ON THE COVER

More than 200 students from the MSU College of Osteopathic Medicine participated in the 1980 Internship Information Program, meeting with representatives of osteopathic hospitals from around the nation. Here students Halldor Egilsson and Charles Simpson chat with alumna Janice Rock. For more, see pages 5-7.

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COMMUNIQUÉ "Communique," a newsletter publication of the Michigan State University College of Osteopathic Medicine, is issued 15 times a year through the Health and Medicine Information Section of the Department of Information Services, A314 E. Fee Hall, East Lansing, Michigan 48824; telephone 517/353-0820. Members of the Editorial Advisory Committee include David Marler, Ph.D.; Francis A. Bernier, Ph.D.; Gordon C. Spink, D.O., Ph.D.; Nancy Houston, B.A. (editor) and Patricia Grauer, M.A. (managing editor). Circulation manager is Mary Palmer. Production on this issue was done by Beth Stephens; photography by Dick Wesley. Date of publication of the next issue will be Monday, February 25, 1980. Copy deadline for that issue is noon, Thursday, February 14.

Michigan State University is an equal-opportunity/affirmative action institution.
MSU AWARDED $1.5 MILLION FOR TROPICAL DISEASE RESEARCH

More people suffer and die from tropical diseases than all other diseases combined. To help reduce this toll, an interdisciplinary team of researchers from Michigan State University has undertaken a five-year international study of tropical diseases.

Funded by a $1.5-million grant from the National Institute of Allergy and Infectious Diseases, these researchers will study malaria, schistosomiasis and onchocerciasis in the Democratic Republic of the Sudan, Africa.

The award is the largest research grant ever received by the MSU College of Veterinary Medicine (CVM), which is coordinating the project. The first installment of the grant, $513,633, was accepted by MSU's Board of Trustees at its meeting Friday, January 25.

"The collaborative nature of the research is the most important feature of this project," says Jeffrey F. Williams, B.V.Sc., Ph.D., professor of microbiology and public health and director of the Sudan project.

"Everyone participating from MSU will be working with several Sudanese counterparts," he points out. "The goal is to train and equip these Sudanese scientists so that they can continue the research when the project is completed."

The Sudan project is the first international program in the medical field at MSU, and it reflects a collaborative effort on campus as well, involving all three medical schools and the Office of International Studies and Programs.

The target diseases in the Sudan project — malaria, schistosomiasis, and onchocerciasis — are among the six tropical diseases selected by the World Health Organization as the worst afflictions of humans.

Each year there are 250 to 300 million new cases of malaria, a parasitic disease which destroys red blood cells, causing fever, chills, headaches and weakness.

James Jensen, Ph.D., assistant professor of microbiology, plans to use a new in vitro technique to study the relationship between the emergence of drug-resistant strains of the parasite and the level of natural immunity to malaria in the population.

Testing the effectiveness of new drugs is the primary objective of the research on schistosomiasis, which will be directed by James Bennett, Ph.D., associate professor of pharmacology and toxicology. A severely debilitating disease caused by a parasitic flatworm, schistosomiasis affects 200 to 300 million people in the tropics.

Onchocerciasis, or "river blindness," is transmitted by female black flies and may affect more than 80 percent of the population in some tropical villages. R. Wesley Leid, Ph.D., assistant professor of pathology, will investigate how the body reacts to the infection, as well as the reactions of patients treated with drugs. Harold D. Newson, Ph.D., professor of entomology and microbiology and public health, will conduct studies of the black fly vector of the disease.

John B. Kaneene, D.V.M., Ph.D., assistant professor of epidemiology, will direct field studies to determine the incidence of all three diseases, and associate the information with cultural and occupational characteristics of the inhabitants and the ecology of the area. — Susan Reardon

Maria J. Patterson, Ph.D., will receive Michigan State University's highest recognition for faculty — the Distinguished Faculty Award — at the annual Faculty Awards Convocation on February 11.

Dr. Patterson, an associate professor of microbiology and public health in the College of Osteopathic Medicine, was one of ten senior faculty in the University so honored. Nominated by the College for "outstanding contributions to the intellectual development of the University," she will receive a certificate and $1,000.

