

Research Opportunities for the Medical Student

Section 1: Getting Started

Research is creating new knowledge.

-Neil Armstrong

Research is to see what everybody else has seen, and to think what nobody else has thought.

-Albert Szent-Gyorgyi

Research Opportunities for the Medical Student

Congratulations on your entrance into Osteopathic Medicine and your decision to become a physician! You have been given the opportunity to make a large impact on the health care system, your future patients, and colleagues with your involvement in the medical profession. There are many opportunities that you will be exposed to during your four years as a medical student. It is up to you to decide what interests you the most, what will help improve your education, and grant you positive experiences. Research is a large area of focus in medicine and the options and opportunities for medical students to get involved are endless.

This packet is meant to inform you of the options you have as a medical student and to allow you to become involved in meaningful research that will help advance your education and career. This packet will include brainstorming ideas to jumpstart your mind for initiating your own research project and opportunities in research already available to you.

Good Luck!

Kate Menssen

Council of Osteopathic Student Government Presidents

National Medical Research Representative

Developing a Research Idea and Hypothesis: Getting Started

Research should be hypothesis driven. For research to be successful, one needs to lay down the plan for the research project at the very beginning, because lack of preparation is the most common reason for failure. A positive work ethic is a key determinant to success of a high quality research project. Here are a few key components to the development of a successful study.

1. Having a strong hypothesis for the study
2. Conducting an extensive literature search at the very beginning of your brainstorming process
3. Obtaining the appropriate and relevant data for the conclusions
4. Believing in yourself
5. Choosing the right mentor

Most physicians taking care of patients have a different approach to medicine than physicians who conduct research. A non research oriented physician takes on a more individualized and conservative approach, whereas a research oriented physician is more creative, recognizes important questions more often, and tends to have a more clever approach to getting answers. These following concepts will create a successful research project.

1. Have an understanding of what is known through literature searches and attending national meetings
2. Be creative, have a research “mindset”
3. Recognize important questions when asked or presented
4. Find clever ways to obtain the answers
5. Read widely
6. Stay determined through all aspects of the project
7. Be passionate about the subject and idea being researched
8. Be disciplined

A key component to producing an idea for research involves brainstorming. First, one should sit down with the group of people they will be working with and learn about each other. Talk about ideas and interests and work ethics. This will give you an idea of what roles each team member will take on. Next is the actual brainstorming sessions. This is meant for coming up with broad or general ideas from each individual and creating a direction for your project. Once this has been established you can start to think outside the box and create a list of possible questions and ideas to work on. Lastly, is the debate process. Using constructive criticism will allow the group to work out the issues and come to closure on all ideas. To summarize, keep these three concepts in mind when working within a group.

1. Discuss extensively and thoroughly
2. Dissect your ideas and issues to create new ones
3. Direct your new ideas and issues into creative and new questions

There are several criteria to a good research hypothesis or question. The F.I.N.E.R. criteria will help make sure that it will withstand the scrutiny and skepticism that all research outcomes and project encounter.

Picking a good research question is perhaps the most important step in the research process. When you think you may have a good idea, apply the "FINER" criteria to it.

F: Feasible. Is the question answerable? Do you have access to all the materials you will need to do the study? Do you have access to enough subjects? Will you have enough time and money? Do you have the expertise to do this study or can you collaborate with someone who does?

I: Interesting: The question has to be interesting to the investigator, but should also be interesting to others. Is it engaging enough to be worth the effort?

N: Novel: Has this study been done before? Does it add to the current body of medical knowledge?

E: Ethical: Does it respect the morals of the community, the patient and the profession? Can the study be done in a way that does not subject subjects to excess risks? Will an IRB approve the study?

R: Relevant: Will it further medical science? Will the results change clinical practice, health policy or point towards further avenues of research? Will it contribute to the greater good?

The classical approach to the steps of a research study is the following transition:

1. Conduct a literature search to help develop the research hypothesis
2. The protocol is written, followed by conducting the study
3. The data is analyzed, followed by writing the paper
4. Write the draft of the paper early on, prior to collecting data
5. Include a face page, introduction, methods, expected results, discussion, and references

Suggested reading

1. Vance, Mike. Think out of the box.
2. Hulley, Stephen. Designing clinical research
3. Wisenberg, Bob. Creativity: beyond the myth of genius.

Additional references that are both affordable and useful in helping to design, analyze and report clinical research:

4. Meinert CL: *Clinical Trials. Design, Conduct and Analysis*, New York, 1986, Oxford University Press
5. Friedman, Furberg, DeMets: *Fundamentals of Clinical Trials*, 3rd ed., New York, 1998, Springer-Verlag
6. *Guideline for the Format and Content of the Clinical and Statistical Sections of New Drug Applications*. Center for Drug Evaluation and Research (CDER), FDA, July 1988. Available at no cost through the Office of Clinical Trials (doct@temple.edu – Bill Hirschhorn).
7. Hulley, Cummings, Browner. *Designing Clinical Research: An Epidemiologic Approach*, 2nd ed., Philadelphia, 2001, Lippincott Williams & Wilkins
8. Piantadosi, S. *Clinical Trials: A Methodologic Perspective*, New York, 1997, John Wiley and Sons, Inc.
9. Everitt and Pickles. *Statistical Aspects of the Design and Analysis of Clinical Trials*, London, 1999, Imperial College Press
10. Spilker B: *Guide to Clinical Trials*, Philadelphia, 1991, Lippincott Williams & Wilkins. Available as a reference through the Office of Clinical Trials – we will research your question and fax you the answer - (doct@temple.edu – Bill Hirschhorn).
11. Portney and Watkins. *Foundations of Clinical Research: Applications to Practice*, Norwalk, Conn., 1993, Appleton & Lange
12. Outstanding source for promptly locating federal regulatory assistance:
www.Regsource.com

Reference:

William Santamore, PhD. Department of Medicine, Temple University School of Medicine, September 11, 2003

Developing a Research Idea and Hypothesis: Study Design

The following concepts will help create a research project and its study design:

What is your hypothesis?

What do you believe will be the outcome of your study? The results you expect to see will greatly influence your study design. You should set up your study to insure that, once the study is complete, your hypothesis has been either proven or disproven.

Hypothesis: The proposition, to be tested statistically, about the expected outcome of the study. One or two tailed.

Null Hypothesis: The proposition, to be tested statistically, that the experimental intervention has no effect, meaning that the treatment and control groups will not differ as a result of the intervention. Investigators usually hope that the data will demonstrate some effect from the intervention, thereby allowing the investigator to reject the null hypothesis.

Examples:

1. One-tailed hypothesis
 - There is a positive association between ulcerative colitis and colon cancer.
2. Two-tailed hypothesis
 - There is an association between ulcerative colitis and colon cancer.
3. Null hypothesis
 - There is no association between ulcerative colitis and colon cancer.

Variable: A characteristic that can be manipulated or observed, and can take on different values, either quantitatively or qualitatively, such as family income, age, gender, heart disease, blood pressure, etc. Variables can be classified into the following three categories.

Independent variable: This variable, also called a predictor variable, is independent of the outcome itself. It is presumed to cause, affect, or influence the outcome.

1. Ulcerative colitis from the example above

Dependent variable: This variable, also called an outcome variable, is dependent on predictor variables; the outcome presumably depends on how the independent variable is managed or manipulated.

2. Colon cancer from the example above

Control variable: This is a variable which must be controlled (i.e., held constant or randomized) so that its effects are neutralized or are canceled out for all conditions. It is often possible to redefine these particular examples as either independent or dependent variables according to the intent of the research.

3. Age, sex, socioeconomic status, and educational level are a few examples

Will you do an intervention?

If you only want to describe the natural history of a population or a disease process, you will be doing an *observational study*. If you make an intervention, you will be doing an *experimental study*. (See Research Study Design: Study Options)

Can you have a control arm to your study?

A control arm is very important to help prove or disprove your hypothesis. The group of subjects that does not receive your intervention in an *experimental study* is your control arm. In an *observational study*, a control group may be a naturally occurring population that differs from your study population.

Will you use pre-existing data or generate new data?

Maybe data already exist that might answer your study question. If so, using this data might be cheaper and faster than collecting new data. *Cohort studies* often use pre-existing data and can be either retrospective or prospective in nature. *Experimental studies* will always generate new data.

Will you look at subjects over time or at a single point in time?

Cohort studies and *experimental studies* look at subjects over a given period of time looking at the incidence. *Cross sectional studies* collect data on exposures and outcome at a single point in time looking at the prevalence.

Prevalence: The proportion of people in a population having the disease.

Incidence: The proportion of people acquiring the disease over a period of time.

Will you have a control group?

A control group is made up of subjects that do not have the exposure of interest. The ideal control group differs from the experimental group by *only* the exposure of interest (a toxin, a drug, a medical intervention). If you have a good control group, any difference in the outcomes between the control and experimental groups is likely due to the exposure of interest.

Crossover Design: A type of clinical trial in which each subject is given, at different times, both an experimental and a control therapy.

Can you randomize subjects?

In an *experimental study* with multiple groups, how a subject is assigned to a group is very important. By randomizing which group a subject enters, selection bias is minimized and the study results will be more robust. Randomization can be done in a number of ways. Assigning every other subject to a group is a common method. Assigning patients based on the last digit of their telephone number or based on the day of the week can also be done. Random number generators are probably the least biased method and are available free online.

Randomization: Assignment of subjects to different treatments, interventions or conditions according to chance rather than with reference to some aspect of their condition, history or prognosis.

Can you blind subjects, the investigators and the statistician?

Blinding your study helps to reduce bias in a study. When the subject is blinded, it helps reduce any effect that would result simply from knowing you are being studied (The Hawthorne Effect). Subject blinding is usually done by using a placebo. The placebo used will depend on the type of intervention being studied. Blinding the investigators prevents any subjective influence from creeping into the data collection. When both the subjects and the investigators are blinded, the study is referred to as double blinded. Blinding the statistician insures that the data analysis is done in an unbiased manner and without looking for a given result.

Open Design: An experimental design in which both the investigator(s) and the subjects know the treatment group to which subjects are assigned.

Single-blind Design: Typically, a study designed in which the investigator, but not the subject, knows the treatment assignment. Occasionally the subject, rather than the investigator, knows the assignment.

Double-blind Design: A study comparing two or more treatments in which neither the investigators nor the subjects know to which treatment group individual subjects have been assigned.

Reference:

Research Coordinator Orientation, University of Pittsburgh, 2002

Research Study Design: Study Options

Observational Studies:

1. Cross-Sectional Study

Purpose: This type of study is designed to examine the prevalence of a disease by measuring the variables from the sample drawn from a population at one point in time.

Steps:

1. Select a sample from the population.
2. Measure predictor and outcome variables.

Example:

Research question: What is the prevalence of MRSA carriers in the population, and is it associated with hospitalizations?

1. Select a sample of 200 people attending an outpatient clinic.
2. Measure the predictor and outcome variables by taking the history of hospitalizations and sending a nasal swab to the lab for MRSA culture.

Results from the study: The prevalence of MRSA carriers is 20%. People hospitalized were 2.0 times more likely to be a carrier of MRSA compared to those not hospitalized.

2. Cohort Study

Purpose: This type of study is designed to examine the incidence of disease by measuring the same groups of subjects over time. There are basically two types of designs:

Prospective Cohort Study

Prospective Studies: Studies designed to observe outcomes or events that occur subsequent to the identification of the group of subjects to be studied. These studies need not involve manipulation or intervention, but may be purely observational or involve only the collection of data.

Steps:

1. Select a sample from the population.
2. Measure predictor variables (risk factor present or absent).
3. Follow-up the cohort.
4. Measure outcome variables (disease present or absent).

Example:

Research question: Does tubal ligation and hysterectomy affect subsequent risk of ovarian cancer?

1. The investigators identified a total of 121,700 female registered nurses in 1976.
2. Measure predictor variables: The investigators asked the subjects whether or not they had a tubal ligation.
3. A questionnaire was given to the participants starting in 1976 biannually up through 1988 (12 years of follow-up).
4. Subjects' self-reported incidence of ovarian cancer and further confirmed when medical records were collected and analyzed.

Results from the study: A strong inverse association between tubal ligation and ovarian cancer was established, which persisted after adjustment for age, oral contraceptive use, parity, and other ovarian cancer risk factors.

Retrospective Cohort Study

Retrospective Studies: Research conducted by reviewing records (i.e., birth and death certificates, medical records, school or employment records) or information about past events elicited through interviews with persons who have, and controls who do not have, a disease under investigation.

Steps:

1. Identify a cohort that had been assembled in the past.
2. Collect data on predictor variables (measured in the past).
3. Follow-up the cohort.
4. Collect data on outcome variables (measured in the past or present).

Example:

Research question: Does pituitary-derived human growth hormone treatment increase the subsequent risk of developing leukemia and lymphoma?

1. The investigators identified a total of 6,284 recipients of pituitary-derived human growth hormone distributed by the National Hormone and Pituitary Program between 1963 and 1985.
2. The investigators collected data from the medical records about the patients' treatment for growth failure with NHPP hormone.
3. An interview was conducted in 1988 on all recipients regarding any diagnosis of leukemia and lymphoma.

Result from the study: This cohort of growth hormone recipients had a significantly increased rate of leukemia compared with the age-, race-, and gender-matched general population.

3. Case Control Study

Purpose: This type of study is designed to examine the people with or without disease (usually a rare disease) by identifying the two separate groups of subjects from two populations and finding the differences in predictor variables that may explain why the cases got the disease and the controls did not.

Step:

1. Select a sample from a population of people with the disease (cases).
2. Select a sample from a population at risk that is free of the disease (control).
3. Measure predictor variables.

Example:

Research question: Is there an association between the use of aspirin and the development of Reye's syndrome, a rare but serious childhood illness?

1. 30 patients with Reye's syndrome were accessible to the investigator for study.
2. 60 patients were drawn from the much larger population of accessible patients who have had minor viral illnesses without Reye's syndrome.
3. Ask the subjects in both groups about their use of aspirin.

Results from the study: Subjects who had minor viral illness and took aspirin were 10 times more likely to develop Reye's syndrome.

4. Case Study: A detailed analysis of a person or group with a particular disease or condition, noting characteristics of the disease or condition. Case studies are often used to call attention to new diseases or to diseases entering new populations. *Mosby's Medical Dictionary, 8th edition.* © 2009, Elsevier

Example:

1. Marzano, AV, et al. Primary cutaneous T-cell lymphoma expressing FOXP3: A case report supporting the existence of malignancies of regulatory T cells. *J Am Acad Dermatol* 2009; 6(2):348-355

Experimental Design:

Purpose: This type of study examines the cause-effect relationship between predictor and outcome variables. As a general format of the study, subjects are randomly assigned to the experimental group and the placebo (control) group. The subjects in the experimental group receive intervention whereas the subjects in the placebo group do not. Comparisons are made between the groups after the intervention.

