Dr. Bhattacharjee conducted his research in the laboratory of Dr. Ming Li. His dissertation was entitled "Functional Characterization of T-Type Ca²⁺ Channels in Pancreatic β-Cells." Dr. Killilea conducted his research in the laboratory of Dr. Mark Gillespie. His dissertation was entitled "Oxidative Stress in Hypoxic Signal Transduction."

Ms. Natalie Norwood was awarded the 2000 Proctor & Gamble Professional Opportunity Award for Meritorious Research by the Council of the American Physiological Society. Ms. Norwood was one of seventeen recipients selected by the Steering Committee of the Respiration Section. Her presentation was entitled "Distinct Regulation of Endothelial Cell Permeability by Proteolytic and Direct Activation of the Thrombin Receptor."

The Department hosted visits by several distinguished scientists: Drs. Piero Anversa (New York Med. Col.), Bruce Freeman (Univ. of Alabama, Birmingham), Richard Gaber (Northwestern Univ.), William Parks (Washington Univ.), and Marlene Rabinovitch (Univ. of Toronto).
1999 - 2000
SUMMARY OF SCHOLARLY ACTIVITIES
DEPARTMENT OF PHYSIOLOGY

I. ARTICLES PUBLISHED IN BOOKS AND JOURNALS

A. Full length published articles.


B. Articles in press.


II. PUBLISHED ABSTRACTS


X.-M. Yang, J.M. Downey, and M.V. Cohen. HMR 1883, a Surface K\textsubscript{ATP} Channel Antagonist, Blocks Protection From Diazoxide: Diazoxide’s Specificity for Mitochondrial K\textsubscript{ATP} Is Questionable. Circulation 100:I-342 (1999).


III. BOOKS PUBLISHED

None.

IV. PRESENTATIONS


J.N. Benoit. Cyclic Nucleotide Induced Modulation of Vascular Smooth Muscle. Department of Surgery, Ren Ji Hospital, Shanghai Second Medical University, Shanghai, People's Republic of China (2000).


A.E. Taylor. I/R Lung Injury. (1) 8th Shin Kong Wu Ho-Su Memorial Symp., Taipei, Taiwan; and (2) University of Dundee, Dundee, Scotland (2000).


M.I. Townsley. The Forgotten Organ: Adaptations of the Lung to Chronic Heart Failure. Department of Physiology and Cell Biology, Ohio State University, Columbus, OH (2000).


V. NATIONAL PROFESSIONAL RECOGNITION.

AUBREY E. TAYLOR: Served in the following capacities: Secretary-Treasurer, Association for Chairmen of Departments of Physiology; American Heart Association - Basic Science Committee, Long Range Planning Committee of Cardiopulmonary and Critical Care Council; AHA Representative to AAALAC. Vice-President, International Society of Pathophysiology; Editor: Clinical Sciences; Editorial Board: American Journal of Physiology: Heart and Circulation; Journal of Applied Physiology; American Journal of Respiratory Disease; and Critical Care Medicine. Sponsor - Science by Mail. Awards: American Heart Association Southeast Affiliate Distinguished Honoree, University of South Alabama College of Medicine Medical Alumni Association Distinguished Service Award.


MICHAEL V. COHEN: Served in the following capacities: Editorial Board of Basic Research in Cardiology and Heart Disease: A Journal of Cardiovascular Medicine. Member of Clinical and Integrative Cardiovascular Physiology Study Section of the American Heart Association and the NIH SCOR Study Section.

JAMES M. DOWNEY: Served in the following capacities: Co-organizer of "Adenosine Cardioprotection and its Clinical Application," an international satellite symposium to the American Heart Association Scientific Sessions in Atlanta. He also served as Co-Manager of the website on the Communications Committee of the Council of Basic Cardiovascular Sciences for the American Heart Association. He is currently President-Elect of the International Society for Heart Research, an international organization with over 3,000 members worldwide. Member of the AMP579 Advisory Committee to Aventis Pharmaceutical Co. Member of the CVB Study Section of the National Institutes of Health. Editorial board member for Circulation Research, Journal of Cellular and Molecular Cardiology, and Basic Research in Cardiology.

JAMES C. PARKER: Served in the following capacities: Reviewer: Journal of Applied Physiology; American Review Respiratory Disease; Microvascular Research; American Journal of Physiology; Clinical Sciences, Anesthesiology; Journal of Physiology

VI. BRIEF SUMMARY OF DEPARTMENT ACTIVITIES AND PROGRESS

Drs. J. Gardner, M. Krenz, R. McMillon, T. Moore, A. Nakano, T. Pain, Y. Shirasawa, Z. Xu were postdoctoral fellows in the department. Drs. Cohen, Dyess, Haynes, Hamm, and Culpepper continue as excellent contributors to the research and teaching programs within the Department of Physiology. The following distinguished scientists have visited the department this year: Dr. Paul M. Quinton, Department of Pediatrics, University of California at San Diego School of Medicine, La Jolla, CA; Dr. Garrett J. Gross, Department of Pharmacology, University of Wisconsin, Milwaukee, WI; Dr. Arthur S. Slutsky, Department of Medicine, Mount Sinai Hospital, Toronto, Ontario, Canada; Dr. Steven Pelech, Department of Medicine, University of British Columbia, Vancouver, BC, Canada; Dr. Michael A. Matthay, Cardiovascular Research Institute, University of California, San Francisco, CA; and Dr. Kristine Kamm, Department of Physiology, University of Texas Health Sciences Center, Dallas, TX. Dr. Gerd Heusch, Department of Pathophysiology, University School of Medicine at Essen, Essen, Germany, continued his sabbatical working with Drs. Downey and Cohen.

Jason Martin and John LeDoux (Class of 2002) presented research papers at the National Medical Student Research Forum in Galveston, TX. Jason Martin won the competition. Jason Martin was sponsored by Dr. Benoit (Physiology) and Dr. David Dean (Microbiology). John LeDoux was sponsored by Dr. Wilson.

Dr. Britt Wilson was our Course Director this year, and the faculty continued to use the concept of “Bottom Lines” in order to emphasize certain key elements in physiology that must be learned by the medical students. Dr. Taylor received the Distinguished Service Award from the University of South Alabama College of Medicine Medical Alumni Association and was the distinguished honoree at the American Heart Association Gala held in Mobile in May 2000.
1999-2000
SUMMARY OF SCHOLARLY ACTIVITIES
DEPARTMENT OF PSYCHIATRY

I. ARTICLES PUBLISHED IN BOOKS AND JOURNALS.

A. Full-length published articles.


B. Articles in press.


II. ABSTRACTS.


III. BOOKS PUBLISHED.


IV. PRESENTATIONS.

C.L. Rich. Suicide as a Medical Problem: A Practical Model for Clinicians. (1) UAB Department of Psychiatry and Behavioral Neurobiology, Grand Rounds, Birmingham, AL (1999); and (2) Mississippi Psychiatric Assn., Point Breeze, AL (2000).

V. NATIONAL PROFESSIONAL RECOGNITION

Dr. Manuel L. Cepeda continued to serve on the Editorial Board of the *Southern Medical Journal*.

Dr. James W. Croake served as an International Editor for the *Canadian Journal of Adlerian Psychology*, Associate Editor for the *American Journal of Family Therapy* and *Family Relations*, and served on the Editorial Board of *The Australian and New Zealand Journal of Family Therapy*. He reviewed grant applications for the March of Dimes and the Canadian Government Grants in Mental Health.

Dr. Charles L. Rich continued as Editor-in-Chief of the *Annals of Clinical Psychiatry* and on the Editorial Boards of *Suicide and Life Threatening Behavior* and the *Archives of Suicide Research*. He also served on the Scientific Advisory Board for the American Foundation for Suicide Prevention.

VI. BRIEF SUMMARY OF DEPARTMENT ACTIVITIES AND PROGRESS

Several faculty resignations and other changes in community psychiatric services have intensified the need to look for creative solutions to needs for educational venues. This has already led to expanded activities with some existing affiliates, especially the Mobile Mental Health Center. A new affiliation with the Mobile Infirmary Medical Center has also been forged.

Departmental research efforts have continued to follow established paths. Dr. Manuel Cepeda is still collaborating with his son, Nicholas, a doctoral student in psychology at the University of Illinois, Champaign-Urbana. They are investigating underlying mechanisms of Attention-Deficit/Hyperactivity Disorder in school children. Drs. Dhossche and Rich have continued studies of suicide in Mobile County. Dr. Dhossche has also worked with various residents on projects related to suicide and substance abuse among medical patients. Dr. Croake continues his collaboration with colleagues in Seattle on factors influencing fear in adults.
1999-2000
SUMMARY OF SCHOLARLY ACTIVITIES
DEPARTMENT OF RADIOLOGY

I. ARTICLES PUBLISHED IN BOOKS AND JOURNALS

A. Full-length published articles


B. Articles in press


II. PUBLISHED ABSTRACTS.


III. BOOKS PUBLISHED

None.

IV. PRESENTATIONS


V. NATIONAL PROFESSIONAL RECOGNITION


**B.G. Brogdon** is on the Editorial Board for *Surgical and Radiologic Anatomy* and for the *Journal of Forensic Sciences*. Dr. Brogdon is on the Board of Directors for Nycomed International Continuing Education in Radiology. He is on the Advisory Board of the National Institute for Continuing Medical Education and is Chair of the Convention Planning Committee of the International Skeletal Society.

**A.F. Green** is a Board Examiner for the American Board of Radiology. **M.S. Figarola** is a manuscript reviewer for the *American Journal of Radiology*. **M.D. Harpen** is a member of the Research Awards in American Association of Physicists in Medicine - Advising Panel.

**D.E. Herbert** organized and chaired two symposia at the World Congress on Medical Physics and Biomedical Engineering held in Chicago, July 2000: 1) Error in Medicine: A Symposium; and 2) Perspectives in Technology. Dr. Herbert is Chair of the American Association of Physicians in Medicine (AAPM) Statistics Committee, two AAPM Biological Effects Committee Task Groups, and is a member of one AAPM Biological Effects Committee Task Group. He is a member of the Steering Committee for the 6th International Conference on Dose, Time and Fractionation in Radiation Oncology to be held at the University of Wisconsin, Madison, 23-26 September, 2001. Dr. Herbert is the Director of the COM Biostatistics and Epidemiology Core Unit and Director of the USA Comprehensive Sickle Cell Center Statistics Core Unit.

**M.L. Lecklitner** is on the Board of Trustees for the American College of Nuclear Physicians, Washington, D.C. He is published in *The Best Doctors In America*, Woodward/White Publishers.

**G. Morgan** is working on a grant to help set up radiologic services in Africa.

**S.K. Teplick** is a manuscript reviewer for the *American Journal of Gastroenterology*, *Journal of Vascular and Interventional Radiology*, *Journal of Radiology*, *Journal of Gastrointestinal Endoscopy*, *Kidney International* and *American Journal of the Medical Sciences*, *Journal of the Society of Cardiovascular and Interventional Radiology*, and *Kidney International*. He is Chairman of the Educational Exhibits Committee for the Radiological Society of North America and member of the Educational & Research Council for RSNA. He is an RSNA reviewer for Awards in Excellence in Research and Education.
and RSNA Grant Reviewer. He is a Board Examiner for the American Board of Radiology. Dr. Teplick is the Alternate Councilor to the American College of Radiology - Alabama Academy of Radiology.

Richard L. Wesenberg was appointed by the Board of Trustees of the American Medical Association as the AMA Representative on the Diagnostic Radiology RRC (Residency Review Committee), 2000-2002. He was appointed to a three-year term as AUR (Association of University Radiologists) Representative to the House of Delegates of the American Medical Association, 2000-2003. Dr. Wesenberg was also appointed as a member to the Nuclear Medicine Committee of the Society for Pediatric Radiology, 2000. He was elected to a three-year term on the Council on Medical Education of the Medical Association of the State of Alabama, 2000-2003.

VI. BRIEF SUMMARY OF DEPARTMENT ACTIVITIES AND PROGRESS

The Department of Radiology is pleased to welcome two new faculty members: Margaret Mowry and Dianna Ragula. Dr. Nancy Lawhon moved to go to the University of Mississippi.

Frank G. Greiner was awarded the “Outstanding Instructor Award” for 2000 by the graduating residents.

Lane S. Kannegieter, M.D., and M. Suzy Figarola, M.D., were promoted to Associate Professor. Jeffrey C. Brandon, M.D., was promoted to full Professor with tenure and appointed Assistant Dean for Graduate Medical Education.

Richard L. Wesenberg, M.D., was elected Chairman of the Evaluations Committee at the USA Faculty Senate, 2000-2001; and as a member of the Executive Committee of the USA Faculty Senate, 2000-2001.

Developments

1) Installation of new equipment is nearly complete.

2) Our teleradiology service is now configured so that we can send images among all three of our hospitals. Also, we currently service four rural hospitals and are about to add a fifth.

3) Moving toward PACS and Filmless Department. The ERs and several of the floors at each hospital can now view films electronically using PC workstations.

4) In early stages of developing a Vascular Center at Knollwood Park Hospital.

5) In process of developing a relationship with the Biloxi VA.
I. ARTICLES PUBLISHED IN BOOKS AND JOURNALS

A. Full-length published articles.


B. Articles in press.


II. PUBLISHED ABSTRACTS.


III. BOOKS PUBLISHED.

None.

IV. PRESENTATIONS.


A. Luterman. Visiting Professor. What’s New in Burn Treatment. Cook County Hospital Trauma Grand Rounds, Chicago, IL (1999).


A. Luterman. What’s New in Burns. (1) St Joseph’s Hospital Burn Center, Fort Wayne IN; and (2) Baptist Hosp. Trauma Symp., Pensacola, FL (2000).


V. NATIONAL PROFESSIONAL RECOGNITION

Dr. D. L. Dyess served as State Faculty and Course Director for the Advanced Trauma Life Support Course of the American College of Surgeons (ATLS). In addition, she served as Editorial Consultant for the Southern Medical Journal, as the University Contact Faculty member for the Association of Academic Surgery, and as the State Contact Member for the Association of Women Surgeons. Dr. Dyess is also a member of the Breast Disease Committee for the National Surgical Adjuvant Breast & Bowel Project (NSABP).

Until his resignation at the end of April, 2000, Dr. S.D. Izenberg served as Chairman of the State Committee on Trauma (COT) of the American College of Surgeons, as a Council Member of the Alabama Chapter, American College of Surgeons, as a Reviewer for the Alabama State Quality Assurance Foundation, on the Medical Control Commission of Southwest Alabama Emergency Medical Service System (SWAEMSS), and on the Alabama State Medical Control Committee.

Dr. A. Luterman served on the Advisory Board of Robert Wood Johnson Pharmaceutical, Inc. He also served on the following committees: State of Alabama, Department of Public Health, Trauma Systems Advisory Committee; State of Alabama, Southeast Regional Critical Care Society; American Burn Association International Relationships Committee; Southeast Regional Critical Care Society Steering Committee; American Burn Association Federal Issues Committee; and as Chairman, American Burn Association Regionalization Committee. He was a Council Member, Alabama Chapter, American College of Surgeons, a Capital Program Member of the American College of Surgeons. He was on the Editorial Boards of the following journals: The American Surgeon, Journal of Burn Care and Rehabilitation, and New Directions in Critical Care Nursing. He served as a Consultant for Integra Life Sciences and on the National Consultant Panel of Merck Pharmaceuticals.

Dr. W.E. Pofahl served on the Editorial Board of Current Surgery.

Dr. R. W. Powell served as Editorial Consultant to the Journal of Pediatric Surgery and the Journal of Trauma.

Dr. C. B. Rodning received the Scarlet Sash Award for Faculty USA College of Medicine by the Graduating Class for the Most Meaningful Input into Their Medical Education, 1999-2000. He also received the Physician's Recognition Award from the American Medical Association, 1999-2002. Dr. Rodning served on the following committees: Educational Resources (Video) Committee, Society of American Gastrointestinal Endoscopic Surgeons; Vice-Regent, Alabama Chapter, International College of Surgeons; Meeting Program and Coordination Committee, International College of Surgeons; Section of Medical Schools, Liaison Committee, Graduate Medical Education,
American Medical Association; and the ad hoc Committee, Building for Medical Museum, Mobile County Medical Society. He was listed in the Directory of American Poets & Fiction Writers, Who's Who in American Men and Women of Science (Jaques Catell Press), Who's Who in Science and Engineering (Marquis Who's Who Publication) Lexington Registry of Executive and Professionals, and South and Southwest (Marquis Who's Who Publication). He served on the Editorial Board, Online Journal of Digestive Health, and as Field Liaison Physician, Commission on Cancer, American College of Surgeons. Dr. Rodning was a reviewer for the following medical journals: Chest, J of Critical Illness, J Histochem. Cytochem, Pediatrics, Review of Infectious Diseases, and the Southern Medical Journal. Dr. Rodning also served as the Scientific Program Coordinator, Alabama Chapter, American College of Surgeon, June 8-10, 2000, Point Clear, AL.

Dr. W. O. Thomas, III, served on the Editorial Board of the Southern Medical Association of which he is a member. He is also a member of the Alabama Society of Plastic & Reconstructive Surgeons and a Fellow in the American College of Surgeons. He received certification in Cosmetic Laser Services.

VI. BRIEF SUMMARY OF DEPARTMENT ACTIVITIES AND PROGRESS.

This past year the Department of Surgery underwent some significant changes. Overall, the year was one of progress towards fulfillment of the mission of education in the art and science of surgery, provision of state-of-the-art care for the region, and advancement of the surgical field through basic science and clinical research. Health care in the United States is undergoing significant change, as is the entire field of medical education. The Department of Surgery has been successful in adjusting to changes in order to provide quality education and training to undergraduate and graduate medical students and residents. The basic infrastructure of the Department of Surgery has evolved to assure continuation of its mission irrespective of future changes.

This past year a new Division of Vascular Surgery was created under the leadership of Dr. Jeffrey Manord. The comprehensive center planned will include all the components of this rapidly-expanding and evolving field. The new center promises to be a resource for provision of service to the region and education and training for students and residents.

The Trauma and Critical Care Division under the leadership of Dr. Richard Gonzalez, continues to expand the provision of education and training. Residents from other programs are now availing themselves of this unique quality experience with a senior and junior resident in surgery now rotating at the Trauma Center from the Ochsner Clinic in New Orleans. In addition, a major Federal Grant was secured to create the first center dedicated to the study of rural trauma. This is the first of its kind in the country and promises to be a major ongoing project for several years.

The Solid Organ Transplantation Center has matured into a regional resource, expanding its base of operations to the panhandle of Florida. Dr. Barry Browne, Director, and the University of South Alabama Transplantation Team have performed superbly in
establishing the center and rapidly increasing its activity. The reputation of the program is excellent and the results reported to date are some of the best in the country. Continuing growth of this program is anticipated for the coming year. The educational value this program has provided for the students and residents at the University of South Alabama is invaluable. Surgery residents no longer need to rotate out of the region to gain this experience.

The Urology Division, under the leadership of Dr. James Cummings, continued its growth with provision of increasingly more diverse and complex services. Planning for expansion of this division to satisfy the increasing clinical needs in this region and the educational requirements of the diverse medical and paramedical programs of this region are being made. In addition, a number of significant research contributions have emanated from this division increasing its visibility and reputation at the regional and national levels.

The Burn Center expanded its activity this year to include Chronic and Complex Wounds. The Burn Center is a true regional resource recognized at the local, state, regional, national, and international levels. The new addition of services has proven a success with additional education, service, and research opportunities that continue to develop. A new facility to house this combined service is being constructed in the University of South Alabama Medical Center.

Research activities continue in all divisions. The dedicated clinical research office continues to be extremely busy with new projects being added on a regular basis. The reputation of the Department as a source for quality clinical research continues to be strong, with numerous faculty members actively involved at various levels in the development of new products and techniques in the realm of surgery. The faculty of the Department of Surgery have presented from numerous platforms on a wide variety of topics.

The demand for surgical education and training at the University of South Alabama remains high. The program is highly sought because of the quality of the experience, breadth and depth of the training, and quality of current and graduating residents. The Department of Surgery Education and Training Program includes medical students, paramedical students, and graduate residents. The Department of Surgery is active in local, state, regional, and national education and training. A dedicated office of Surgical Education provides the coordination and management for all educational programs and endeavors. This has made the institution of new conferences or programs easy to accomplish as the requirements for education and training have changed.