Dr. Patterson will be cited for her "exceptional ability to correlate the basic and clinical sciences." Recipient of four awards for teaching excellence in the past three years, she "represents an inspiring role model as a successful professional. Of all her qualities, the most outstanding is her absolute devotion to excellence."

Her research currently focuses on the problem of hepatitis in long-term dialysis patients.

The Faculty Awards Convocation will be held at 7:30 p.m. in Erickson Kiva. A reception honoring the award winners will be held in the lobby following the convocation.

MSU alumni, through the Development Fund, and Amoco Foundation, Inc. financially support the Distinguished Faculty Award Program, now in its 28th year.


Lawrence M. Jarrett, D.O., medical director of MSU's Olin Health Center, was honored at the dedication of a new 74,000-square-foot addition to Lansing General Hospital.

Dr. Jarrett, who was recognized for his more than 40 years of service to the osteopathic profession and the local community, was cofounder of McLaughlin Osteopathic Hospital in 1941, the first osteopathic hospital in Lansing and the forerunner of Lansing General.

The new addition named the Jarrett Wing in dedication ceremonies January 18, is the first phase of a $16.9 million construction program, the largest at the hospital.

Dr. Jarrett was the first osteopathic physician to become part of the Olin Health Center staff in 1969, and was instrumental in establishing the first state-supported college of osteopathic medicine at MSU.
INTERNETION INFORMATION PROGRAM
ORGANIZED BY OFFICE OF STUDENT AFFAIRS

More than 200 medical students from the College of Osteopathic Medicine met with representatives of osteopathic hospitals at MSU-COM's second annual Internship Information Program.

The students had the opportunity to gather literature, watch audiovisual presentations, and most importantly, talk to representatives from the hospitals about their educational programs and possibilities for internships.

"We were delighted with the response from the hospitals, and especially the fact that one-third of the representatives were our alumni," said Mary Anderson, administrative assistant in the Office of Student Affairs. "It's particularly valuable for our students to get information on internship programs from the College alumni who have preceded them in the hospitals."

The program was organized by the Office of Student Affairs with assistance from the Student Osteopathic Medical Association and MSU-COM's Media Services.

Alumni attending the program as hospital representatives included:

Richard Norcutt, D.O., ('79), Brentwood Hospital, Cleveland
Tony Dekker, D.O., ('78), and Carole Williams, D.O., ('79), Chicago College of Osteopathic Medicine and Hospitals
Deborah Jo LeVan, D.O., ('76), Brent Gillum, D.O., ('79), and Michael Barry, D.O., ('79), Detroit Osteopathic/Im-County Community Hospitals
Steve Ashton, D.O., ('79), and Wilfred VanderRoest, D.O., ('79), Riverside Osteopathic Hospital
Pamela Geppert, D.O., ('79) and Ann Pawlak, D.O., ('79), Garden City Osteopathic Hospital
Paul Gauthier, D.O., ('79), Grand Rapids Osteopathic Hospital
Barry Dehlin, D.O., ('74) and Donald H. Hillman, D.O., ('79), Lansing General Hospital
Inez Slabaugh, D.O., ('79), and Barry Bronstein, D.O., ('79), Martin Place Hospital
Connie Cashen, D.O., ('79), Osteopathic Hospitals of Detroit, Inc.
Geoffrey E. Baum, D.O., ('79) and Joseph E. Palazeti, D.O., ('79), Pontiac Osteopathic Hospital
David F. Porter, D.O., ('78), Saddle Brook General Hospital, New Jersey
Stephen R. Knaazik, D.O., ('79), Sandusky Memorial Hospital, Ohio
Wiley Fan, D.O., ('79), Botsford General Hospital
Janice Rock, D.O., ('79), Muskegon General Hospital

