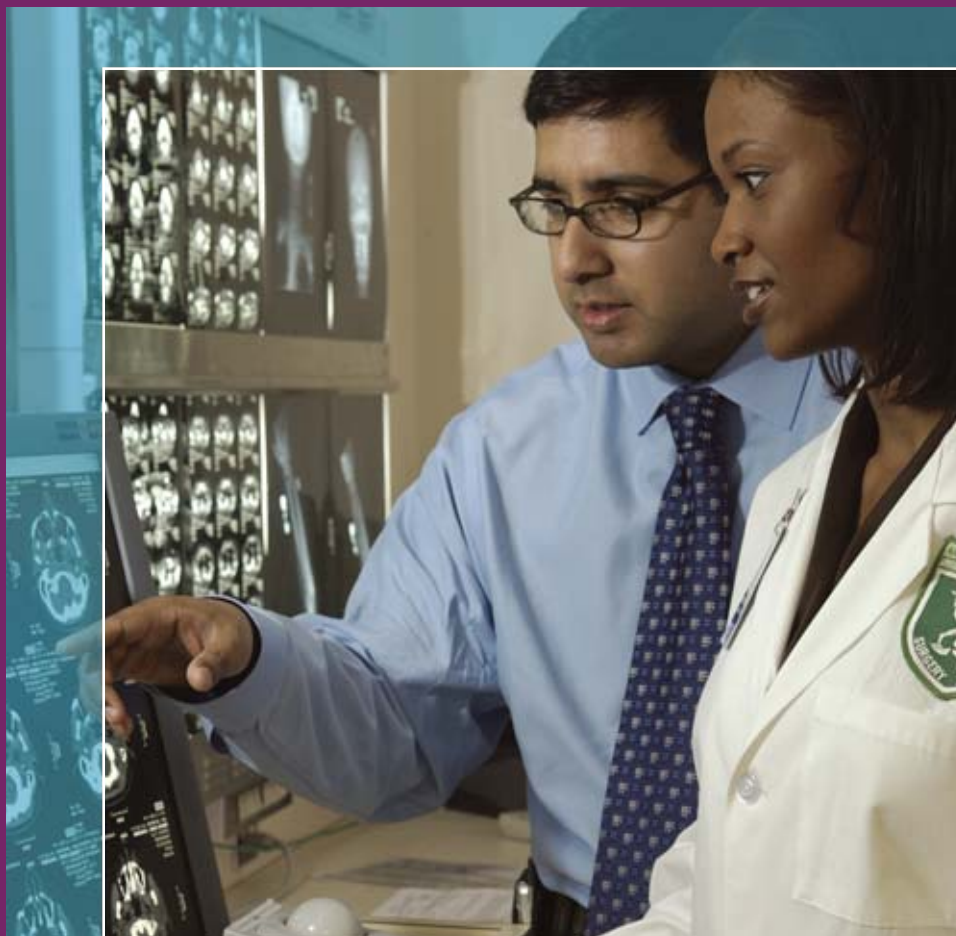
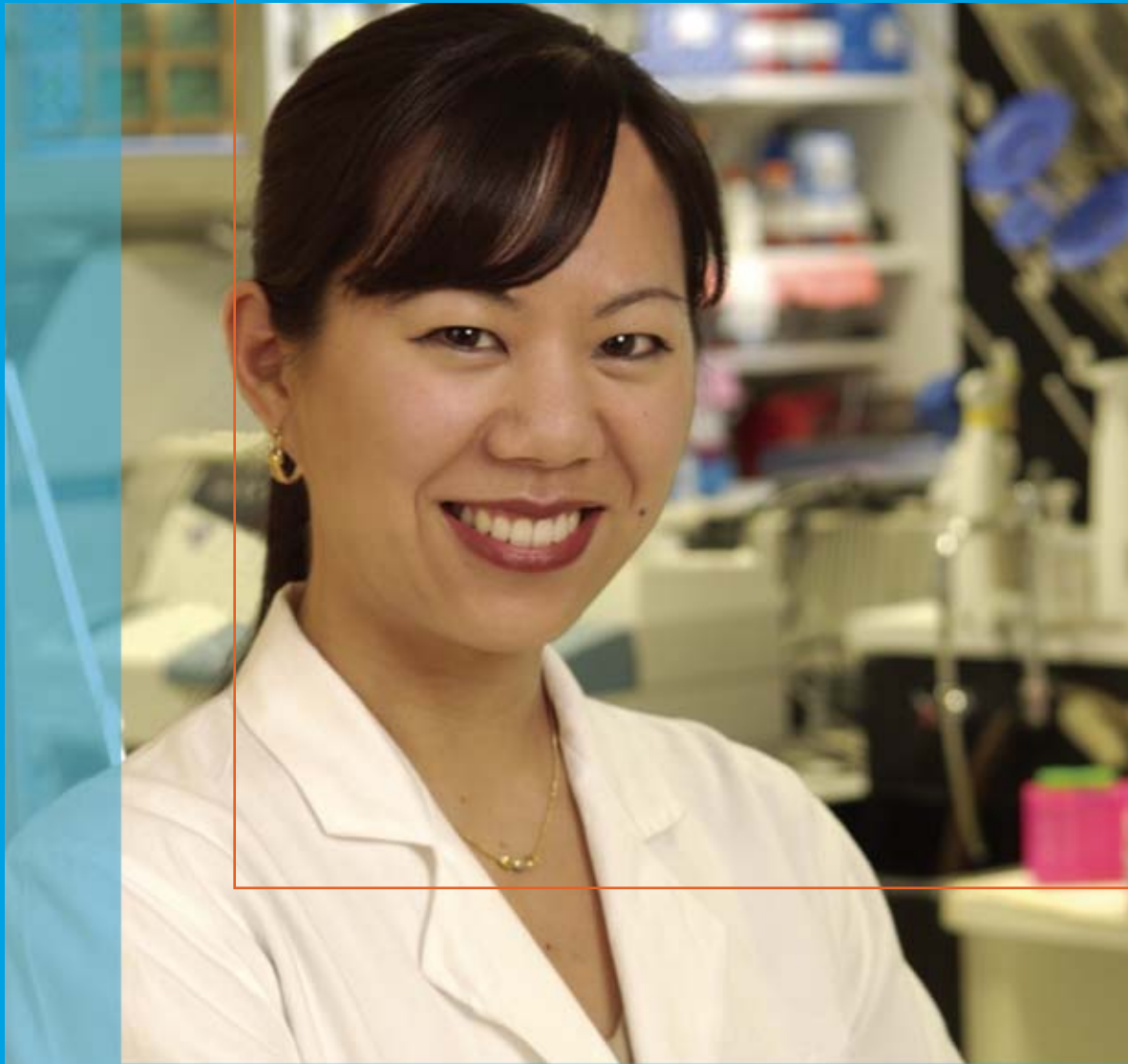