These times are some of the most challenging in the recent history of provision of surgical care, education, and training. The national healthcare system is undergoing major transitions. Education in the art and science of surgery, research and the very nature of the services required from a Department of Surgery are evolving daily. The Department of Surgery this past year remained strong and true to the mission for which it was created. As the requirements and resources change the Department of Surgery will remain focused on its mission and continue to strengthen as it did this past year.
I. ARTICLES PUBLISHED IN BOOKS AND JOURNALS

A. Full-length published articles.


B. Articles in press.


II. PUBLISHED ABSTRACTS

None.

III. BOOKS PUBLISHED


IV. PRESENTATIONS


D. Hicks. Workshop Series. USA Telemedicine VTel HS2000 Training. Mobile County Health Department, Gorgas Clinic, Mobile, AL (2000).

D. Hicks. Distance Learning: A Guide to Video Conferencing Training Workshop. (1) Jackson Memorial Hospital, Jackson, AL; and (2) Evergreen Medical Center, Evergreen, AL (2000).

R.M. Matens. Cultural Competency Issues for Health Care Providers: The Provision of Quality Care for Ethnically Diverse Communities. Covering Kids Program. (1) Troy State University School of Nursing; and (2) University of Alabama Birmingham, Birmingham, AL (2000).


T.S. Trainor and D. Hicks. USA Telemedicine and the Baldwin Abuse Network. Television Interview and Demonstration, WALA, Mobile, AL (2000).

V. NATIONAL PROFESSIONAL RECOGNITION

Dr. Regina Benjamin, Associate Dean for Rural Health, received the following honors: Smithsonian Computerworld 2000 Medal for Advances in Medical Technology; M. Taylor, A Voice for Patients: At Home in Rural Alabama, She’s Still Setting Milestones in Medicine Modern Healthcare May 22:34-35 (2000); Cover Clarity Magazine 2 (5): 20 (2000) N.B. Henderson A1999 Women of the Year - Dr. Regina M. Benjamin; Honorary Degree, Morehouse School of Medicine, Atlanta Georgia; Member Institute of Medicine, National Academies of Science; Member Council on Graduate Medical Education (COGME); Member United States Medical Licensing Exam Step 3 Committee; Commissioner, Henry J. Kaiser Family Foundation Commission on Medicaid and the Uninsured; Member Governor’s Task Force on Children’s Health; Member Robert Wood Johnson Southern Rural Access Program, National Advisory Committee; Member Advisory Committee, National Center for Medical Ethics, Tuskegee; Member Advisory Committee, UAB School of Public Health; Member Rural Medical Scholars Program Third-Year Review Team; University of Alabama School of Medicine; Continues to serve as a member of the Board of Censors Medical Association State of AL; AL Board of Medical Examiners; State Committee of Public Health; and the Federation State Medical Licensing Boards; Member Board Physicians for Human Rights; and received the Health Management Technology What Works Award, Honorable Mention (1999).

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The Office of Rural Health supports medical education and health delivery components for South Alabama including medical education, primary health profession students, medical residency training, and continuing medical education. The Office of Rural Health also provides support for rural and/or isolated providers, patient access to health education, patient access to specialty care, and communities’ access to the medical information resources of the USA Biomedical Library.

In pursuit of these activities, the Office of Rural Health managed and oversaw five grant programs during FY2000: (1) Alabama AHEC Program – $1.4 million per year; (2) Health Resources and Services Administration (HRSA) Bureau of Health Professions [Approval for three-year grant period]; (3) USA Telemedicine – $1.3 million [HRSA Office for the Advancement of Telehealth]; (4) Alabama Family Practice Rural Health Board – $10,000; (5) DeltaNet Practice-Based Research Network – $15,000 [Agency for Healthcare Research and Quality to establish a Practice-Based Research Network and electronic medical record in southwest Alabama, in partnership with Dartmouth Medical School]; CME Video Library – $13,000 [Charles E. DeBakey Foundation to establish a CME Video Library to serve physicians and other healthcare providers throughout the state.
The Alabama AHEC Program

The mission of the Alabama AHEC Program is to improve the quality and accessibility of health care for the communities of Alabama through a system of community-academic partnerships whose central purpose is the recruitment, education, and retention of primary health care providers.

The Alabama Area Health Education Center Program (AHEC) is a system of community-academic partnerships designed to provide the following services: primary care preceptorships, multi-disciplinary training, professional recruitment and retention, continuing medical education, rural residency training, learning resource centers, continuing education, community health education, and encouragement of youth and minorities to pursue careers in healthcare.

The Alabama AHEC Program provided oversight to four area Health Education Centers within the state (Southwest Alabama AHEC, Southeast Alabama AHEC and West Alabama AHEC, Tuskegee Area Health Education Center).

During the 1999 – 2000 program year the Alabama AHEC program and local centers sponsored or provided the following: (1) 619 continuing education programs; (2) 5351 providers participated in the programs; (3) 118 distance learning programs; (4) 584 community based training sites; (5) 274 medical students trained in underserved sites; (6) 1063 health professions students trained in underserved sites; and (7) 578 preceptors participated in the community based training sites.

The Alabama AHEC Program maintains cooperative agreements with the following colleges, schools, organizations and/or programs across Alabama: (1) USA College of Medicine, College of Nursing, College of Allied Health Professions; Charles M. Baugh Biomedical Library, and Biomedical Enrichment and Recruitment Program; (2) Auburn School of Pharmacy; (3) University of Alabama School of Medicine, College of Community Health Sciences, and School of Social Work; (4) Troy State University; (5) University of Mobile; (6) Beville State Community College; (7) Shelton State Community College; (8) Morehouse School of Medicine; and (9) Central Alabama Veterans Health Care System.
USA Telemedicine

Telemedicine is the delivery and integration of medical education and specialty healthcare services to patients and providers in rural and medically underserved areas through the use of advanced telecommunications technology. USA Telemedicine serves three primary groups: underserved patients, health care professionals, and health profession students. The USA Telemedicine Program supports seven hub sites and six spoke sites.

USA Telemedicine hub sites include: (1) USA Computer Services Center; (2) USA COM Medical Sciences Building; (3) USA Health Services Building; (4) USA Medical Center; (5) USA Children's and Women's Hospital; (6) USA Springhill Avenue Campus; and (7) USA Knollwood Park Hospital.

Spoke sites include: (1) Mobile County Health Department - Gorgas Clinic; (2) Mobile County Health Department - Calcedeaver Clinic; (3) Mostellar Medical Center; (4) Southwest Alabama Health Services; (5) Jackson Medical Center; and (6) Evergreen Medical Center.

USA Telemedicine distance learning accomplishments for FY2000 include: (1) 264 distance learning opportunities have been offered to healthcare professionals in spoke sites; (2) 4483 participants; (3) 104 programs; (4) 132 hours of Continuing Medical Education (CME) have been offered to participants using the video conferencing system; (5) Establishment of the Ernest G. DeBakey CME Video Library. Videotapes have been provided to one hundred seventy nine (179) healthcare professionals in rural areas across southwest Alabama; (6) Four Diabetic Patient Education workshops conducted, 58 patients participated; (7) Satellite capacity added to the USA Telemedicine program providing educational opportunities from such programs as the Center for Disease Control (CDC) and the Alabama Department of Public Health (ADPH); and (8) Ophthalmology Grand Rounds - Weekly residency training program collaborated with Oschner Clinic.

USA Telemedicine clinical developments for FY2000 include: (1) Working with USA Teleradiology to link Jackson Hospital, Evergreen Medical Center and Thomasville Hospital to the USA Telemedicine Program; (2) Working with the Baldwin Abuse Network to develop child and adult sexual abuse telemedicine consults in Baldwin County; and (3) Working with Mobile County Health Department Gorgas Clinic, Southwest Alabama Health Services, and USACOM Infectious Disease Division to implement a Bi-weekly HIV Telemedicine Clinic.
1999-2000
SUMMARY OF ACTIVITIES
BIOMEDICAL LIBRARY
MEDIA PRODUCTION SERVICES

I. ARTICLES PUBLISHED IN BOOKS AND JOURNALS

A. Full-length published articles.


J. Burnham. Newsletter Editor. Biofeedback, the Newsletter of the University of South Alabama Biomedical Libraries (2000).


B. Articles in press.


II. PUBLISHED ABSTRACTS

None.

III. BOOKS PUBLISHED


IV. PRESENTATIONS


V. NATIONAL PROFESSIONAL RECOGNITION

Thomas Williams was elected Section Council Representative for the International Cooperation Section of the Medical Library Association. He was also appointed Chair of the Fellows and Honorary Members Jury for 2000-2001. Mr. Williams has also continued his duties as Chair of the Conference Committee of the Southern Chapter of the Medical Library Association, which meets in Mobile in October, 2000.

Judy Burnham is serving as a member of the MLA Scholarship Jury, Chair of the Nursing and Allied Health Resource Section Awards Committee (NAHRS), and served as Chair the NAHRS Nominating Committee and its Strategic Planning Committee. Ms. Burnham is serving on the Program and Convention Committees for the 2000 Annual Meeting of the Southern Chapter of the Medical Library Association, and serves on the Alabama Union List of Serials (AULS) Advisory Committee. She advanced to the Distinguished Member level of the Academy of Health Information Professionals (AHIP).

Ellen Sayed is serving on the Alabama Health Libraries Association as Alabama Union List Coordinator. Ms. Sayed is serving on the Registration Committee for the SC/MLA 2000 Annual Meeting and was inducted into the Academy of Health Information Professionals as a Senior Member.

Diane Williams is a member of the Alabama Health Libraries Association Executive Committee and a member of the 2000 Conference Committee of SC/MLA.

Geneva Bush Staggs is a member of the Southern Chapter/MLA Conference Committee and chairs its Registration Sub-Committee. She was also elevated to the Distinguished member level of the Academy of Health Information Specialists.

Sally Murray was appointed Alabama Representative to the Medical Library Association Communications Committee. She is serving as Chair of the Poster Committee of the Southern Chapter/Medical Library Association (SC/MLA) for the 2000 meeting and serves on the Conference Committee. Ms. Murray was elected Vice-Chair of the University Faculty Senate.

Jie Li is a member of the Medical Library Association Medical Informatics Section and the MLA Ida and George Eliot Prize Jury. She is also Newsletter Editor of the International Cooperation Section of MLA.

Everly Brown served as Chair of the Archives Committee and member of the Nominating Committee of NAHRS. She also participated as a liaison in the Medical Library Advocacy List, a grassroots advocacy network sponsored by the Southern Chapter of the Medical Library Association's Government Relations Committee.
VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

Highlights of activities in the Biomedical Libraries include the renaming of the campus library to the Charles M. Baugh Biomedical Library. Dr. Baugh was the motivating force behind creating a new biomedical library for the COM. He was Dean in 1991 when the current library building was renovated to create the modern, state-of-the-art academic medical library we have today.

The library held its second Infofair in April. Dr. George Lundberg, former editor of JAMA and current Editor-in-Chief at Medscape, was our featured speaker. His lecture focused on advances in the medical internet. Infofair 2000 was funded in large part by a grant in the amount of $5,000 from the National Network of Libraries of Medicine. NN/LM also provided us with a grant of $3,000 to enable BML faculty to exhibit at state association meetings. Additionally, the Biomedical Libraries received a library improvement grant in the amount of $7,000 toward the purchase of computer equipment at the Children’s and Women's library.

Our outreach activities continued to expand library services to the state and community. Baptist South, a four-hospital health care provider in the Montgomery area, signed on as did the Fort Walton Beach Medical Center.

Plans for expanding library services to Children’s and Women’s Hospital progressed very well and it is expected that the C&W Library will open in the Fall of 2000. Enormous advances were made to improve access to electronic journals. The acquisition of Science Direct, which provides online full text access to 613 Elsevier titles, was completed. With this addition, the BML now has over 900 electronic journals available. The library also signed on with MD Consult to make their databases available to USA.

Endeavor, the new and updated online catalog system was installed and is a vast improvement over our previous system. The Endeavor online catalog is web-based, allowing for easy Internet and local access. Many of the features have been updated and improved, while new features have been added.

There were several faculty/staff changes: Gentry Holbert, Information Services and Education Librarian, left and, by the end of the FY, an offer had been made and accepted for her replacement, to be effective in October 2000. Everly Brown was hired as the library’s Circuit Librarian, thanks to the AHEC Grant at USA. One of the primary duties of this position will be to visit area medical centers, hospitals, education sites, etc. In addition to providing library services, bibliographic instruction will also be offered. Robbie Runderson was hired to assist in the library’s systems area.
MEDIA PRODUCTION SERVICES

Adapting to the digital based media trend with its impact on services and techniques, as well as income, continues to characterize the departments efforts. This reporting period was highlighted by the following changes:

1. The digital capabilities of our Mastin facilities are developing. A computer workstation with image processing software and an inexpensive “prosumer” digital camera was dedicated to the Mastin branch. This has given the staff there an opportunity to begin developing digital imaging skills. This year, all studio photography scheduled thru the Mastin office was accomplished digitally for the first time. The addition of a professional digital camera, scanner, and dye sublimation printer this year will help bring the support services at Mastin in line with the campus facility.

2. Digital post production video services were initiated. With the new digital video work-station, we not only accomplished digital video to tape post production but have also completed several requests for computer video, (MPEG to disk). Digital time-lapse effects on real time video recorded through a microscope to document research were provided. This time-compressed video was then rendered as MPEG files and added to the investigators PowerPoint presentation. This greatly enhances the investigators’ ability to present and demonstrate results.

3. Income was up 6%. Despite the loss of $10,000 from USAMC, the expense recovery was up from the same period last year. With the exception of traditional photographic services, all production income was up with illustration and AV double last year’s figures. Income from digital services increased 32%. These welcomed increases resulted from changing the price structure to allow for a more accurate accounting of computer time, an increase in some digital service charges, and an overall increase in requests for services. A slight reduction in income from AV-related service for the upcoming year, as Telemedicine did not budget for these services in Phase II of their program, is anticipated.

4. The year ends with critical staffing needs. There are two vacant positions to fill. The PC Applications Specialist accepted a position with a company in Atlanta. This position has been empty for a month and there have not yet been any applicants to interview. Most critical is the vacancy created by the sudden death of Ray Butler, an employee and close friend for 20 years. Many years ago, forced layoffs of several staff due to budget cuts created a personnel crisis. Ray assumed the role of Video Production Specialist while retaining the title and duties of Electronics Technician. The department will be hard-pressed to find anyone with this combination of skills, and it hasn’t taken long to realize that the staffing gap this has created is wide and deep. Personnel Relations is forwarding several job descriptions for review.
1999-2000
Summary of Activities
USA Comprehensive Sickle Cell Center

General Operations: We have consolidated our Sickle Cell Center Administrative Office and Research Laboratories into the second floor of the MSB. The Sickle Cell Center Administrative Offices are located in MSB 2015. The laboratories of Dr. Steven Goodman, Dr. Betty Pace, Dr. Johnson Haynes, Dr. Gan Wang and Dr. Mohan Bhatnagar are now located in the second floor MSB expansion.

Research: We were well-represented at the 24th Annual National Sickle Cell Program meeting held in Philadelphia, PA, in April 2000. Our faculty, students, and staff who presented and their subjects were: "NAC Blocks Dense Cell and ISC Formation In Vitro by Protecting the Gardos Cannel and β-Actin from Oxidative Damage," Dr. Archil Shartava; "WEB 2170 and Zileuton Inhibit Enhanced Sickle Red Blood Cell (SRBC) Retention Mediated by the Activated Polymorphonuclear Cells (A-PMN) in the Lung Circulation," Dr. Johnson Haynes; "Development of a DNA Vaccine for Human Parovirus B19," Dr. David Dean; "Molecular Mechanism of Peptide Nucleic Acids (PNA) Binding-induced Gene Expression," Dr. Gan Wang; "Triplex DNA Formation Is Enhanced by Ethanol," Dr. Mohan Bhatnagar; "γGlobin Induction by a Novel Fetal Stage Specific Transcription Factor," Amy Ferry; "Fetal Hemoglobin Induction: Characterization of DNA-binding Proteins Altered by Butyrate," Curtis Browning; "Cytokines and Acute Phase Reactant Proteins in Acute Chest Syndrome, Vaso-occlusive Crisis and Steady State," Dr. Felicia Wilson; "Abnormalities of Growth and Pulmonary Function in Acute Chest Syndrome," Dr. Felicia Wilson.

Adult Operations: The 1999-2000 academic year marks the close of the second year that the Adult Sickle Cell Clinic has operated as a subspecialty clinic. The primary objectives of this clinic are (1) to be a resource for practicing physicians in the University and private community; and (2) to serve as a positive educational experience for primary care residents in the Departments of Medicine and Family Medicine at the University of South Alabama. The clinic is staffed by Dr. Johnson Haynes, Jr., and Ms. Ardie Pack-Mabien, Nurse Practitioner. Over the last academic year, 32 residents have rotated through the outpatient Adult Sickle Cell Clinic. The Adult Sickle Cell Clinic continues to serve the greater Mobile area in addition to a continuous influx of patients from Thomasville, Bay Minette, Mt. Vernon, Evergreen, and Montgomery, AL. In addition, we are seeing a small number of patients from Pensacola and Panama City, FL, and Pascagoula, MS. All referring physicians are written correspondence outlining the care received in the adult clinic as well as the planned therapeutic course implemented for that patient’s condition. Ms. Pack-Mabien continues to support the pediatric outpatient clinical operations and serves as the liaison when transitioning patients from the pediatric to the adult services. There continues to be a gap in transitioning patients who are on chronic transfusion therapy which require iron chelation for iron overload.
The challenges for the future in the adult clinical operation continues to be (1) establishment of an Ambulatory Pain Clinic geared towards managing pain which exceeds home management, but may not necessitate hospitalization; (2) to be creative in the development and participation of the adult hematology services in caring for adults requiring chronic transfusion therapy and desferal chelation; and (3) the continued development of strong clinical projects in caring for patients with sickle cell disease.

Clinical investigational projects currently underway at the University of South Alabama Comprehensive Sickle Cell Center inclusive are: (1) The use of the fentanyl patch in managing painful vaso-occlusive crisis; (2) n-acetylcysteine, a potential therapeutic agent in the management of vaso-occlusive crisis; (3) zileuton, a potential therapeutic agent in the management of vaso-occlusive crisis and the acute chest syndrome; and (4) the role of cytokines in acute chest in sickle cell patients.

**Pediatric Programs:** Dr. Betty Pace serves as the Associate Director for Pediatric Programs, working in conjunction with Drs. Felicia Little-Wilson and Yang to provide comprehensive medical care and services to pediatric sickle cell patients. A major goal of the program has been to establish a separate sickle cell clinic, independent of the general hematology clinic. The number of patients continues to grow for both services, making it a necessity to have a second clinic. Negotiations are ongoing with the Department of Pediatrics to achieve this goal. Our clinical staff consists of Ms. Pack-Mabien, a licensed Nurse Practitioner who serves as the Nurse Coordinator for Clinical Programs and cares for patients in the pediatric and adult clinics. Ms. Stephanie Durggin serves as the Pediatric Nurse Coordinator developing protocols for patient medical care and education. Ms. Evelyn Bright is the sickle cell nurse whose primary responsibilities are to facilitate ongoing clinical trials and projects and to assist with clinic operations. A second major focus in the pediatric program has been the establishment of a Children Youth Sickle Network to extend medical care to sickle cell patients in the nine counties we serve, by providing on-site services in the rural communities. A Telemedicine approach will be utilized to staff these satellite clinics. We are continuing efforts to establish an Ambulatory Pain Clinic, to be co-directed by Drs. Pace and Haynes.

**Psycho-Social Research Division:** The primary goal of the Psycho-Social Research Division (PSRD) this year has been to develop the framework of a new arm within the Comprehensive Sickle Cell Center. This new arm will encompass collaborative efforts with several other departments within the University, the Community Sickle Cell Program, and Franklin Primary Health Centers. The division was successful in garnering support from Dr. Steven Picou, Chair of Sociology and Anthropology, to allow two of his staff members, James Lee, Ph.D., and Nicole Flynn, Ph.D., to serve on the division's technical advisory committee. Elise Labbe, Ph.D., from the Psychology department, Dr. Arvind Shah, Mathematics department, Linda Jones, Executive Director of SCDAA-Mobile Chapter, and a representative from Franklin Primary Health Center will also serve on this committee. This committee is committed to developing a strong proposal for the year 2003 Sickle Cell Center renewal process. The PSRD will continue to build on the progress started this year when we conducted an open house with over three hundred people attending, and
developed an adult support group, who hold their meetings on the USA campus. PSRD staff assisted the clinical research division in the recruiting of patients for various projects. PSRD developed the first USA Comprehensive Sickle Cell Center newsletter. PSRD is collaborating with the National Sickle Cell Disease Association on several projects to strengthen their member organizations program services while using survey instruments developed by the PSRD and the Statistical Core here in Mobile. Our goal is to have their member organizations across the country help us to standardize data collection survey instruments designed by the USA Sickle Cell Center over the last ten years. The PSRD has also strengthened the lines of communication with the local community-based program for sickle cell services by providing ongoing training for staff involved in the Center grant and technical assistance with the various Center-related projects.