Steps:

1. Select a sample from the population.
2. The sample is randomly divided into experimental and control groups.
3. Both groups are measured on the outcome variables prior to the intervention.
4. The experimental group receives intervention whereas the placebo group does not.
5. Measure outcome variables on both groups after the intervention.

Example:

Research question: Does isokinetic training have an effect on rate of movement during ambulation in hemiparetic patients?

1. A sample of 20 subjects was selected.
2. The 20 subjects were randomly assigned to treatment and controls with 10 subjects each.
3. Both groups were initially evaluated using a functional ambulation profile.
4. The experimental group then received isokinetic training daily for 5 weeks, in addition to conventional therapy and gait training. The control group continued with conventional therapy and gait training for the same 5-week period.
5. At the end of 5th week, both groups were retested, and the differences in ambulation scores were compared.

Result from the study: There is no statistically significant difference between the two groups in ambulation times and functional ambulation profiles.

1. Preclinical Investigations: Laboratory and animal studies designed to test the mechanisms, safety and efficacy of an intervention prior to its application in humans.

2. Clinical Trial: A research study using consenting human subjects that tests the effectiveness and safety of a treatment, a diagnostic tool, or a prophylactic intervention. *The American Heritage® Medical Dictionary Copyright © 2007*

Example:

1. Henry TD, et al. A regional system to provide timely access to percutaneous coronary intervention for ST-elevation myocardial infarction. *Circulation* 2007;116:721-728.

Phase I (Clinical) Trial: The first stage in testing an unapproved (by the FDA) drug in man. The drug is administered to a small number of normal subjects to generate preliminary information on its safe dosage, toxicity, tolerance, absorption and metabolism. However, in some instances, if the drug is intended to treat a specific disease, it may be appropriate to test the drug in patients with that disease.

Phase II (Clinical) Trial: The second stage in testing a new drug in man generally carried out on patients with the disease or condition of interest to obtain information on the treatment efficacy and to supplement information on safety obtained from Phase I trial.

Phase III (Clinical) Trial: The third and usually final stage in testing a drug in man. The study is designed to include a control treatment and random allocation to treatment on a large subject population in different clinical settings. The drug is used as would be when marketed and the study is primarily concerned with assessments of dosage effects and efficacy and safety. Once this phase is completed, the drug manufacturers may request permission to market the drug by submission of a New Drug Application to the FDA.

Phase IV (Clinical) Trial: Generally carried out after FDA approval and licensure of the drug for that indication. The study is a randomized controlled trial designed to evaluate the long-term safety and efficacy of a drug for the given information.

Quasi-Experimental Design

Purpose: As a general format of the study, subjects are not randomly assigned to the experimental group and the placebo (control) group. Rather, subjects are assigned by clinical setting. The subjects in one setting receive intervention whereas the subjects in the other setting receive placebo. Comparisons are made between the groups after the intervention.

Steps:

1. Select two clinical settings for the study.
2. Patients in one setting are the experimental group and patients in the other setting are controls.
3. The experimental group receives intervention whereas the placebo group does not.
4. Measure outcome variables on both groups after the intervention.

Example:

Research question: What is the efficacy of morphine sulfate for the relief of pain and anxiety in patients with burns? Does the use of morphine reduce the level of pain?

Two burn centers in Iowa were selected for the study.

1. One of the units used no morphine or morphine derivatives for the control of pain and the other used moderate to high doses of morphine for the relief of pain.
2. Both groups were asked to rate their pain and anxiety after hydrotherapy and at rest in the afternoon on a daily basis throughout their stays.
3. Pain and anxiety levels were measured for both the differences between the two groups were compared.

Result from the study: Unexpectedly, patients at the no-morphine unit consistently reported lower levels of pain and anxiety than did patients at the morphine unit.

Research Study Design: Medical Topics

Here is a list of different medical topics to consider when thinking about a research study.

Public Health: The science and practice of protecting and improving the health of a community, as by preventive medicine, health education, control of communicable diseases, application of sanitary measures, and monitoring of environmental hazards. *The American Heritage® Medical Dictionary Copyright © 2007*

Example:

1. Monasta L. Interventions to prevent overweight and obesity in preschool children. *Public Health* 2009; 123(7):517

Epidemiology: The branch of medicine that deals with the study of the causes, distribution, and control of disease in populations. *The American Heritage® Medical Dictionary Copyright © 2007*

Example:

1. Ananth CV, Basso OB. Impact of Pregnancy-induced Hypertension on Stillbirth and Neonatal Mortality. *Epidemiology* 2010; 21(1):118-123

Basic Science Evidence: Objective findings from laboratory experiments that serve to further or confirm conclusions from clinical research or determine mechanisms. *Jonas: Mosby's Dictionary of Complementary and Alternative Medicine. (c) 2005*

Example:

1. Wein, Alan J. M.D., Ph.D. (Hon.). Voiding Function and Dysfunction, Bladder Physiology and Pharmacology, and Female Urology. *Journal of Urology* 2010; 183(1):253-258

Web Site Resources for Research Opportunities

Centers for Osteopathic Research and Education

<http://www.ohiocore.org/>

The Centers for Osteopathic Research and Education (CORE) system is an integrated statewide medical education consortium formed by affiliations between OU-COM and teaching hospitals in Ohio, as well as other colleges of osteopathic medicine nationwide. This infrastructure supports and promotes excellence in the continuum of osteopathic medical education that begins with matriculation at an osteopathic medical school and extends through residency training and beyond into continuing medical education. All CORE partners are linked via real-time videoconferencing and distance learning technology as well as global, interactive, online Internet access.

CORE became the nation's first accredited Osteopathic Postdoctoral Training Institution (OPTI) in 1997 and established a model for the osteopathic profession. The American Osteopathic Association (AOA) defines an OPTI as a community-based training consortium comprised of at least one college of osteopathic medicine and one teaching hospital. CORE internship and residency programs accommodate over 600 postdoctoral trainees.

Osteopathic Research Center

<http://www.hsc.unt.edu/org/>

The Osteopathic Research Center is the premier research center focusing on the clinical efficacy and mechanisms of action of osteopathic manipulative treatment (OMT). The ORC also conducts health services and policy research by performing systematic reviews of the literature, conducting population based surveys, and analyzing national health care databases to determine the unique practice characteristics of osteopathic physicians and to provide scientific evidence to support osteopathic medicine.

The ORC operates a fast-paced clinical research enterprise with numerous NIH-funded studies, including the OSTEOPATHic Health outcomes In Chronic low back pain Trial (OSTEOPATHIC Trial), which is projected to be the largest clinical trial involving OMT. Cutting-edge basic science research is assessing the response to OMT techniques, such as lymphatic pump, at the molecular and cellular level. The ORC's health services and policy research is providing the evidence to develop clinical practice guidelines for OMT in conditions such as low back pain.

DO-Online, Research and Grants

http://www.do-online.org/index.cfm?au=D&PageId=res_main

The AOA recognizes that the advancement of scientific research plays a critical role in the mission to improve American health care through promoting osteopathic medicine. The Council on Research provides management and oversight for the research development activities of the AOA:

The AOA Research Conference is a national profession-wide research forum for osteopathic physicians, scientific researchers, residents, interns, and students at the osteopathic medical schools. The Research Abstracts and Poster Session is an integral part of this annual meeting. The conference supports the culture of research in the profession and maintains a forum for researchers to:

- Disseminate findings and clinical applications
- Develop collaborative research projects and relationships
- Address issues and methods relevant to quality osteopathic research
- Discuss mutual interests and concerns
- Attend the Poster Session and Student Poster Competition

The Research Conference was established in 1956 and is held in conjunction with the AOA Convention and Scientific Seminar.

AOA Research Grants and Fellowships The AOA has funded original research within the osteopathic profession for many years. The main purposes of the program are to:

- Generate and support research that develops and promotes and understanding of the philosophy, concepts, efficacy and mechanisms of Osteopathic Manipulative Medicine
- Build and maintain the research capacity of the profession through support and training for new and developing researchers

AOF Research Awards

The American Osteopathic Foundation (AOF) assumed management of the AOA Research Awards in 2006. Please consult the AOF website at www.AOF-foundation.org, "Grants and Awards" for current information on making nominations for these prestigious awards.



National Institutes of Health

www.nih.gov

Institutes, Centers & Offices

<http://www.nih.gov/icd/index.html>

The Office of the Director (OD)

The Office of the Director is the central office at NIH for its 27 Institutes and Centers. The OD is responsible for setting policy for NIH and for planning, managing, and coordinating the programs and activities of all the NIH components. OD's program offices include the Office of AIDS Research and the Office of Research on Women's Health, among others.



National Cancer Institute (NCI) - Est. 1937

NCI leads a national effort to eliminate the suffering and death due to cancer. Through basic and clinical biomedical research and training, NCI conducts and supports research that will lead to a future in which we can prevent cancer before it starts, identify cancers that do develop at the earliest stage, eliminate cancers through innovative treatment interventions, and biologically control those cancers that we cannot eliminate so they become manageable, chronic diseases.



National Eye Institute (NEI) - Est. 1968

NEI conducts and supports research that helps prevent and treat eye diseases and other disorders of vision. This research leads to sight-saving treatments, reduces visual impairment and blindness, and improves the quality of life for people of all ages. NEI-supported research has advanced our knowledge of how the eye functions in health and disease.



National Heart, Lung, and Blood Institute (NHLBI) - Est. 1948

NHLBI provides leadership for a national program in diseases of the heart, blood vessels, lung, and blood; blood resources; and sleep disorders. Since October 1997, the NHLBI has also had administrative responsibility for the NIH Woman's Health Initiative. The Institute plans, conducts, fosters, and supports an integrated and coordinated program of basic research, clinical investigations and trials, observational studies, and demonstration and education projects.



National Human Genome Research Institute (NHGRI) - Est. 1989

NHGRI is devoted to advancing health through genome research. The Institute led NIH's contribution to the Human Genome Project, which was successfully completed in 2003 ahead of schedule and under budget. Building on the foundation laid by the sequencing of the human genome, NHGRI's work now encompasses a broad range of research aimed at expanding understanding of human biology and improving human health. In addition, a critical part of NHGRI's mission continues to be the study of the ethical, legal and social implications of genome research.



National Institute on Aging (NIA) - Est. 1974

NIA leads a national program of research on the biomedical, social, and behavioral aspects of the aging process; the prevention of age-related diseases and disabilities; and the promotion of a better quality of life for all older Americans.



National Institute on Alcohol Abuse and Alcoholism (NIAAA) - Est. 1970

NIAAA conducts research focused on improving the treatment and prevention of alcoholism and alcohol-related problems to reduce the enormous health, social, and economic consequences of this disease.



National Institute of Allergy and Infectious Diseases (NIAID) - Est. 1948

NIAID research strives to understand, treat, and ultimately prevent the myriad infectious, immunologic, and allergic diseases that threaten millions of human lives.



National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) - Est. 1986

NIAMS supports research into the causes, treatment, and prevention of arthritis and musculoskeletal and skin diseases, the training of basic and clinical scientists to carry out this research, and the dissemination of information on research progress in these diseases.



National Institute of Biomedical Imaging and Bioengineering (NIBIB) - Est. 2000
NIBIB improves health by promoting fundamental discoveries, design and development, and translation and assessment of technological capabilities in biomedical imaging and bioengineering, enabled by relevant areas of information science, physics, chemistry, mathematics, materials science, and computer sciences.



Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) - Est. 1962

NICHD research on fertility, pregnancy, growth, development, and medical rehabilitation strives to ensure that every child is born healthy and wanted and grows up free from disease and disability.



National Institute on Deafness and Other Communication Disorders (NIDCD) - Est. 1988
NIDCD conducts and supports biomedical research and research training on normal mechanisms as well as diseases and disorders of hearing, balance, smell, taste, voice, speech, and language that affect 46 million Americans.



National Institute of Dental and Craniofacial Research (NIDCR) - Est. 1948
NIDCR provides leadership for a national research program designed to understand, treat, and ultimately prevent the infectious and inherited craniofacial-oral-dental diseases and disorders that compromise millions of human lives.



National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) - Est. 1950
NIDDK conducts and supports basic and applied research and provides leadership for a national program in diabetes, endocrinology, and metabolic diseases; digestive diseases and nutrition; and kidney, urologic, and hematologic diseases. Several of these diseases are among the leading causes of disability and death; all seriously affect the quality of life of those who have them.



National Institute on Drug Abuse (NIDA) - Est. 1973
NIDA leads the nation in bringing the power of science to bear on drug abuse and addiction through support and conduct of research across a broad range of disciplines and rapid and effective dissemination of results of that research to improve drug abuse and addiction prevention, treatment, and policy.



National Institute of Environmental Health Sciences (NIEHS) - Est. 1969

NIEHS reduces the burden of human illness and dysfunction from environmental causes by, defining how environmental exposures, genetic susceptibility, and age interact to affect an individual's health.



National Institute of General Medical Sciences (NIGMS) - Est. 1962

NIGMS supports basic biomedical research that is not targeted to specific diseases. NIGMS funds studies on genes, proteins, and cells, as well as on fundamental processes like communication within and between cells, how our bodies use energy, and how we respond to medicines. The results of this research increase our understanding of life and lay the foundation for advances in disease diagnosis, treatment, and prevention. NIGMS also supports research training programs that produce the next generation of biomedical scientists, and it has special programs to encourage underrepresented minorities to pursue biomedical research careers.



National Institute of Mental Health (NIMH) - Est. 1949

NIMH provides national leadership dedicated to understanding, treating, and preventing mental illnesses through basic research on the brain and behavior, and through clinical, epidemiological, and services research.



National Institute of Neurological Disorders and Stroke (NINDS) - Est. 1950

The mission of the NINDS is to reduce the burden of neurological diseases -- a burden borne by every age group, every segment of society, and people all over the world. To accomplish this goal the NINDS supports and conducts research, both basic and clinical, on the normal and diseased nervous system, fosters the training of investigators in the basic and clinical neurosciences, and seeks better understanding, diagnosis, treatment, and prevention of neurological disorders.



National Institute of Nursing Research (NINR) - Est. 1986

NINR supports clinical and basic research to establish a scientific basis for the care of individuals across the life span--from the management of patients during illness and recovery to the reduction of risks for disease and disability; the promotion of healthy lifestyles; the promotion of quality of life in those with chronic illness; and the care for individuals at the end of life. This research may also include families within a community context, and it also focuses on the special needs of at-risk and under-served populations, with an emphasis on health disparities.