NATIONAL INSTITUTES OF HEALTH

Clinical Research Training Program for Medical and Dental Students



A PUBLIC-PRIVATE PARTNERSHIP SUPPORTED
JOINTLY BY THE NIH AND A GRANT TO THE
FOUNDATION FOR NIH FROM PFIZER INC



“I cannot imagine a better place to pose a question at a patient’s bedside and then to search for the answer in the laboratory.”

ANGELA CHANG

David Geffen School of Medicine, University of California, Los Angeles

“AS WE REENGINEER THE CLINICAL RESEARCH ENTERPRISE AT THE NIH, I LOOK TO THE MEDICAL STUDENTS IN A PROGRAM LIKE THE CRTF TO BECOME THE LEADERS WHO WILL RESHAPE AND ENERGIZE OUR NATIONAL VISION FOR CLINICAL RESEARCH IN THE FUTURE.”

ELIAS A. ZERHOUNI, M.D.

Director, National Institutes of Health (2002–2008)

On the cover: CESAR CASTRO, *University of California, San Francisco, School of Medicine* and PORCIA BRADFORD, *Duke University School of Medicine*

An environment where you can ask challenging medical questions . . . and get the answers.

The Clinical Research Training Program (CRTP) is a 12-month program designed to attract the most creative, research-oriented medical and dental students to the intramural campus of the National Institutes of Health (NIH) in Bethesda, Maryland. Participants, known as fellows, spend a year engaged in a mentored clinical or translational research project in an area that matches their personal interests and goals.

An individualized program is developed for fellows, who attend clinics, see patients on the wards, and work with a principal investigator in our laboratories on selected clinical research projects. Fellows learn about translational research, that first step from the bench to the bedside and back to the bench; they attend lectures on clinical research, and they participate in an interactive, group learning experience with the members of the class and leading NIH physicians and scientists.

Fellows can remain at NIH for a second year, depending on support of the sponsoring NIH institute, availability of funds, and permission from the student's home institution.

THE NIH CAMPUS

The intramural campus of the National Institutes of Health is situated on 317 acres in Bethesda, Maryland, on the outskirts of Washington, DC. More than 50 buildings are dedicated to the biomedical research enterprise, including the NIH Clinical Center, a 234-bed hospital. It is the largest hospital in the world devoted exclusively to the care of patients on active clinical research protocols and home to inpatient units, day hospitals, and research laboratories. The Clinical Center offers an unparalleled environment for advancing clinical science and providing compassionate and healing patient-care. There are about 1,400 active research protocols currently under way.

THE ACADEMIC PROGRAM

The emphasis of the academic components of CRTP, in addition to the mentored clinical research experience in clinics and laboratories, is on interactive, small-group learning. Fellows collaborate closely with one another and with leading clinical investigators on the intramural NIH campus.