Education: The Center faculty continue to provide a broad series of lectures throughout the academic and private medical community. The Center faculty continues to support the Educator/Counselor Certification Program which took place three times this academic year at the Sickle Cell Disease Association of America, Mobile Chapter. Ms. Ardie Pack-Mabien, Nurse Practitioner, has given fourteen lectures over the last academic year to nurses within the University of South Alabama, private hospitals in the Mobile community, School of Nursing, and to outlying nursing personnel in the surrounding counties. The Center faculty (Drs. S. Goodman, Dr. J. Haynes, Dr. B. Pace, A. Pack-Mabien and R. Peterson) developed and conducted two symposia on "Practical Issues in Sickle Cell Disease, Clinical and Psycho-social" in Montgomery and Huntsville, AL. The faculty continues to participate in the National Sickle Cell Disease Program which was held in Philadelphia, PA, in April of 2000. Ongoing basic research was presented on laboratory investigation conducted in the labs of Drs. Goodman, Haynes, and Pace. In addition, Dr. Felicia Wilson presented data collected from her clinical research projects related to pulmonary function abnormalities associated with the acute chest syndrome. The Summer Student Research Program continued this academic year. Jessie Knight participated in an ongoing collaborative project between Drs. Haynes and Pace investigating potential therapeutic effects of the 5-lipoxygenase enzyme inhibitor and analog of hydroxyurea, zileuton, in the management of acute chest syndrome. John Burch, USA medical student, worked in Dr. Pace's laboratory on a project entitled "Characterization of DNA-binding Proteins Altered by Butyrate in the Globin Promoter." The survey on Nurses' Attitudes and Practices in the Treatment of Acute Pain Episodes has been revised and submitted as of September 2000 to Applied Nursing Research. The Physicians' Attitudes and Practices survey data have been collected from 8 of 10 of the NIH-funded Sickle Cell Centers, and the analysis of this data has been completed. Through these continued efforts, such educational support will lead to a stronger health care delivery system.
I. ARTICLES PUBLISHED IN BOOKS OR JOURNALS.

A. Full-length published articles.


B. Articles in press.


II. PUBLISHED ABSTRACTS.

None.

III. BOOKS PUBLISHED.

None.

IV. PRESENTATIONS.

None.

V. NATIONAL PROFESSIONAL RECOGNITION.

Dr. Fields served in the following capacities: On the Editorial Board, Trends in Reproductive Biology; As Reviewer for USDA and NSF granting agencies; and on the Membership Committee, Society for the Study of Reproduction.
VI. SUMMARY OF EM ACTIVITIES.

The Center is managed by Dr. P.A. Fields, Assoc. Prof., Cell Biology and Neuroscience (460-6766). Technical support is provided by Dr. S.-J Zhang (460-6258).

The Electron Microscopy Center provides various light microscopy and transmission electron microscopy services.

Light Microscopy.

Charges for tissue fixation, processing, paraffin embedding, sectioning, and H&E staining are $15/sample (n < 10 samples) or $10/sample (n = 10 or more samples). Additional negotiations for sample numbers greater than 500. Special histological staining, such as Gomori Trichrome for collagen, Orcein for elastin, PAS for carbohydrate, Sudan black for fat, etc., will cost an additional $2/slide.

Electron Microscopy.

Charges for tissue fixation, processing, Spurr's embedding, tissue sectioning and staining are $45/sample. Transmission EM photography costs $15/hr scope time, and cover the cost of Technician time, TEM negatives and reagents for developing the negatives. The fee for printing is $3/print.

Immunohistochemistry.

The Center assists individuals conducting both light and electron microscopy immunolocalization studies. Dr. Fields has experience with peroxidase antiperoxidase (PAP) staining or Vecta Stain Kit staining for light microscopy, and PAP staining and immunogold labeling for electron microscopy.

College of Medicine Utilization.

Approximately 1100 research samples were processed for the following departments during 1999-2000: Biochemistry; Cell Biology and Neuroscience; Comparative Medicine; Medicine; Hematology/Oncology; and Physiology.

Additional services included photography and printing for dissertations, manuscripts, grants, and book chapters.

We have trained several faculty this year in the art of immunogold labeling for electron microscopy.

Each year we provide presentations to radiology students, USA Freshman Experience, and give tours to high school groups.
**Graduate Student Assistance.**

Graduate students and technicians in various departments have been taught how to process, section, and stain tissues for light microscopy studies and for a small equipment user fee ($5/sample) use the EM facility for various aspects of their research projects.

**Grant Applications.**

Collaborations ongoing with Dr. Dave Sherwood to establish preliminary data for a grant proposal.

Collaborations ongoing with Dr. Hunzinker-Dunn to establish preliminary data for a grant proposal.
OFFICE OF BIOTECHNICAL SERVICES

The biotechnical core laboratories are managed by a director with input from a core advisory committee. The chart shown below outlines the organizational structure of the Office of Biotechnical Services for the 1999-2000 academic year. The following are directors for each core laboratory: Dr. Tin Cao, Director of the Biopolymer Laboratory; Dr. Raymond Hester, Director of the Research Cytometry Laboratory, Dr. Aladar Bencsath, Director of the Mass Spectrometry Laboratory; Drs. Danna and Warren Zimmer, Co-directors of the Transgenic Animal/ES Cell Laboratory.
1999-2000
BIOPOLYMER LABORATORY
SUMMARY OF ACTIVITIES

The Biopolymer Laboratory serves as a core facility for molecular biology research. It is equipped to provide support for a wide range of projects involving nucleic acid research.

DNA SYNTHESIS

DNA synthesis is accomplished with two instruments: An Applied Biosystems Model 381A and a Beckman Model 1000M. The ABI 381 is a single column instrument dedicated to the synthesis of specialty DNA. The Beckman 1000M is a fully automated synthesizer with a built-in Trityl monitor and extensive diagnostic functions to monitor the synthesis process and ensure the quality and purity of the synthesized oligonucleotides. It has the capability to synthesize 8 oligonucleotides sequentially with fast and economical cycle time. DNA of defined sequence is custom-made automatically using solid phase/phosphoramidite chemistry. Synthetic DNAs are used as probes for gene screening, primers for DNA sequencing and in directed site mutagenesis.

DNA SEQUENCING

The Biopolymer Laboratory performs DNA sequencing analysis using the automated sequencer model ABI 373XL from Perkin Elmer/Applied Biosystems. The introduction of the "Big Dye" technology by Applied Biosystems has allowed more accurate and longer reads in automatic sequencing. The high demand for DNA automatic sequencing over the last three years reflects the continued interest of the faculty in the upgraded ABI 373XL DNA sequencing system.

MICRO-ARRAY TECHNOLOGY

The completion of the human genome project has drastically changed the landscape in all areas of biomedical research. Massive amounts of sequence data are now widely available to researchers. In response to this progress, the Biopolymer laboratory is in the process of introducing a new DNA microarray system which comprises the printing of custom DNA arrays on glass slides and the fluorescence scanning for gene expression analysis. This new technology will allow USA scientists to probe thousands of genes simultaneously.

In addition to the services mentioned above, the Biopolymer Center can provide biotechnical advice to all researchers using the facility. Technical files on strategies for molecular cloning and the latest developments in Biotechnology are available upon request. For further information contact Dr. Tin Cao at 460-7264.
1999-2000
MASS SPECTROMETRY AND PROTEIN STRUCTURE LABORATORY
SUMMARY OF ACTIVITIES

I. PUBLISHED ABSTRACTS


II. PRESENTATIONS

F. Aladar Bencsath, Sensing Petroleum in Fish With the Electronic Nose. The Gulf of Mexico Symposium, Mobile, AL (2000).


III. BRIEF SUMMARY OF ACTIVITIES

1. Personnel. No change in personnel occurred during this year: Dr. Ann Abraham, Research Associate, half-time employee, and Dr. F. Aladar Bencsath, Director, employed by the Food and Drug Administration, met the service and collaborative research obligations.

2. Service. In the past year, 516 samples were submitted for analyses by 20 investigators from 14 laboratories: 15 investigators from 9 laboratories in the College of Medicine, 4 in non-medical departments at the University of South Alabama, and 1 outside the university. The analyses required 978 instrument hours, of which about 250 hours were spent for instrumental & method development. Instrument maintenance also required about 100 hours.

   The largest portion of the samples required electron or chemical ionization (314; 61%), and another large portion required fast atom bombardment ionization (153; 30%). A few samples required accurate mass elemental composition determination (8; 2%), and MS/MS analyses (2; 0.4 %).

   Samples from two research projects required gas chromatography-mass spectrometry (GC/MS) analyses with electron ionization (261; 50 %), and a third one required GC/MS with electron capture negative chemical ionization (51; 10 %). For these samples, specific clean-up and GC processes were developed, which were carried out in collaborative efforts. To determine the volatile trace components in 16 seafood samples (3%), dynamic headspace enrichment techniques were utilized in combination with GC/MS analyses.
3. **Collaboration**. We continued the collaborative research with Dr. Steven Goodman, Director of the Comprehensive Sickle Cell Center, on the oxidative transformation of β-Actin in order to produce the Actin specimen equivalent to the irreversibly sickled cell β-Actin, which plays a pivotal role in irreversible sickling. This modified protein is needed for biochemical studies that aim to inhibit and reverse the sickling process.

In the course of another collaboration, with P.I. Dr. Michael Chicella, Pediatrics, we have developed a GC/MS method for propylene glycol analysis in blood and urine of children administered with the tranquilizer lorazepam.

In the third collaboration, with Dr. Michael Zayek and Ms. Martha Stober, Neonatology/Pediatrics, another GC/MS method was implemented for lactulose/mannitol analysis in urine and milk in order to evaluate the intestinal permeabilities of very low birth weight infants. The preliminary GC/MS data of the urine samples were confirmed by a more traditional liquid chromatography/refractive index detection method.

Presently, in collaboration with Dr. Dirk Dhossche, Psychiatry, we are developing an electron capture chemical ionization GC/MS method for GABA determination in blood plasma. The novel electronegative GABA derivative demonstrates excellent MS and GC characteristics needed for the analyses at the nanogram level. We should only improve the plasma cleanup procedure to accurately accomplish the analytical process on samples from autistic and normal children.

An earlier collaboration on the FDA project “Petrochemical hazards in seafood” was continued using dynamic headspace GCMS analyses, sensory assessment and “electronic nose” instrumentation. Selective absorption of the mono- and bi-cyclic aromatic hydrocarbon compounds by fish and oyster from petroleum contaminated water were demonstrated. The dominant components may be useful markers of petrochemical taint in seafood after oil spill.

Three of these collaborations have produced data in sufficient amount and quality for future research papers.

4. **Training**. Ms. Martha Stober obtained training for the use of HPLC and GCMS to analyze mono- and disaccharides in milk and urine. Dr. Lorna Bland (Psychiatry resident) obtained training in chemical derivatization of GABA in plasma, and in electron capture ionization GCMS.

5. **Future direction**. The increased number of collaborative projects is a good indication of the increased awareness of our Faculty about the analytical help mass spectrometry can provide. Three of these collaborations used GC/MS techniques. An earlier survey, and the frequent inquiries by present and prospective faculty members also show the increasing importance of the biopolymer analysis, which requires liquid chromatography combined with either electrospray or laser desorption mass spectrometer (LC/MS).
1999-2000
RESEARCH CYTOMETRY LABORATORY
SUMMARY OF ACTIVITIES

The Research Cytometry Laboratory (RCL) provides a wide range of cell-analysis techniques including three-color immunophenotyping, apoptosis quantitation, GFP detection, cell sorting and cell cloning, immunofluorescence detection of intracellular markers, confocal fluorescence imaging and 3-D reconstruction, DNA (ploidy) analysis, and cellular activation studies such as kinetics analysis of intracellular Ca\(^{++}\) and pH modulation.

Funding of an NIH Shared Instrument Grant application this year provided funds for the purchase of a new confocal laser scanning microscope, a Leica TCS SP2. Other instrumentation in the Laboratory includes a Becton Dickinson FACSVantage SE flow cytometer, a Photon Technology Incorporated (PTI) M-Series fluorescence detection system, and a Molecular Devices Cytosensor microphysiometer.

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<tr>
<td>FACS (samples)</td>
<td>1931</td>
<td>870</td>
</tr>
<tr>
<td>ACAS (hours)</td>
<td>226</td>
<td>267</td>
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<tr>
<td>Cytosensor (experiments)</td>
<td>7</td>
<td>53</td>
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<tr>
<td>PTI (hours)</td>
<td>14</td>
<td>8</td>
</tr>
</tbody>
</table>

Twenty-five investigators representing the following nine departments used the services of the RCL during 1999-2000: Biochemistry and Molecular Biology, Medicine, Microbiology and Immunology, Pathology, Pediatrics, Pharmacology, Physiology, Cell Biology and Neuroscience, and Orthopaedics.

Director’s Evaluation of the Laboratory
Overall activity was up approximately 25%, compared to last year, based on the dollar amount of invoices for services rendered with this increase due mostly to the use of our new flow cytometer. Likewise, addition of the new Leica confocal laser scanning microscope (October 1, 2000) is expected to increase image analysis revenue and further boost production of the laboratory.

Future Directions
New directions will focus mainly on image analysis as a result of the acquisition of the new Leica confocal system. This instrument has the capability of acquiring three colors simultaneously at frame rates of up to 25 fps. The TCS will have three lasers providing investigators with a wide range of possibilities in their selection of fluorochromes. DIC/fluorescence image overlays, full-field fluorescence viewing, and the unique capabilities provided by an upright microscope are all new additions to the Research Cytometry Laboratory.
Extramural Support

Active
NIH DRR/BRS Shared Instrumentation Grant
"Leica TCS SP Spectral Confocal Microscope"
1 S10 RR13732-01A1
R.B. Hester, P.I.
9/01/2000 to 8/31/2001
$336,843.

Publications
SUMMARY OF EXTRAMURAL SUPPORT

The record of extramural support is an especially noteworthy accomplishment of faculty actively engaged in research in the College of Medicine. Although only the principal investigator is listed on the summary report, many projects involve other faculty as co-investigators on grants. This valued practice is highly encouraged by the administration. Funding for the 1999-2000 academic year includes $17,963,523 and $2,467,596 administered through the University’s Office of Sponsored Programs and the South Alabama Medical Science Foundation, respectively.

EXTRAMURAL FUNDS
Totals for Recent Years

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>1990</td>
<td>$10,658,000</td>
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<tr>
<td>1991</td>
<td>13,275,000</td>
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<tr>
<td>1992</td>
<td>11,563,000</td>
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<tr>
<td>1993</td>
<td>11,223,000</td>
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<td>1994</td>
<td>11,859,000</td>
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<td>1995</td>
<td>14,272,462</td>
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<td>1996</td>
<td>16,507,457</td>
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<td>1997</td>
<td>14,891,699</td>
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<td>1998</td>
<td>18,338,972</td>
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<tr>
<td>1999</td>
<td>19,108,225</td>
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<tr>
<td>2000</td>
<td>20,431,119</td>
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</table>

College of Medicine
Total Annual Extramural Funds From All Sources

[Bar chart showing Extramural Funds from '76 to '00]
# EXTRAMURAL FUNDING
## (OCTOBER 1, 1999-SEPTEMBER 30, 2000)

## BIOCHEMISTRY AND MOLECULAR BIOLOGY

<table>
<thead>
<tr>
<th>PRINCIPAL INVESTIGATOR</th>
<th>PROJECT TITLE</th>
<th>AGENCY</th>
<th>YEAR'S TOTAL FUNDING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nathan Aronson</td>
<td>Structure and Mechanisms of a Family of 18 Chitinases</td>
<td>NIH -- Subcon Duquesne Univ</td>
<td>$148,066</td>
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<tr>
<td>Sailen Barik</td>
<td>Gene Expression of Human Respiratory Syncytial Virus</td>
<td>NIH</td>
<td>110,352</td>
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<td>Signal Transduction in Plasmodium</td>
<td>Burroughs Wellcome Fund</td>
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<td></td>
<td>Reversible Protein Phosphorylation in Apicomplexans</td>
<td>NIH</td>
<td>273,697</td>
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<td>Jane Funkhouser</td>
<td>Alveolar Epithelial Cell Ectopeptidases: A Possible Role In Regulating the Cytokine Cascade</td>
<td>Am Heart Assn SE Affiliate</td>
<td>35,000</td>
</tr>
<tr>
<td>James W. Gaubatz</td>
<td>Dietary Mutagens &amp; DNA Damage in Cardiac Myocytes</td>
<td>Am Heart Assn SE Affiliate</td>
<td>35,000</td>
</tr>
<tr>
<td></td>
<td>Dietary Mutagens and Breast Cancer</td>
<td>NIH</td>
<td>169,127</td>
</tr>
<tr>
<td>Richard E. Honkanen</td>
<td>Mechanisms of Tumor Promotion and Carcinogenesis</td>
<td>NIH</td>
<td>231,522</td>
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<tr>
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<td>Mechanisms of Cardioprotective Agents in Ischemic Myocytes</td>
<td>NIH</td>
<td>205,966</td>
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### BIOCHEMISTRY AND MOLECULAR BIOLOGY (CONT)

<table>
<thead>
<tr>
<th>PRINCIPAL INVESTIGATOR</th>
<th>PROJECT TITLE</th>
<th>AGENCY</th>
<th>YEAR'S TOTAL FUNDING</th>
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</thead>
<tbody>
<tr>
<td>Richard E. Honkanen</td>
<td>The Role of Protein Phosphatase 5 on Glucocorticoid Signaling [Predoctoral Fellowship for John Rodriguez]</td>
<td>NIH</td>
<td>$ 17,681</td>
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<tr>
<td>Madhavan G. Nair</td>
<td>Cancer Chemotherapy: New Folate Analogs</td>
<td>NIH</td>
<td>185,582</td>
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<td>Cellulose Research Project</td>
<td>Leroy Smith, Inc.</td>
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### BIOTECHNICAL SERVICES