National Library of Medicine (NLM) - Est. 1956

NLM collects, organizes, and makes available biomedical science information to scientists, health professionals, and the public. The Library's Web-based databases, including PubMed/Medline and MedlinePlus, are used extensively around the world. NLM conducts and supports research in biomedical communications; creates information resources for molecular biology, biotechnology, toxicology, and environmental health; and provides grant and contract support for training, medical library resources, and biomedical informatics and communications research.



Center for Information Technology (CIT formerly DCRT, OIRM, TCB) - Est. in 1964

CIT incorporates the power of modern computers into the biomedical programs and administrative procedures of the NIH by focusing on three primary activities: conducting-computational biosciences research, developing computer systems, and providing computer facilities.



Center for Scientific Review (CSR) - Est. in 1946

CSR is the focal point at NIH for the conduct of initial peer review, the foundation of the NIH grant and award process. The Center carries out peer review of the majority of research and research training applications submitted to the NIH. In addition, the Center serves as the central receipt point for all such Public Health Service (PHS) applications and makes referrals to scientific review groups for scientific and technical merit review of applications and to funding components for potential award. To this end, the Center develops and implements innovative, flexible ways to conduct referral and review for all aspects of science.



John E. Fogarty International Center for Advanced Study in the Health Sciences (FIC) - Est. in 1968

FIC promotes and supports scientific research and training internationally to reduce disparities in global health.



National Center for Complementary and Alternative Medicine (NCCAM) - Est. in 1999
NCCAM is dedicated to exploring complementary and alternative medical (CAM) practices in the context of rigorous science; training CAM researchers and disseminating authoritative information.



National Center on Minority Health and Health Disparities (NCMHD) - Est. in 1993
The mission of NCMHD is to promote minority health and to lead, coordinate, support, and assess the NIH effort to reduce and ultimately eliminate health disparities. In this effort NCMHD will conduct and support basic, clinical, social, and behavioral research, promote research infrastructure and training, foster emerging programs, disseminate information, and reach out to minority and other health disparity communities.



National Center for Research Resources (NCRR) - Est. in 1962

NCRR provides laboratory scientists and clinical researchers with the environments and tools they need to understand, detect, treat, and prevent a wide range of diseases. With this support, scientists make biomedical discoveries, translate these findings to animal-based studies, and then apply them to patient-orientated research.



NIH Clinical Center (CC) - Est. in 1953

CC is the clinical research facility of the National Institutes of Health. As a national resource, it provides the patient care, services, and environment needed to initiate and support the highest quality conduct of and training in clinical research.

U.S. Department of Health and Human Services

www.hhs.gov



The Department of Health and Human Services (HHS) is the United States government's principal agency for protecting the health of all Americans and providing essential human services, especially for those who are least able to help themselves.

Centers for Disease Control

www.cdc.gov

Your online source for credible health information. The CDC provides health and safety information to: Individuals interested in health issues, public health professionals, healthcare providers, researchers and scientists, partners, policy makers, media, businesses, and students and educators.

Websites for Federal Funding

Please see attached Useful Websites for Research.pdf

Resources for your Research Project:

United States National Library of Medicine, National Institute of Health (NIH) Pub Med Tutorial:

How to conduct a literature search:

<http://www.nlm.nih.gov/bsd/disted/pubmedtutorial>

United States Department of Health and Human Services, Office for Human Research Protections:

IRB Guidebook:

http://www.hhs.gov/ohrp/irb/irb_guidebook.htm

National Institute of Health:

Criteria for Institutional Review Board (IRB) Approval of Research Involving Human Subjects

Please see attached NIH Criteria for IRB Approval.pdf

Code of Federal Regulations, Title 45, Department of Health and Human Services, Part 46

Protection of Human Subjects:

Please see attached Code of Federal Regulations Title 45, HHS Part 46.pdf

Osteopathic Research Center:

Manual of Basic Tools: For Research in Osteopathic Manipulative Medicine:

Please see attached ORC-Manual of Basic Tools for Research.pdf

American Osteopathic Association:

Research Handbook:

Please see attached AOA Research Handbook.pdf

Elements of a Research Proposal and Report:

<http://www.statpac.com/research-papers/research-proposal.htm>

Research Opportunities for the Medical Student

Section 2: Research

Opportunities and Resources at your College of Osteopathic Medicine

Research at your campus

A.T. Still University of Health Sciences Kirksville College of Osteopathic Medicine

ATSU/KCOM Website: <http://www.atsu.edu/kcom/index.htm>

ATSU/KCOM Research Website: <http://www.atsu.edu/research/about/index.htm>

A.T. Still University of Health Sciences School of Osteopathic Medicine in Arizona

ATSU-SOMA Website: <http://www.atsu.edu/soma/index.htm>

OMM Department Contact Information:

Jonathon Kirsch

E-mail: jkirsch@atsu.edu

Phone #: (480) 219-6055

Deborah Heath, D.O., C-SPOMM, Associate Professor

Hollis King, D.O., PhD., F.A.A.O, Professor

Jonathon Kirsch, D.O., C-NMM/OMM, Assistant Professor

William Morris, D.O., Associate Professor

OMM Fellowship (available starting in 2010).

Students have access to 6 Biopac Units for Physiologic Measurements.

Faculty is available at students request for student projects.

There are ongoing faculty projects.

Arizona College of Osteopathic Medicine of Midwestern University

AZCOM Website:

http://www.midwestern.edu/Programs_and_Admission/AZ_Osteopathic_Medicine.html

Chicago College of Osteopathic Medicine of Midwestern University

CCOM Website:

http://www.midwestern.edu/Programs_and_Admission/IL_Osteopathic_Medicine.html

OMM Department Contact Information:

Department Chair: Kurt Heinking, D.O., F.A.A.O.

In the fall of 1998, Dr. Kappler created the OMM Fellows Clinic on campus as part of the Wellness Center. The clinic was established to offer much-needed OMM services to the Midwestern University community. It was also created to provide first-hand clinical experience for the OMM Fellows.

The OMM Fellows Clinic is currently held in the OMM Skills Lab in the lower level of Alumni Hall. During the academic year, clinic is held on Mondays from 8:00 a.m. to 11:00 a.m. During the summer, clinic hours vary. The clinic is staffed by the OMM Fellows who are on service that month under the supervision of Dr. Kappler and Dr. Heinking. Charts are kept on all patients, and in addition to the OMT, exercise/stretching prescriptions are a mainstay of treatment.

Appointments for Fellows Clinic can be made in person through Barb Williams, OMM Administrative Assistant, in the OMM Department or by calling her at x7123. Individuals who cannot come during clinic hours or who have a musculoskeletal emergency during the week are urged to call the OMM Department. Every effort will be made to accommodate these individuals, but priority is given to patients with appointments. There is no charge for patients seen in Fellows Clinic.

**Des Moines University
College of Osteopathic Medicine**

DMU-COM Website: <http://www.dmu.edu/com/>

DMU-COM Research Website: <http://www.dmu.edu/research/>

OMM Department Contact Information:

Debbie Eittreim

Secretary

Tower Medical Center 1022

3200 Grand Ave

Des Moines, IA 50312

Phone 515/271-1421

Fax 515/271-7121

George B Klock, D.O., F.A.A.O., Chairperson, Department of OMM

Adrian Woolley, D.O., Assistant Professor, Department of OMM, Board Certified in Family Medicine

Jose S Figueroa, D.O., Assistant Professor, Department of OMM, Department of Physical Medicine and Rehabilitation

Drew D. Lewis, D.O., Assistant Professor, Department of OMM, Department of Physical Medicine and Rehabilitation

Richard Schuster, D.O., Assistant Professor, Department of OMM
Joshua Stubblefield, D.O., Adjunct Faculty, Department of OMM, Family Medicine –
Broadlawns Medical Center

The DMU Department of Osteopathic Manual Medicine offers a one year pre-doctoral fellowship to osteopathic medical students during their clinical rotation years. The program, 12 months in length, provides 4 students per class the opportunity to gain further experience in the application of OMM in the clinical setting by working with our faculty physicians in the OMM specialty clinic. In addition to the clinical experience, OMM Fellows also assist with teaching lecture and lab material to first and second year students. Coupled with a didactic series and various community service and public speaking opportunities, the OMM Fellowship offers a unique and expansive learning experience that serves each participant no matter what field of medicine they pursue.

The DMU Department of Osteopathic Manual Medicine participates in multiple student activities to diversify and enrich the manual medicine curriculum. Activities include providing OMM treatment at local health fairs and community events. Osteopathic Finish Line is a student coordinated program that provides OMM treatments to runners at local road races. Students may also participate in the OMM treatments of high level athletes through a program established with a local university.

As an elective for motivated students, one faculty member, certified in Cranial Osteopathy, offers a 40-hour course accredited by the Cranial Academy for basic instruction in cranial manipulation. This class is in addition to the material covered in the basic curriculum.

Georgia Campus
Philadelphia College of Osteopathic Medicine

GA-PCOM Website: http://www.pcom.edu/General_Information/georgia/georgia.html

GA-PCOM Research Website: <http://www.pcom.edu/Research/research.html>

Kansas City University of Medicine and Biosciences
College of Osteopathic Medicine

KCUMB-COM Website: <http://www.kcumb.edu/>

KCUMB-COM Research Website: http://www.kcumb.edu/research/research_home.asp

OMM Department Contact Information:

Kevin Treffer, D.O.

816-283-2397

ktreffer@kcumb.edu

The OMM Fellowship is a twelve-month training program occurring ideally between the student's third and fourth year clinical clerkship assignments. A fifth year must be added to the student's period of undergraduate training to accommodate his/her clinical clerkship and OMM Fellowship obligations. The student must stay in good academic standing in order to participate in the fellowship program.

The four main goals of the program are:

1. To develop physicians who excel in all aspects of primary care osteopathic medicine.
2. To develop physicians with advanced knowledge and skills in osteopathic philosophy, principles, diagnosis and treatment.
3. To develop physicians with the ability to contribute to the teaching and clinical aspects of Osteopathy.
4. To involve OMM Fellows in the various aspects of Osteopathic Manipulative Medicine related research.

Lake Erie College of Osteopathic Medicine

LECOM Website: <http://lecom.edu/index.php>

LECOM Research Website: <http://research.lecom.edu/>

Bertalan Dudas, M.D.

<http://www.lecom.edu/contact.php/leadership-at-the-lake-erie-college-of-osteopathic-medicine/76/0/1930/7832>

Lake Erie College of Osteopathic Medicine Bradenton Campus

LECOM-Bradenton Website: <http://lecom.edu/index.php>

LECOM-Bradenton Research Website: <http://research.lecom.edu/>

Lincoln Memorial University DeBusk College of Osteopathic Medicine

LMU-DCOM Website: <http://www.lmunet.edu/dcom/>

LMU-DCOM Website: <http://www.lmunet.edu/curstudents/ORGSP/>

Michigan State University College of Osteopathic Medicine

MSUCOM Website: <http://www.com.msu.edu/>

MSUCOM Research Website: <http://www.com.msu.edu/research/index.html>

Justin McCormick, Ph.D., Associate Dean of Research

Phone: (517) 432-2821

Fax: (517) 353-7219

Email: mccormi1@msu.edu

<http://www.com.msu.edu/research/index.html>

**Nova Southeastern University
College of Osteopathic Medicine**

NSU-COM Website: <http://medicine.nova.edu/>

G. Steve Bowen, M.D., M.P.H.

sbowen@nova.edu

(954) 262-1597

Maria Fernandez, Ph.D., M.A.

mariafer@nova.edu

(954) 262-1598

<http://medicine.nova.edu/aboutus/faculty/index.html>

**New York College of Osteopathic Medicine
of New York Institute of Technology**

NYCOM Website: <http://iris.nyit.edu/nycom/>

NYCOM Research Website: <http://www.nyit.edu/nycom/research/>

Amsler, Kurt, Ph.D., Associate Dean for Research/Professor Biomedical Sciences

kamsler@nyit.edu

http://iris.nyit.edu/nycom/Faculty_Directory.htm

**Oklahoma State University Center for Health Sciences
College of Osteopathic Medicine**

OSUCOM Website: <http://www.healthsciences.okstate.edu/college/>

OMM Department Contact Information:

Robin R. Dyer, D.O.

Associate Professor, Chair

OMM Department

OSU-COM

1111 W. 17th St, Rm 250

Tulsa, OK 74107

(918) 561-1264

robin.dyer@okstate.edu
Administrative Assistant:
Carol Sarafin
(918) 561-8410

Robin Dyer, D.O.
Harriet Shaw, D.O.
Ken Graham, D.O.
Kelley Joy, D.O.
Miriam Mills, M.D.

OSU-COM does not currently have OMM fellows. We do have a Plus One NMM-OMM Residency Program.

Drs Graham and Mills are currently in separate research projects, and are always interested in having student participation.

Ohio University College of Osteopathic Medicine

OU-COM Website: <http://www.oucom.ohiou.edu/>

OU-COM Research Website: <http://www.oucom.ohiou.edu/Admissions/research-opp.htm>

Jack Blazyk, Ph.D., Associate Dean for Research and Grants
232 Grosvenor Hall
(740) 593-2331
blazyk@ohio.edu
<http://www.oucom.ohiou.edu/saag/dept.htm>

Pacific Northwest University of Health Sciences College of Osteopathic Medicine

PNWU-COM Website: http://www.pnwu.org/p/College_of_Osteopathic_Medicine

Philadelphia College of Osteopathic Medicine

PCOM Website: <http://www.pcom.edu/index.html>

PCOM Research Website: <http://www.pcom.edu/Research/research.html>

Jane Dumsha, Ph.D., CHES, Director of ORSP
janed@pcom.edu
215-871-6783
http://www.pcom.edu/Research/Contact_Research_Department/Contact_Research_Dep.html

Pikeville College School of Osteopathic Medicine

PCSOM Website: <http://www.pc.edu/pcsom/default.aspx>

Rocky Vista University College of Osteopathic Medicine

RVUCOM Website: <http://www.rockyvistauniversity.org/>

Touro College of Osteopathic Medicine - New York

TOUROCOM-NY Website: <http://www.touro.edu/med/>

TOUROCOM-NY Research Website: <http://www.touro.edu/med/research.html>

Touro University - California

Touro University College of Osteopathic Medicine

TUCOM-CA Website: <http://www.tu.edu/>

TUCOM-CA Research Website: <http://www.tu.edu/indexca.php>

Touro University - Nevada

Touro University Nevada College of Osteopathic Medicine

TUNCOM Website: <http://tun.touro.edu/programs/programs-com.php>

TUNCOM Research Website: <http://tun.touro.edu/faculty/faculty-research.php>

OMM Department Contact Information:

OMM Course Director:

Sharon Gustowski, D.O.