SELECTION OF A MENTOR

Prior to a fellow's arrival on campus, the Director of the CRTP helps refine research interests and narrow the range of topics that an individual may pursue over the course of this 12-month program. The director assigns each fellow a tutor, who is a senior physician-scientist on campus. The tutor works with the fellow, upon his or her arrival, to identify suitable mentors and laboratories within the fellow's chosen area of interest. Fellows then meet with possible mentors, make a selection in consultation with the tutor and program director, and plan an individualized research program combining clinical protocols and relevant laboratory studies. Students and mentors work closely together and meet regularly to chart progress, plot investigational strategies, and discuss careers in biomedical research.



"EVEN MORE THAN THE CHANCE TO WORK IN ANY LAB AT THE NIH, OR THE YEAR SPENT IN A GREAT CITY, THE HIGHEST POINT OF MY YEAR HAS BEEN THE OTHER CRTP FELLOWS.

WITHOUT A DOUBT I HAVE LEARNED MORE FROM MY FRIENDS IN THIS PROGRAM ABOUT SCIENCE AND MEDICINE THAN I EVER ANTICIPATED. I KNOW THAT I WILL BE IN CLOSE CONTACT WITH THESE PEOPLE THROUGHOUT MY CAREER, AS I WILL CERTAINLY CONTINUE TO BENEFIT FROM THEIR EXPERTISE AND ADVICE, AND HOPEFULLY, I CAN DO THE SAME FOR THEM."

SARAH MATTESON
Medical College of Georgia

Learning—and living— clinical research.

CLINICAL RESEARCH SEMINAR

Twice a month, CRTP fellows meet with the director of the program, mentors, and tutors for small-group sessions. The textbook-based discussion covers didactic topics related to principles of clinical research. Fellows lead this seminar, focusing on manuscripts from the contemporary medical literature, which emphasize these principles. These evening gatherings, over an informal meal, are the heart of the CRTP program: they create an opportunity for lively discussion and pursuit of a single topic in great depth. Fellows find that these sessions create a good balance with the more formal, didactic components of the program. CRTP fellows may also join the students in the Howard Hughes Medical Institute (HHMI)–NIH Research Scholars Program for their regular lecture series. Talks given by HHMI and NIH investigators are followed by dinner and informal discussions on the speaker's educational background, career path, and particular research interests.

INTRODUCTION TO THE PRINCIPLES AND PRACTICE OF CLINICAL RESEARCH (IPPCR) COURSE

Each IPPCR lecture is offered for one hour, two evenings a week, over a four-month period. Established in 1995, the course introduces a multitude of ethical, legal, scientific, regulatory, and biostatistical issues in clinical research. CRTP fellows attend the lectures, which complement the discussion at the clinical research seminar.

Objectives of IPPCR are: ■ To familiarize fellows with the basic epidemiologic methods involved in clinical research ■ To discuss the principles involved in the ethics of clinical research, the legal issues involved in clinical research, and the regulations involved in human subjects research, including the role of Internal Review Boards (IRBs) in clinical research ■ To familiarize fellows with the principles and issues involved in monitoring patient-oriented research, including regulatory requirements and quality assurance ■ To discuss the infrastructure required in performing clinical research and have an understanding of the steps involved in developing and funding research studies

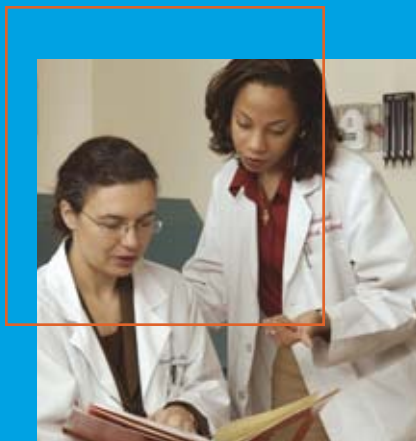
YEAR-END PRESENTATIONS

In May of each year, CRTP fellows give formal oral presentations on their clinical research in a special three-day event for tutors, mentors, and medical and scientific members of the NIH community. In addition, CRTP fellows present their clinical research in poster format during the annual NIH Spring Research Festival.

ADDITIONAL TRAINING

CRTP fellows can partake of the NIH's lively intellectual community, as well: The Wednesday Afternoon Lecture Series draws top scientists and Nobel Prize winners to campus from around the world. Clinical Center Grand Rounds address a broad range of clinical research topics by intramural scientists each week. Fellows may also attend meetings and activities of NIH inter-institute interest groups, assemblies of scientists with common research interests. These groups are divided into broad, process-oriented parent groups and smaller, more focused groups centered on particular research models, subjects, or techniques.