<table>
<thead>
<tr>
<th>PRINCIPAL INVESTIGATOR</th>
<th>PROJECT TITLE</th>
<th>AGENCY</th>
<th>YEAR'S TOTAL FUNDING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raymond Hester</td>
<td>Leica TCS SP Spectral Confocal Microscope</td>
<td>NCRR</td>
<td>$ 336,843</td>
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<td>$ 336,843</td>
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<tr>
<td>PRINCIPAL INVESTIGATOR</td>
<td>PROJECT TITLE</td>
<td>AGENCY</td>
<td>YEAR'S TOTAL FUNDING</td>
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<tr>
<td>------------------------</td>
<td>-------------------------------------------------------------------------------</td>
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<tr>
<td>Yogendra M Bhatnagar</td>
<td>Comprehensive Sickle Cell Core Lab*</td>
<td>NIH</td>
<td>$ 88,404</td>
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<tr>
<td>Stuart D. Critz</td>
<td>Rapid Detection of Brevetoxin and Ciguatoxin Using Recombinant NA+ Channels</td>
<td>USDA</td>
<td>45,016</td>
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<td></td>
<td>Mitochondrial KATP Channels and Ischemic Preconditioning</td>
<td>Am Heart Assn</td>
<td>54,674</td>
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<tr>
<td>Anthony L. Gard</td>
<td>Trophic Determinants of Oligodendrocyte Development</td>
<td>NIH</td>
<td>194,995</td>
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<td>Lipid Peroxidation Damage in Oligodendrocytes: Role of 4-Hydroxynonenal</td>
<td>Nat Multiple Sclerosis Soc</td>
<td>90,140</td>
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<td></td>
<td>Mediators of Oxidative Damage in Oligodendrocytes</td>
<td>NIH</td>
<td>249,643</td>
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<tr>
<td>Steven R. Goodman</td>
<td>The Molecular Defect(s) Within the Spectrin Membrane Skeleton of Irreversibly Sickled Cells*</td>
<td>NIH</td>
<td>102,491</td>
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<td></td>
<td>Comprehensive Sickle Cell Administrative Core*</td>
<td>NIH</td>
<td>324,688</td>
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<td></td>
<td>Programs for Individuals With Sickle Cell Disease To Promote Positive Outcomes*</td>
<td>NIH (Subcon-Awarded Sickle Cell Dis Assoc)</td>
<td>153,299</td>
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<td></td>
<td>Brain Spectrin and Synaptic Transmission</td>
<td>NIH</td>
<td>233,363</td>
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<td>Principal Investigator</td>
<td>Project Title</td>
<td>Agency</td>
<td>Year's Total Funding</td>
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<td>------------------------</td>
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<tr>
<td>Susan P. Ledoux</td>
<td>Repair of DNA Damage Induced by Environmental Agents</td>
<td>NIH</td>
<td>$258,870</td>
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<td>Repair of DNA Damage Induced by Environmental Agents [Career Development Award]</td>
<td>NIH</td>
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<td>Betty S. Pace</td>
<td>Mechanisms Involved in the Induction of Fetal Hemoglobin</td>
<td>NIH</td>
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<td>Strategies for Fetal Hemoglobin Induction in Sickle Cell Disease Using Novel Stage Specific Transcription Factors</td>
<td>NIH</td>
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<td>Novel Mechanism for Globin Gene Silencing During Alternate Lineage Commitment*</td>
<td>NIH</td>
<td>73,241</td>
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<td>Gan Wang</td>
<td>Oligonucleotide-Mediated Gama-Globin Gene Activation for Sickle Cell Disease</td>
<td>March of Dimes</td>
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<td>Transcription-Coupled DNA Repair and Genetic Instability</td>
<td>NIH</td>
<td>212,302</td>
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<td>Oligonucleotide-Based Gene Therapy for Sickle Cell Anemia (Scholars Program)*</td>
<td>NIH</td>
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<td>Peptide Nucleic Acids (PNA)-Mediated Gene Expression and Gene Therapy</td>
<td>NIH</td>
<td>175,092</td>
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<tr>
<td>Glenn L. Wilson</td>
<td>Environmental Beta Cell Toxins—Mechanisms of Action</td>
<td>NIH</td>
<td>243,293</td>
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<td>Gene Specific Mutations in Skin</td>
<td>NIH (Subcon Ohio State)</td>
<td>66,903</td>
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### CELL BIOLOGY AND NEUROSCIENCE (CONT)

<table>
<thead>
<tr>
<th>PRINCIPAL INVESTIGATOR</th>
<th>PROJECT TITLE</th>
<th>AGENCY</th>
<th>YEAR'S TOTAL FUNDING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glenn L. Wilson</td>
<td>Altering Cell Survival by Modulating Levels of Mitochondrial DNA Repair Enzymes</td>
<td>DOD (US Army Concept Award)</td>
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<td>Oxidative Damage and Repair in Neuronal mtDNA</td>
<td>NIH</td>
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### CHARLES M. BAUGH BIOMEDICAL LIBRARY

<table>
<thead>
<tr>
<th>PRINCIPAL INVESTIGATOR</th>
<th>PROJECT TITLE</th>
<th>AGENCY</th>
<th>YEAR'S TOTAL FUNDING</th>
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<tbody>
<tr>
<td>Judy F. Burnham</td>
<td>Exhibiting at State Health Professional Association Meetings</td>
<td>NLM/UMHSL Subcon -- Univ of Maryland</td>
<td>$ 3,000</td>
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<td>$ 3,000</td>
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### COMPARATIVE MEDICINE

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<th>YEAR'S TOTAL FUNDING</th>
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</thead>
<tbody>
<tr>
<td>Christian R. Abee</td>
<td>Squirrel Monkey Breeding and Research Resource</td>
<td>NIH</td>
<td>$ 606,174</td>
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<td>Experimental Emphysema: Studies on Remediation</td>
<td>NIH – Subcon</td>
<td>69,741</td>
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<td>Squirrel Monkey Breeding Colony – Malaria Study</td>
<td>Georgetown Univ</td>
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<td>Experimental Creutzfeldt-Jacob Disease in the Squirrel Monkey</td>
<td>CDC</td>
<td>59,280</td>
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<td>Baxter HealthCare Corp</td>
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### COMPREHENSIVE SICKLE CELL CENTER

<table>
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<th>AGENCY</th>
<th>YEAR'S TOTAL FUNDING</th>
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</thead>
<tbody>
<tr>
<td>Steven R. Goodman</td>
<td>Comprehensive Sickle Cell Center Program*</td>
<td>NIH</td>
<td>$1,152,859</td>
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<tr>
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<td>$1,152,859*</td>
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</table>

* Individual projects are listed by Department
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<th>PRINCIPAL INVESTIGATOR</th>
<th>PROJECT TITLE</th>
<th>AGENCY</th>
<th>YEAR'S TOTAL FUNDING</th>
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<tbody>
<tr>
<td>Frank Pettyjohn</td>
<td>A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel 9 Week Study of BMS/189921 in the Treatment of Mild to Moderate Hypertension</td>
<td>Bristol Myers Squibb</td>
<td>$ 35,276</td>
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<td></td>
<td>A Randomized, Double-Blind, Double-Dummy, Multicenter, Parallel Group Study to Assess the Effectiveness and Health Economic Impact of Oral Factive, 320mg Once Daily for 5 Days Versus Oral Clarithromycin 500mg Twice Daily for 7 Days for the Treatment of Acute Exacerbation of Chronic Bronchitis</td>
<td>SmithKline Beecham</td>
<td>10,648</td>
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<td>A Randomized, Double-Blinded, Placebo-Controlled, Multicenter, Long-Term Efficacy Study Trial of Preventing Hypertension Using Candesartan Cilexetil 16mg in Patients With Borderline Hypertension High Normal Blood Pressure</td>
<td>Astra/IBAH</td>
<td>11,050</td>
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<tr>
<td></td>
<td>A Randomized, Double-Blinded, Parallel-Group, Comparative Study of CS-866, Losartan, Valsartan, and Irbesartan Using Ambulatory Blood Pressure Monitoring in Patients with Essential Hypertension</td>
<td>Concepts in Pharm Resch</td>
<td>8,766</td>
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<tr>
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<td>Evaluation of the Antihypertensive Efficacy of Candesartan Cilexetil in Comparison to Losartan: A Multicenter, Double-Blind, Randomized, Parallel-Group, Forced-Titration Study</td>
<td>Astra Zeneca (IBAH)</td>
<td>36,700</td>
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<td>$ 102,440</td>
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### FAMILY PRACTICE AND COMMUNITY MEDICINE

<table>
<thead>
<tr>
<th>Principal Investigator</th>
<th>Project Title</th>
<th>Agency</th>
<th>Year's Total Funding</th>
</tr>
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<tbody>
<tr>
<td>Kelly Derbin</td>
<td>Predoctoral Training in Family Medicine</td>
<td>HRSA, BHP</td>
<td>$129,600</td>
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<td>NHSC Search Program</td>
<td>HRSA (ADPH)</td>
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<td>Preceptorship Subsidy</td>
<td>AFP, RHB</td>
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<tr>
<td>R. Allen Perkins</td>
<td>Graduate Training in Family Medicine</td>
<td>HRSA (BHP)</td>
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<td>Academic Faculty/Rural Physician Reciprocal Mini-</td>
<td>ADPH (RHB)</td>
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<td>Residency Program</td>
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### MEDICAL GENETICS

<table>
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<tr>
<th>Principal Investigator</th>
<th>Project Title</th>
<th>Agency</th>
<th>Year's Total Funding</th>
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<tbody>
<tr>
<td>Wladimir Wertelecki</td>
<td>Southwest Alabama Integrated Health Services for Genetic Disorders</td>
<td>HRSA (Subcon ADRS)</td>
<td>$173,650</td>
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<td>South Alabama Regional Genetics Program</td>
<td>HRSA (ADPH)</td>
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<td>Genetics and Mental Health Program</td>
<td>ADMH</td>
<td>137,268</td>
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<td>Ukrainian Birth Defects Project</td>
<td>USAID</td>
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<td>Alabama Birth Defects Surveillance and Prevention Program</td>
<td>CDC</td>
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<td>AGENCY</td>
<td>YEAR'S TOTAL FUNDING</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------------------------------------------------------------------------</td>
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<tr>
<td>M.A. Alpert</td>
<td>Magnesium in Coronaries (Magic) Trial</td>
<td>NIH - Subcon New Eng Res Inst</td>
<td>$17,500</td>
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<tr>
<td>Michael V. Cohen</td>
<td>Catechols and Adenosine in Myocardial Preconditioning</td>
<td>NIH</td>
<td>203,616</td>
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<tr>
<td>Marcel E. Conrad</td>
<td>Regulators of Iron Absorption</td>
<td>NIH</td>
<td>385,665</td>
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<td>Minority-Based Clinical Oncology Program</td>
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<td>The Star Trial</td>
<td>NSABP Fdn</td>
<td>44,600</td>
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<td>Jack DiPalma</td>
<td>Comparison of the Clinical Safety and Efficacy of Pantoprazole 10mg, 20mg, or 40mg Once Daily and Placebo in Patients With Symptomatic Erosive Esophagitis</td>
<td>Wyeth-Ayers Res</td>
<td>21,270</td>
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<td>Braintree-Colon Cleansing Comparison</td>
<td>Braintree Labs</td>
<td>11,059</td>
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<td>T. Michael Fan</td>
<td>Apoptosis and Ischemic Preconditioning</td>
<td>Am Heart Assn SE Affiliate</td>
<td>30,000</td>
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<td>Suppression of Myocyte Apoptosis by Ischemic/Hypoxic Preconditioning - Role of BCI-2 Phosphorylation</td>
<td>Am Heart Assn</td>
<td>65,000</td>
</tr>
<tr>
<td>Joe Hardin</td>
<td>A Multicenter, Randomized, Blinded Placebo Controlled Study to Describe the Long-term Safety of Daily Subcutaneous Injections of Anakinra (r-metHuLL-1ra) in Patients with Rheumatoid Arthritis</td>
<td>AMGEN</td>
<td>15,500</td>
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<td>PRINCIPAL INVESTIGATOR</td>
<td>PROJECT TITLE</td>
<td>AGENCY</td>
<td>YEAR'S TOTAL FUNDING</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>-------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Joe Hardin</td>
<td>A Multicenter, Randomized Double-Blind Placebo-Controlled Phase III Study of the Human Anti-TNF Monoclonal Antibody D1E7 Administered as Subcutaneous Injections to Patients With Active Rheumatoid Arthritis Currently Receiving Treatment With Methotrexate</td>
<td>Knoll/BASF</td>
<td>$ 14,000</td>
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<tr>
<td>Johnson Haynes</td>
<td>Acute Lung Injury in Sickle Cell Disease*</td>
<td>NIH</td>
<td>104,242</td>
</tr>
<tr>
<td></td>
<td>Education of Health Professionals*</td>
<td>NIH</td>
<td>93,164</td>
</tr>
<tr>
<td>Jorge Herrara</td>
<td>Chronic Hepatitis Research</td>
<td>Integrated Therapeutics</td>
<td>15,040</td>
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<td>Current Treatment in the Management of Viral Hepatitis Pocket Guide</td>
<td>Schering</td>
<td>8,025</td>
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<tr>
<td>Michael Kirkpatrick</td>
<td>An Open, Non-comparative Multicenter Study to Assess the Efficacy and Safety of Oral Augmentin SR 2000/125mg Twice Daily for 7 Days for the Treatment of Bacterial Community Acquired Pneumonia in Adults</td>
<td>Smith-Kline Beecham</td>
<td>6,350</td>
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<tr>
<td>Candace C. McCombs</td>
<td>Peer Reviewed Grants Program</td>
<td>Sequella Global Tuberculosis Fdn</td>
<td>72,109</td>
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<tr>
<td>Clara Massey</td>
<td>A Pilot Study to Assess Transesophageal Echocardiography as a Methodology to Follow Resolution of Left Atrial Thrombi in Subjects Receiving Warfarin or H 376/95</td>
<td>Astra/Covance</td>
<td>5,000</td>
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<td>Joseph Michalski</td>
<td>OAK9801, A Study of the Safety and Efficacy of Intra-articular ORTHOVISC Sodium Hyaluronate Injections in Providing Symptomatic Relief of Osteoarthritis of the Knee</td>
<td>Anika</td>
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<td>Betty Pace/Johnson Haynes</td>
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<td>A Dose-Ranging Study of the Efficacy and Tolerability of Multiple Doses of Cordox as Adjunct Therapy in the Management of an Acute Sickle Related, Painful, Vaso-occlusive Episode</td>
<td>Questcor (Cypros)</td>
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<td>Jack Painter</td>
<td>An Open Study, With Blinded Endpoint Assessment, to Assess the Safety, Tolerability, and the Effect on Coronary Artery Patency of Intravenous AR-C69931MX as Both Monotherapy and Adjunct to Activase in Patients With St-Elevation Myocardial Infarction</td>
<td>Astra/Henry Ford</td>
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<td>Keith Ramsey</td>
<td>Tipranavir: An Open-Label, Randomized Study Comparing Combination Therapy Used With Two Nucleoside Reverse Transcriptase Inhibitors in Single Protease Inhibitor- Experienced HIV-1 Patients</td>
<td>Pharmacia &amp; Upjohn</td>
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<td>Jay Umbreit</td>
<td>Regulators of Intestinal Cholesterol Absorption</td>
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<td>Inhibition of Intestinal Heme Iron Absorption</td>
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$1,556,713
## Microbiology/Immunology

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<td>Joseph H. Coggin</td>
<td>Influenza Vaccine Immunotherapy</td>
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<td>David A. Dean</td>
<td>Vascular Smooth Muscle-Specific Gene Therapy Vectors</td>
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<td>Nuclear Targeting Vectors for Corneal Gene Therapy</td>
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<td>John W. Foster</td>
<td>Acid Tolerance Response of Salmonella</td>
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<td>The Role of Acid Resistance in Escherichia Coli 0157:H7 Colonization and Disease</td>
<td>USDA</td>
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<td>Robert N. Lausch</td>
<td>Corneal Inflammation and Interleukin-10</td>
<td>NIH</td>
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<td>Role of MIP-2 in HSV-1 Induced Corneal Inflammation</td>
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<td>John E. Oakes</td>
<td>Corneal Disease — Mechanisms of Specific Inflammation</td>
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<td>Chemokine Gene Regulation in Human Corneal Epithelia</td>
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<td>Herbert H. Winkler</td>
<td>Permeability of the Epidemic Typhus Rickettsia</td>
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<td>David O. Wood</td>
<td>Genetic Analysis of Rickettsia Prowazekii</td>
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<td>Transport of S-Adenosylmethionine in Rickettsia</td>
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<td>Jane Boggs</td>
<td>Open-Label, Safety Study of Gapapentin as Adjunct Therapy in Children Aged 1 Month Through 4 Years With Seizures Uncontrolled by Current Anticonvulsant Drugs</td>
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<td>Multicenter, Double-Blind, Randomized, Placebo-Control, Parallel-Group, Monotherapy Trial of Rufinamide in Patients With Recent-Onset Partial Seizures</td>
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<td>Safety and Efficacy of High Versus Low Dose Rufinamide Monotherapy in Patients With Inadequately Controlled Partial Seizures</td>
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<td>Jorge Mendizabal</td>
<td>A Multicenter, Double-Blind, Randomized, Parallel Group Study of the Safety and Efficacy of BOTOX Purified Neurotoxin Complex for the Prophylactic Treatment of Migraine Headache</td>
<td>Allergen</td>
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<td>John Rothrock</td>
<td>A Multicenter, Double-Blind, Randomized, Placebo-Controlled, Parallel Group Study of the Safety and Efficacy of Three Dosages of BOTOX Purified Neurotoxin Complex for the Prophylactic Treatment of Migraine Headaches</td>
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<td>Patient Preference for Migraine Headache Therapy: Imitrex Tablets Versus Current (Non-Triptan) Therapy</td>
<td>GlaxoWellcome</td>
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<td>Richard M Zweifler</td>
<td>Warfarin VS Aspirin Recurrent Stroke Study (WARSS)</td>
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<td>Siblings With Ischemic Stroke Study (SWISS)</td>
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### NEUROLOGY (CONT)

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<td>Vitamin Intervention for Stroke Prevention</td>
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<td>Warfarin VS Aspirin for Intracranial Arterial Stenosis (WSAID)</td>
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<td>Antiphospholipid Antibodies and Stroke (APASS)</td>
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<td>Stroke Outcomes and Neuroimaging of Intracranial Arteriosclerosis</td>
<td>NIH – Subcon Rhode Island Hosp</td>
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<td>A Double-Blind, Placebo-Controlled, Safety, Efficacy, and Dose Response Trial of Three Intravenous Dosages of BMS 204352 in Patients With Acute Stroke</td>
<td>Bristol Myers Squibb</td>
<td>29,800</td>
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<td>Mild Induced Hypothermia in Awake, Unanesthetized Health Volunteers</td>
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<td>The Effects of 2000mg Citicoline on Clinical Outcome and the Evolution of Lesion Volume in Human Stroke</td>
<td>Interneuron Pharmaceuticals</td>
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<td>A Phase III Randomized, Double-Blind, Placebo-Controlled Efficacy and Safety Study of Hu23f2G (LeukArrest) in Patients With Ischemic Stroke</td>
<td>Pharmaceutical Res Assoc</td>
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<td>A Double-Blind, Randomized, Placebo-Controlled Study of Atorvastatin as Prevention of Cerebrovascular Events in Patients With a Previous Transient Ischemic Attack or Stroke</td>
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<td>Susan Baker</td>
<td>Perinatal Outreach Plan for Provider Education and Network Coordinator</td>
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<td>Use of Valaciclovir Suppressive Therapy for Recurrent Genital Herpes During Pregnancy</td>
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<td>(Glaxo Wellcome)</td>
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<td>Botros Rizk</td>
<td>Multicenter Efficacy Study Comparing EMD 90 171, a Once a Week Estradiol-Levonorgestrel Combination Transdermal System, With Placebo in the Treatment of Vasometer Symptoms Associated With Menopause</td>
<td>Quintiles/Solvay</td>
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<td>B. Rizk/ A.H. Kirolos</td>
<td>A Randomized, Double-Blind, Placebo and Active-Controlled, Parallel, Multicenter Study to Assess the Safety and Efficacy of 3 ½-Day Combinations of 17B-Estradiol/Norethindrone Acetate Transdermal Delivery Systems for Relief of Menopausal Vasometer Symptoms and Reduction of Endometrial Hyperplasia</td>
<td>CRA-Wyeth Ayerst</td>
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<td>Ian Thorneycroft</td>
<td>A Prospective, Double-Blind, Randomized Study of the Safety and Efficacy of Lower Doses of Premarin and Medroxyprogesterone Acetate in Postmenopausal Women</td>
<td>Wyeth-Ayerst</td>
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<td>A Multicenter, Double-Blind, Randomized, Active- and Placebo-Controlled Pilot Trial of the Vasometer Effect of TSE-424 in Nonflushing, Postmenopausal Women</td>
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<td>A Prospective, Randomized Study Comparing the Peri-operative Administration of</td>
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<td>Procrit (Epoetin Alfa) With Iron Supplementation Versus Iron Supplementation</td>
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<td>Alone in Patients Undergoing Abdominal Hysterectomy or Myomectomy for Benign</td>
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<td>Russell Meldrum</td>
<td>A Randomized, Double-Blind, Comparative Study of H 376/95 and Enoxaparin for the Prevention of Venous Thromboembolism Following Total Hip Arthroplasty</td>
<td>AstraZeneca/IBAH</td>
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<td>A Multicenter, Multinational, Randomized, Double-Blind Comparison of Subcutaneous SR90107A/ORG31540 With Enoxaparin in the Prevention of Deep Vein Thrombosis and Symptomatic Pulmonary Embolism After Elective Hip Replacement or a Revision</td>
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<td>A New Method for Femoral Canal Preparation in Total Hip Revision Surgery</td>
<td>NSF - Subcon UAB</td>
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<td>Prasit Nimityongskul</td>
<td>Evaluation of the Safety Profile of Oral Tramadol Hydrochloride for the Treatment of Painful Conditions in Children and Adolescents Aged Seven to Sixteen Years</td>
<td>R W Johnson</td>
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<td>Albert W. Pearsall</td>
<td>A Biomechanical Comparison of Four Different Tissues for Reconstruction of the Anterior Cruciate Ligament Articular Cartilage Cell Viability Research</td>
<td>Regeneration Tech</td>
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<td>Biomechanical Properties of C1-C2 Interlaminar Claw Fixation for Treatment of C1-C2 Instability</td>
<td>Medtronic, Inc.</td>
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### PATHOLOGY