Sharon.gustowski@tun.touro.edu

No research opportunities this year.

University of Medicine and Dentistry of New Jersey

School of Osteopathic Medicine

UMDNJ-SOM Website: <http://som.umdj.edu/>

UMDNJ-SOM Research Website: <http://som.umdj.edu/research/index.html>

Carl E. Hock, PhD, Associate Dean for Research

hock@umdj.edu

<http://som.umdj.edu/research/admin.html>

University of New England

College of Osteopathic Medicine

UNE-COM Website: <http://www.une.edu/com/>

UNE-COM Research Website: <http://www.une.edu/research/>

**University of North Texas Health Science Center at Fort Worth
Texas College of Osteopathic Medicine**

UNTHSC/TCOM Website: <http://www.hsc.unt.edu/education/tcom/>

UNTHSC/TCOM Research Website: <http://www.hsc.unt.edu/research/>

Edward Via Virginia College of Osteopathic Medicine

VCOM Website: <http://www.vcom.vt.edu/>

Hara P. Misra, D.V.M., Ph.D., Associate Vice President for Research
2265 Kraft Drive, Blacksburg, VA 24060

Tele: 540-231-3693

Fax: 540-231-5252

misra@vcom.vt.edu

<http://www.vcom.vt.edu/facultystaff/directory.html>

**Western University of Health Sciences
College of Osteopathic Medicine of the Pacific**

Western U/COMP Website: <http://www.westernu.edu>

OMM Department Contact Information:

Chair: Micheal Seffinger, D.O

mseffinger@westernu.edu

Rebecca Giusti, D.O

rgiusti@westernu.edu

Students are able to participate in the UAAO club that provides OMM materials, practice examinations, and the , COMP² (COMP Squared) for students. COMP² is a program that introduces students to OMT beyond the classroom, through both clinical and didactic experiences.

We also have a fellowship program, which includes teaching 1st and 2nd years, research, and staffing an additional on-campus fellows "clinic" for Western University students/employees.

The fellowship is described below:

The Neuromusculoskeletal Medicine/Osteopathic Manipulative Medicine Pre Doctoral Teaching Fellowship Program is a twelve-month training program integrated within the student's third and fourth clinical clerkship years. An additional year is added to the student's undergraduate

osteopathic medical training to accommodate his/her clinical clerkship and fellowship obligations. The fellowship program affords students the opportunity to teach the art and science of osteopathic principles and practice (OPP). It also allows the interested student to practice and perfect his/her skills while working under supervision with experienced osteopathic physicians.

West Virginia School of Osteopathic Medicine

WVSOM Website: http://www.wvsom.edu/west_virginia_school_of_osteopathic_medicine.aspx

WVSOM Research Website: <http://www.wvsom.edu/facstaff/research.cfm>

Jacqueline Dejean, MBA, CRA, Associate Vice President of Grants and Research

jdejean@osteو.wvsom.edu

http://www.wvsom.edu/facstaff/research_comm.cfm

**William Carey University
College of Osteopathic Medicine**

WCU-COM Website: <http://www.wmcarey.edu/>

International Research: Contact your International Medical Society

**A.T. Still University of Health Sciences
Kirksville College of Osteopathic Medicine**

No International Medical Society

**A.T. Still University of Health Sciences
School of Osteopathic Medicine in Arizona**

No International Medical Society

**Arizona College of Osteopathic Medicine
of Midwestern University**

DO Care Club: Stephanie Smith: stephanie.smith@azwebmail.midwester.edu

DO Care International: Larry Jensen, D.O.: ljense@midwestern.edu

**Chicago College of Osteopathic Medicine
of Midwestern University**

International Medical Society: Margaret Carlson: margaret.carlson@mwumail.midwestern.edu

International Medical Society: Maria Rapciak: maria.rapciak@mwumail.midwestern.edu

**Des Moines University
College of Osteopathic Medicine**

International Medical Society: Dhvani Patel: dhvani.a.patel@dmu.edu

DO Care International: Yogesh Shah, MD: yogesh.shah@dmu.edu

**Georgia Campus
Philadelphia College of Osteopathic Medicine**

No International Medical Society

**Kansas City University of Medicine and Biosciences
College of Osteopathic Medicine**

DO Care Club: Paul Rotert: protert@kcumb.edu

Gautam Desai, DO: gdesai@kcumb.edu

Lake Erie College of Osteopathic Medicine

International Medical Society: Joshua Smith: joshua.smith@med.lecom.edu

**Lake Erie College of Osteopathic Medicine
Bradenton Campus**

International Medical Society: Katherine Stolarz: Katherine.stolarz@med.lecom.edu

**Lincoln Memorial University
DeBusk College of Osteopathic Medicine**

International Medical Society: Audrey Haywood: audrey.haywood@lmunet.edu

**Michigan State University
College of Osteopathic Medicine**

International Health Project Club: Kyle Martin: marti545@msu.edu

DO Care International: Gary L. Willyerd, D.O.: willyerd@msu.edu

**Nova Southeastern University
College of Osteopathic Medicine**

International Medical Outreach Club: KK Pandya: kaylesh@nova.edu

DO Care International: John Pellosie, Jr., D.O.: pellosie@nova.edu

**New York College of Osteopathic Medicine
of New York Institute of Technology**

Global Medicine Fellowship/Scholarship: Anna Mardakhayava: amardakh@nyit.edu

**Oklahoma State University Center for Health Sciences
College of Osteopathic Medicine**

International Rotations: Sean Krahenbuhl: sean.krahenbuhl@okstate.edu

AMSA/IFMSA Club: Laura Fluke: lfluke@okstate.edu

Ohio University College of Osteopathic Medicine

No International Medical Society

**Pacific Northwest University of Health Sciences
College of Osteopathic Medicine**

No International Medical Society

Philadelphia College of Osteopathic Medicine

Leader for trip to Vietnam: Huyen Nguyen: HuyenNgu@pcom.edu

Physicians for Humanity to South America: Beth Merlini: MaryMe@pcom.edu

Pikeville College School of Osteopathic Medicine

No International Medical Society

Rocky Vista University College of Osteopathic Medicine

DO Care Club: Lia Fiallos: lia.fiallos@rockyvistauniversity.org

DO Care International: Camille Bentley, D.O.: cbentley@RockyVistaUniversity.org

Touro College of Osteopathic Medicine - New York

No International Medical Society

**Touro University - California
Touro University College of Osteopathic Medicine**

Global Health Program Director: Dr. Eiman Mahmoud: eiman.mahmoud@tu.edu

**Touro University - Nevada
Touro University Nevada College of Osteopathic Medicine**

No International Medical Society

DO Care International: Paul McHugh, D.O.: pmchugh5@cox.net

**University of Medicine and Dentistry of New Jersey
School of Osteopathic Medicine**

IFMSA Club: Greg Lichtman: lichtmgt@umdnj.edu

**University of New England
College of Osteopathic Medicine**

MEDLIFE: Tristan Reynolds: treynolds2@une.edu

**University of North Texas Health Science Center at Fort Worth
Texas College of Osteopathic Medicine**

Global Health Initiative, DO Care Club, others: Janine Crantz: jcrantz@live.unthsc.edu

DO Care International: Thomas Shima, D.O.: thomasshima@mhd.com

Edward Via Virginia College of Osteopathic Medicine

No International Medical Society

**Western University of Health Sciences
College of Osteopathic Medicine of the Pacific**

International Medical Society: IMCclub@westernu.edu

West Virginia School of Osteopathic Medicine

PAX Club: Ameer Soni: asoni@wvsom.edu

**William Carey University
College of Osteopathic Medicine**

National Organization Contacts

ACOEP

Andrew G Little, OMS II
ACOEP National Student Chapter President
ACOEP Board of Directors
2010-2011
acoepsc_pres@hotmail.com

Josh Poles, KCUMB
ACOEP Research Committee Chair
jpoles@kcumb.edu
<http://www.acoep.org/member/default.asp?main=member&sub=sm&sub2=src>

ACOFP

Danielle Lynn Barnett, KCOM
ACOFP Student Association National President
DBarnett@atsu.edu

ACOOG

Jennifer Braun, OMS-IV, CCOM
President of the National Student Society of ACOOG
jenniferjbraun@gmail.com

ACOPeds

Cassidy M. Foley, OMS IV, UNECOM
American College of Osteopathic Pediatricians - Student Trustee
Cfoley3@mail.une.edu or cassidyfoley@gmail.com

AMOPS

2Lt Bob Brown, OMS IV, UNECOM
rbrown962@gmail.com

AOASM

Kate Quinn
National Student Liaison
kate.e.quinn@gmail.com

AMSA

Lauren Hughes
National President
pres@amsa.org

COSGP

Sonbol Shahid-Salles, OMS IV, PCSOM

National Chair

cosgpchair@aacom.org

SOMA

A.J. Stefani, OMSIV, DMU-COM

National SOMA president

president@studentdo.com

SNMA

Travelle Franklin-Ford, MD/PhD Candidate, University of Wisconsin School of Medicine & Public Health

National SNMA President

president@snma.org

Reisha Robbins, Diversity Research Co-Chair

Dennis Spencer, Diversity Research Co-Chair

www.snma.org

SOSA

Brett Smith, OMS-IV, UMDNJ-SOM

National SOSA Chair

smithb4.1@gmail.com

SOSAchair@facos.org

www.facos.org/scriptcontent/aboutacossosa.cfm

UAAO

Coral Peterson, OMS IV, TOURO

National Chair

uaaochair@gmail.com

Research Opportunities for the Medical Student

Section 3: Research
Opportunities and Resources
outside of your College of
Osteopathic Medicine

External Short Term Research & Fellowship Opportunities for Medical Students

Updated: February 10, 2008

ALPHA OMEGA ALPHA (AOA) CAROLYN L. KUCKEIN STUDENT RESEARCH FELLOWSHIPS

This fellowship program honors Carolyn L. Kuckein, a long time administrator and honorary member of the AOA who died in 2004. It is designed to provide summer term support for clinical investigation, basic science research, epidemiology, and social science/health services research. MS1, MS2, and MS3 students are eligible. Ph.D.'s and candidates from Ph.D. or MD/Ph.D.'s are not eligible. Award is for a minimum of 8 to 10 weeks of research. Applications are submitted to the Chapter Councilor. The councilor and his/her selection committee nominate one candidate from each eligible institution.

For more information see:

www.alphaomegaalpha.org/programs/StudentResearchPrize.htm.

ALZHEIMER'S OF CENTRAL ALABAMA

Alzheimer's of Central Alabama (ACA) is accepting applications for research projects in Alzheimer's disease and dementia care. The purpose of this competitive grant is to help supplement research in the area of Alzheimer's disease. The research project can be on any topic or design pertaining to Alzheimer's disease. Applicants must be either a graduate student, a junior professional, or in a field serving people with Alzheimer's disease. All disciplines are encouraged to apply.

Applications may be printed directly from the website: www.alzca.org

For more information:

Contact the ACA at 205- 871-7970 or toll free at 866-806-7255.

AMERICAN ACADEMY OF ALLEGY AND IMMUNOLOGY SUMMER FELLOWSHIPS

The American Academy of Allergy and Immunology Summer Fellowships are awarded to medical students interested in pursuing basic science or clinical research in areas such as physiology of allergic diseases, pharmacology of allergic reactions and inflammation, basic cellular and molecular immunology, AIDS and other topics related to understanding immune and allergic diseases and optimizing the health care of asthma.

For information see:

http://www.aaaai.org/members/grants_awards/aaaaigrantsawards/fellowship_medical_student_grant.pdf (for basic research) or

http://www.aaaai.org/members/grants_awards/aaaaigrantsawards/medical_student_grants.pdf (for clinical research)

AMERICAN ACADEMY OF DERMATOLOGY DIVERSITY MENTORSHIP PROGRAM

The American Academy of Dermatology would like to reach out to first- through fourth-year medical students from ethnically and socioeconomically diverse backgrounds to gain exposure to the specialty of dermatology by providing a first hand one-on-one mentorship experience with the dermatologist of the student's choice. Medical students commonly participate in this mentorship program in the summer months; however, there is some flexibility in accommodating the student's schedule. The program must be completed by December 1 of the program year that the grant is awarded. Award for from one month.

For more information see:

http://www.aad.org/education/students/_doc/DiveristyMentorshipProgApplication11-06.doc

AMERICAN ACADEMY OF CHILD AND ADOLESCENT PSYCHIATRY JEANNE SPURLOCK MINORITY MEDICAL STUDENT CLINICAL FELLOWSHIP IN CHILD AND ADOLESCENT PSYCHIATRY

This award is funded through the Center for Medical Health Services and it provides outstanding minority medical students early exposure to child and adolescent psychiatry. Selected students work with a child and adolescent psychiatrist/mentor and attend 5 days at the AACAP annual meeting. Award provides a 12-week stipend.

For more information see:

http://www.aacap.org/cs/root/research_and_training_awards/jeanne_spurlock_minority_medical_student_clinical_fellowship_in_child_and_adolescent_psychiatry

AMERICAN ACADEMY OF CHILD AND ADOLESCENT PSYCHIATRY JEANNE SPURLOCK RESEARCH FELLOWSHIP IN DRUG ABUSE AND ADDICTION FOR MINORITY MEDICAL STUDENTS

This award from the American Academy of Child and Adolescent Psychiatry offers outstanding minority medical students exposure to state of the art research in child and adolescent psychiatry and drug abuse and addiction, as well as a personal mentorship opportunity with an active researcher. Selected students will work with a child and

adolescent psychiatrist/ researcher and attend the AACAAP annual meeting. Award provides a 12 week stipend.

For more information see:

http://www.aacap.org/cs/root/research_and_training_awards/jeanne_spurlock_research_fellowship_in_drug_abuse_and_addiction_forminority_medical_students

AMERICAN ACADEMY OF NEUROLOGY MEDICAL STUDENT SUMMER SCHOLARSHIP (AAN SIGN)

The American Academy of Neurology provides support for summer fellowships to stimulate individuals to pursue careers in Neurology in either research or practice settings. You must be a member of a SIGN chapter. Eligible applicants are MS1 and MS2 medical students in good standing. More than one student from an institution may apply, but only one student will be selected from an institution. The project is to be conducted through a US or Canadian institution of the student's choice. Student fellows will be awarded a stipend to work on a project jointly designed by the student and the sponsoring institution. Students may reapply up to two times. Funding will be awarded to the student as the beginning of the project. Applicants may receive concurrent support for the project. The student must submit a summary of the project and preceptors must include a written evaluation of the student's work at the close of the project. Award is for one summer.