Formal courses are offered on campus by the Foundation for Advanced Education in the Sciences, and a number of CRTP fellows attend these classes, most of which are offered in the evenings. Examples include courses in statistics, biotechnology, and immunology. The NIH Clinical Center has additional training opportunities, as well: Principles of Clinical Pharmacology covers what researchers need to know about the clinical pharmacologic aspects of drug development and use. The Ethical and Regulatory Aspects of Clinical Research course is an overview of ethical and regulatory issues in clinical research, designed to provide attendees with the skills to analyze ethical issues confronted in clinical research, and to enable researchers to design protocols that conform to prevailing ethical standards.



"IN CRTP JOURNAL CLUBS I DEVELOPED MY ABILITY TO EVALUATE CLINICAL RESEARCH LITERATURE CRITICALLY. I'VE LEARNED HOW TO DESIGN MY OWN STUDIES, TO ENSURE THEY ARE RIGOROUS AND MEANINGFUL."

NATALIE DAILEY (right)
Harvard Medical School
and
DR. RAPHAELA
GOLDBACH-MANSKY

"ONE OF MY PROUDEST ACHIEVEMENTS AT NIH HAS BEEN HELPING CRTP GET ITS START AND WATCHING IT GROW. THIS PROGRAM HAS FULFILLED THE GOAL OF A GROUP OF CLINICIAN-SCIENTISTS WHO SAW THE NECESSITY OF CREATING THIS OPPORTUNITY FOR MEDICAL STUDENTS TO BECOME INVOLVED IN CLINICAL RESEARCH EARLY IN THEIR CAREERS."

MICHAEL M. GOTTESMAN, M.D.
*Deputy Director for Intramural
Research, NIH*



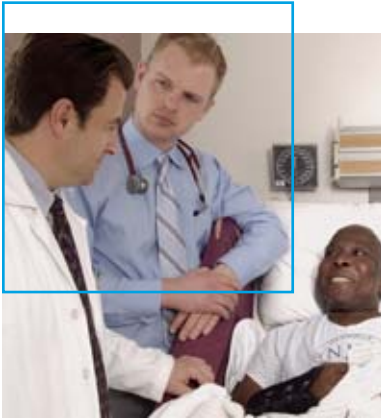
“Although I knew I would have an amazing experience at the NIH, my time here has truly exceeded anything I could have imagined. Intellectually, this has been the most stimulating year of my life. I would strongly recommend that every medical student consider this great opportunity.”

HARI NADIMINTI
University of Miami School of Medicine



“I was able to see basic science research translated on the wards each week during rounds. It was simply amazing. . . .”

PORCIA BRADFORD
Duke University School of Medicine



“THE LABORATORIES AT NIH ARE COLLE-GIAL AND SUPPORTIVE ENVIRONMENTS: OUR MENTORS AT NIH ARE LEADERS IN THEIR FIELDS AND YET DOWN-TO-EARTH.”

CHRISTIAN HUNTER, PH.D. (right)
Loma Linda University School of Medicine
and **DR. MARK GLADWIN**

“I CAN THINK OF NO BETTER INVEST-
MENT THAN TRAINING MEDICAL
STUDENTS IN THE PRINCIPLES AND
PRACTICE OF CLINICAL RESEARCH. WE
HAVE DEDICATED CLINICIAN-SCIENTISTS
AS MENTORS TO OUR CRTP FELLOWS,
INDIVIDUALS WHO ARE MAKING
GROUNDBREAKING DISCOVERIES AND
MOVING SCIENTIFIC KNOWLEDGE FROM
THE BENCH TO THE BEDSIDE.”

JOHN I. GALLIN, M.D.
Director, NIH Clinical Center



THE WASHINGTON MONUMENT
Washington, DC

Mentors to lead you where you want to go.

ELIGIBILITY

1. This program is intended for medical and dental students. Candidates must currently be enrolled in a medical school accredited by the Liaison Committee on Medical Education (LCME), a dental school that is accredited by the Commission on Dental Accreditation, or an osteopathic school that is accredited by the American Association of Colleges of Osteopathic Medicine (AACOM).
2. Candidates in M.D./Ph.D. programs are eligible to apply.
3. Candidates must have completed a year of clinical rotations prior to starting the program.
4. Candidates must be U.S. citizens or permanent residents.

APPLICATION PROCESS

Applications for CRTP are submitted on-line through the Office of Clinical Research Training and Medical Education’s website, which is www.cc.nih.gov/training/crtp/crtp.html. Applications are submitted in early fall for a January 15th deadline. Requirements are:

- A personal statement, including a description of research interests and goals (although prior research experience is not a requirement of CRTP, enthusiasm for and commitment to the objectives of clinical research are highly desirable)
- A curriculum vitae
- Three letters of recommendation, including one from the Office of the Dean authorizing a student’s participation in CRTP
- Medical or dental school grades

The web site also features the research projects of former CRTP participants, alumni listings, and Frequently Asked Questions.