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<td>Miguel Pappolla</td>
<td>Melatonin and Antioxidants as Therapeutic Agents in a Transgenic Mouse Model of Alzheimer's Disease</td>
<td>NIH</td>
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<td>A Pilot Trial of Long-Term Melatonin in AD</td>
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<td>Melatonin as a New Anti-Amyloidogenic and Antioxidant Agent</td>
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<td>Mindset Limited Research Agreement</td>
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<td>David Wells</td>
<td>INDYNE Cooperative Service</td>
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$ 542,899
# PEDIATRICS

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<td>David Gremse</td>
<td>A Randomized, Double-Blind, Placebo-Controlled Study Evaluating the Safety and Efficacy of Lamivudine in the Treatment of Pediatric Subjects With Chronic Hepatitis B Virus Infection</td>
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<td>A Study to Evaluate the Effects of Lansoprazole in Pediatric Patients With Esophagitis Treated for Eight To Twelve Weeks</td>
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<td>A Multicenter, Open Label Study of the Efficacy and Safety of Exisulind at the Highest Tolerated Dose in Pediatric With Intact Colons and a Diagnosis of Adenomatous Polyposis Coli</td>
<td>Cell Pathways</td>
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<td>Mary Y. Mancao</td>
<td>Southeast Pediatric Aids Clinical Trial Unit</td>
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<td>Betty Pace</td>
<td>A Study to Assess the Safety, Dose Conversion and Titration of Duragesic in Pediatric Patients With Chronic Pain Requiring Opioid Therapy</td>
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<td>Kenneth Rettig</td>
<td>Genentech Growth Study</td>
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<td>Richard M. Whitehurst</td>
<td>The Effect of Dexamethasone on Neonatal Cardiac Myocyte Ca2+ Channels and Its Association With Ventricular Hypertrophy</td>
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<td>Crystallography of Dehydratase/DCoH: A Target of Lung Disease</td>
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<td>Folate/Vitamin Research</td>
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<td>Michael D. Chinkers</td>
<td>Regulation of the ANP Receptor/Guanylyl Cyclase</td>
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<td>Glucocorticoid Receptor Regulation by Protein Phosphatase</td>
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<td>Mark N. Gillespie</td>
<td>Hypoxic Pulmonary Hypertension and Polyamines</td>
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<td>DNA Lesions and Gene Expression in Hypoxic Lung Disease</td>
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<td>Ming Li</td>
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<td>LVA Calcium Channel and Pancreatic Beta Cell Death</td>
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<td>Pulmonary Endothelial Cell Wound Repair and Polyamines</td>
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<td>Jonathan C. Scammell</td>
<td>Animal Model of Glucocorticoid Resistance</td>
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<td>Experimental Infection of Squirrel Monkey B-Lymphocytic Cell Lines With Creutzfeldt-Jacob Disease</td>
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<td>Stephen Schaffer</td>
<td>Taurine Depletion and Osmotic Stress: A Model of Cardioprotection</td>
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<td>Does Chronic Therapy With Candesartan Prevent Renal Dysfunction in a New Hypertensive Rat Model of Non-Insulin Dependent Diabetes?</td>
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<td>Effect of Diabetes and Hypertension on Ischemic Injury</td>
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<td>Glucose-Induced Protection Against Hypoxia-Induced Apoptosis</td>
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<td>Ca2+ Inhibition of cAMP in Lung Endothelial Permeability</td>
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<td>Store Operated CA2+ Entry: Lung Endothelial Permeability</td>
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<td>W. Joseph Thompson/S.J. Strada</td>
<td>Control of Lung Endothelial Cell Membrane Potential by Cyclic Nucleotide Gated Channel: Response to Inflammation (Fellowship: Song Wei Wu, M.D.)</td>
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<td>Studies of Interactions Between P53 and S100 Proteins</td>
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<td>Mechanisms for Fetal Hemoglobin Induction*</td>
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<td>Deciphering the Cellular Functions of Aldolase</td>
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<td>Stephen T. Ballard</td>
<td>Pharmacological Model of Cystic Fibrosis Lung Disease</td>
<td>Cystic Fibrosis Fdn</td>
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<tr>
<td></td>
<td>Regional Ion Transport Across Airway Epithelium</td>
<td>NIH</td>
<td>107,890</td>
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<td>Joseph N. Benoit</td>
<td>Intêteine in Chronic Portal Hypertension</td>
<td>NIH</td>
<td>253,286</td>
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<tr>
<td></td>
<td>Analysis of Intracellular Calcium and Tension Develop-</td>
<td>Am Heart Assn SE Affiliate</td>
<td>25,000</td>
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<tr>
<td></td>
<td>ment in Smooth Muscle of Small Resistance Arteries</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>(Fellowship: Jason Gardner, Ph.D.)</td>
<td></td>
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<tr>
<td></td>
<td>Advanced Cardiovascular Research for Medical Students</td>
<td>NIH</td>
<td>10,800</td>
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<tr>
<td>AGENCY</td>
<td>PROJECT TITLE</td>
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<td>-------------</td>
<td>---------------------------------------------------------</td>
<td>------------------------</td>
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</tr>
<tr>
<td>NIH</td>
<td>Mechanical Injury to Lung Endothelium</td>
<td>James C. Parker</td>
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<tr>
<td>BioNebraska</td>
<td>Lung Microrcirculation With High Vascular Pressures</td>
<td>Aubrey E. Taylor</td>
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<tr>
<td>Am Heart Assn SE Affiliate</td>
<td>Regulation of Pulmonary Endothelial Permeability in Rat Lung Subjected to Ischemia/Reperfusion (I/R)</td>
<td>Mary I. Townsley</td>
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<tr>
<td>Am Heart Assn SE Affiliate</td>
<td>Role of Substance P in the Collaterals Mediating the Pressor Reflex to Stasis Contraction</td>
<td>L. Brit Wilson</td>
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<table>
<thead>
<tr>
<th>Project Title</th>
<th>Investigator</th>
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<tbody>
<tr>
<td>Role Collecting Lymphatic Pumps in Prevention of Interstitial Edema</td>
<td>Joseph N. Benoit</td>
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<tr>
<td>Physical Factors and Coronary Flow</td>
<td>James M. Downey</td>
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<tr>
<td>BIOPA GLP-1 Research</td>
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<tr>
<td>BIP3 MAPK Research</td>
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<tr>
<td>Mechanical Ventilation Induced Lung Injury</td>
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<p>| YEARS TOTAL FUNDING | | |
|--------------------| | |
| $25,000 | | |
| 182,209 | | |
| 500 | | |
| 5000 | | |
| 240,237 | | |
| 35000 | | |
| 223,034 | | |
| 227,684 | | |
| 86,276 | | |
| 34,357 | | |
| $1,538,953 | | |</p>
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<th>PRINCIPAL INVESTIGATOR</th>
<th>PROJECT TITLE</th>
<th>AGENCY</th>
<th>YEAR'S TOTAL FUNDING</th>
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<tr>
<td>Regina M. Benjamin</td>
<td>Basic/Core AHEC Grant</td>
<td>HRSA (BHPR)</td>
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<td>Alabama AHEC Program</td>
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<td></td>
<td>CME Video Library</td>
<td>Ernest Debakey Charitable Fdn</td>
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<td></td>
<td>USA Telemedicine Program</td>
<td>HRSA</td>
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<td></td>
<td></td>
<td>$2,750,015</td>
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<td>------------------------</td>
<td>-------------------------------------------------------------------------------</td>
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<tr>
<td>Donna L. Dyess</td>
<td>Peripheral Microvascular Permeability Response to Autocoids in Heart Failure: Role of Catecholamines and Prostanoids</td>
<td>Am Heart Assn SE Affiliate</td>
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<td>Richard P. Gonzalez</td>
<td>A Multicenter, Investigator-Blinded, Randomized Study to Compare the Safety and Efficacy of IV Daptomycin With That of Vancomycin or a Semi-Synthetic Penicillin in the Treatment of Complicated Bacterial Skin and Soft Tissue Infections Due to Gram-Positive Bacteria</td>
<td>Cubist/Advanced Biologies</td>
<td>6,000</td>
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<td>A Multicenter, Open-Label, Randomized Study to Compare the Safety and Efficacy of IV Daptomycin With That of Vancomycin or a Semi-Synthetic Penicillin in the Treatment of Bacteremic Infections Due to Gram-Positive Bacteria</td>
<td>Cubist/Advanced Biologies</td>
<td>7,000</td>
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<tr>
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<td>A Multicenter, Open-Label, Non-Comparative Study to Assess the Safety and Efficacy of IV Daptomycin in the Treatment of Hospitalized Subject With Infections Due to Gram-Positive Bacteria That Are Resistant to Vancomycin, or Who Are Otherwise Refractory to, or Contraindicated for Currently Available Therapy</td>
<td>Cubist/Advanced Biologies</td>
<td>7,000</td>
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<tr>
<td></td>
<td>Center to Study Rural Vehicular Trauma</td>
<td>DOT</td>
<td>875,000</td>
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<tr>
<td>Seth Izenberg</td>
<td>A Multicenter Phase III Study to Assess the Safety and Efficacy of Bactericidal/Permeability-Increasing Protein (rBP121) in Patients With Hemorrhage Due to Trauma</td>
<td>IBRD Global</td>
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**SURGERY (CONT)**

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<th>YEAR'S TOTAL FUNDING</th>
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<tr>
<td>Arnold Luterman</td>
<td>A Randomized, Controlled, Within-Patient-Paired Study to Compare the Effectiveness of Transcyte and Biobrane in Treatment Mid-Dermal to Indeterminate Depth Burn Wounds</td>
<td>Lilly Res Labs</td>
<td>$ 11,519</td>
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<td></td>
<td>Clinical Evaluation of Regranex (becaplermin) Gel 0.01% for the Treatment of Full Thickness Diabetic Neuropathic Foot Ulcers</td>
<td>Integra LifeSci Corp</td>
<td>18,000</td>
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<td>Lilly LY333328 Versus Vancomycin in Skin/Skin-Structure Infections</td>
<td>PPD Dev/ (Advance Tissue Sci.)</td>
<td>36,313</td>
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<td></td>
<td>INTEGRA Artificial Skin - Post Approval Study</td>
<td>Ortho-McNeil</td>
<td>11,250</td>
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<td></td>
<td></td>
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<td>$1,031,136</td>
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</table>
RANKING OF UNITED STATES MEDICAL SCHOOLS
ACCORDING TO FUNDS AWARDED BY
NATIONAL INSTITUTES OF HEALTH
DURING FISCAL YEAR 1999

The College of Medicine's rank among all U.S. medical schools for fiscal year 1999 was 92nd. Please note that this ranking is for National Institutes of Health funds only, and does not include extramural funding from other granting agencies. Please also note that the information presented here is for FY 1999, because of the delay in receipt of NIH reports.

<table>
<thead>
<tr>
<th>RANK</th>
<th>INSTITUTION</th>
<th>TOTAL NIH FUNDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
<td>Morehouse College School of Medicine</td>
<td>$14,961,058</td>
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<tr>
<td>81</td>
<td>Loyola Univ Chicago Stritch Sch of Med</td>
<td>14,810,919</td>
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<tr>
<td>82</td>
<td>Howard University College of Medicine</td>
<td>14,562,560</td>
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<tr>
<td>83</td>
<td>New York Medical College</td>
<td>14,534,122</td>
</tr>
<tr>
<td>84</td>
<td>SUNY Buffalo Sch of Medicine</td>
<td>14,067,195</td>
</tr>
<tr>
<td>85</td>
<td>Medical College of Georgia Sch of Med</td>
<td>13,542,274</td>
</tr>
<tr>
<td>86</td>
<td>University of South Florida Col of Med</td>
<td>13,404,217</td>
</tr>
<tr>
<td>87</td>
<td>University of Puerto Rico Sch of Med</td>
<td>11,924,182</td>
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<tr>
<td>88</td>
<td>SUNY Hlth Scis Ctr Syracuse Col of Med</td>
<td>10,464,858</td>
</tr>
<tr>
<td>89</td>
<td>George Washington Univ Sch of Medicine</td>
<td>9,758,393</td>
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<tr>
<td>90</td>
<td>Univ of Missouri Columbia Sch of Med</td>
<td>9,504,330</td>
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<td>91</td>
<td>Meharry Medical College Sch of Medicine</td>
<td>9,390,368</td>
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<tr>
<td>92</td>
<td>University of South Alabama Sch of Med</td>
<td>9,171,397</td>
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<tr>
<td>93</td>
<td>University of Louisville Sch of Medicine</td>
<td>9,109,613</td>
</tr>
<tr>
<td>94</td>
<td>Albany Medical College of Union Univ</td>
<td>7,886,740</td>
</tr>
<tr>
<td>95</td>
<td>University of Nevada Sch of Medicine</td>
<td>7,543,911</td>
</tr>
<tr>
<td>96</td>
<td>Univ of Mississippi Sch of Medicine</td>
<td>7,304,793</td>
</tr>
<tr>
<td>97</td>
<td>Medical College of Ohio at Toledo</td>
<td>7,277,136</td>
</tr>
<tr>
<td>98</td>
<td>Wright State University Sch of Medicine</td>
<td>6,616,834</td>
</tr>
<tr>
<td>99</td>
<td>Charles R. Drew University of Med &amp; Sci</td>
<td>6,555,530</td>
</tr>
<tr>
<td>100</td>
<td>Michigan State U Col of Human Medicine</td>
<td>6,355,638</td>
</tr>
<tr>
<td>101</td>
<td>West Virginia University Sch of Medicine</td>
<td>5,477,433</td>
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<tr>
<td>102</td>
<td>Eastern Virginia Med/Sch Med Col Hamp Rd</td>
<td>5,128,866</td>
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<tr>
<td>103</td>
<td>Finch Univ of Hlth Scis Chicago Med Sch</td>
<td>4,432,542</td>
</tr>
<tr>
<td>104</td>
<td>Texas A&amp;M Univ Col of Medicine</td>
<td>4,398,357</td>
</tr>
<tr>
<td>RANK</td>
<td>INSTITUTION</td>
<td>TOTAL NIH FUNDS</td>
</tr>
<tr>
<td>------</td>
<td>------------------------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>105</td>
<td>Texas Tech Univ Hlth Scs Ctr Sch of Med</td>
<td>$ 4,277,925</td>
</tr>
<tr>
<td>106</td>
<td>East Carolina University Sch of Med</td>
<td>4,274,489</td>
</tr>
<tr>
<td>107</td>
<td>Loma Linda University Sch of Medicine</td>
<td>4,074,124</td>
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<tr>
<td>108</td>
<td>Central U of the Caribe Sch Med of Cayey</td>
<td>3,983,152</td>
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<tr>
<td>109</td>
<td>Creighton University School of Medicine</td>
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<tr>
<td>110</td>
<td>Ponce School of Medicine</td>
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<tr>
<td>111</td>
<td>Southern Illinois Univ Sp Sch of Med</td>
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<tr>
<td>112</td>
<td>Univ of North Dakota Sch of Medicine</td>
<td>3,069,183</td>
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<tr>
<td>113</td>
<td>Univ of Missouri Kansas City Sch of Med</td>
<td>2,851,043</td>
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<tr>
<td>114</td>
<td>Univ of South Carolina Sch of Medicine</td>
<td>2,841,662</td>
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<tr>
<td>115</td>
<td>East Tenn St Univ Quillen Med Col</td>
<td>2,156,991</td>
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<tr>
<td>116</td>
<td>Univ of Hawaii John A Burns Sch of Med</td>
<td>1,895,483</td>
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<tr>
<td>117</td>
<td>Northeastern Ohio Univs College of Med</td>
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<tr>
<td>118</td>
<td>Marshall University School of Medicine</td>
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<td>119</td>
<td>Univ of South Dakota Sch of Medicine</td>
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<td>120</td>
<td>Med Coll of Pennsylvania/Hahnemann Univ</td>
<td>751,328</td>
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<tr>
<td>121</td>
<td>Mercer University School of Medicine</td>
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<tr>
<td>122</td>
<td>U S Uniformed Services Univ Hlth Scs</td>
<td>186,521</td>
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<tr>
<td>123</td>
<td>Rush Medical College</td>
<td>114,749</td>
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</tbody>
</table>
OFFICE OF TECHNOLOGY DEVELOPMENT

The Office of Technology Development (OTD), a new University-wide office, was launched in late 1999 as a reorganization and expansion of the former Office of Technology Transfer in the College of Medicine. Nicole Baute, previously Assistant Director of Technology Development at Tulane University, was recruited and hired as USA's Director of Technology Development in February, 2000. The OTD exists to identify, protect, commercialize and manage inventions made by members of the University of South Alabama community. The primary mission of the OTD is to deliver those discoveries from concept to commerce. In fulfilling this mission, the OTD works to expand the research enterprise of the University, provide assistance to all faculty as well as rewards to inventors, increase opportunities for economic development and outreach, and return to the public the benefits of university-based research.

The OTD handles all phases of the intellectual property process for the College of Medicine, including evaluation of invention disclosures, assessment of marketability and patentability of inventions, negotiation of licensing and research agreements, oversight of material transfer agreements, and management of the existing patent portfolio.

In FY2000, three inventions developed by College of Medicine faculty were issued patents by the US Patent & Trademark Office:

- US 5,997,915 Composition for human and animal consumption with reduced folates (S. Bailey & J. Ayling)
- US 6,020,120 Use of N-acetylcysteine to store red blood cells and a method of aging red cells (A. Shartava)
- US 6,087,398 Novel Sickle Cell Anemia Treatment (S. Goodman)

College of Medicine faculty disclosed four new inventions to OTD in FY2000. The figure below tracks the number of invention disclosures made by College of Medicine faculty in each fiscal year since 1995, when the original Office of Technology Transfer was founded.
During FY2000, overall technology development activities at the College of Medicine increased to the highest levels ever. The number of licenses executed jumped significantly, from none in FY1999 to seven in FY2000. The recipients of those licenses reimbursed the South Alabama Medical Science Foundation (SAMSF) for 64% of all legal fees spent on patenting and licensing activities. The College of Medicine, through SAMSF, collected a record income of $340,186 associated with the licensing of inventions made by its faculty.

Further details about the operation of the Office of Technology Development in FY2000, and a comparison with the statistics of FY1999, can be found in the table below.

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<th>1999</th>
<th>2000</th>
<th>CUM TOTAL</th>
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<td>Invention Disclosures</td>
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<tr>
<td>US Patents Filed (all types)</td>
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<td>16</td>
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<tr>
<td>US Patents Issued</td>
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<td>3</td>
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<tr>
<td>Licenses/Options Executed</td>
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<td>7</td>
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<tr>
<td>Licenses Generating Revenue</td>
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<td>5</td>
<td>5</td>
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<td>Total Active Licenses</td>
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<td>Start-up Companies Formed</td>
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<td>Legal Fees Expended</td>
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<td>Legal Fees Reimbursed</td>
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<td>$148,832</td>
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<td>Percent of Legal Expenses</td>
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<td>Reimbursed Research Agreements</td>
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<td>Executed Research Dollars</td>
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<tr>
<td>Associated with Inventions</td>
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<tr>
<td>Material Transfer Agreements</td>
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1999-2000
OFFICE OF STUDENT AFFAIRS AND MEDICAL EDUCATION

The Office of Student Affairs and Medical Education has now completed its first full academic year after the re-organization of the office, which occurred in February, 1999. While continuing to support traditional student activities and maintain the standards of the academic program, the Office initiated a White Coat Ceremony, worked with the Curriculum Committee to increase early clinical experience and improve documentation of clinical skills, and assisted the Student Promotions and Evaluation Committee in defining new policies with regard to clerkship NBME final examinations and clinical skills.

With the retirement of Dr. Ray Fletcher, the Office has also assumed responsibility for Continuing Medical Education.

Activities of the Office of Student Affairs and Medical Education are accomplished through offices in the Medical Sciences Building, Central Services and Administration Building, and Mastin Building.

Student Affairs

Orientation programs were held for entering Freshman on August 16-18, 2000. Sixty-eight students attended two days of structured activities which included introductory talks or presentations from the COM administration, Medical Alumni Association, Biomedical Library, and various student organizations. Events included a course in CPR and a book and instrument sale. Hepatitis B vaccinations were made available to the students during Registration. Orientation events concluded with an optional dinner cruise from Bellingrath Gardens on the Fowl River. This event was very well attended by both Freshman and Sophomore classes and was a great end to orientation activities.