For more information see:

<http://www.aan.com/go/education/students/medical>

AMERICAN ASSOCIATION OF NEUROLOGICAL SURGEONS AND THE NEUROSURGERY RESEARCH AND EDUCATION FOUNDATION (NERF)

NERF is pleased to announce the AANS Medical Student Summer Research Fellowship (MSSRF) program. The fellowship is open to medical students in the United States or Canada who have completed one or two years of medical school and wish to spend a summer working in a neurosurgical laboratory, mentored by a neurosurgical investigator who is a member of the AANS and will sponsor the student. In its inaugural year of 2007, the AANS received an overwhelming number of MSSRF applications. Due to the number of interested students, the AANS has increased the number of available fellowship. This year, fifteen (15) Medical Student Summer Research Fellowships will be awarded in the amount of \$2,500 per award.

For more information see: http://www.aans.org/otherresearch/med_student_research.asp

AMERICAN COLLEGE OF RHEUMATOLOGY ABBOTT MEDICAL STUDENT RESEARCH PRECEPTORSHIP

The American College of Rheumatology/Abbott Medical Student Research Preceptorship introduces students to the specialty of rheumatology by supporting a full-time research

experience under the direction of an ACR member. The Award provides an 8 week stipend plus travel funds to attend the ACR Annual Scientific Meeting.

For more information see:

<http://www.rheumatology.org/ref/awards/summerresearch.asp?aud=ref>

AMERICAN DIGESTIVE HEALTH FOUNDATION FELLOWSHIP AWARD

The American Digestive Health Foundation Fellowship is awarded to high school, undergraduate, medical, or graduate students who are performing research in the areas of digestive diseases or nutrition for a minimum of 10 weeks. Faculty mentor must be a member of the American Gastroenterological Association.

For more information see:

<http://www.fdhf.org/wmspage.cfm?parm1=115>

AMERICAN FEDERATION FOR AGING RESEARCH (AFAR) MEDICAL STUDENT SUMMER RESEARCH TRAINING IN AGING (MSTAR) PROGRAM

This program is designed to provide short term research training opportunities to medical students in aging. AFAR has entered a partnership with the NIA and several foundations to establish this program. Award is a stipend for 8-12 weeks.

For more information see:

<http://www.afar.org/medstu.html>

THE AMERICAN GERIATRICS SOCIETY SUMMER INSTITUTE IN GERIATRICS

This weeklong conference provides medical students who are entering their third or fourth year of medical school with an opportunity to gain exposure to academic geriatrics and research in geriatric medicine. Activities of the Summer Institute include clinical and research seminars on key geriatrics/aging topics, site visits to research and clinical programs, and small group development of a research proposal. Faculty members include nationally recognized academic geriatricians and Boston University faculty conducting aging research. Full financial support is available. The Summer Institute is from June 23-June 27, 2008.

For more information see:

http://www.americangeriatrics.org/education/geristudents/SummerInstituteGeriatrics/bu_info07.shtml

AMERICAN MEDICAL ASSOCIATION FOUNDATION SEED GRANT RESEARCH PROGRAM

The American Medical Association (AMA) Foundation awards small seed grants (\$2500)

to medical students, residents, and fellows to help them conduct basic science, applied, or clinical research projects. The AMA supports the following areas of research: arthritis and rheumatism, cardiovascular/pulmonary disease, HIV/AIDS, leukemia, neoplastic diseases and neurological disorders. The award can support research related expenses and travel for international meetings. It cannot be used for a stipend.

For more information see:

<http://www.ama-assn.org/ama/pub/category/7785.html>

AMERICAN OLSER SOCIETY'S WILLIAM B. BEAN STUDENT RESEARCH AWARD

The American Osler Society's William B. Bean Student Research Award supports research in the areas of medical history and medical humanism. The award is a stipend and additional funds maybe available to facilitate travel to the annual meeting. Selection criteria are: 1) the project should deal with medical history and/or medical humanities, 2) the goal should be clearly stated, 3) the goal should be realistic, 4) the applicant should demonstrate familiarity with the relevant literature, and 5) originality and scholarly approach. A letter of support from a faculty sponsor who will assume responsibility for planning and guidance of the fellowship must accompany the application.

For more information see:

<http://www.americanosler.org>

AMERICAN PEDIATRIC SOCIETY AND SOCIETY FOR PEDIATRIC RESEARCH

The Medical Student Research Training Program is designed to encourage student interest in research related to pediatrics. The program is specifically designed for students who are interested in pursuing a research opportunity at an institution other than their own Medical School. Support is provided for an 8-10 week research experience.

For information see:

http://www.aps-spr.org/Student_Research/Info.htm

THE AMERICAN PSYCHIATRIC ASSOCIATION MINORITY MEDICAL STUDENT SUMMER MENTORING PROGRAM

This program is designed to expose ethnic minority medical students to a setting where they can work closely with a psychiatrist mentor. The emphasis is on clinical work with underserved minority populations and mental health care disparities. Most work settings will be inner-city or rural, preferably those dealing with psychiatric subspecialties, particularly substance abuse and geriatrics. The award is a stipend.

For more information see:

www.psych.org/Resources/OMNA/MFP/minoritymedicalstudentssummermentoringprogr

am.aspx

THE AMERICAN SOCIETY OF CLINICAL NUTRITION NATIONAL CLINICAL NUTRITION INTERNSHIP PROGRAM

The American Medical Student Association (AMSA) and the American Society for Clinical Nutrition co-sponsor nutrition internships for medical students. Each student will work under a recognized authority in clinical nutrition in a US medical school or hospital. The internships are usually scheduled for 8 weeks in the summer, but other times can be arranged. Students will be exposed to both clinical and academic aspects of nutrition. Awards are a stipend.

For more information see:

<http://www.nutrition.org/education-and-professional-development/graduate-and-professional-development/nutrition-internships-for-medical-students/>

THE AMERICAN SOCIETY OF CLINICAL ONCOLOGY MEDICAL STUDENT ROTATION FUNDED BY SUSAN G. KOMAN FOR THE CURE

The Medical Student Rotation provides 8- to 10- weeks clinical or clinical research oncology rotations for US medical students from underrepresented populations. A mentoring component is included whereby award recipients are paired with a clinical oncologist who will provide ongoing academic and career guidance. Recipients receive a \$5000 stipend for the rotation plus \$1500 for future travel to the ASCO Annual Meeting. An additional \$2000 will be provided to the student's mentor.

To qualify, students must be enrolled in a DO or MD US medical school program and be of an underrepresented population as defined by the program eligibility criteria. Candidates must demonstrate an interest in pursuing oncology as a career and have a record of good academic standing.

Candidates must commit to attending the 8-to- 10-week rotation placement if they are selected as an award recipient. The oncology rotation can take place in a private practice, hospital or academic setting, with a focus on either direct patient care or research, provided that the research is clinically oriented. The minimum time commitment is 8 weeks, 35 hours per week. The oncology rotation will generally occur during the summer between the student's first and second year of medical school; however, medical students beyond their first year who can commit 8-10 weeks to the rotation on a full-time basis are welcome to apply.

Each recipient is paired with a mentor who will oversee his/her work and provide ongoing academic and career guidance. ASCO will provide assistance in arranging mentoring partnerships or candidates may pre-select a mentor.

Application materials can be obtained at:

<http://www.ascocancerfoundation.org/diversity/msr>

AMERICAN SOCIETY OF HEMATOLOGY TRAINEE RESEARCH AWARD

The American Society of Hematology (ASH) Trainee Research Award Program is a 3 month (or equivalent) experience in hematology-related laboratory or clinical research for medical students, residents, and selected undergraduates. The awardee receives a research stipend and a travel allowance to attend the ASH annual meeting. The research mentor must be an ASH member.

For more information see:

<http://www.hematology.org/education/awards/trainee.cfm>.

AMERICAN SOCIETY OF NEPHROLOGY- STUDENT SCHOLAR GRANTS

The American Society of Nephrology (ASN) student scholar grants allow selected medical students with an interest in basic or clinical research to spend from 10 to 52 weeks engaged in full-time research. The mentor must be an ASN member and must submit a program of study for the applicant. The award period can be a summer, a semester, an academic year, or other 10-52 week period of continuous full-time research. Compensation includes a stipend, money for the PI's lab to cover expenses, and travel costs to attend the ASN meeting the year following the research experience.

For more information see:

http://www.asn-online.org/grants_and_funding/SSG-Grant.aspx

AMERICAN SOCIETY OF TROPICAL MEDICINE AND HYGIENE BENJAMIN H. KEAN TRAVELING FELLOWSHIP IN TROPICAL MEDICINE

The American Society of Tropical Medicine and Hygiene has established the Benjamin H. Bean fellowship in honor of Dr. Kean who was a renowned teacher, researcher, and practitioner of tropical medicine. Dr. Bean's mentorship and support helped many medical students and physicians-in-training begin and sustain careers in tropical medicine and international health. The Kean fellowship is administered by the American Committee on Clinical Tropical Medicine and Traveler's Health (ACCTMTH) and provides travel expenses for medical students who arrange clinical or research electives in tropical areas. Kean Fellows will be required to present reports describing their activities. Applicants must propose an elective in tropical medicine research or training in clinical tropical medicine including a least one month at a site endemic for tropical communicable diseases and be sponsored by a member of the ACCTMTH. Preference will be given to applicants who propose to study tropical communicable diseases other than HIV/AIDS.

For more information see:

<http://www.astmh.org/funding/kean.pdf>

ARNOLD P. GOLD STUDENT SUMMER FELLOWSHIPS

The Gold Foundation accepts applications for Student Summer Research Fellowships, which awarded for research in community health and cultural competency issues. The Foundations goal is to provide students with the opportunity to work directly with patients and to become compassionate, relationship centered physicians. The student carries out research under the direction of a mentor and show have the potential to be ongoing. The grant award includes a stipend for 10 weeks but it can be prorated for 8-weeks. At the end of the research period a final report is due.

For more information see:

<http://humanism-in-medicine.org/cgi-bin/htmllos.cgi/09715.1.5017695602616695399>

BAYSTATE MEDICAL CENTER SUMMER SCHOLAR PROGRAM

Baystate Medical Center, the Western Campus of Tufts University School of Medicine, and UMass Amherst offer a mentored research program for rising college seniors and medical students (between the first and second years) who are exploring the potential of a career in medical, biomedical, public health, or behavioral health research. The 10-week summer program offers you the opportunity to participate a research project from start to finish and present project outcomes to the scientific community. Formal classroom training and personalized application in research design, implementation, and publication make this summer experience an outstanding opportunity for any undergraduate student or first-year medical student considering a career in biomedical research. Monday, June 2 2008 – Friday, August 8 2008. You must be available fulltime (at least 40 hours per week) during the dates of the program.

Baystate Medical Center offers visiting students on-campus housing and parking at no charge. Housing is available on a first come, first serve basis. Student housing is in suites with 3-5 private rooms per floor. Each floor contains a kitchenette (sink, refrigerator and microwave) and a bathroom. Each house has a living room equipped with a television, basic cable, and wireless internet capability. Bed sheets and bathroom towels are provided. Laundry facilities are located in one of the houses.

For more information contact:

Kristi McLeod Baystate Medical Center Division of Academic Affairs
413.794.4466

759 Chestnut Street

413.794.3103

Springfield, MA 01199

Email: Kristi.McLeod@bhs.org www.BaystateHealth.com/cbr/SummerScholar.html

BETTY FORD CENTER SUMMER INSTITUTE FOR MEDICAL STUDENTS

The Summer Institute for Medical Students is a unique one week educational opportunity that the Betty Ford Center provides each summer for selected medical students. No matter what area of medicine a student enters, it is likely that a significant portion of the

patients he/she treats will be active or recovering alcoholics or addicts or the family members who have been impacted by this disease. However, according to a recent survey by the Center on Addiction and Substance Abuse (CASA) at Columbia University, a 94% of primary care physicians fail to diagnose substance abuse when presented with early symptoms of alcoholism in the adult patient. The Betty Ford Center is committed to combating this statistic by educating medical students about the disease of addiction.

The Betty Ford Center Summer Institute for Medical Students provides full scholarships for selected students which cover travel, lodging, tuition, material fees, daily transportation to and from the Center, and most meals. Placements are available in one of three levels of care: Inpatient Treatment, Family Treatment, and Residential Day Treatment Program.

For more information see:

<http://www.bettyfordcenter.org/training/summerinst/>

CEDARS-SINAI MEDICAL CENTER DEPARTMENT OF SURGERY SURGICAL SCHOLAR AWARD

This award was designed to provide fourth year medical students the opportunity to work with faculty physicians in the surgical fields of Acute Care Surgery Service, Advanced General Surgery, Cardiac Surgery, Colorectal Surgery, Minimally Invasive/Bariatric Surgery, Pediatric Surgery, Surgical Intensive Care Unit, Surgical Oncology, Thoracic Surgery, Transplantation, Vascular Surgery.

The Scholar Award will provide students with a one-month long training program between June and October 2008. During that time, successful applicants will be awarded a stipend of \$1,500 for the month.

Applications and information can be obtained from Kristin Martinez, Academic Program Administrator (Kristin.martinez@cshs.org; 310- 423-8762)

CENTER FOR ALCOHOL STUDIES, RUTGERS

Scaife Family Foundation Fellowships are available for medical students enrolled in medical schools in the United States to the Institute of Alcohol and Drug Studies (July 13-18, 2008) and the School of Alcohol and Drug Studies (July 20-25, 2008): both one-week programs are offered by the Center of Alcohol Studies, Rutgers, the State University of New Jersey. Fellowship recipients are required to take the four-hour per day course designed for medical students and one two-hour per day course of their choosing. The total class time of six hours is supplemented by lectures and seminars.

The Scaife Family Foundation Fellowship cover tuition, room and meals (\$1295.00); a \$400 stipend to assist with travel and miscellaneous expenses is also part of the fellowship. Please note that the fellowships will be awarded to applicants who meet the

criteria on an application date-received basis.

For more information and a catalog, contact:

Education and Training Division
Center of Alcohol Studies
Rutgers University
607 Allison Road, Piscataway, NJ 08854-8001
Phone (732)445-4317 Fax (732)445-3500
<http://alcoholstudies.rutgers.edu>

To apply for a fellowship, please complete and return the application form (found in the 2008 catalog). Along with a letter indicating: 1. Your interest in the fellowship and how attendance will impact on your work in the medical field. 2. The program to which you are applying; 3. your medical school and current year of attendance; 4. A mailing address, phone number, and email address where you can be reached currently and after the semester ends.