SELECTION PROCESS

Following a review of all applications, the Board of Tutors for CRTP selects a number of students to be interviewed. Interviews are usually held in March. Decisions are normally communicated to successful candidates within two to three weeks of the interviews. The program begins in July or August, depending on the students’ rotation schedules at their home schools. CRTP class size was expanded in 2004 to accommodate up to 30 student-fellows per year.

ACCOMMODATIONS

CRTP is a residential program, and all participants are expected to live in our assigned residential housing. Fellows live adjacent to campus in furnished apartments in Bethesda. Two-bedroom, two-bath apartments are leased for fellows, with a few one-bedroom apartments for couples. Buildings are within walking distance of the center of campus.

THE DC AREA

“Work is hard. Distractions are plentiful. And time is short.” – ADAM HOCHSCHILD

“He who cannot rest, cannot work. . . .” – HARRY EMERSON FOSDICK

The national capitol area offers much in the way of entertainment and relaxation. You can spend free time visiting the museums of the Smithsonian Institute, attending performances at the Kennedy Center, exploring battlefields of the American Civil War, cycling or hiking along the C&O Canal’s towpath, sailing the Chesapeake Bay, or sitting in on Senate hearings. Bethesda itself is home to some 300 restaurants. The location of the NIH on the Metro subway line means that you can be downtown in 20 to 30 minutes.

CLINICAL RESEARCH TRAINING PROGRAM Letter from the Director

Dear Medical and Dental Students:

Since its inception in 1997, the Clinical Research Training Program (CRTP) has continued to grow and evolve, and we have introduced many exciting modifications. In 2004 CRTP doubled in size — growing from 15 to 30 fellows, thanks to the support of our NIH Director, Dr. Elias Zerhouni and the NIH Roadmap initiative. The Roadmap is an innovative approach to accelerate fundamental biomedical discovery and translate that knowledge into effective prevention strategies and new treatments. The initiatives funded under the NIH Roadmap address critical roadblocks and knowledge gaps that constrain rapid progress in biomedical research and synergize the work of many NIH Institutes and Centers, representing a unique effort of the NIH as a whole. Thus, 30 promising medical and dental students are able to benefit from the opportunity to learn about clinical research here in Bethesda, Maryland.

As program director since 2000, I have developed a format for our clinical research seminar, which uses a core text in clinical research, along with supplemental information from the contemporary medical literature. Specifically, CRTP fellows lead a discussion of an assigned chapter utilizing slides, handouts, and other teaching aids. Clinical research principles are emphasized. The CRTP fellows also select one or two current journal articles, and they are used in an interactive session to illustrate the research principles in a practical manner.

Another unique component of CRTP is clinical teaching rounds, which capitalizes on the rich patient population at the NIH Clinical Center. These rounds are typically held every other week. During this teaching exercise, a patient's medical history is presented; the group examines the patient, with emphasis placed on pertinent physical findings, and the principal investigator of the clinical research protocol in which the patient is enrolled talks to the group about the patient's underlying disease as well as the details of the protocol. Using this format, the CRTP fellows get to interact with patients who can also provide their own perspectives on clinical research, based on their involvement in a clinical trial.

These program features have been introduced with the support and encouragement of the fellows themselves. Your year at the NIH, regardless of which research projects you pursue, will provide you with a deep understanding of the principles and practice of — and people involved in — clinical research. This is an experience not replicated elsewhere. The CRTP fellows, tutors, staff, and I look forward to meeting you during the interviews for this program and to working with you during your year at the NIH. I have observed the camaraderie that develops among our fellows, the enduring friendships that have grown out of their participation in CRTP and invite you to consider becoming a part of this very special clinical research experience. I promise that it will be a life changing and career-enhancing experience.

Sincerely,

Frederick P. Ognibene, M.D.
Director, CRTP



Your year at the NIH, regardless of which research projects you pursue, will provide you with a deep understanding of the principles and practice of—and people involved in—clinical research.

CLINICAL RESEARCH TRAINING PROGRAM **Academic Program**

- "Getting Started: The Anatomy and Physiology of Clinical Research"*
- "Conceiving the Research Question"*
- "Choosing the Study Subjects: Specification, Sampling, and Recruitment"*
- "Planning the Measurements: Precision and Accuracy"*
- "Getting Ready to Estimate Sample Size: Hypotheses and Underlying Principles"*
- "Estimating Sample Size and Power: Applications and Examples"*
- "Designing a Cohort Study"*
- "Designing Cross-sectional and Case-control Studies"*
- "Enhancing Causal Inference in Observational Studies"*
- "Designing a Randomized Blinded Trial"*
- "Alternative Trial Designs and Implementation Issues"*
- "Designing Studies of Medical Tests"*
- "Utilizing Existing Databases"*
- "Addressing Ethical Issues"*
- "Designing Questionnaires and Interviews"*
- "Data Management"*
- "Implementing the Study and Quality Control"*
- "Community and International Studies"*
- "Writing and Funding a Research Proposal"*