Junior Orientation was held in the Mastin Building on the USAMC Campus on May 7, 2000. Dr. Rettig organized the activities which included advice from faculty and students on how to succeed in the Junior year. Additional presentations were made by staff from Risk Management, Infection Control, and Quality Assurance.

The first annual White Coat Ceremony was held on Sunday, May 6, in the MSB Auditorium. Students and their families were welcomed by Dr. Bennett for the Office of Student Affairs and Medical Education and Dr. Gremse for the Medical Alumni Association. Dr. Robert Kreisberg, who was selected by the class to speak to them at this event, gave a short talk on what it means to be a physician. Following his address, Dr. Ken Rettig and Dr. Hattie Myles presented members of the sophomore class with a white coat and a lapel pin, courtesy of the Arnold P. Gold Foundation for Humanism in Medicine. The formal program was followed by a reception in the College of Medicine Conference Room. The events were well attended and received good reviews from all who came.
Medical student participation in national AMA meetings was supported by providing funds to support travel for two student representatives to the AMA annual and interim meetings in Chicago and San Diego. Two students also received support for attendance at the Organization of Student Representatives meetings at the AAMC annual meeting in Washington DC. One student attended the regional OSR meeting at the Southern Group on Student Affairs meeting in Key West.


The Office supports a tutoring program which pays upperclassman and/or graduate students to tutor Freshman and Sophomore students who request assistance. In 1999-2000, four tutors provided 132 hours of tutoring to 15 students in Histology, Gross Anatomy, and Developmental Anatomy.

The number of visiting medical students who participated in Senior elective courses at USACOM in 1999-2000 is outlined below.

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<td>Total Visitors</td>
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<td>41</td>
<td>53</td>
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<td>From LCME Schools</td>
<td>18</td>
<td>13</td>
<td>27</td>
<td>19</td>
<td>14</td>
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<tr>
<td>From Osteopathic Schools</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>3</td>
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<tr>
<td>From Foreign Schools</td>
<td>16</td>
<td>24</td>
<td>24</td>
<td>7</td>
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<td>From LCME Schools</td>
<td>5</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>From Osteopathic Schools</td>
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<td>0</td>
<td>0</td>
<td>1</td>
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<tr>
<td>From Foreign Schools</td>
<td>12</td>
<td>14</td>
<td>12</td>
<td>1</td>
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<td>0</td>
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<td>Family Practice</td>
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<td>1</td>
<td>3</td>
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<tr>
<td>Internal Medicine</td>
<td>13</td>
<td>12</td>
<td>23</td>
<td>12</td>
<td>3</td>
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<tr>
<td>Medical Genetics</td>
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### Months Electives Taken

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</table>

One student graduated in December 1999 and prepared to enter residency after being deferred in July. Letters of evaluation (Dean’s Letters) were written for each of the 58 seniors who graduated in May 2000. Original letters and official transcripts were mailed to 258 residency directors during the months of November through January; 1,251 letters were sent through the AAMC Electronic Residency Application Service (ERAS).

All students in the Class of 2000 matched with 85% of the students receiving their first, second, or third choice. Fifty of the May graduates (plus the December graduate) used the NRMP as their primary means of obtaining residency, but other systems such as the Military Match or San Francisco Subspecialty Match were used by eight graduates.

<table>
<thead>
<tr>
<th>Number of Graduates</th>
<th>Match Utilized</th>
<th>Initially Failed to Match in NRMP</th>
<th>Choice on NRMP Rank-Order List (Percent of Class Who Matched)</th>
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<td>Non-NRMP</td>
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<td>64</td>
<td>56</td>
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</tr>
<tr>
<td>1997</td>
<td>65</td>
<td>54</td>
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</tr>
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<td>1998</td>
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<td>56</td>
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</tr>
<tr>
<td>1999</td>
<td>60</td>
<td>49</td>
<td>10</td>
</tr>
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<td>2000</td>
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### University of South Alabama Seniors
#### Residencies Received by Discipline

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<th>Class of 1996</th>
<th>Class of 1997</th>
<th>Class of 1998</th>
<th>Class of 1999</th>
<th>Class of 2000</th>
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<tbody>
<tr>
<td>PRIMARY CARE:</td>
<td>47 73%</td>
<td>42 65%</td>
<td>41 65%</td>
<td>33 55%</td>
<td>35 59%</td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>26 41%</td>
<td>12 18%</td>
<td>16 25%</td>
<td>12 20%</td>
<td>23 39%</td>
</tr>
<tr>
<td>Family Medicine</td>
<td>15 23%</td>
<td>22 34%</td>
<td>12 19%</td>
<td>9 15%</td>
<td>7 12%</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>4 6%</td>
<td>7 11%</td>
<td>8 13%</td>
<td>8 13%</td>
<td>4 7%</td>
</tr>
<tr>
<td>Med/Peds</td>
<td>2 3%</td>
<td>1 2%</td>
<td>5 8%</td>
<td>4 7%</td>
<td>1 2%</td>
</tr>
<tr>
<td>Anesthesiology</td>
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<td>2 2%</td>
<td>2 2%</td>
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<tr>
<td>Dermatology</td>
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<td>1 1%</td>
</tr>
<tr>
<td>Emergency Medicine</td>
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<td>0 0%</td>
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<tr>
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<tr>
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<td>5 5%</td>
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<td>4 4%</td>
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<td>2 3%</td>
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<tr>
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<td>3 3%</td>
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### University of South Alabama Seniors
#### Residencies Received by State

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<tr>
<th>Year</th>
<th>Alabama</th>
<th>USA Hospitals (Mobile)</th>
<th>Out-of-State</th>
<th>Number of Different States</th>
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<td>1996</td>
<td>34 53%</td>
<td>25</td>
<td>30 47%</td>
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<tr>
<td>1997</td>
<td>31 48%</td>
<td>18</td>
<td>34 52%</td>
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<td>1998</td>
<td>22 35%</td>
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<tr>
<td>1999</td>
<td>22 37%</td>
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<td>37 63%</td>
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<tr>
<td>2000</td>
<td>27 46%</td>
<td>16</td>
<td>32 54%</td>
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</table>
Fifty-eight seniors received the degree Doctor of Medicine at Commencement on May 6, 2000. Earlier that day, the College held its twenty-fifth Honors Convocation, which took place for the first time in the Mitchell Center. Dr. Charles Rodning addressed the class and Steven Werdehoff responded for the graduates. Prior to hooding the graduates, the following awards were presented:

Dean's Award ........................................... Ginger K. Bryant
Karl T. Hagler

American Medical Women's Association
Glasgow Memorial Award ................................ Ginger K. Bryant

Outstanding Student in the Anatomical Sciences ..................... Ginger K. Bryant

The Lewis D. Anderson
Medical Student Achievement Award .............................. Ginger K. Bryant

Honors Award in Biochemistry ................................ Ginger K. Bryant
Christopher J. Frailie

John W. Donald Memorial Award in Surgery ......................... Christopher J. Frailie

Obstetrics/Gynecology Award ................................... Christopher J. Frailie

Medical Assurance Award ..................................... Christopher J. Frailie

Medical Alumni Leadership Award ............................... Lisa H. Free

Family Practice and Community Medicine Student Award .......... Lisa H. Free

Humanism in Medicine Award .................................. Lisa H. Free

Pathology Award ............................................ Jennifer L. Adcock

American Medical Women's Association Scholarship
Achievement Citation ................................................ Noël M. Bergquist
Jennifer L. Adcock

Neurology Award ............................................ Noël M. Bergquist

Merck Award ............................................... Brian N. Mathews
Melanie B. Nicholls

Samuel Eichold Award ......................................... Brian N. Mathews

SNMA Leadership Award ....................................... Shameza L. Boyd
Eugene D. Bondurant Award ................................. Lori A. Lowthert
Merck Award in Ophthalmology ............................. James W. Loveless
Community Service Award ................................. Meredith B. Loveless
Pharmacology Achievement Award .......................... Steven G. Werdehoff
Hollis J. Wiseman Award for Excellence in Pediatrics ................................. Patrick L. Bosarge, Jr.
Charles W. Urschel Achievement Award in Physiology .............. Christopher B. Cave
                                                                 John L. Hunter, III
                                                                 Aron S. McGuirt
Excellence in Emergency Medicine Award .......................... John M. Croushorn
Lange Award ......................................................... Robert L. Henderson, Jr.
## 1999-00

### Grades Assigned

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<th>C</th>
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## Academic Progress of Medical Students

**Source:** Part II of LCME Annual Medical School Questionnaire

### Classes Which Graduated In:

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### Academic Year

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<td><strong>Admitted with Advanced Standing or Re-entered from Graduate School</strong></td>
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<td>6</td>
<td>7</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td><strong>Enrolled on a Decelerated Schedule</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### Minority Students (Black, Native American, Hispanic)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>49</td>
<td>49</td>
</tr>
<tr>
<td><strong>Freshmen</strong></td>
<td>7</td>
<td>8</td>
<td>5</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td><strong>All Other Classes</strong></td>
<td>18</td>
<td>17</td>
<td>20</td>
<td>36</td>
<td>35</td>
</tr>
</tbody>
</table>
United States Medical Licensure Examination (USMLE) Step 1
June Administration*

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Students</td>
<td>63</td>
<td>62</td>
<td>63</td>
<td>66</td>
</tr>
<tr>
<td>National Overall Mean</td>
<td>210</td>
<td>213</td>
<td>215</td>
<td>215</td>
</tr>
<tr>
<td>USACOM Overall Mean</td>
<td>205</td>
<td>211</td>
<td>217</td>
<td>216</td>
</tr>
<tr>
<td>Failure Rate - National</td>
<td>7%</td>
<td>7%</td>
<td>5%</td>
<td>77%</td>
</tr>
<tr>
<td>Failures at USA</td>
<td>6%(4)</td>
<td>2%(1)</td>
<td>8%(5)</td>
<td>5%(3)</td>
</tr>
<tr>
<td>Anatomy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross &amp; Embryology</td>
<td>195(-4)</td>
<td>202(+1)</td>
<td>207(+3)</td>
<td></td>
</tr>
<tr>
<td>Histology &amp; Cell Biology</td>
<td>199(0)</td>
<td>205(+5)</td>
<td>209(+7)</td>
<td></td>
</tr>
<tr>
<td>Physiology</td>
<td>208(-4)</td>
<td>211(-2)</td>
<td>216(+1)</td>
<td></td>
</tr>
<tr>
<td>Biochemistry</td>
<td>206(+1)</td>
<td>209(+1)</td>
<td>210(+3)</td>
<td></td>
</tr>
<tr>
<td>Pathology</td>
<td>214(-3)</td>
<td>219(-1)</td>
<td>225(+2)</td>
<td></td>
</tr>
<tr>
<td>Microbiology &amp; Immunology</td>
<td>213(-1)</td>
<td>212(-1)</td>
<td>217(+1)</td>
<td></td>
</tr>
<tr>
<td>Pharmacology</td>
<td>206(-4)</td>
<td>210(-1)</td>
<td>216(+1)</td>
<td></td>
</tr>
<tr>
<td>Behavioral Sciences</td>
<td>196(-9)</td>
<td>200(-10)</td>
<td>211(-1)</td>
<td></td>
</tr>
</tbody>
</table>

*Those who took the exam for the first time
Discipline scores illustrate points above and below the national mean in parentheses
Minimum passing score = 176 (179 beginning June, 1998)
Standard Deviation approximately 20
**Discipline scores are no longer provided.
# United States Medical Licensure Exam (USMLE) Step 2
## August Administration

<table>
<thead>
<tr>
<th></th>
<th>Class of</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Students</td>
<td>62</td>
</tr>
<tr>
<td>National Overall Mean</td>
<td>202</td>
</tr>
<tr>
<td>USACOM Overall Mean</td>
<td>200</td>
</tr>
<tr>
<td>Percentile Rank**</td>
<td>49</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Activity</th>
<th>Result 1</th>
<th>Result 2</th>
<th>Result 3</th>
<th>Result 4</th>
<th>Result 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health &amp; Health Maintenance</td>
<td>200 (-2)</td>
<td>202 (-2)</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understanding Mechanisms of Disease</td>
<td>202 (-1)</td>
<td>201 (-4)</td>
<td>209 (+3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnosis</td>
<td>200 (-3)</td>
<td>202 (-6)</td>
<td>208 (-1)</td>
<td></td>
<td></td>
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<tr>
<td>Principles of Management</td>
<td>196 (-1)</td>
<td>199 (-4)</td>
<td>204 (+1)</td>
<td></td>
<td></td>
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<tr>
<td>Medicine</td>
<td>200 (-1)</td>
<td>201 (-6)</td>
<td>208 (-1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ob/Gyn</td>
<td>200 (+4)</td>
<td>203 (+2)</td>
<td>214 (+9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pediatrics</td>
<td>201 (-2)</td>
<td>202 (-3)</td>
<td>212 (+8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychiatry</td>
<td>205 (-2)</td>
<td>201 (-11)</td>
<td>204 (-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surgery</td>
<td>198 (-1)</td>
<td>198 (-5)</td>
<td>204 (-1)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Failure Rate - National | 6% | 5% | 5% | 5% |
| Failures at USA         | 8% (5) | 8% (5) | 3% (2) | 10% (6) |

* Those who took the exam for the first time
**Compared with first-time takers from recent administrations
Points above and below national mean in parentheses

Minimum passing score = 170 (167 for Class of 1996)
Standard deviation = 20 (22 beginning with Class of 1997)
United States Medical Licensure Examination (USMLE) Step 3

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>National Percentage Passing</td>
<td>95</td>
<td>95</td>
<td>96</td>
<td>96</td>
<td>NA</td>
</tr>
<tr>
<td>USA Percentage Passing</td>
<td>98</td>
<td>98</td>
<td>92</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>USA Number of Students</td>
<td>63</td>
<td>57</td>
<td>63</td>
<td>58*</td>
<td>60**</td>
</tr>
</tbody>
</table>

*58/60 students have taken Step 3 as of 8/99.  
**60/62 students have taken Step 3 as of 8/00.
Evaluation of Student Performance in the First Postgraduate Year*

The questionnaire adopted by the Curriculum Committee in 1990-91 for assessment of graduates of the College of Medicine was sent to the Directors of the PGY-1 programs of our 1999 graduates. A total of 51 responses was received out of 58 requests. Below is a summary of the responses to the four major areas that were assessed. Note that according to the results of the most recent questionnaire, about 60% of our graduates were felt to be functioning in the top fifth and upper middle fifth of their PGY-1 groups.

<table>
<thead>
<tr>
<th>Medical Knowledge</th>
<th>Class of 1998</th>
<th>Class of 1997</th>
<th>Class of 1998</th>
<th>Class of 1999</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Fifth</td>
<td>18%</td>
<td>23%</td>
<td>16%</td>
<td>29.75%</td>
</tr>
<tr>
<td>Upper Middle Fifth</td>
<td>44%</td>
<td>37%</td>
<td>39%</td>
<td>30.5%</td>
</tr>
<tr>
<td>Middle Fifth</td>
<td>34%</td>
<td>30%</td>
<td>33%</td>
<td>25.75%</td>
</tr>
<tr>
<td>Lower Middle Fifth</td>
<td>4%</td>
<td>9%</td>
<td>10%</td>
<td>12%</td>
</tr>
<tr>
<td>Bottom Fifth</td>
<td>0%</td>
<td>1%</td>
<td>2%</td>
<td>2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Data Collection Recording Skills</th>
<th>Class of 1998</th>
<th>Class of 1997</th>
<th>Class of 1998</th>
<th>Class of 1999</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Fifth</td>
<td>17%</td>
<td>25%</td>
<td>23%</td>
<td>32%</td>
</tr>
<tr>
<td>Upper Middle Fifth</td>
<td>61%</td>
<td>49%</td>
<td>47%</td>
<td>28.5%</td>
</tr>
<tr>
<td>Middle Fifth</td>
<td>22%</td>
<td>25%</td>
<td>23%</td>
<td>26.5%</td>
</tr>
<tr>
<td>Lower Middle Fifth</td>
<td>0%</td>
<td>1%</td>
<td>3%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Bottom Fifth</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>2%</td>
</tr>
<tr>
<td>Unable to evaluate</td>
<td>0%</td>
<td>0%</td>
<td>4%</td>
<td>2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Clinical Judgement and Skills</th>
<th>Class of 1998</th>
<th>Class of 1997</th>
<th>Class of 1998</th>
<th>Class of 1999</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Fifth</td>
<td>16%</td>
<td>33%</td>
<td>25%</td>
<td>37%</td>
</tr>
<tr>
<td>Upper Middle Fifth</td>
<td>54%</td>
<td>16%</td>
<td>41%</td>
<td>25%</td>
</tr>
<tr>
<td>Middle Fifth</td>
<td>29%</td>
<td>42%</td>
<td>28%</td>
<td>28%</td>
</tr>
<tr>
<td>Lower Middle Fifth</td>
<td>1%</td>
<td>9%</td>
<td>3%</td>
<td>7%</td>
</tr>
<tr>
<td>Bottom Fifth</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>Unable to evaluate</td>
<td>0%</td>
<td>0%</td>
<td>3%</td>
<td>3%</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Professional Attitudes</th>
<th>Class of 1998</th>
<th>Class of 1997</th>
<th>Class of 1998</th>
<th>Class of 1999</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Fifth</td>
<td>31%</td>
<td>32%</td>
<td>37%</td>
<td>53%</td>
</tr>
<tr>
<td>Upper Middle Fifth</td>
<td>49%</td>
<td>39%</td>
<td>37%</td>
<td>23%</td>
</tr>
<tr>
<td>Middle Fifth</td>
<td>19%</td>
<td>25%</td>
<td>18%</td>
<td>15%</td>
</tr>
<tr>
<td>Lower Middle Fifth</td>
<td>1%</td>
<td>3%</td>
<td>8%</td>
<td>4%</td>
</tr>
<tr>
<td>Bottom Fifth</td>
<td>0%</td>
<td>1%</td>
<td>0%</td>
<td>4%</td>
</tr>
</tbody>
</table>

*Evaluated by Residency Program Director and/or Faculty
Curriculum Committee

The 1999-2000 Curriculum Committee was chaired by Dr. Mike Culpepper. The first activity of the academic year was a Curriculum Retreat, sponsored by the Committee and held at the Brookley Conference Center. The Retreat was attended by 43 participants representing 16 departments, the Biomedical Library, the College of Medicine Administration, and the Student Body. Topics which were discussed at the retreat included Computers in the Curriculum (including use of the AAMC Curriculum Management and Information Tool (CurlMIT)), Clinical Correlations in Basic Science Courses, Assessment of Clinical Skills, and increasing clinical exposure in pre-clinical years by development of a Longitudinal Clinical Experience. The retreat also included a workshop for course and clerkship directors on development of objectives.

During the 1999-2000 academic year, the Curriculum Committee concentrated on three initiatives which arose from the retreat. There were (1) the development of a list of clinical skills in which our students should demonstrate competence before graduation and a method to document evaluation of these skills; (2) a review of the clinical content which is present in the basic science courses taught during the first two years and the methods used in its presentation; and (3) the development of a longitudinal clinical experience which could be incorporated into the first two years and potentially extended into the remainder of medical school.

The Committee appointed a subcommittee chaired by members from Internal Medicine and Family Practice to (1) develop a list of core clinical skills in which students should become proficient during their third year of medical school; and (2) devise a method of tracking the students' progress in acquiring these skills. After considerable deliberation, the subcommittee developed a comprehensive list encompassing the areas of patient communication and interaction, patient history, performance of a physical examination, performance of specified procedures, interpretation of diagnostic tests, analytical and presentation skills, and documentation in the medical record. After this list was approved by the full committee, the subcommittee consulted with clerkship directors as to which of these skills would be used on each rotation and developed a list of general skills that would apply to all specialties. The clerkship-specific and general skills were then printed on color-coded cards that are given to the students at the start of each rotation. The students are responsible for identifying a person at the appropriate supervisory level to sign off on each skill before the end of the clerkship (or the year for the general skills card). The clerkship director signs the card at the end of the clerkship and the information is entered into a database. The Director of Student Records periodically reviews and consolidates this information and each student's individual completed database is placed in his/her file.
The Clinical Correlation subcommittee was chaired by representatives from the Departments of Medicine and Physiology. The subcommittee found that the definition of a "clinical correlation" varied widely among departments but all courses have made some attempt at incorporating the clinical use of basic science principles into their instructional time. The subcommittee noted that increasing demands of clinical productivity make it harder to identify clinicians to be responsible for these activities. The suggestion was made that when course directors contact physicians for correlations they emphasize that the purpose of the correlation is not so much to impart knowledge of clinical medicine but to reinforce the basic science concepts that are under discussion in the class at that time.