Other hospitals represented at the Internship Information Program included Doctors Hospital, Tucker, Georgia; Flint Osteopathic Hospital; Fort Worth Osteopathic Hospital, Texas; Grandview Hospital, Dayton; Lakeview Hospital, Milwaukee; Memorial Osteopathic Hospital, York, Pennsylvania; Mount Clemens General Hospital; Northwest General Hospital, Milwaukee; Parkview Hospital, Toledo; Saginaw Osteopathic Hospital; South Bend Osteopathic Hospital, Indiana; Doctors Osteopathic Hospital, Erie, Pennsylvania; Lakeview General Hospital, Battle Creek; and Warren General Hospital, Ohio.
3 p.m. "To Rear a Child" series: "Program and Primers for Child Rearing Support" by Alison Clarke-Stewart, Ph.D., associate professor, Departments of Education and Behavioral Sciences, University of Chicago. B102 Wells.

4 p.m. Pharmacology and Toxicology seminar: "Allergic Reactions of the Heart: The Role of Pharmacologic Mediators" by Roberto Levi, Department of Pharmacology, Cornell University Medical College. B448-9 Life Sciences.

THURSDAY, FEBRUARY 20, 1980

3:30 p.m. Dean's seminar: "Neglected Aspects of the World Food Issue" by Georg Borgstrom, D.Sc., professor of food science and human nutrition, and geography, MSU. Special emphasis will be given to health and nutrition dimensions as related to food production and dietary restraints. Until 4:45 p.m. RSVP Sharon Rochon, 355-9611. A131 E. Fee.

THURSDAY, FEBRUARY 21, 1980

4:10 p.m. Microbiology and Public Health and Genetics Program seminar: "Termination and Antitermination of Gene Expression" by Waclaw Szybalski, McCordle Laboratory for Cancer Research, University of Wisconsin, Madison. 146 Giltner.

SATURDAY, FEBRUARY 23, 1980

8 a.m. "OMT Update" Program cochairmen are Ernest W. Retzlaff, Ph.D., professor of biomechanics and John E. Upledger, D.O., associate professor of biomechanics. For information, contact Duane M. Tester, 313/335-7742. Through February 24. Michigan Center for Continuing Education in Osteopathic Medicine, 900 Auburn Road, Pontiac.

MONDAY, FEBRUARY 25, 1980

11:30 a.m. Biochemistry seminar: "The Transfer of the Phenotype of Chemically Transformed Cells via DNA Transsection" by Robert A. Weinberg, Massachusetts Institute of Technology. 101 Biochemistry.

TUESDAY, FEBRUARY 26, 1980

4 p.m. Pharmacology and Toxicology seminar: "Studies on the Mechanism of the Inotropic Effect of Digitalis in Cultured Heart Cells" by William Barry, Department of Medicine, Harvard Medical School. B448-9 Life Sciences.

4 p.m. Microbiology and Public Health seminar: "Carbon Metabolism in Freshwater Sediments" by Michael J. Klug, Department of Microbiology and Public Health, MSU. 146 Giltner.

FRIDAY, FEBRUARY 29, 1980

Ski seminar. Through March 7. Snowmass, Colorado. For information contact Duane M. Tester, 313/335-7742.

MONDAY, MARCH 3, 1980

11:30 a.m. Biochemistry seminar: "Studies on ATP-Creatine Transphosphorylases (Creatine Kinases) from Tissues of Patients with Duchenne Muscular Dystrophy" by Stephen A. Kuby, University of Utah. 101 Biochemistry.
TUESDAY, MARCH 4, 1980

4 p.m. Pharmacology and Toxicology seminar: "Role of Adenosine in the Regulation of Coronary Blood Flow" by Jerry Scott, MSU Department of Physiology. B448–9 Life Sciences.

WEDNESDAY, MARCH 5, 1980

11:30 a.m. Faculty Development Program: "Types of Educational Research" by Norman Bell, Ph.D., director, Instructional Management Systems, MSU-COM. Continuation of February 19 workshop. Contact Sharon Rochon, 355-9611.

SATURDAY, MARCH 8, 1980


SUNDAY, MARCH 9, 1980

8:30 a.m. Second Annual Pain Seminar: "Management of Cancer Pain." Sponsored by MSU College of Osteopathic Medicine and Comprehensive Cancer Center for Metropolitan Detroit. Kellogg Center for Continuing Education, MSU.