CENTER FOR DISEASE CONTROL (CDC) O.C. HUBERT STUDENT FELLOWSHIP IN INTERNATIONAL HEALTH

The O.C. Hubert Student Fellowship in International Health, endowed by the O.C. Hubert Charitable Trust, is designed to encourage students to think of public health in a global perspective. Established in 1999, the fellowship provides an opportunity for 3rd and 4th year medical and veterinary students to gain public health experience in an international setting. Hubert fellows spend 4 to 12 weeks in a developing country working on a priority health problem in conjunction with CDC staff. Through these experiences students establish relationships with, and receive training from, recognized experts from CDC and other national and international agencies. Each year a limited number of fellows are selected to participate in the program and receive a stipend to cover travel costs. It is the applicant's responsibility to ensure that he/she is qualified for the opportunities for which he or she wishes to be considered.

For more information see:

<http://www.cdcfoundation.org/fellowships/ochubert/index.aspx>

CENTER FOR SCIENCE IN THE PUBLIC INTEREST INTERNSHIP PROGRAM

The Center for Science in the Public Interest is a national consumer organization that focuses on health and nutrition issues. CSPI offers internships for a small number of qualified students in undergraduate, graduate, law and medical school each summer and during the school year. If you are interested in obtaining a spring/summer internship at CSPI through the Everett Public Interest Internship Program, please note so in your cover letter.

Background: CSPI was started in 1971 by three scientists who saw the need for an organization to evaluate the effects of science and technology on society and to promote national policies responsive to consumers' interests. CSPI focuses primarily on health and nutrition issues, disclosing deceptive marketing practices, dangerous food additives or contaminants and flawed science propagated by profits. Findings are communicated in press interviews and a variety of educational materials, which include reports, books, posters, software, videos, and the Center's Nutrition Action Healthletter. CSPI also has a vigorous program focused on reducing the harm caused by alcoholic beverages.

Generally, an internship is for ten weeks. Undergraduate interns are paid an hourly wage of \$7.00/hour (\$8.00/hour for graduate students). The specific dates of an internship are flexible and depend on our needs and the applicant's schedule. Applications are now being taken for spring/summer 2008. Application materials should include the following:

1. A cover letter indicating issues of interest, future plans, and date of availability.
2. A résumé. Experience with advocacy groups is advantageous.
3. Writing sample, if required by the specific project (a popularly written piece is preferred over a technical report.)
4. Two letters of recommendation from instructors or employers that address your academic/work ability and character.
5. An official transcript of courses and grades.

The same materials are needed whether applying to the Everett Program or directly to CSPI. Awards for internships are very competitive. Applicants are advised to follow the application guidelines.

Mail to: Internships, CSPI, 1875 Connecticut Ave. NW, #300, Washington, DC 20009.

Internship Projects Spring/Summer 2008:

Nutrition and Public Policy
Nutrition Action Healthletter
Alcohol and Public Policy
Grassroots Advocacy
Food Safety
Integrity in Science
Litigation Project

To find out more about the Everett Program, visit their website at <http://www.everettinternships.org/>

CENTER IN MOLECULAR TOXICOLOGY

Trainees conduct research in environmental health with a faculty mentor and participate in meetings, seminars, special events throughout the summer. A stipend is provided at the NIH predoctoral level (currently \$3981 for a ten week period). To be eligible, applicant must be a full time (predoctoral) medical student and either a U.S. citizen or permanent

resident.

Eligible trainees must be able to complete at least ten weeks of research at Vanderbilt University during the period May – August 2009, though appointment dates are flexible.

For additional information see:
www.toxicology.mc.vanderbilt.edu

Contact toxcenter@vanderbilt.edu for application instructions.

CHARLES S. HOUSTON GRANT (WILDERNESS MEDICINE)

The Wilderness Medical Society sponsors a grant (up to \$5000) to be awarded to a medical student who submits a proposal most likely to result in a substantive contribution to the field of wilderness and environmental medicine. Acceptable research projects for submission include clinical investigation, basic science, epidemiological surveys, development of new techniques and/or novel applications of existing techniques, improvements in instrument use and design, public information and injury prevention programs.

For more information see
<http://www.wms.org/research/grants.asp>

COLER-GOLDWATER SPECIALTY HOSPITAL & NURSING FACILITY LONG TERM REHABILITATION AND CHRONIC CARE SUMMER PROGRAM 2008

A six week summer multi-specialty / multidisciplinary externship from July 8 – August 13, 2008 at Coler-Goldwater Specialty Hospital & Nursing Facility on Roosevelt Island, minutes from midtown Manhattan.

Coler-Goldwater Specialty Hospital & Nursing Facility is a 2,000+ bed specialty care hospital with programs in Rehabilitative Medicine, General Medicine, Ventilator care/weaning, Geriatrics and AIDS. There are full support services in Radiology, Laboratories, Dentistry, Psychiatry, and Pharmacology, along with Social Work, Rehabilitation Therapies, and Therapeutic Recreation.

The externship is designed to give student the opportunity of one to one supervision with full time attending physicians. The goals of the program include acquiring and understanding of chronic illnesses and the interdisciplinary team approach that is required to care for people with chronic illnesses.

Free board and lodging will be provided at the hospital. Roosevelt Island is connected to Manhattan by both the subway system and the Roosevelt Island Tram as well as by bus to Queens.

For more information contact:

Harvey Jolt, PhD
212-318-4082
Harvery.Jolt@nychhc.org

CROHN'S AND COLITIS FOUNDATION OF AMERICA STUDENT RESEARCH FELLOWSHIP

The CCF Student Research Fellowship offers support for students to participate in research on topics relevant to inflammatory bowel disease. The objective is to stimulate interest in research careers in inflammatory bowel disease by providing stipend support for research projects. Stipends are for full-time research with a mentor investigating a topic relevant to IBD. The minimum duration of the project is 10 weeks.

For more information see:

<http://www.ccfa.org/ccfaprof/research-grant-opps/student-research-fellowship-awards>

ENDOCRINE SOCIETY SUMMER RESEARCH FELLOWSHIPS

The Endocrine Society offers Summer Research Fellowships to encourage promising medical students to pursue careers in endocrinology. The Society provides students with a stipend to participate in research projects under the direction of a member of the Society for 10 to 12 weeks during the summer. Projects must be relevant to some aspect of endocrinology and are expected to have clearly defined research goals.

For more information see:

http://www.endo-society.org/awards/research_fellowship/summer.cfm

THE EPILEPSY FOUNDATION OF AMERICA HEALTH SCIENCE STUDENT FELLOWSHIP

The Epilepsy Foundation of America Health Science Student Fellowship stimulates individuals to pursue careers in epilepsy in either research or practice settings. Predoctoral training students in the Health Sciences may be accepted at any point in their schooling—following acceptance but before beginning the first year, or in the period immediately following their final year.

For more information see:

<http://www.epilepsyfoundation.org/research/grants.cfm>

FOUNDATION FOR ANESTHESIA EDUCATION AND RESEARCH MEDICAL STUDENT ANESTHESIA RESEARCH FELLOWSHIP

The Foundation for Anesthesia Education and Research (FAER) provides support to medical students and host departments through the Medical Student Anesthesia Research Fellowship. The fellowship offers student grant support per week (\$400/wk) for 8 to 12 weeks, plus additional funds for the student to present at the annual meeting. Funds are

also provided to the host department for administrative and other expenses.

For more information, see:

<http://www.f aer.org/programs/students/index.html>

THE GLOBAL HEALTH FELLOWS PROGRAM (GHFP) SUMMER INTERNSHIPS AT THE US AGENCY FOR INTERNATIONAL DEVELOPMENT

The Global Health Fellows Program (GHFP) has a number of paid summer internships with the US Agency for International Development (USAID). Positions are in USAID's Bureau for Global Health located in Washington, DC. These internships are designed to provide opportunities for outstanding students and mid-career changers interested in pursuing careers in international development. An independent federal government agency, USAID receives overall foreign policy guidance from the Secretary of State. The Agency supports long-term and equitable economic growth and advances U.S. foreign policy objectives by supporting: economic growth; agriculture and trade; global health; and democracy, conflict prevention and humanitarian assistance within four regions of the world: Sub-Saharan Africa, Asia and the Near East, Latin American and the Caribbean, and Europe and Eurasia. To learn more about USAID, the largest government donor organization in the development field, visit <http://www.usaid.gov/>. Interns work in the Office of Health, Infectious Diseases and Nutrition, Office of HIV/AIDS, Office of Population and Reproductive Health, and Office of Professional Development and Management Support. GHFP interns are placed in offices within USAID, which is located in a secured government facility requiring security clearance for all staff. To be eligible for security clearance, an applicant must be a US citizen or a permanent resident. Participation in the GHFP internship program is contingent on the applicant successfully obtaining an interim security clearance. Fellows are awarded a stipend.

For more information see:

<http://www.ghfp.net/content.fsp?id=116487>

GREENVILLE HOSPITAL SYSTEM SUMMER RESEARCH CLERKSHIP IN WOMEN'S HEALTH

The Department of Obstetrics & Gynecology of the Greenville Hospital System University Medical Center is proud to announce the availability of two (2) positions in a Summer Medical Student Clerkship in Women's Health Research. The objective of this clerkship is to provide the student with an introduction to the design and conduct of clinical and/or basic science research in women's health, and an opportunity to participate in all phases of study conduct. Applicants should have successfully complete the MS-I year and be in good academic standing.

Features of the program are:

- Flexible start date (must be a total of 8 weeks)
- \$2800 stipend

- Free housing in Greenville (subject to availability)
- Opportunity to select from 23 faculty mentors with a wide range of research interests
- Free copy of EndNote (reference manager software) to keep after completion of the clerkship

Interested applicants should submit curriculum vitae and a one page or less description of either past or future academic interests. Applications should be submitted via email to:

Molly Ostrowski

Program Coordinator

mostrowski@ghs.org

864-455-5524

<http://www.ghs.org/Content.aspx?id=33920>

HARVARD MEDICAL SCHOOL STUDENT SUMMER RESEARCH FELLOWSHIPS IN VASCULAR SURGERY

Five student research fellowships are available for 10-12 weeks of summer research training in molecular and cell biology, biomechanics, coagulation and thrombosis, and angiogenesis with a focus on clinically relevant problems such as atherogenesis, intimal hyperplasia, prosthetic/host interactions and thrombosis. Trainees will pursue a program of intense research activity. The training program, The William J. von Liebig Summer Research Program is designed to provide medical students with an initial exposure to vascular surgery research. Students will carry out their research under the guidance of an assigned faculty member within the program, selected from renowned vascular researchers based at Harvard Medical School hospitals: the Beth Israel Deaconess Medical Center and Brigham and Women's Hospital. Selection of trainees is based on candidates' demonstrated ability. Applicants should be medical students who have completed at least one year of study in a LCME accredited school. A stipend is awarded for the summer appointment at Harvard Medical School as a Research Fellow in Surgery.

For more information see:

http://www.home.caregroup.org/templatesnew/departments/BID/vonliebig/uploaded_documents/vonliebig.htm

INFECTIOUS DISEASES SOCIETY OF AMERICA MEDICAL SCHOLARS PROGRAM

An important part of IDSA's mission is to promote the subspecialty of infectious diseases by attracting the best and brightest medical students to the field. To further this goal, the IDSA Education and Research Foundation offers summer scholarships to medical students with mentorship by an IDSA member or fellow. It is the responsibility of IDSA members and fellows to identify and solicit interested students.

Students in any year of an accredited U.S. medical school are eligible for this award. The scholarship activity must focus on pediatric or adult infectious diseases and may involve either clinical or research activities. Acceptable clinical activities can range from a

preceptorial relationship with an ID consultant to participation in clinical trials or any other appropriate variant of clinical activities. Acceptable research activities include all facets of infectious diseases, including epidemiology, microbiology, diagnosis, treatment, and prevention. Proposals will be classified as belonging to one of the following categories: Laboratory Research (domestic), Clinical Research, and International. Each student must have a mentor who is an IDSA member or fellow. Past award recipients may not reapply. Multiple students working on the same project may apply but must submit separate applications.

To apply please indicate the project category for the proposal. Applications will be reviewed by IDSA's ID Training Program Directors Committee. They will be judged and selected based on the positive exposure to the field of infectious diseases provided by the planned scholarship activity. Winners will be notified by the beginning of May.

Each scholarship recipient will receive \$2,000: \$1500 to be disbursed in July 2008 at the beginning of the scholarship activity, with the remaining \$500 awarded at the conclusion of the project and submission of a final report to IDSA.

Students will need to answer the following questions and turn in a brief final report at the end of the activity, or the balance of the funding will be forfeited:

How did the scholarship help you to do a project?

Would you have been able to do it without IDSA's funding?

Were the results of your work published in a journal or presented at a meeting?

Do you have plans to do so?

Have you carried your research beyond the scope of your original proposal? Do you plan to?

What will you do next in your ID career?

Students who submit an approved abstract of their activity for the Annual Meeting will have their registration fee waived.

Send All Requested Documentation to:

IDSA Awards

(703) 299-0789 toll free: (888) 844-4372 f:

(866) 889-7614

rdotson@idsociety.org

1300 Wilson Boulevard, Suite 300

Arlington, VA 22209

For more information:

<http://www.idsociety.org/Content.aspx?id=8610#msp>

INSTITUTE FOR HEALTHCARE IMPROVEMENT OPEN SCHOOL

The Institute for Healthcare Improvement (IHI) is a not-for-profit organization leading the improvement of health care throughout the world. IHI helps accelerate change by

cultivating promising concepts for improving patient care and turning those ideas into action. Thousands of health care providers participate in IHI's groundbreaking work. Although in many ways the US health care system is the best in the world, too often it fails to deliver high-quality care. As our nation's most trusted advisor on science, the Institute of Medicine (IOM), declared, "Between the health care we have and the care we could have lies not just a gap, but a chasm." The IHI Open School for Health Professions, which will launch officially in September 2008, aims to close this gap by advancing quality improvement and patient safety competencies in the next generation of health professionals.

The IHI Open School's offerings will include, for example, patient safety and injury prevention, human error, communication and teamwork, and quality improvement. Drawing on faculty who are recognized globally as health care quality leaders, the IHI Open School will provide a unique integrated educational community for students across multiple disciplines at no cost to you. Chapters are the grassroots organizing body for the IHI Open School on local campuses, creating a forum for likeminded individuals to interact and help each other become skilled in patient safety and quality improvement. Chapters are usually led by a student, but can also emerge through the leadership of a faculty member or dean.

Please email us at openschool@ihi.org if you would like us to add your name to our interest list or send you more information about the Chapter Network. After hearing from you, we will notify you about the IHI Open School's free monthly conference calls or webcasts and the IHI Open School's online resources (available in September 2008).