SCIENTIFIC PRESENTATIONS

Annual oral presentations at NIH end-of-year forum

Poster presentations at Pfizer Inc

Poster presentations as part of the NIH Spring Research Festival

CRTP FELLOWS' RESEARCH TOPICS, 2007 – 2008

Effects of Omega-3-Polyunsaturated Fatty Acids in Experimental Choroidal Neovascularization

Vorinostat, a Histone Deacetylase Inhibitor, as an Enhancer of Radiosensitivity

Designing Clinical Trails to Evaluate Targeted Agents in Combination with Radiation Therapy

Targeting CK2 in Head and Neck Carcinoma

Reactive Oxygen Species are Involved in the Inflammation and Altered Signaling of TNF Receptor-associated Periodic Syndrome

Vascular Influences on the Keratinocyte Stem Cell Niche

Phytohemagglutinin-dependent Activation of Telomeric Recombination in Human Lymphocytes

Transglutaminase-1 Gene Mutations in Autosomal Recessive Congenital Ichthyosis: Clinical and Genetic Investigations in a Cohort of 108 Patients

CCR10 Expression Patterns in T-cells Using a Novel CCL27-Ig Fusion Protein

Monocyte Biology in Insulin Sensitive, Resistant, and Diabetic Subjects

Improving Accuracy of Myocardial Perfusion Imaging with Steady State Free Precession Magnetic Resonance Imaging

Prognostic Significance of the Extent of Surgery in Patients with Recurrent High Grade Glioma: A Prospective Study

Focal Therapy and Imaging of Prostate Carcinoma

Single Nucleotide Polymorphism Association Studies in Rheumatologic Diseases Identify Novel Susceptibility Loci

Blood Flow Measurements in Sickle Cell Patients with Lipoprotein Dysregulation

Immune Reconstitution in Gut-associated Lymphoid Tissue in HIV Positive Long Term Non-progressors

Impact of Ischemia and Tissue Procurement Conditions on Gene and Protein Expression in Renal Cell Carcinoma

Trichothiodystrophy: A Multi-system Genetic Disease with Striking Phenotypic Diversity

Persistence of Blood Brain Barrier Disruption in Patients with Ischemic Stroke

Randomized Dose Comparison of Pamidronate in Children with Types III and IV Osteogenesis Imperfecta: 3 vs. 6 Month Cycles

Human Macrophage Lipoprotein/Cholesterol Processing and Atherosclerosis

Non-invasive Quantification of Pulmonary Hypertension Secondary to Sickle Cell Disease From CT Image Analysis

The Evaluation of Sclerotic-type Chronic Graft Versus Host Disease of the Skin

SIRT3 as a Target for *in vitro* and *in vivo* Carcinogenesis

Increased Intra-subject Variability in Response Time in Children at Risk for Bipolar Disorder

Molecular Characterization of the Human Alloimmune Response

The Neural Correlates of Religious Concepts

Transcranial Magnetic Stimulation Induced Disruption of Cerebellar Error Processing Necessary in Motor Adaptation: A Reach Paradigm

A Bone to Pick: Laser Capture Microdissection of Bone and Applications in Human Disease

Is the Pancreas Uniquely Suited to Promote Putative Progenitor Cell Differentiation into Mature Islets?

CLINICAL RESEARCH TRAINING PROGRAM **Fellows and Alumni**

2008 – 2009

Adewole S. Adamson

Harvard Medical School

Raphael E. Alford

Case Western Reserve University School of Medicine

Pamela M. Aubert

Case Western Reserve University School of Medicine

Cesar O. Avila

Duke University School of Medicine

Lauren B. Browne

Duke University School of Medicine

Jennifer N. Brudno

Emory University School of Medicine

Lisa N. Brunengraber

Case Western Reserve University School of Medicine

Emily E. Bunce

Tufts University School of Medicine

Emily S. Ford

New York University School of Medicine

Lisa J. Green

University of Maryland School of Medicine

Ari Hoffman

University of California, San Francisco School of Medicine

Nadine Housri

University of Miami School of Medicine

Michael S. Hu

New York Medical College

Nidhi Jain

University of Pennsylvania School of Medicine

Deborah R. Kaye

Medical College of Wisconsin

David Ly

Cleveland Clinic Lerner College of Medicine of Case Western Reserve University

Elizabeth Mannino

Duke University School of Medicine

Gautam U. Mehta

Georgetown University School of Medicine

Pradeep S. Mettu

University of Kentucky College of Medicine

Carter Monique O. Owen

Medical College of Georgia

Puneet Panda

State University of New York at Buffalo School of Medicine

Scott M. Paviol

Pennsylvania State University School of Medicine

Camille E. Puronen

Georgetown University School of Medicine

Thomas H. Sanford

University of Hawaii School of Medicine

Mansi Sarihan

University of Arizona School of Medicine

Brandon M. Stone

University of Pittsburgh School of Medicine

Carrie A. Vaudreuil

Duke University School of Medicine

Edward A. Vazquez

Mount Sinai School of Medicine

Amanda J. Walker

Tufts University School of Medicine

Michelle J. White

Duke University School of Medicine

2007 – 2008

Monica D. Agarwal

4th year, Boston University School of Medicine

Andrew M. Baschnagel

4th year, University at Buffalo State University of New York School of Medicine & Biomedical Sciences