"Cervical Cancer: Diagnosis and Treatment." Contact Duane M. Tester, 313/335-7742. Michigan Center for Continuing Education in Osteopathic Medicine.

MONDAY, MARCH 10, 1980

11:30 a.m. Biochemistry seminar by Lars Svennerholm, University of Goteborg, Sweden. 101 Biochemistry.

WEDNESDAY, MARCH 12, 1980

6 p.m. Urology seminar: "Pathological Evaluation of Uroepithelial and Prostatic Malignancies — Pathologist Staging and Grading." For information, contact Duane M. Tester, 313/335-7742. Michigan Center for Continuing Education in Osteopathic Medicine, 900 Auburn Road, Pontiac.

THURSDAY, MARCH 13, 1980

4:10 p.m. Biochemistry seminar: "Quantitative Affinity Chromatography for Measurement of Interaction between Glycolytic Enzymes and Muscle Filaments" by D. J. Winzor, University of Queensland, Australia. 208 Biochemistry.
FRIDAY, MARCH 14, 1980

Michigan Osteopathic College Foundation Ball. Contact Selma Ravitz, 313/335-7782.

SATURDAY, MARCH 15, 1980


SUNDAY, MARCH 16, 1980

"Casting Techniques and Procedure." For information, contact Duane M. Tester, 313/335-7742. Michigan Center for Continuing Education in Osteopathic Medicine, 900 Auburn Road, Pontiac.

TUESDAY, MARCH 18, 1980

9:30 a.m. "Nutrition and Exercise." Seventh annual nutrition conference sponsored by Department of Food Science and Human Nutrition and Cooperative Extension Service. For further information, contact Anita Dean, Extension Specialist, Food Science and Human Nutrition, 517/355-7701. 108B Wells.

THURSDAY, March 20, 1980

9:30 a.m. Family Living Education Day. Includes presentations on human values and the effects of stress on health. Parlors A,B,C Union Building.

WEDNESDAY, APRIL 9, 1980

6 p.m. Urology seminar: "Urinary Tract Infections in Pregnancy." Contact Duane M. Tester, 313/335-7742. Michigan Center for Continuing Education in Osteopathic Medicine, 900 Auburn Road, Pontiac.

SATURDAY, APRIL 12, 1980


SATURDAY, APRIL 19, 1980


THURSDAY, APRIL 24, 1980


SUNDAY, APRIL 27, 1980

"Physician Stress." Contact Duane M. Tester, 313/335-7742. Michigan Center for Continuing Education in Osteopathic Medicine, 900 Auburn Road, Pontiac.
MONDAY, FEBRUARY 11, 1980

11:30 a.m. Biochemistry seminar: "The Use of Synthetic Oligonucleotides as Site-Specific Mutagens" by Michael Smith, University of British Columbia. Cosponsored with Genetics Program. 101 Biochemistry.

TUESDAY, FEBRUARY 12, 1980

3 p.m. "To Rear a Child" series: "Child Nurturance within the Family, School and Community" by Hope Jensen Leichter, Ph.D., family and community education, Teachers College, Columbia University. B102 Wells.

4 p.m. Pharmacology and Toxicology seminar: "The Effect of Negative Inotropic Agents on Excitation-Contraction Coupling in Isolated Ventricular Muscle" by Jay Wiggins, Department of Pharmacology and Therapeutics, University of South Florida. B448-9 Life Sciences.

4 p.m. Microbiology and Public Health seminar: "Auteological Study of Microorganisms in Natural Environments" by Edwin L. Schmidt, Department of Microbiology, University of Minnesota. 146 Giltner.

WEDNESDAY, FEBRUARY 13, 1980

11:15 a.m. Faculty Development Program: "Clinical Teaching and Evaluation — Part II" by John Casbergue, Ph.D., associate professor, Office of Medical Education Research and Development. This segment deals with strategies for evaluation of students in clinical settings. Until 1:30 p.m. Contact Sharon Rochon, 355-9611.