For more information:
<http://www.ihi.org/IHI/Programs/IHIOpenSchool/>

JEWISH MEDICAL ETHICS & AN ISRAEL EXPERIENCE

Summer Program for Medical Students following the First Year June 23-July 23, 2009

The New England Institute of Jewish Studies, in conjunction with the Schlesinger Institute and Shaare Zedek Medical Center, Jerusalem, is sponsoring a four week summer program, combining the study of medical ethics, Jewish thought and tours of Israel. The purpose of the program is to enable Jewish medical students to explore Jewish approaches to challenging medical issues confronting health care professionals. Compelling seminars on Jewish thought address contemporary issues facing the Jewish people. The program features many tours and hikes in Israel. The faculty includes world-renowned medical ethicists and scholars of contemporary Jewish law and philosophy. The medical ethics curriculum incorporates the case-study method and hospital rounds and has qualified for elective credit.

Program cost including tuition, lodging, and tours: \$3,100. The Maimonides Scholars Fellowship offers scholarships up to \$2,400 per individual based upon merit and financial need for a program cost of \$700.

For more information and an application please contact:
Graduate School Division, New England Institute of Jewish Studies, info@nejjs.org /
www.nejjs.org.

**THE LASDON FOUNDATION CHILD AND ADOLESCENT PSYCHIATRY
EDUCATIONAL OUTREACH PROGRAM FOR SOUTHEASTERN MEDICAL
SCHOOLS**

The Lasdon Foundation funds six-week summer fellowships to provide medical students with an opportunity to be exposed to the field of child and adolescent psychiatry, participate in research endeavors, and mentored learning opportunities. To apply, please submit curriculum vitae, letter of endorsement from faculty, and statement of proposed activities, goals, and objectives to:

Jon A. Shaw, MD
Professor and Director,
Child and Adolescent Psychiatry and Behavioral
Sciences
University of Miami Miller School of Medicine
Department of Psychiatry and Behavioral
Sciences
Division of Child and Adolescent Psychiatry
Mental Health Hospital Center
1695 N.W. 9th Avenue-Rm 1404A
Miami, FL 33136

**THE LISTER HILL NATIONAL CENTER FOR BIOMEDICAL
COMMUNICATIONS**

The Lister Hill National Center for Biomedical Communications (LHNCBC) at the US National Library of Medicine, a research component of the National Institutes of Health (NIH) and the Dept of Health and Human Services (HHS), seeks medical and dental students to participate in a clinical elective in medical informatics held in Bethesda, Maryland, a suburb of Washington D.C.

The elective offers students an overview and a vision of the state-of-the-art of medical informatics. It provides students with the opportunity to participate in independent research under the mentorship of NIH research staff. Opportunities for participation are available throughout the year when an appropriate match of student interests and preceptor can be made. The elective is intended for third and fourth year medical and dental students and medical residents.

For more information see:
<http://www.lhncbc.nlm.nih.gov/lhc/servlet/Turbine/template/raining%2CGradMedTrain.vm>

LUPUS FOUNDATION OF AMERICA STUDENT SUMMER FELLOWSHIP

The Gina Finzi Memorial Student Summer Fellowship Program is a memorial tribute to Gina Finzi, the late daughter of former LFA President Emeritus Sergio Finzi, Ph.D. The goal of this national student research program is to foster an interest in systemic lupus erythematosus among young researchers through support of basic, clinical, or psychosocial research under the supervision of an established investigator.

For more information see:

<http://www.lupus.org/finzifellowships.org>

MAYO CLINIC SUMMER PROGRAMS FOR UNDER REPRESENTED MINORITY MEDICAL STUDENTS SUMMER RESEARCH PROGRAMS

This program is to being the training of underrepresented minority students toward careers in which they provide clinical care and participate in patient oriented research. Students are matched with Mayo investigators based upon their interests. Students also attend a series of seminars and presentations, which introduce them to clinical research methods and the Mayo General Clinical Research Center. Recent grants have been received from the NIH to expand and focus the program on patient oriented translational and clinical research. They recognize that students may have already made a decision to do clinical medicine, but hope to show them that it is possible as well as critical to perform clinical research as well. Ten to twelve students are selected. Program is for 8 weeks and provides a monthly stipend plus travel.

For more information see:

<http://www.mayo.edu/msgme/diversity-srf.html>

MEMORIAL SLOAN-KETTERING CANCER CENTER SUMMER STUDENT FELLOWSHIP PROGRAM

The Memorial Sloan Kettering Cancer Center Summer Student Fellowship offers students experience in research and clinical oncology at the cancer center in New York. Fellowships are for 8 weeks between June and August. Applicants apply to work with Memorial Sloan- Kettering physicians from a list of proposed projects. MS1 and MS2 students are eligible to apply.

For more information see:

<http://www.mskcc.org/mskcc/html/2637.cfm>

MYASTHENIA GRAVIS FOUNDATION FELLOWSHIP

The Myasthenia Gravis Foundation offers the Dr. Henry Viets Medical Student Research Fellowships. A stipend is offered to medical or graduate students interested in the scientific basis of myasthenia gravis or related neuromuscular conditions, serving both to

further scientific inquiries into the nature of these disorders and to encourage more research. Award provides a stipend.

For more information see:

http://www.myasthenia.org/hp_fellowships.cfm

NATIONAL INSTITUTES OF HEALTH SUMMER RESEARCH FELLOWSHIP PROGRAM

This program is open to MS1, MS2, and MS3 medical students who are interested in pursuing careers in biomedical research. The goal of this program is match the research interests of the student with a laboratory where interests may be pursued. The program is designed to provide training in research procedures and principles of independent investigation. Program is for 8 weeks and provides a monthly stipend.

For more information see:

<http://www.training.nih.gov/student/sip/>

NATIONAL INSTITUTE OF MENTAL HEALTH SUMMER TRAINING ON AGING RESEARCH TOPICS-MENTAL HEALTH (START-MH) PROGRAM

The START-MH program funded by the National Institute of Mental Health and administered by the University of California San Diego is a national program that offers scholarships to medical students who are interested in aging and mental health research. The program provides selected students with the opportunity to gain research experience and work closely with established investigators in the field of aging and mental health research. During the 10 week experience, students work on a specific project developed by, or in conjunction with, a mentor. The scholarship provides a stipend.

For more information see:

<http://startmh.ucsd.edu>

NEW YORK ACADEMY OF MEDICINE DAVID E. ROGERS FELLOWSHIP PROGRAM

The New York Academy of Medicine's David E. Rogers Fellowship Program accepts applications from MS1 students to support projects executed during the summer between the MS1 and MS2 years. The Fellowship is meant to support the educational experience of medical students through projects that impact on medicine as a social enterprise- an enterprise that is devoted to the capacity of medicine in any and all of its expressions to serve human needs, particularly the needs of underserved or disadvantaged patients or populations. Half of the fellowships are given to projects focused on AIDS/HIV prevention or care. The subject of the Fellowship can include areas such as clinical investigation, health policy analysis, activities linking biomedicine, the social infrastructure and human needs, or community activities. Special consideration is given

to projects in New York City. The Fellowship provides a stipend.

For information see:

<http://www.nyam.org/grants/rogers.shtml>

NORTHWESTERN UNIVERSITY MEDICAL SCHOOL SUMMER EXTERNSHIP PROGRAM IN PHYSICAL MEDICINE & REHABILITATION

Applications are being accepted for an eight week Summer Externship Program, sponsored by the Department of Physical Medicine and Rehabilitation of Northwestern University Medical School. The externship program is held at the Rehabilitation Institute of Chicago (RIC), located in downtown Chicago.

The program begins June 15th and runs through August 7, 2009.

Each student will spend two, four-week rotations on separate inpatient rehabilitation services and have the opportunity to observe and participate in related clinical activities. Students will also participate in a research project in a rehabilitation medicine related field. By the end of the externship, each student is expected to write a research paper and present his/her project to the extern group and invited faculty. Each student will be awarded a \$3000 stipend for participation in the 8 week program.

Please direct questions to Medical Education Office, RIC at 312-238-2870

For more information see:

<http://www.northwestern.edu/depts/pmr>

OREGON HEALTH & SCIENCE UNIVERSITY NEUROLOGICAL SURGERY CAMPAGNA SCHOLARSHIP

The Campagna Scholarship was endowed in 2006 by Dr. Mario Campagna, a leading Oregon Neurosurgeon, and his wife, Edith. The scholarship supports a summer of research under the supervision of a neurosurgical mentor at Oregon Health & Science University and residence expenses in Portland, Oregon. Students in the MS1 or MS2 year of study are eligible to apply. One scholar is selected annually of the 10 week scholarship.

For more information see:

<http://www.ohsu.edu/ohsuedu/academic/som/neurosurgery/news-and-events/campagna-scholarship.cfm>

ORTHOPAEDIC RESEARCH AND EDUCATION FOUNDATION (OREF) SUMMER ORTHOPAEDIC RESEARCH FELLOWSHIP

The Orthopaedic Research and Education Foundation Fellowships are designed for medical students interested in orthopaedics. The student must identify an investigator

with an ongoing orthopaedic research project who is willing to serve as the student's mentor. A minimum of 8-weeks of full-time research is required. The fellowship provides a stipend for the student.

For more information, see:

http://oref.convio.net/site/PageServer?pagename=grants_homepage#medical

THE REPRODUCTIVE RESEARCH CENTER AT CLEVELAND CLINIC

The Reproductive Research Center at Cleveland Clinic has an exciting summer internship opportunity for highly motivated, academically oriented medical or undergrad students interested in a career in medicine.

The Reproductive Research Center summer internship offers students interested in research in human fertility and reproductive biology an opportunity to work with world-renowned scientists and researchers in the field. The staff members publish frequently in the field's most respected journals, are invited guest lecturers at courses and seminars around the world and are active in the leading professional societies in the field of human reproduction.

For more information, see:

<http://www.clevelandclinic.org/reproductiveresearchcenter/info/traininfo1.html#resfelapp>

ROSWELL PARK CANCER CENTER INSTITUTE SUMMER ONCOLOGY RESEARCH PROGRAM

The Roswell Park Cancer Center Institute Summer Oncology Research Program provides stipend support for medical students interested in engaging in clinical and/or basic science cancer research for an 8-week period at Roswell Park, Buffalo, NY. Approximately 25 fellowships are awarded annually.

For more information see:

http://www.roswellpark.org/Education/Summer_Programs/Medical_Student_Program

THE SIMON KRAMER SOCIETY

The Simon Kramer Society Externship in Radiation Oncology, awarded annually, provides a unique opportunity for medical students to obtain a six-week experience in Radiation Oncology.

The Simon Kramer Society was established for the purpose of exposing medical students to the discipline of radiation oncology.

During the six-week period of the externship, the medical student will have the unique opportunity to begin to develop a foundation of the clinical knowledge applied to the

field of cancer therapy, an understanding of treatment planning rationales and a grasp of currently active areas of research and controversy. The extern will be assigned to staff member(s) and will be able to observe and assist in the follow-up clinic and treatment area.

The extern will also be given an opportunity and encouraged to be involved with a research project.

The extern will have the opportunity of attending daily planning conferences, lectures, and journal clubs.

The externship is tailored to the experience, interests and background of the extern.

Date of the externship is flexible during the summer of 2008 (June-August). Applicants must be first or second year medical students in good standing in US Medical Schools.

For more information please contact:
THE SIMON KRAMER SOCIETY
c/o Ester B. San Diego
Department of Radiation Oncology
Thomas Jefferson University Hospital
111 So. 11th Street
Philadelphia, PA 19107
Tel: (215) 955-5951 FAX: (215) 955-0412 email:
ester.sandiego@jeffersonhospital.org

SJOGREN'S SYNDROME FOUNDATION

Sjogren's syndrome Foundation offers student summer fellowships to students who are interested in preparing and carrying out a basic or clinical research project under the guidance of a faculty member working in an area relevant to Sjogren's Syndrome. Fellowship provides a stipend.

For more information see:
<http://www.sjogrens.org/research/student.html>

SOCIETY FOR GYNECOLOGICAL INVESTIGATION MEDICAL STUDENT STIPENDS FOR RESEARCH IN REPRODUCTION

The Society for Gynecological Investigation is committed to expanding interest in research in reproductive biology. To this end, five stipends will be awarded for research related to reproductive biology carried out by medical students under the direction of a SGI member. The research is to be performed during the summer.

For more information see:
<http://www.sgionline.org/mc/page.do?sitePageId=1911&org>

Id=sfgi

STRONG CHILDREN'S RESEARCH CENTER SUMMER TRAINING PROGRAM

The Strong Children's Research Center, Rochester, NY, offers a 10 week summer research program for students who are interested in pursuing a MD and a career in biomedical research. The program supports basic and clinical research focused on the cause, prevention and treatment of diseases of infants, children, and adolescents as well as studies on developmental biology, child and adolescent development, the delivery of health services, and interventions designed to improve the outcomes of clinical pediatric practice. Student trainees participate in research and clinical seminars. At the end of the program, the students will be asked to complete a written report as well as present the results of their research at a poster session. Participants receive a stipend. Housing for out-of-area students is available at the Residential Life Facility.

For more information see:

http://www.urmc.rochester.edu/pediatrics/research/Summer_Program/summerprogram.cfm

DR. THOMAS DETRE SENIOR MEDICAL STUDENT AWARD IN PSYCHIATRY

The Western Psychiatric Institute and Clinic and the Department of Psychiatry of the University of Pittsburgh School of Medicine is pleased to announce the third annual Dr. Thomas Detre Senior Medical Student Award for advanced students planning a career within psychiatry. Awardees will have the opportunity to create a unique one-month clinical sub-internship or research experience with a faculty member of our department. Our clinical and research faculty are world renowned for contributions in pharmacotherapy, psychotherapy, child and adolescent psychiatry, geriatric psychiatry, mood disorders, schizophrenia, anxiety disorders, eating disorders, and substance use disorders. This award includes a \$1000 cash stipend to cover expenses. For additional information please phone, email, or send written correspondence to:

Dr. Jason Rosenstock, Director of Medical Student Education:
Phone: 412-246-5122
Email: rosenstockjb@upmc.edu
Mail: Western Psychiatric Institute and Clinic
Office of Medical Student Education, Room E-505
3811 O'Hara St.
Pittsburgh, PA 15213

UNIVERSITY OF TEXAS MD ANDERSON CANCER CENTER MEDICAL STUDENT SUMMER RESEARCH PROGRAM IN BIOMEDICAL SCIENCES

This program provides participants with firsthand biomedical research experience in the basic or clinical sciences. Student projects are submitted by faculty mentors at the Cancer Center and will reflect ongoing research efforts in the Institution's clinics and laboratories. Students will actively participate in both the technical aspects of their project as well as the interpretation of the experimental data. Trainees will be given the opportunities to not only acquire research skills, but also through participation in Institutional seminars and lectures, will receive information that will be valuable in assessing their career goals related to patient care and research in oncology. Program runs for 10 weeks and a stipend is provided.