Aaron P. Brown

4th year, University of Utah School of Medicine

Matthew S. Brown

4th year, Texas A&M Health Science Center College of Medicine

Ariel C. Bulua**

Mount Sinai School of Medicine of New York University

Monica B. Constantinescu

4th year, David Geffen School of Medicine at UCLA

James N. Cooper

4th year, University of California San Diego School of Medicine

Sharifeh Farasat

4th year, Johns Hopkins University School of Medicine

Bryan L. Gammon, M.D.

Preliminary Year, Internal Medicine, Tulane (New Orleans, LA); McGaw Medical Center of Northwestern University (Dermatology); M.D., University of Texas Southwestern Medical Center at Dallas Southwestern Medical School

Jeffrey P. Gordon

4th year, University of Pennsylvania School of Medicine

Daniel W. Groves

4th year, Duke University School of Medicine

Tiffany R. Hodges

4th year, Duke University School of Medicine

Kiranpreet Khurana

4th year, UMDNJ-Robert Wood Johnson Medical School

Benjamin D. Korman

4th year, Ohio State University College of Medicine

Megan L. Krajewski

4th year, University of Michigan Medical School

Philip I. Lee

4th year, University of Washington School of Medicine

Nick W. Liu

4th year, Georgetown University School of Medicine

Priya Mahindra

4th year, State University of New York Downstate Medical Center College of Medicine

Jason A. McKellop

4th year, University of Michigan Medical School

Abimbola A. Obafemi

4th year, UMDNJ-New Jersey Medical School

Daniel S. Ong

4th year, Duke University School of Medicine

Babak J. Orandi, M.D.

Johns Hopkins University Hospital (General Surgery);
M.D., University of Michigan Medical School

Asha R. Patel

4th year, University of Miami Leonard M. Miller School of Medicine

Krish Patel

4th year, Duke University School of Medicine

Melissa H. Rooney

4th year, University of Pennsylvania School of Medicine

Melody M. Smith

4th year, University of Texas Southwestern Medical Center at Dallas Southwestern Medical School

Michael Su

4th year, New York University School of Medicine

Erick Tarula

4th year, Charles R. Drew University of Medicine and Science/David Geffen School of Medicine at UCLA

Todd A. Theman

4th year, Harvard Medical School

Gregory A. Walker

4th year, University of Arizona College of Medicine

2006 – 2007**Yachna Ahuja, M.D.**

Preliminary Year, Internal Medicine, Mayo Clinic;
Mayo Clinic (Ophthalmology);
M.D., Case Western Reserve University School of Medicine

Candice J. Bereal, M.D.

UCLA David Geffen School of Medicine/UCLA Medical Center (Anesthesiology);
M.D., David Geffen School of Medicine at UCLA

Elizabeth S. (Burney) Malinzak

4th year, Duke University School of Medicine

Jeong W. Choi, M.D.

University Hospital-SUNY Health Science Center at Brooklyn (Internal Medicine);
M.D., State University of New York Downstate Medical Center College of Medicine

Jason A. Clark, M.D.

Transitional Year, Albert Einstein Medical Center (Philadelphia, PA); Emory University School of Medicine/Emory Hospital (Dermatology);
M.D., Duke University School of Medicine

Dana D. Crum, M.D.

University of Pennsylvania (Internal Medicine);
M.D., UMDNJ-Robert Wood Johnson Medical School

Andrew P. Demidowich, M.D.

Mount Sinai School of Medicine/Mount Sinai Medical Center (Internal Medicine);
M.D., UMDNJ-Robert Wood Johnson Medical School

Amit S. Dhamoon, M.D., Ph.D.

Massachusetts General Hospital (Internal Medicine);
M.D., State University of New York (SUNY) Upstate Medical University College of Medicine

Brandi K. Freeman, M.D.

Johns Hopkins University Hospital (Pediatrics);
M.D., Baylor College of Medicine

Robert M. Hayward, M.D.

Massachusetts General Hospital (Internal Medicine);
M.D., Duke University School of Medicine

James E. Head, M.D.

Preliminary Year, Internal Medicine, Moses Cone Memorial Hospital (Greensboro, NC); Mallinckrodt Institute of Radiology at Washington University/Barnes-Jewish Hospital (St. Louis, MO) (Radiology);
M.D., Duke University School of Medicine

Jeffrey J. Helgager

Pursuing Ph.D. in Neurobiology at Duke University;
Duke University School of Medicine

Joshua J. Joseph*

4th year, Boston University School of Medicine

Joohee Lee, M.D.