6 p.m. Urology seminar: "Evaluation of GU Malignancies — New Biological Markers and Unusual Neoplasms." For information, contact Duane M. Tester, 313/335-7742. Michigan Center for Continuing Education in Osteopathic Medicine, 900 Auburn Road, Pontiac.

MONDAY, FEBRUARY 18, 1980


TUESDAY, FEBRUARY 19, 1980

11:30 a.m. Faculty Development Program: "Introduction to the Process of Research" by Norman Bell, Ph.D., director, Instructional Management Systems, MSU-COM. This program will focus on eight steps of the research process. Until 1:30 p.m. Contact Sharon Rochon, 355-9611. E2 Fee Hall.
CME SEMINAR ON OSTEOPATHIC MANIPULATIVE THERAPY

New osteopathic manipulative techniques in treating sacral torsion, refractory pain, whiplash, and the hospitalized patient will be discussed February 23 and 24 at the Michigan Center for Continuing Education in Osteopathic Medicine, 900 Auburn Road, Pontiac.

The seminars are sponsored by the MSU Department of Biomechanics Advance Study Group. Program cochairmen are John E. Upledger, D.O., associate professor, and Ernest W. Retzlaff, Ph.D., professor of biomechanics. This program includes

"Sacral Torsion — How to Treat It" by John P. Goodridge, D.O., professor of biomechanics

"Osteopathic Management of Trauma" by Seldon Nelson, D.O., Ph.D., Doctors Hospital, Columbus.

"Biomechanics Research Update" by Robert W. Little, Ph.D., chairman of biomechanics


"Osteopathic View of Whiplash and What to Do About It" by Anthony G. Chila, D.O., Ohio College of Osteopathic Medicine.

"Positional Release Techniques" by Seldon Nelson

"The Extremities — the Pyriformis and Thrust Techniques" by Andrew H. Barry, D.O.

"OMT during Labor" by Neal Spiering, D.O., assistant clinical professor

"Osteopathic Treatment of Hospitalized Patient" by Alphonse A. Yezbick, D.O., associate professor of family medicine.

Approval for 15½ hours of Category I credit has been requested for the program. For further information, contact Duane M. Tester, 313/335-7742.

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UNIT III NEWS AND INFORMATION

Jane Waldron has been named Unit III coordinator for the MSU College of Osteopathic Medicine.

Her duties include coordinating schedules for all Unit III rotations, working with the directors of medical education and monitoring the logistics of student evaluations. She also will act as a liaison for students, the dean's staff and the departments with the affiliated hospitals.

Ms. Waldron will work with second-year students in planning assignments to base hospitals and in coordinating the orientation to Unit III.

She had worked as an office assistant in Unit III since 1974.

The former Unit III coordinator, Gordon Spink, D.O., Ph.D., has been named acting assistant dean for graduate and continuing medical education.
A committee from the MSU medical schools is trying to help the critical situation in Cambodia. Nearly half of that country's native population has perished since the mid-1970s. The remaining three million Cambodians are facing the same fate of starvation, murder or death by disease. Hundreds perish daily.

The Health Professions Indochina Relief Committee is a recently formed group of students, faculty and staff from the Michigan State University College of Osteopathic Medicine and College of Human Medicine.

Osteopathic medical student Tom Broderick, spokesperson for the committee, outlined the group's goals.

"First, we want to raise money for the most effective relief efforts in Southeast Asia," Broderick said, "and then we want to inform Michigan physicians and nurses about opportunities to work in Southeast Asia as medical volunteers.

"We hope to encourage discussion about the special medical needs of immigrant Asian refugees among Michigan health professionals," Broderick said, noting that about 500 Asian refugees enter the state of Michigan each month.

Currently the relief committee is collecting money for relief efforts in Thailand and Cambodia. Checks and contributions will go directly to the International Relief Committee and Oxfam, two international agencies known for their efficiency in dispensing food and medical aid.

The Health Professions Indochina Relief Committee is receiving contributions and inquiries through the Office of Admissions, MSU College of Osteopathic Medicine, C110 E. Fee Hall, East Lansing, Michigan, 48824; 517/353-7740.