The subcommittee responsible for the development of the Longitudinal Clinical Experience was chaired by representatives from the Departments of Family Practice and Surgery. This project underwent considerable evolution over the course of the year. Initially, the committee proposed a separate course which would run through all four years. The version of the proposal which is currently under implementation is the incorporation of the longitudinal experience in a community preceptor's office into a redesigned Introduction to Clinical Medicine course. This course will begin in January of the first year and continue through May of the second year with community preceptor visits occurring every 3-4 weeks initially and eventually every other week. The course will be implemented in stages as the 2000-2001 freshman class progresses through the curriculum.

Other activities of the Curriculum Committee for this year included:

1. Review and approval of objectives submitted by basic science and clinical clerkship course directors.

2. Review of evaluations of basic science courses and clinical clerkships submitted by the course directors for the 1998-1999 academic year.

3. Review of evaluation of 1998 graduates of the COM submitted by program directors during the graduates' first year of residency.

4. Approval of the transfer of the Behavioral Science course from the Department of Psychiatry to the Department of Family Practice with ongoing review of the plans for implementation.

5. Development of the second annual Curriculum Retreat - topics include (a) update on topics from last year's retreat; (b) residents as teachers of medical students; (c) appropriate treatment in medicine and the development of a standard of conduct in the teacher-learner relationship. Dr. Robert Eaglen, from AAMC, will give a lunchtime presentation on Assessment and Quality Control in Medical Education. After lunch, Dr. Brenda Litchfield, from the College of Education, will give a workshop on Motivating the Adult Learner.
EXECUTIVE COMMITTEE OF STUDENT ASSEMBLY

1. Following a vote of the senior class, the Student Assembly presented plaques to the best faculty/courses and updated the permanent plaques located in 1005 MSB and in the USAMC Biomedical Library:

Best Preclinical Course: Pathology
Best Preclinical Instructor: Susan Ledoux, Ph.D.
Best Clerkship: Internal Medicine
Best Clinical Instructor: Michael Sternberg, M.D.
Best 4th Year Rotation: Emergency Medicine

2. The Assembly voted to hold annual rather than semi-annual meetings with the clerkship director, clinical chairs, and Drs. Rettig and Bennett. These meetings were held in the spring of 2000 and provided a forum for discussion of suggestions and concerns regarding the clerkships. The Assembly voted to support the extension of this type of meeting to involve basic science course directors and chairs after the completion of their courses. These meetings were initiated in spring of 2000 and resulted in several positive changes in course structure for the next academic year.

3. The Committee initiated a review of the Student Body Constitution for the first time in ten years. Several amendments were made regarding how the Student Assembly keeps records and clarifying election procedures. The amendments were approved by vote of the Student Body in Spring, 2000.

4. Dr. Michael Sternberg replaced Dr. Walter Pofahl as the Clinical Science Faculty Advisor to the Student Assembly.

5. The Committee passed a resolution expressing concern about the nature of pop quizzes in the Histology course. The President of the Assembly met with Dr. Goodman concerning this issue and his response is filed in the Student Assembly Record of Action.

6. The Assembly worked with the Alumni Association to provide a refrigerator, microwave, and lockers in the student call rooms at Children’s and Women’s Hospital.

7. Kirkland Stein from Alabama Administrators, presented the new proposal for student health insurance coverage for 2000-2001. Only Blue Cross submitted a proposal and the quoted rates represented an increase of 35% over 1999-2000. This increase was said to be due to the high rate of use with BC/BS expenditures of about $300,000 more than income. The Committee voted to approve some minor modification in benefits to try and bring costs down. These included an increase in drug co-pay, especially when generics are available and not used, and an increase in outpatient hospital co-pay.
8. The Committee was also involved with the following additional projects or areas of concern;

a. Moving Honors Convocation from Wright Auditorium to the Mitchell Center
b. Developing the first White Coat Ceremony for sophomore students
c. Provision of funds in support of an Orientation party for Freshman
d. Development of a library at Children's and Women's Hospital
e. Obtaining an additional student call room at Children's and Women's Hospital
f. Clarification of holidays for third-year students
g. Donation to the Baugh Biomedical Library in memory of Dr. Baugh
h. Ongoing review of Review of Systems and Skit Night activities
## OFFICE OF FINANCIAL AID

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>Total Financial Aid</td>
<td>$4,257,812</td>
<td>$4,887,723</td>
<td>$4,454,365</td>
<td>$4,654,669</td>
<td>$5,012,708</td>
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<tr>
<td>Students on Aid</td>
<td>231</td>
<td>237</td>
<td>239</td>
<td>240</td>
<td>243</td>
</tr>
<tr>
<td><strong>Loans</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perkins</td>
<td>355,788</td>
<td>143,691</td>
<td>130,771</td>
<td>128,017</td>
<td>431,900</td>
</tr>
<tr>
<td>Health Professions Loan</td>
<td>58,566</td>
<td>122,560</td>
<td>38,000</td>
<td>58,240</td>
<td>123,081</td>
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<tr>
<td>Stafford Loan</td>
<td>1,633,139</td>
<td>1,712,476</td>
<td>1,640,560</td>
<td>1,703,052</td>
<td>1,719,656</td>
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<tr>
<td>Graduate Unsubsidized</td>
<td>1,337,804</td>
<td>1,778,045</td>
<td>1,672,519</td>
<td>1,730,705</td>
<td>1,822,449</td>
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<td>Alternative Loan Program</td>
<td>116,607</td>
<td>417,797</td>
<td>311,264</td>
<td>396,775</td>
<td>313,392</td>
</tr>
<tr>
<td>Loans to Disadvantaged Students</td>
<td>22,222</td>
<td>550</td>
<td>3,979</td>
<td>4,409</td>
<td>0</td>
</tr>
<tr>
<td>Outside Private Loans</td>
<td>57,848</td>
<td>77,209</td>
<td>37,718</td>
<td>70,951</td>
<td>31,589</td>
</tr>
<tr>
<td><strong>Total Loans</strong></td>
<td>$3,360,476</td>
<td>$4,282,318</td>
<td>$3,869,811</td>
<td>$4,092,149</td>
<td>$4,442,067</td>
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<td><strong>Scholarships</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>University Sponsored</td>
<td>264,432</td>
<td>304,902</td>
<td>279,568</td>
<td>294,050</td>
<td>295,050</td>
</tr>
<tr>
<td>Outside Sponsored</td>
<td>114,169</td>
<td>130,634</td>
<td>97,926</td>
<td>86,120</td>
<td>49,696</td>
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<tr>
<td>Military - Army</td>
<td>19,374</td>
<td>30,423</td>
<td>22,916</td>
<td>15,241</td>
<td>7,669</td>
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<td>Military - Navy</td>
<td>19,400</td>
<td>30,543</td>
<td>33,341</td>
<td>30,649</td>
<td>38,513</td>
</tr>
<tr>
<td>Alabama Medical Board Scholarship</td>
<td>75,000</td>
<td>30,000</td>
<td>35,000</td>
<td>40,000</td>
<td>45,000</td>
</tr>
<tr>
<td>Military - Air Force</td>
<td>45,343</td>
<td>45,728</td>
<td>38,253</td>
<td>15,261</td>
<td>15,360</td>
</tr>
<tr>
<td><strong>Total Scholarships</strong></td>
<td>$462,718</td>
<td>$542,230</td>
<td>$472,003</td>
<td>$474,321</td>
<td>$451,288</td>
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<td><strong>Grants</strong></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Scholarships for Disadvantaged Students</td>
<td>12,879</td>
<td>2,630</td>
<td>6,846</td>
<td>4,915</td>
<td>35,515</td>
</tr>
<tr>
<td>Exceptional Financial Need</td>
<td>36,327</td>
<td>36,327</td>
<td>62,733</td>
<td>54,410</td>
<td>55,892</td>
</tr>
<tr>
<td>Disadvantaged Health Professions</td>
<td>23,914</td>
<td>24,218</td>
<td>42,972</td>
<td>21,874</td>
<td>27,946</td>
</tr>
<tr>
<td><strong>Total Grants</strong></td>
<td>$73,120</td>
<td>$63,175</td>
<td>$112,551</td>
<td>$81,199</td>
<td>$119,353</td>
</tr>
</tbody>
</table>

**Average Indebtedness of a Graduating Senior**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Indebtedness of a Graduating Senior</td>
<td>$52,959</td>
<td>$61,729</td>
<td>$55,701</td>
<td>$58,636</td>
<td>$62,500</td>
</tr>
</tbody>
</table>
An Emergency Loan Fund is available to medical students. Loans of up to $500 may be obtained by students through a fund administered by the Office of Student Affairs and Medical Education for a period of up to 60 days for the purpose of alleviating an unanticipated financial need. There is no interest charged. During the period August 1, 1999, through July 31, 2000, 74 emergency loans were approved for a total amount of $37,000. During that period, 50 payments totalling $25,000 were paid back into the loan account.

OFFICE OF SPECIAL PROGRAMS

Biomedical Enrichment and Recruitment Program (BEAR):

Phase I:

The summer of 2000 marked the completion of the fifteenth year for the BEAR program. There were a total of 47 applications submitted for the 2000 program. Seven (7) students entered into Phase I of the BEAR program.

The students selected for Phase I of the program represented the following schools:

<table>
<thead>
<tr>
<th>Institution</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama A &amp; M</td>
<td>1</td>
</tr>
<tr>
<td>Auburn</td>
<td>1</td>
</tr>
<tr>
<td>Delta State</td>
<td>1</td>
</tr>
<tr>
<td>Florida A &amp; M</td>
<td>2</td>
</tr>
<tr>
<td>Jackson State</td>
<td>1</td>
</tr>
<tr>
<td>Xavier</td>
<td>1</td>
</tr>
</tbody>
</table>

and are residents of the states of Alabama (5), and Mississippi (2). Five (5) of the students are female and two (2) are male, and all are of African American descent. The grade point averages of the students who entered the program ranged from 3.21 to 4.0. Their ACT score range was 21-26. To date, a total of 158 students have entered the BEAR program.

Phase II:

Fourteen (14) of the fourteen (14) students who participated in Phase I of the program during the summer of 1999 were successful and were promoted into Phase II.
The students in Phase II represented the following schools:

Alabama A & M .................................................. 3
Auburn ............................................................. 1
Florida A & M ..................................................... 1
Grambling .......................................................... 1
Stillman ............................................................. 2
Tuskegee ............................................................ 1
UAB ................................................................. 2
University of Alabama .......................................... 1
University of South Alabama ................................. 1
Xavier .............................................................. 1

Phase II students who participated, were residents of the following states: Alabama (9), Florida (1), Georgia (1), Louisiana (1), Ohio (1) and Texas (1). Ten (10) of the fourteen students in Phase II were successful and are expected to matriculate into the USA College of Medicine in 2001.

In August 1999, seven (7) minority freshmen entered the College of Medicine; all of them entered through the BEAR program. There were two (2) 2000 minority graduates; both were former BEAR program participants. In the fall of 2000, six (6) BEAR students are scheduled to matriculate into the freshmen COM class from the original 1998 BEAR cohort of thirteen (13), plus one (1) student who deferred in 1999 for a total of seven (7) students. One (1) student from the original 1998 BEAR group deferred until 2001.

Minority High School Student Research Apprentice Program:

Of the students who entered the BEAR program in 2000, one is a former High School Research Apprentice. She is a graduate of LeFlore High School in Mobile, Alabama.
The 1999-2000 Board of Directors for the Medical Alumni Association consisted of nine Mobile physicians. Dr. David A. Gremse served as President with the following doctors: Dr. Oscar Almeida, Dr. Damian Collins, Dr. Gregory Cotter, Dr. Lisa Habb, Dr. Russell Hudgens, Dr. Robert Percy, Dr. David Ross, and Dr. Kathleen Webster. Twenty-five classes have graduated 1,496 alumni (this number includes 15 deceased).

All alumni projects and activities are funded by two sources: the Dues Program and the Annual Fund. The 1999-2000 Dues Program generated $19,130 (dues remained $10 for PGI alumni, $25 for general membership, and $500 for lifetime). The Annual Fund reached the goal of $50,000, with 33 percent of the membership participating.

Scholarship development continues to be the focus for the association. In celebration of the upcoming silver anniversary of the Class of 1976, twenty-five freshman scholarships will be awarded for the Academic Year 2000-2001, along with support to the Sid Huggins Family Practice Scholarship and the Christian Grinaker Memorial Award.

For the fiscal year 1999-2000, the following projects, purchases, or donations were made by the Alumni Association: A new photo system for alumni class pictures was completed for the MSB lobby, a donation to freshman orientation, a donation to the Charles Baugh Biomedical Library (NEJM and JAMA), rental of pagers for student use, a donation to the Student Medical Alliance, a scanner for the transcription club, a donation to the MSAMA, a donation to AMWA, and travel support to a national meeting, individual class donations, a donation to the Caduceus Ball, donations to the Review of Systems Annual and Skit Night, purchase of anatomical models for student use in community education, Dean’s Breakfast with the freshman class, senior mini-diplomas, a Mobile Chapter Meeting for alumni and former USAMC residents, two receptions with UAB for the Annual State Medical Meeting and the Alabama Chapter for Family Physicians. Completing the projects for this fiscal year will be new lockers for the pediatric and OB/GYN student call rooms at CWH and a new television for the student lounge.

The Annual Alumni Weekend was held in June at the Perdido Beach Resort celebrating reunions for the Classes of 1980, 1985, 1990, and 1995. Participation was excellent with the weekend providing four CME hours. Three of our alumni: Dr. Johnson Haynes ’80, Dr. John Gottsch ’80, and Dr. Oscar Almeida ’85, participated in the programs. Dr. Aubrey Taylor was the recipient of the Alumni Distinguished Service Award.

A detailed list of specialities and general information is available by request.
OFFICE OF ADMISSIONS

Applicant Pool and Acceptance Data

The period for receiving applications to the College of Medicine for the class entering August 21, 2000, opened June 1, 1999, and closed November 15, 1999. It is important to note that the College of Medicine is a participant in the Association of American Medical College Application Service (AMCAS).

During the above period of time, 829 applications were received. Three hundred eighty-eight (388) applications were received from residents of Alabama, 426 from other United States Citizens, and 15 from citizens of a foreign country. The Admissions Committee interviewed a total of 195 applicants (187 residents) and accepted 125 (122 residents) to fill a class of 64 (60 residents). Out of 11 black applicants who were offered acceptance, 7 matriculated (4 resident); 7 are BEAR students. This year, our records show a decrease in the total applicant pool over the previous year (829 in '00 vs. 996 in '99), and a slight decrease in the number of Alabama applications (388 in '00 vs. 426 in '99). (Table I)

The 1999 entering class has an exceptional "mix" of academically well-qualified students who graduated from 25 different colleges and universities. However, 56% of this year's class is made up of students from the four (4) largest universities in the state (Table II).

Recruitment and Retention Efforts

1. Undergraduate campus recruiting visits and sophomore interviews were implemented by "teams" of faculty, administration, and medical students. The USACOM recruiting teams counseled over 700 premedical students at 15 colleges and universities.

2. The Director of Admissions served as the admissions counselor and advised prospective students on a daily basis. In addition, selected faculty members advised prospective applicants periodically.

3. Premedical visitation day programs were organized and conducted quarterly to provide prospective applicants with an opportunity to tour the College of Medicine facilities, learn about the application process, meet with medical students and faculty, and obtain information on financial aid, housing, and the community.

4. Informative health career related programs were organized and conducted upon request for high school students, community organizations, and premedical special interest groups.
5. The following publications were produced and distributed by the Office of Admissions:

   The Admissions Policies and Procedure Manual
   The College of Medicine Bulletin

6. Special admissions reports and correspondence were produced and distributed monthly to in-state premedical advisors and selected out-of-state advisors.

7. A total of 15 Applicant Interview Day programs were conducted from September until early March. The interviewers, primarily College of Medicine basic science and clinical faculty, serve as members of the Committee on Admissions and/or ad hoc committee. These members interviewed 195 candidates; each interviewee was interviewed by three committee members, giving a total of 585 interviews.

8. The following Admissions Committee subcommittees were active in 1999-2000:

   Alternate List Subcommittee
   Early Acceptance Program Subcommittee
   Scholarship Subcommittee

Early Acceptance Program

In 1990, the College of Medicine and the University’s Health Preprofessions Program established an Early Acceptance Program (EAP) for qualified high school graduates interested in a career in medicine. Candidates selected for this program must have a minimum high school GPA of 3.5 and an ACT score of 28 (or comparable SAT). Candidates selected for this program receive early acceptances from the University of South Alabama and the University of South Alabama College of Medicine. The students enter the Health Preprofessions Program at the University of South Alabama, and their curriculum include the core requirements for their selected baccalaureate program and prerequisites for entering medical school. Students in this program must maintain a specific GPA during college, and are required to meet all other requirements for entering medical school. Students participate in a variety of activities selected to provide a broad exposure to medical education. Students are expected to enter the College of Medicine following completion of the baccalaureate degree.

In 2000, the EAP Subcommittee interviewed 37 applicants for the program and offered 15 acceptances.
<table>
<thead>
<tr>
<th></th>
<th>1997</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Applicants</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alabama</td>
<td>493</td>
<td>474</td>
<td>426</td>
<td>388</td>
</tr>
<tr>
<td>Out-of-State</td>
<td>669</td>
<td>601</td>
<td>502</td>
<td>381</td>
</tr>
<tr>
<td>Service Areas (FL &amp; MS)</td>
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<td>31</td>
<td>42</td>
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<tr>
<td>Total Applicants</td>
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<td>1128</td>
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<td><strong>Total Applicants Interviewed</strong></td>
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</tr>
<tr>
<td>Residence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alabama</td>
<td>225</td>
<td>212</td>
<td>200</td>
<td>187</td>
</tr>
<tr>
<td>Out-of-State</td>
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<td>4</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Service Areas (FL &amp; MS)</td>
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<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Foreign</td>
<td>93</td>
<td>92</td>
<td>99</td>
<td>87</td>
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<td>Female</td>
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<td>40</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>Rural</td>
<td>12</td>
<td>11</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Black (excludes BEARs)</td>
<td>112</td>
<td>112</td>
<td>106</td>
<td>125</td>
</tr>
<tr>
<td><strong>Total Applicants Accepted</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residence</td>
<td></td>
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<tr>
<td>Alabama</td>
<td>98</td>
<td>103</td>
<td>96</td>
<td>117</td>
</tr>
<tr>
<td>Out-of-State</td>
<td>12</td>
<td>4</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Service Areas (FL &amp; MS)</td>
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<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Foreign</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Female</td>
<td>49</td>
<td>45</td>
<td>60</td>
<td>57</td>
</tr>
<tr>
<td>Rural</td>
<td>19</td>
<td>20</td>
<td>20</td>
<td>22</td>
</tr>
<tr>
<td>TOTAL BLACK</td>
<td>8</td>
<td>12</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>BLACK REGULAR</td>
<td>5</td>
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<td>BEAR Program</td>
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<td>8</td>
<td>7</td>
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<tr>
<td>Early Decision Program</td>
<td>14</td>
<td>11</td>
<td>19</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total Matriculants</strong></td>
<td>65*</td>
<td>65*</td>
<td>64</td>
<td>64</td>
</tr>
<tr>
<td>Average MCAT</td>
<td>30</td>
<td>30</td>
<td>29</td>
<td>29</td>
</tr>
<tr>
<td>Average GPA</td>
<td>3.7</td>
<td>3.7</td>
<td>3.7</td>
<td>3.6</td>
</tr>
<tr>
<td>Residence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alabama</td>
<td>58</td>
<td>62</td>
<td>58</td>
<td>60</td>
</tr>
<tr>
<td>Out-of-State</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Service Areas (FL &amp; MS)</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Foreign</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Female</td>
<td>26</td>
<td>24</td>
<td>38</td>
<td>25</td>
</tr>
<tr>
<td>Rural</td>
<td>11</td>
<td>12</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Total Black</td>
<td>3</td>
<td>6</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Black Regular Admissions</td>
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<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Black BEAR Program</td>
<td>3</td>
<td>5</td>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</table>

* Includes one Advanced Standing Student
TABLE II

Distribution of Class Entering 2000
Among Twenty-five (25) Colleges and Universities

<table>
<thead>
<tr>
<th>Institution</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama A&amp;M University</td>
<td>1</td>
</tr>
<tr>
<td>Alabama, University of</td>
<td>8</td>
</tr>
<tr>
<td>Alabama at Birmingham, University of</td>
<td>7</td>
</tr>
<tr>
<td>Alabama at Huntsville, University of</td>
<td>2</td>
</tr>
<tr>
<td>Alcorn State University</td>
<td>1</td>
</tr>
<tr>
<td>Auburn University</td>
<td>11</td>
</tr>
<tr>
<td>Berry College</td>
<td>1</td>
</tr>
<tr>
<td>Birmingham Southern College</td>
<td>2</td>
</tr>
<tr>
<td>California at Berkley, University of</td>
<td>1</td>
</tr>
<tr>
<td>Georgia, University of</td>
<td>1</td>
</tr>
<tr>
<td>Jackson State University</td>
<td>2</td>
</tr>
<tr>
<td>Emory University</td>
<td>1</td>
</tr>
<tr>
<td>Judson College</td>
<td>1</td>
</tr>
<tr>
<td>Louisiana State University</td>
<td>1</td>
</tr>
<tr>
<td>Mississippi State University</td>
<td>2</td>
</tr>
<tr>
<td>Montevallo, University of</td>
<td>2</td>
</tr>
<tr>
<td>North Alabama, University of</td>
<td>1</td>
</tr>
<tr>
<td>Rhodes College</td>
<td>1</td>
</tr>
<tr>
<td>Samford University</td>
<td>1</td>
</tr>
<tr>
<td>South Alabama, University of</td>
<td>10</td>
</tr>
<tr>
<td>Springhill College</td>
<td>1</td>
</tr>
<tr>
<td>Texas A&amp;M University</td>
<td>1</td>
</tr>
<tr>
<td>Tulane University</td>
<td>3</td>
</tr>
<tr>
<td>Vanderbilt University</td>
<td>1</td>
</tr>
<tr>
<td>Xavier University</td>
<td>1</td>
</tr>
</tbody>
</table>

Total = 64
OFFICE OF GRADUATE MEDICAL EDUCATION

Dr. Jeff Brandon, Vice Chair of Radiology and Chair of the GME Committee, has been appointed Assistant Dean for GME with responsibility for the Office of Graduate Medical Education. This Office oversees GME activities, policies, and procedures throughout the USA Hospitals and Clinics. During the 1999-2000 academic year, USA sponsored 10 residency programs, one combined residency program, and five medical subspecialty programs, comprised of over 200 residents and fellows.