For more information see:

http://www.mdanderson.org/Prof_Education/healthscience/display.cfm?id=9A4FB546-AC8B-42B0-A52AA7FD63523376&method=displayFull

U.S. PHARMACOPEIA SUMMER INTERNSHIP PROGRAM

The U.S. Pharmacopeia supports summer internships to health professions students to work at the sponsor's location in a defined project that will assist the sponsor in one of the following areas: global assistance initiatives, research and development lab, reference standards operations, practitioner and product experience, and information and standards development. The objective is to enhance the intern's ability to relate this new understanding to health care practice. Support is a 12 week stipend.

For more information see: <http://www.usp.org/aboutUSP/careers/internship.html>

VANDERBILT DIABETES CENTER SUMMER STUDENT RESEARCH

Vanderbilt University School of Medicine invites applications from second or third year medical students for the Student Summer Research Training Program in Diabetes, Endocrinology, and Metabolic Diseases. The 12 week program is designed to provide students with the opportunity to conduct diabetes-related research in order to gain an improved understanding of research and career opportunities in biomedical research, to provide an atmosphere that encourages and facilitates interaction with a diverse group of established investigators and clinicians, and to provide participating students with a comprehensive and current understanding of diabetes mellitus, and its clinical manifestations, and unsolved problems. Each student will receive a stipend from which expenses for travel, food, and housing may be paid.

For more information see:

<http://www.vanderbiltstrtp.org/>

WASHINGTON UNIVERSITY IN ST. LOUIS SCHOOL OF MEDICINE SUMMER RESEARCH PROGRAM AT MALLINCKRODT INSTITUTE OF RADIOLOGY

The Summer Research Program at the Mallinckrodt Institute of Radiology is designed to

provide students with a 10 week experience in a specific radiological research project and laboratory. The experience should begin between mid May and mid June. The award provides a stipend.

For more information see:

<http://www.mir.wustl.edu/education/internal.asp?NavID=95>

Information obtained from the University of Alabama, School of Medicine:

<http://main.uab.edu/uasom/2/show.asp?durki=19968>

External Long Term Research & Fellowship Opportunities for 3rd & 4th Year Medical Students

Updated November 5, 2008

AMERICAN DIABETES ASSOCIATION CLINICAL SCHOLARS AWARD

The American Diabetes Association provides one year of research support for medical students interested in clinical and basic science diabetes research. Awards are a one year stipend plus funds for lab supplies. Funding begins in July.

For more information see:

<http://www.diabetes.org/diabetes-research/research-grant-application-forms/training-awards.jsp#medical>

AMERICAN SKIN ASSOCIATION MEDICAL STUDENT GRANTS TARGETING MELANOMA /SKIN CANCER

The American Skin Association (ASA) has established a grant program for medical students working actively in the areas of melanoma/skin cancer. The ASA will award five grants of \$7000 in 2009. A second year of funding may be requested upon receipt and review of a progress report and submission of a reapplication. A letter written by the Department of Dermatology Chair on behalf of the applicant is required. A chair may endorse only one.

For more information see:

<http://www.americanskin.org/frameset.htm>

CENTERS FOR DISEASE CONTROL (CDC) EXPERIENCE: APPLIED EPIDEMIOLOGY FELLOWSHIP

The Applied Epidemiology Fellowship at the CDC provides medical students with applied hands on training experience in epidemiology and public health. Eight competitively selected third and fourth year medical students from around the country spend up to one year at the Centers for Disease Control and Prevention in Atlanta, GA. While at the CDC, with the guidance of experienced CDC epidemiologists, students carry out epidemiological research in areas such as a birth defects, injury, chronic disease, infectious disease, environmental health, reproductive health, and minority health. CDC experience fellows are well prepared to pursue careers in clinical medicine, clinical epidemiology, health services research, preventive medicine, and public health. Fellows will have the potential to become future physician leaders and to substantially contribute to the quality of the health care system.

For more information see:
<http://www.cdcfoundation.org/thecdcexperience>

CENTRE FOR INFECTIOUS DISEASE RESEARCH IN ZAMBIA (CIDRZ)

The UAB-affiliated Centre for Infectious Disease Research in Zambia (CIDRZ) is accepting applications for its internship program, termed "HIV Corps." Now in its 5th year, the HIV Corps program sponsors volunteers in HIV prevention, treatment, and research activities in Lusaka, Zambia. Expatriate volunteers - usually pre- medical / medical students or recent MPH graduates - are paired with Zambian counterparts of similar training and experience and work under a UAB-CIDRZ faculty mentor. This is a one-year commitment and it is expecting to accept 6-10 expatriate volunteers (and a similar number of Zambian volunteers) for the 2008-9 year.

For more information see:
www.cidrz.org

DORIS DUKE CHARITABLE FOUNDATION CLINICAL RESEARCH FELLOWSHIP FOR MEDICAL STUDENTS

The Doris Duke Charitable Foundation Clinical Research Fellowship program was established in 2000. It is designed to encourage medical students to pursue careers in clinical research by giving exceptional students the opportunity to take one year to experience clinical research first hand at one of 12 participating medical schools. Each participating institution solicits applications from students at any US medical schools and offers fellowships to at least 5 students per year. Each fellow is matched to an outstanding clinical research mentor and the year long fellowship offers both didactic and research components. Fellows receive an annual stipend, health insurance, financial support to attend the year end clinical research fellows meeting, and supplementary research funds.

For more information see:
<http://www.ddcf.org/page.asp?pageId=292>

For University of Pittsburgh information see:
<http://www.icre.pitt.edu/ddcrf/index.html>
Or contact Dr. Wishwa Kapoor and Dr. Amber Barnato at 412-692-4875

For Yale University information see:
<http://www.med.yale.edu/facres/funding/ddcf.shtml>
Or contact the Office of Student Research at 203-785-6633

FOGARTY INTERNATIONAL CENTER/ ELLISON MEDICAL FOUNDATION

OVERSEAS FELLOWSHIPS IN GLOBAL HEALTH AND CLINICAL RESEARCH

The Fogarty International Center at NIH, in partnership with the Ellison Medical Foundation, offers one-year fellowships for students with advanced standing (MS3) who are interested in pursuing careers in public health and clinical research. The program features mentored clinical research training at NIH-funded research centers in developing countries, including Bangladesh, Botswana, Brazil, China, Haiti, India, Kenya, Peru, Russia, South Africa, Tanzania, Thailand, Uganda, and Zambia. Fellows receive an annual stipend with an additional allowance for travel, insurance, and educational materials. The program begins in July of each year.

For more information see:

<http://www.aamc.org/students/medstudents/overseasfellowship/start.htm#research>

THE HOWARD HUGHES MEDICAL INSTITUTE RESEARCH TRAINING FELLOWSHIPS FOR MEDICAL STUDENTS

This program allows medical and dental students from U.S. Schools to spend one year conducting basic, translational, or applied biomedical research at any school or nonprofit research institution in the US with the exception of the NIH in Bethesda, Maryland. Fellows receive an annual stipend, an annual fellow's allowance, and an annual research allowance.

For more information see:

<http://www.hhmi.org/grants/individuals/medfellows.html>

NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCE (NIEHS) FELLOWSHIPS IN ENVIRONMENTAL MEDICINE FOR MEDICAL STUDENTS

The NIEHS Fellowships in Environmental Medicine for Medical Students is a one-year program designed to provide medical students with a laboratory, epidemiological, or clinical research experience related to environmental health issues under the direction of a principal investigator at the NIEHS. Most projects will take place at NIEHS central campus at Research Triangle Park, NC. Some NIEHS investigators are located at the NIH campus in Bethesda, MD. Fellows are provided with an annual stipend.

For more information see:

<http://www.niehs.nih.gov/careers/research/med-students/>

NATIONAL INSTITUTES OF HEALTH CLINICAL RESEARCH TRAINING PROGRAM (CRTP)

Since its inception in 1997, the Clinical Research Training Program (CRTP) has grown in size from 15 to 30 fellows annually. Fellows work with senior clinicians at the National

Institutes of Health in Bethesda, Maryland in areas that combine basic research and clinical protocols. The program provides a deep understanding of the principles and practice of clinical research. The CRTP is for students who have completed their third year of medical school. Program provides an annual stipend.

For more information see:

<http://www.cc.nih.gov/training/crtp/crtp.html>

NATIONAL INSTITUTES OF HEALTH CLINICAL ELECTIVES PROGRAM

The National Institutes of Health offers multiple clinical electives for third and fourth year medical and dental students at the Warrant Grant Magnuson Clinical Center, a 250-bed hospital located on the NIH campus in Bethesda, MD. Patients are admitted to the Clinical Center who has the precise kind or stage of illness currently under investigation by NIH clinicians. These can represent the rarest and most interesting cases of a particular disease in the world. The most recent treatment strategies are evaluated at the NIH and new procedures are performed at the NIH as well.

Rotations offer students in-depth exposure in the following sub-specialties: alcoholism, critical care medicine, endocrinology and metabolism, hematology, infectious diseases, internal medicine, medical genetics, medical informatics, neurosurgery, otolaryngology-head and neck surgery, pathology, pediatric endocrinology, pediatric psychopharmacology, psychiatry/ psychopharmacology, psychosomatic medicine, radiation oncology, surgical oncology, and urologic oncology.

The program fosters a close association between students, clinical fellows, and senior clinical investigators who are at the cutting edge of their respective fields. Participants in the electives program have an opportunity to gain firsthand experience in the design, conduct and management of clinical trials. Students are also introduced to translational medicine. In addition to being assigned to specific patients, students are involved in grand rounds and clinical conferences and journal clubs.

For more information see:

http://www.cc.nih.gov/training/students/clinical_electives.html

NATIONAL INSTITUTES OF HEALTH (NIH) YEAR-OFF TRAINING PROGRAM

The Year-Off Training Program is designed to supplement the educational preparation and development of future scientists by supporting a period of research at NIH. Students who are currently enrolled and attending medical school are eligible. Stipends for participants will be determined by the amount of education completed by the candidate at the time of award activation. Applicants may apply directly to a specific NIH institute or to the NIH Office of Education. The following materials are required of all applicants: a complete CV, proof of US Citizenship or permanent residency, 3 letters of recommendation emphasizing research potential, a cover letter stating research goals and

type and purpose of training, and official copies of undergraduate and medical school transcripts. Candidates who have applied to medical school and wish to delay matriculation to participate in the program as well as students currently enrolled in medical school who seek interim research experience must obtain permission from the institution. The Program is highly competitive with approximately 10% of the applicants accepted.

For more information see:

<http://www.training.nih.gov/student/Pre-IRTA/previewinterim.asp>

NATIONAL LIBRARY OF MEDICINE -THE LISTER HILL NATIONAL CENTER FOR MEDICAL COMMUNICATIONS MEDICAL INFORMATICS TRAINING PROGRAM

The Lister Hill National Center for Biomedical Communications Medical Informatics Training Program provides medical and graduate students an opportunity to participate in on-going medical informatics research under the direction of Lister Hill Center mentors. Participants work directly with leading medical informatics professionals, have access to, and gain an in depth perspective of Lister Hill Center Programs. Training is intended to complement work students are doing at their home institutions. Recipients may receive a stipend, which varies depending upon research area and experience. Applicants should be enrolled in a medical or graduate degree program from an accredited academic institution in an appropriate discipline or expect to be enrolled by the time of the appointment.

For more information see:

<http://lhncbc.nlm.nih.gov/lhc/servlet/Turbine/template/training%2CGradMedTrain.vm>

PHARMACEUTICAL RESEARCH AND MANUFACTURERS OF AMERICA FOUNDATION (PHRMA)-PAUL CALABRESIS MEDICAL STUDENT RESEARCH FELLOWSHIP

The PHRMA fellowship is offered to medical students who are interested in research and teaching careers in pharmacology and who are willing to participate in a full-time research effort within a pharmacology or clinical pharmacology unit. Fellowships are available for a minimum period of 6 months up to a maximum period of 24 months. The fellowship provides a monthly stipend and awards may be activated beginning January 1st or on the first day of any month thereafter. The student may participate in the fellowship at UAB or another institution. Note: applicants are nominated by the institution.

For more information see:

<http://www.phrmafoundation.org/awards/clinical/medstudent.php>

RESEARCH TO PREVENT BLINDNESS EYE RESEARCH FELLOWSHIPS

This fellowship program is designed to allow medical students to take a year off from their studies (prior to the MS3 or MS4 year) to pursue research within a Research to Prevent Blindness Grantee Department. A portion of the award should be utilized to help finance the recipient's research activities. Both the applicant and the training program are evaluated in the review process.

For more information see:

<http://www.rpbusa.org/rpb/research/grants/>

HARVARD UNIVERSITY ZUCKERMAN FELLOWSHIPS

The changes faced in public schools and public health systems, as well as in government at all levels, are too complicated to be solved without the insight and commitment of leaders with the highest-quality professional training. But for many who have a strong aptitude for public service, the costs associated with acquiring the necessary training are too high. The Zuckerman Fellowship Program equips people from the fields of medicine, laws, and business to provide leadership for the common good by making it possible for them to pursue public service degrees at Harvard's Graduate School of Education, School of Public Health, or Kennedy School of Government. The Zuckerman Fellowship annually provides up to 25 recipients will full tuition and health insurance plus an annual stipend. Fellows are selected based on the following: leadership abilities, intellectual and academic achievement, and commitment to public service. Candidates must have completed or are working toward a professional graduate degree in business, medicine, or law and be interested in pursuing an additional degree in education, government, or public health at Harvard.

For more information see:

<http://www.zuckermanfellows.harvard.edu>

STANLEY J. SARNOFF FELLOWSHIP IN CARDIOVASCULAR RESEARCH

The Stanley J. Sarnoff Fellowship in Cardiovascular Research offers medical students who have completed their MS2 or MS3 years the opportunity to spend 12 months in an area related to cardiovascular disease at an institution other than their own. Up to 18 fellowships are awarded annually. The award provides an annual stipend plus additional research funds. All fellows are expected to make a presentation of their research at the Sarnoff Annual Scientific Meeting.

For more information see:

<http://www.sarnoffendowment.org/program/index.cfm>

Information obtained from the University of Alabama, School of Medicine:

<http://main.uab.edu/uasom/2/show.asp?durki=19968>