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GEORGE BORGSTROM TO ADDRESS WORLD FOOD ISSUE AT FEBRUARY 20 MSU-COM DEAN'S SEMINAR

George Borgstrom, D. Sci., an internationally recognized expert in food science and human nutrition, will discuss, "Neglected Aspects of the World Food Issue" at a dean's seminar held at 3:30 p.m., February 20, in 131 East Fee Hall.

Dr. Borgstrom, a professor of food science and human nutrition at MSU, will focus on health and nutrition dimensions as related to food production and dietary constraints. Special emphasis will be given to the availability of protein foods and of water, the prime food. The crucial contaminants of food and feed, as well as the risks of waterborne disease, will be reviewed.

The author of numerous books published world-wide, Dr. Borgstrom lectures widely in North America, South America and Western Europe. He is the recipient of the International Socrates Prize, MSU Distinguished Faculty Award, Swedish Authors Foundation Prize for Literary Merit, and the Wahlberg Gold Medal.

Person wishing to attend the seminar should contact Sharon Rochon, 517/353-9611 by February 15.
Howard B. Sobel, D.O., clinical associate professor of family medicine, has been elected to a three-year term to the United Health Organization Board of Trustees and placed on the Medical Advisory Committee. Dr. Sobel is immediate past chief of staff at Botsford General Hospital, and a member of the board of directors of the Wayne County Osteopathic Association.

Teresa Bernardez, M.D., professor of psychiatry, presented an invited paper on "Developmental Needs of Adults in Conflict with Present Day Marriage" for the winter meeting of the Wisconsin Psychiatric Association, held at Lake Geneva, Wisconsin, January 27. She also has been elected to the board of directors of the American Group Psychotherapy Association for the period 1980-83.

Brent R. Allan and Larry Sills, second-year osteopathic medical students, have been awarded National Institute of Health Research Fellowships to pursue their study on "Patient Suggestibility and Osteopathic Manipulative Therapy."

Daniel Morrison, D.O., clinical assistant professor of orthopedics, and Robert M. Mandell, D.O., clinical associate professor of orthopedics, Department of Osteopathic Medicine, were authors of articles in the January 1980 issue of Osteopathic Annals. Dr. Morrison, an orthopedic surgeon at Garden City Osteopathic Hospital and Children's Hospital of Michigan, wrote on "Nonsurgical Treatment of Scoliosis." Dr. Mandell discussed "Scoliosis: An Overview." He is a staff member at Zieger-Botsford Osteopathic Hospital and Garden City Osteopathic Hospital.


William L. Johnston, D.O., professor of biomechanics; James L. Hill, Ph.D., former research associate, Department of Zoology; John W. Sealey, D.O., 1976 alumnum; and Benjamin M. Sucher, D.O., 1976 alumnus, were authors of an article in the January 1980 issue of the Journal of the American Osteopathic Association. The work was a preliminary report on "Palpatory Findings in the Cervicothoracic Region: Variations in Normotensive and Hypertensive Subjects."

Craig L. Magnatta, D.O., 1978 alumnus, has begun a family practice at the O.H.D.I. Family Practice Clinic on 17201 W. McNichols, Detroit, 48235. He completed his internship at Osteopathic Hospitals of Detroit - East Unit on September 10.

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FEE FOLLIES PLANNING UNDERWAY

Planning for the Fee Follies, the annual catharsis for students, faculty and staff at the MSU College of Osteopathic Medicine, is underway.

Past Follies have included skits, songs, bands, comedy routines, films, pie-throwing, and somewhat indescribable happenings.

Anticipated date for the 1980 Follies will be sometime in May. Persons interested in performing or assisting should contact second-year students Ted Szymanski, Art Schurgin, Rich Butler or Steve Morgan.
GIFTS AND GRANTS

The following medically-related gifts and grants were among those accepted by the Michigan State University Board of Trustees at its January 25, 1980 meeting.