All USA programs are currently fully accredited. One program underwent a routine site visit by its Residency Review Committees (RRC) of the Accreditation Council for Graduate Medical Education (ACGME). The report from this site visit is still pending.

The Graduate Medical Education Committee conducted an internal review (required by the ACGME half-way through the accreditation period) on eight programs, and received progress reports from two others. Internal review committees are composed of a chair, a faculty member from another specialty, a hospital administrator, a resident, and the coordinator for GME. This process allows for a program to address, prior to the time of the RRC Site Visit, any deficiencies noted by the internal review, and additionally forces self-review by the program.

A format for affiliation agreements for non-hospital resident experiences was developed and approved. While not required by the ACGME for private physicians, it is necessary for Medicare GME reimbursement.

An ad hoc subcommittee was formed to study the development of a Core Curriculum to address the residents' education in general competencies rather than having this accomplished by each program. In this connection, an Internal Medicine noon conference was used for a presentation from the Medical Association of the State of Alabama (MASA) to the residents utilizing the teleconferencing capabilities for those residents at other sites.

The Housestaff Policy and Procedure Manual, as well as the Resident's Contract of Appointment, were updated to comply with new ACGME Institutional Requirements.

Sections of the Institutional Review Document were presented when time allowed for approval by the Committee. This is in preparation for the Institutional Review by the ACGME scheduled for late 2001.
SUMMER RESEARCH PROGRAM FOR MEDICAL STUDENTS

The Twenty-Seventh Annual Medical Student Research Day was held on Friday, August 11, 2000. Fourteen first and second year medical students spent approximately ten weeks during the summer working on research projects with basic science and clinical faculty in the College of Medicine. The program aims to bridge the relation between scientific discoveries and their application in clinical medicine.

Dr. James Yankaskas, Professor of Medicine in the Division of Pulmonary and Critical Care Medicine at the University of North Carolina, was the keynote speaker. Dr. Yankaskas's research interests involve the pathogenesis and treatment of Cystic Fibrosis and the development of pharmacological, surgical, and gene therapy approaches for the treatment of Cystic Fibrosis. His seminar was entitled "Cystic Fibrosis: Clinical Advances from Sagacious Research."

Dr. David Gremse chaired the Student Research Advisory Committee. Other committee members included: Drs. David Dean, Richard Honkanen, Steven Goodman, Randall Powell, Samuel Strada, and Mary Townsley. Administrative support for the program was provided by Ms. Dusty D. Layton, of the Office of the Senior Associate Dean.

Culmination of the summer's work was the presentation of four oral and ten poster presentations on Student Research Day. Student presentations and their faculty sponsors were as follows:

ORAL PRESENTATIONS

"Characterization of Serine/Threonine Protein Phosphatases Associated With Fosfriecin Mediated Protection to Ischemic Cardiac Tissue." Beth Miller, sophomore medical student. Sponsored by Richard Honkanen, Ph.D., Department of Biochemistry and Molecular Biology.

"Investigation of Ectopeptidase Expression in Epithelial Cell Lines." Alicia Logue, sophomore medical student. Sponsored by Jane Funkhouser, Ph.D., Department of Biochemistry and Molecular Biology.

"CD4+ T Helper Cells and Specific Cytokines in Lung I/R Injury." William Bradley Shirah, freshman medical student. Sponsored by Aubrey Taylor, Ph.D., Department of Physiology. (Recipient of Clyde G. Huggins Medical Student Research Award, best oral presentation)

"Profiling Heart Failure in Aged Squirrel Monkeys." John Watford, sophomore medical student. Sponsored by Alan Brady, DVM, Department of Comparative Medicine, and Clara Massey, M.D., Department of Medicine.
POSTER PRESENTATIONS

"Clearance of Albumin Solution From Piglet Lungs Using Perfluorocarbon Liquid Ventilation." Tasha Barnett, freshman medical student. Sponsored by James Parker, Ph.D., Department of Physiology.

"Identification of Genes of Human Lung Epithelial Cells Regulated by Respiratory Syncytial Virus Infection." Naghma Khan, sophomore medical student. Sponsored by Sailing Barik, Ph.D., Department of Biochemistry and Molecular Biology. (Recipient of Clyde G. Huggins Medical Student Research Award, best poster presentation)

"Use of Non-Viral Gene Transfer to Alter Vascular Contractile Function in Mesenteric Arteries." Travis Rutland, sophomore medical student. Sponsored by Joseph Benoit, Ph.D., Department of Physiology.


"Pulmonary Barotrauma: A Murine Model." James Welden, Ill, sophomore medical student. Sponsored by Mark N. Gillespie, Ph.D., Department of Pharmacology.

"Immunofluorescence Localization of Iron Transport Proteins." Matt Barber, sophomore medical student. Sponsored by Marcel Conrad, M.D., and Jay Umbreit, M.D., Ph.D., Department of Medicine.

"Isolation of Endothelial Cells From Canine Lung: A New Application of Cytodex Beads." Deborah Weiss, sophomore medical student. Sponsored by Mary Townsley, Ph.D., Department of Physiology.

"The Use of the Yeast One-Hybrid System to Isolate γ-Globin Promoter Transcription Factor Altered by Butyrate." John Burch, sophomore medical student. Sponsored by Betty Pace, M.D., Department of Cell Biology and Neuroscience.

"The Role of Cholesterol in Amyloidogenesis." Tina Creekmore, sophomore medical student. Sponsored by Miguel Pappolla, M.D., Department of Pathology.

"Factors Contributory to Delayed Presentation of Breast Cancer." Druhan Howell, sophomore medical student. Sponsored by Donna Lynn Dyess, M.D., Department of Surgery.
1999-2000
GRADUATE PROGRAM IN BASIC MEDICAL SCIENCES

Administration — Basic Medical Sciences

The administrative structure of the graduate program will function for the 2000-2001 academic year under the leadership of Dr. Joseph N. Benoit, Professor in the Department of Physiology, and the Senior Associate Dean, Dr. Samuel Strada. Dr. Benoit assumed his rotation as Director on July 1, 2000.

The Graduate Program expresses appreciation to Dr. Nathan N. Aronson, Jr., Chair and Professor in the Department of Biochemistry and Molecular Biology, for serving as Director of Graduate Studies for the 1999-2000 academic year.

Recruitment Activities

Several Basic Medical Science Graduate Faculty members from the Department of Physiology and Mark Scott, Director of Admissions for the College of Medicine, participated in the fifth annual statewide Graduate and Professional School Alabama Circuit October 11-15, 1999. Twenty-four Alabama colleges and universities joined together to host this event, allowing representatives the opportunity to discuss graduate and professional school programs with undergraduate students from across the state. Though student participation was not outstanding, the event was deemed worthy of the expense as it provided an opportunity for our faculty to establish contacts with other faculty at the various Alabama institutions for future recruitment of potential graduate students.

The Basic Medical Sciences Ph.D. Graduate Program hosted its sixth Graduate Student Open House on January 21, 2000. (There was no recruitment day event held in 1999). Following the Graduate Executive Committee’s review of the November 1998 event, a majority of the membership favored returning the event to January, and Dr. Aronson, Director of the Program, elected to follow the committee’s recommendation. Approximately 2,500 invitations were mailed and/or distributed to students, faculty, and advisors at various 4-year colleges and universities across the southeastern region (Alabama, Florida, Georgia, Louisiana, Mississippi, South Carolina, Tennessee, and Texas). Additionally, announcement ads were placed in the USA’s campus newspaper, "The Vanguard," and the student newspapers at the University of Alabama, Auburn, and University of Southern Mississippi.
The Graduate Office received a total of seventy reservations for this event, which was held in the College of Medicine Conference Room. Thirty-six students (from Alabama, Florida, Georgia, Louisiana, Mississippi, and Tennessee) attended. Dr. Nathan Aronson welcomed visiting students and made a few introductory remarks. Faculty from the Basic Medical Science departments made individual presentations, highlighting their respective departmental requirements for admission and degree requirements. Cathy Webb, President of the Basic Medical Sciences Student Organization, gave a graduate student's perspective of the program. Graduate students joined guests for lunch and a question-and-answer session. The afternoon session allowed visiting students an opportunity to participate in poster viewing and interact with graduate faculty and students in the Conference Room prior to a move to the Medical Science Building for departmental laboratory tours.

Nine of the twenty-seven completed U.S. applications received for the 2000-2001 class were from students who registered for and/or attended the Open House. Of the twelve U.S. students accepted and matriculating into the Graduate Program, three attended the forum.

Plans are now being made for the next Basic Medical Sciences Graduate Program Open House, which will be held on Thursday, January 25, 2001.

In an effort to increase exposure for the program and improve the quantity and quality of students applying to the program, an ad was placed in the August 11, 2000, issue of Science Magazine.

**Admission Statistics for the 2000-2001 Academic Year**

<table>
<thead>
<tr>
<th>Applications:</th>
<th>U.S.</th>
<th>International</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed applications received</td>
<td>27</td>
<td>101</td>
<td>128</td>
</tr>
<tr>
<td>Applicants interviewed</td>
<td>20</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>Applicants accepted</td>
<td>16</td>
<td>8</td>
<td>24</td>
</tr>
<tr>
<td>Applicants matriculating</td>
<td>12</td>
<td>3</td>
<td>15</td>
</tr>
</tbody>
</table>

**Average GPA of Students Matriculating 2000-2001 (N = 14):** 3.05

**Average GRE of Students Matriculating 2000-2001 (N = 14):** 1815
New Programs/Policies/Requirements

The Department of Structural and Cellular Biology’s request to have their name changed to the Department of Cell Biology and Neuroscience was approved by the President and Board of Trustees.

At the annual graduate faculty meeting held in February 2000, the faculty requested that a committee be established to review the governance of the graduate program. Dr. Aronson appointed Dr. Glenn Wilson to Chair the committee. The committee conducted a survey among graduate faculty, and the results of the survey were presented to the Executive Committee at their May meeting. The results indicated that a majority of the faculty did favor a rotating directorship, rather than a permanent one. The majority of faculty also favored giving consideration to possibly increasing the length of the term that a rotating director serves.

The application and evaluation form for the graduate program was revised. There are plans to place the forms on-line on the University web site in the next year.

In June, the Executive Committee voted to hold a half-day faculty retreat to discuss recruitment, curriculum, student performance, and governance matters of the graduate program. Plans are currently underway to hold that retreat at Brookley on October 21, 2000.

New chairs and members were appointed to the committees on curriculum, student evaluations, and admissions. Additionally, committees dealing with directorship and governance issues and recruitment and funding were established. The respective members for each of these committees were announced at a semi-annual graduate faculty meeting held in August.

Noymi Ramey, the first student admitted and matriculating into the Cancer Biology Interdepartmental Graduate Program, began her studies in August 2000. Miss Ramey completed her undergraduate studies at the University of Southern Mississippi. She received information for and attended the Open House in January.

Several graduate students received notification of grant and/or travel awards:

Inna Shokolenko, from the Department of Cell Biology and Neuroscience (Major Professor: Glenn Wilson, Ph.D.), was awarded a Department of Defense Breast Cancer Research Program Concept Award, entitled “Altering Cell Survival by Modulating Levels of Mitochondrial DNA Repair Enzymes.” She also received a travel award to attend the Gordon Research Conference on Mechanisms of Toxicity, July 23-28, 2000, in Plymouth, NH.
Allison Dobson, also from the Department of Cell Biology and Neuroscience (Major Professor: Glenn Wilson, Ph.D.), was the recipient of an American Federation for Aging Research Scholarship for Research in the Biology of Aging. She also received a travel award to attend the Gordon Research Conference on Mechanisms of Toxicity July 23-28, 2000, in Plymouth, NH.

John Rodriguez, a student in the Department of Biochemistry and Molecular Biology (Major Professor: Richard Honkanen, Ph.D.), received a National Institutes of Health Predoctoral Individual National Research Service Award which provides 5 years of support for his research on "The Role of Protein Phosphatase 5 in Glucocorticoid Signaling."

Natalie Norwood was awarded the 2000 Proctor & Gamble Professional Opportunity Award for Meritorious Research by the Council of the American Physiological Society for her presentation entitled "Distinct Regulation of Endothelial Cell Permeability by Proteolytic and Direct Activation of the Thrombin Receptor." Natalie is a student in the Department of Pharmacology, and her Major Professor is Troy Stevens, Ph.D.

Jonathan Audia, a student in the Department of Microbiology and Immunology (Major Professor: John Foster, Ph.D.), received an ASM 100th General Meeting Student Travel Grant.

Stipends for all Basic Medical Sciences Graduate Students increased to $14,638 per year, effective June 1, 2000.

**BMSSO—Basic Medical Sciences Student Organization**

The Basic Medical Sciences Student Organization sponsored a third BMSSO T-shirt design and sale and hosted several social events. Members participated in several community activities, including the Relay-for-Life in April. Also in April, the organization hosted a Distinguished Scientist Seminar presented by Nobel Laureate Dr. Arthur Kornberg, an influential figure for beginning scientists in the area of research. Dr. Kornberg's lecture, "Biotechnology: Impact on Science, Medicine and Industry," was held in the Medical Sciences Building Auditorium.
Graduates

Eight students officially graduated upon completing all requirements for the Ph.D. degree during September 1999-August, 2000. They are:

Arindam Bhattacharjee

DISSERTATION TITLE: "Functional Characterization of T-type Calcium Channels in Pancreatic Beta-Cells"
MAJOR PROFESSOR: Ming Li, Ph.D.
DEPARTMENT: Pharmacology
CURRENT POSITION: Post Doctoral Fellow; Yale University School of Medicine, Department of Pharmacology

Emily Elizabeth Burke

DISSERTATION TITLE: "The Role of Host Cell Factors in Respiratory Syncytial Virus Transcription"
MAJOR PROFESSOR: Sailen Barik, Ph.D.
DEPARTMENT: Biochemistry and Molecular Biology
CURRENT POSITION: Post Doctoral Fellow; The Scripps Research Institute, Department of Neuropharmacology, Division of Virology

Christopher Leroy Cubitt

DISSERTATION TITLE: "Characterization of the Differential Responsiveness of Human Corneal Epithelial Cells and Kerocytes to the Pro-inflammatory Cytokine Interleukin-1α"
MAJOR PROFESSOR: John E. Oakes, Ph.D.
DEPARTMENT: Microbiology and Immunology
CURRENT POSITION: Post Doctoral Fellow; National Institutes of Health, Neurotoxicology Section

Amy Elizabeth Ferry

DISSERTATION TITLE: "Identification of Stage Specific Transcription Factors that Regulate the γ to β Globin Gene Switch During Erythroid Maturation"
MAJOR PROFESSOR: Betty S. Pace, M.D.
DEPARTMENT: Cell Biology and Neuroscience
CURRENT POSITION: Post Doctoral Fellow; University of Rotterdam, Amsterdam Hemoglobin Laboratory
Brian Scott Hollensworth

DISSECTOR TITLE: "CNS Cell-Specific Responses to Oxidative mtDNA Damage"
MAJOR PROFESSOR: Susan P. LeDoux, Ph.D.
DEPARTMENT: Cell Biology and Neuroscience
CURRENT POSITION: COM I student; University of South Alabama College of Medicine

David William Killilea

DISSECTOR TITLE: "Oxidative Stress in Hypoxic Signal Transduction"
MAJOR PROFESSOR: Mark N. Gillespie, Ph.D.
DEPARTMENT: Pharmacology
CURRENT POSITION: Post Doctoral Fellow; Oakland Research Institute Children's Hospital

Mau T. Tran

DISSECTOR TITLE: "Characterization of the Role of the Neuropeptides Calcitonin-Gene Related Peptide and Substance P in Chemokine Production from Human Corneal Epithelial Cells"
MAJOR PROFESSOR: John E. Oakes, Ph.D.
DEPARTMENT: Microbiology and Immunology
CURRENT POSITION: Post Doctoral Fellow; National Cancer Institute, Laboratory of Experimental Carcinogenesis

Xiaotian Yan

DISSECTOR TITLE: "Characterization of Macrophage Inflammatory Protein-2 in HSV-1 Induced Corneal Inflammation"
MAJOR PROFESSOR: Robert N. Lausch, Ph.D.
DEPARTMENT: Microbiology and Immunology
CURRENT POSITION: Post Doctoral Fellow; Houston VA Medical Center

To date, 122 students have received their Ph.D. degree in Basic Medical Sciences. The breakdown of graduates by department is as follows:

<table>
<thead>
<tr>
<th>Department</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemistry and Molecular Biology</td>
<td>24</td>
</tr>
<tr>
<td>Microbiology and Immunology</td>
<td>32</td>
</tr>
<tr>
<td>Pharmacology</td>
<td>27</td>
</tr>
<tr>
<td>Physiology</td>
<td>19</td>
</tr>
<tr>
<td>Structural/Cellular Biology-Cell Biology and Neuroscience</td>
<td>20</td>
</tr>
</tbody>
</table>
CONTINUING MEDICAL EDUCATION
ANNUAL REPORT
1999-2000

Dr. Betsy D. Bennett, Vice Dean for Student Affairs and Medical Education, assumed the role of Director of the Office of Continuing Medical Education, January 1, 2000, upon the retirement of Dr. J. Raymond Fletcher. The Office of Telemedicine was reassigned to Dr. Regina Benjamin.

Upon achieving our continued accreditation with the Accreditation Council for Continuing Medical Education, we were informed that we would be required to submit a progress report in December 2000 for review at the March 2001 ACCME Committee Meeting. The Office of Continuing Medical Education will be due for reaccreditation in March 2003.

The Continuing Medical Education mission of the University of South Alabama College of Medicine shall be to provide educational activities designed to enhance the knowledge, skills, and clinical competence of physicians in order to improve the quality of health care provided for the citizens of Alabama and the surrounding communities. In fulfilling the mission of the University of South Alabama Office of Continuing Medical Education, this office provided 604 hours of instruction to 487 physicians and 361 non-physician participants in ongoing and one-time activities.
College of Medicine
University of South Alabama

The University of South Alabama provides equal educational opportunities to and is open and accessible to all qualified students without regard to race, color, creed, national origin, sex, or qualified handicap/disability with respect to all of its programs and activities.