College of Osteopathic Medicine

Environmental Protection Agency
—To study the human epithelial cell metabolic activation systems for use with human cell mutagenesis/ J. J. McCormick

Office of Program Support, National Institutes of Health
—Health professions capitation grant/ M. S. Magen

Public Health Service
—Exceptional financial need scholarship/ M. S. Magen

Biochemistry

National Institute of Allergy and Infectious Diseases
—Phosphonocetic acid: antiviral and cytotoxic action/ J. A. Boezi

National Institute of General Medical Sciences
—Organization and control of electron transfer chains/ S. Ferguson-Miller

Michigan Molecular Institute
—To support the research work of Sue Hawkes and John Blenis/ J. L. Wang

National Institute of Arthritis, Metabolism and Digestive Diseases
—Research on prostaglandin synthesis in kidney collecting tubules/ W. L. Smith

National Institute of Child Health and Human Development
—Dietary zinc: its effect on the immune response/ P. Fraker

Biomechanics

Air Force Office of Scientific Research
—To provide the basis for a more accurate geometric simulation of the dynamic human body/ H. J. Reynolds

Michigan Osteopathic College Foundation
—Protein and isozyme electrophoresis/ J. J. Kabara
—Support of general department research/ R. W. Little

U.S. Air Force
—Study effect of mechanical stress on soft tissue properties/ R. W. Little

Microbiology and Public Health

National Institute of Allergy and Infectious Diseases
—NIH research and supplies/ W. J. Esselman and W. G. Chaney

American Cancer Society, Inc.
—Immunoregulation by shed tumor membrane complexes/ W. J. Esselman, H. C. Miller

National Institutes of Health
—Action of purines on bacterial sporulation/T. C. Beaman

National Cancer Institute
—Marek's disease herpesvirus antigens/ L. F. Velicer

Pathology

Michigan Heart Association
—Ultrastructure of human heart valves and prothesis/S. Siew

U.S. Department of Agriculture
—Abortion and wasting disease in dairy goats/ C. S. F. Williams
Pharmacology and Toxicology

Pfizer Pharmaceuticals
—Departmental development/
A. M. Michelakis

The Upjohn Company
—Departmental development/
K. E. Moore

National Institute of Arthritis,
Metabolism and Digestive Diseases
—Factors affecting renal physiology
in the newborn/ J. B. Hook

National Heart, Lung, and Blood Institute
—Central neural control of
cardiovascular function/ G. L. Gebber

Physiology
National Heart, Lung and Blood Institute
—Mechanisms of hemodynamic changes
during digestion/ C. C. Chou
—Reflex control of renal circulation
and function/ L. C. Weaver

National Eye Institute
—Comparative physiological studies
of vertebrate eyes/ J. R. Hoffert

Psychiatry

Pine Rest Christian Hospital
—Residency training/ F. Westendorp

Psychology

Temple University
—Automatic and effortful processes
in memory/ R. Zacks

Administration on Aging
—Older Worker-Retiree Job Club:
an experimental evaluation/ D. Gray,
W. Davidson

National Institute of Mental Health
—Clinical psychology training/
D. L. Grummon

National Science Foundation
—Motivation in task-performing groups/
N. L. Kerr

Office of Extramural Project Review,
National Institute of Mental Health
—Intergovernmental personnel program/
J. E. Gullahorn

U.S. Department of Energy
—Analysis of opinion, attitude, and
recall data from seven electric rate
demonstrations/ W. D. Crano

U.S. Department of Justice
—Incapacitation theory: a field test/
S. Davidson

University of California
—A process analysis of small group
performance/ N. Kerr

Zoology

Environmental Protection Agency
—The assessment of energy-related
toxicant stress in an engineered ecosystem/
R. H. Boling, W. E. Cooper

National Science Foundation
—Research the biochemistry of photo
and chemoresponses in euglena/ B. Diehn

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AOHA DIRECTORY AVAILABLE

The 1980 directory of osteopathic hospitals, a 44-page reference listing more than 200 osteopathic hospitals throughout the nation, is now available from the American Osteopathic Hospital Association.

A copy will be automatically sent to each member of AOHA. Other copies may be ordered by contacting Winnie Lindquist, AOHA, 930 Busse Highway, Park Ridge, Illinois, 60068.