Mayo Clinic (Internal Medicine);
M.D., UMDNJ-New Jersey Medical School

Anna O. Likhacheva

Preliminary Year, Internal Medicine/Radiation Oncology, University of Texas MD Anderson Cancer Center; University of Texas MD Anderson Cancer Center (Radiation Oncology);
M.D., University of Arizona College of Medicine

Jack J. Liu, M.D.

University of Washington (Otolaryngology);
M.D., David Geffen School of Medicine at UCLA

Kit Lu, M.D.

Johns Hopkins University/Bayview Medical Center (Internal Medicine);
M.D., Florida State University College of Medicine

Janay E. Mckie, M.D.

Mount Sinai School of Medicine/Mount Sinai Medical Center (Orthopaedic Surgery);
M.D., Duke University School of Medicine

Mark V. Mishra, M.D.

Transitional Year, McGaw Medical Center of Northwestern University; Thomas Jefferson University Hospital (Philadelphia, PA) (Radiation Oncology);
M.D., University of Cincinnati College of Medicine

Preteesh R. Patel, M.D.

Preliminary Year, Internal Medicine, University of Florida; Duke University Hospital (Radiation Oncology);
M.D., Duke University School of Medicine

Tara Rao, M.D.

Preliminary Year, Internal Medicine, Beth Israel Medical Center (New York); University of Texas Southwestern (Dallas) (Dermatology);
M.D., New York University School of Medicine

Geoffrey M. Rau, M.D.

UCLA David Geffen School of Medicine/UCLA Medical Center (Psychiatry);
M.D., Duke University School of Medicine

Eunice H. Rhee, M.D.

New York Presbyterian Hospital-Cornell Campus (Pediatrics);
M.D., UMDNJ-Robert Wood Johnson Medical School

Kunal Saigal, M.D.

Preliminary Year, Internal Medicine, Washington Hospital Center (Washington, DC); University of Miami Leonard M. Miller School of Medicine/Jackson Memorial Hospital (Radiation Oncology); M.D., University of Miami Leonard M. Miller School of Medicine

Thai Lan N. Tran, M.D.

University of California (Irvine) Medical Center (General Surgery); M.D., University of Vermont School of Medicine

Keli M. Turner, M.D.

University of Maryland (General Surgery); M.D., Vanderbilt University School of Medicine

Amit V. Vora, M.D.

Transitional year, William Beaumont Hospital (Royal Oak, MI); William Beaumont Hospital (Royal Oak, MI) (Ophthalmology); M.D., UMDNJ-Robert Wood Johnson Medical School

Jennifer A. Warner, M.D.

Transitional Year, Georgetown (Fairfax Inova Hospital, Fairfax, VA); University of Texas Southwestern (Dallas) (Dermatology); M.D., Johns Hopkins University School of Medicine

Kristin A. Weeks, M.D.

University of California (San Francisco) School of Medicine/San Francisco General Hospital Medical Center (Pediatrics); M.D., University of Kentucky College of Medicine

Omar Yousof, M.D.

Johns Hopkins University Hospital (Internal Medicine); M.D., University of Missouri-Kansas City School of Medicine

2005 – 2006**Ezinma Achebe, M.D., M.P.H.**

Union Memorial Hospital (Baltimore) (Internal Medicine); M.D., UMDNJ-Robert Wood Johnson Medical School

Mehrdad Alemozaffar, M.D.

Brigham and Women's Hospital/Harvard Medical School (Urology); M.D., David Geffen School of Medicine at UCLA

Clint T. Allen, M.D.

Washington University/Barnes Jewish Hospital/St. Louis Children's Hospital Consortium (Otolaryngology); M.D., Texas A&M University System Health Science Center College of Medicine

Elizabeth M. Azzato, M.P.H. **

Duke University School of Medicine

Adam M. Berg, M.D.

Yale/New Haven Medical Center (Internal Medicine); M.D., George Washington University School of Medicine and Health Sciences

Lan Chang, M.D.

Duke University Hospital (Ophthalmology); M.D., University of Michigan Medical School

Joshua G. Cohen, M.D.

University of California, San Francisco, School of Medicine (Obstetrics and Gynecology); M.D., Northwestern University, Feinberg School of Medicine

Seth A. Cohen, M.D.

University of California, San Diego Medical Center (Urology); M.D., Northwestern University, Feinberg School of Medicine

Obinna C. Emechebe-Kennedy, M.D., Pharm.D.

University of Illinois College of Medicine at Chicago (Neurological Surgery); M.D., University of Illinois-Chicago School of Medicine

Abby F. Fleisch, M.D.

Children's Hospital/Boston Medical Center (Pediatrics); M.D., Northwestern University, Feinberg School of Medicine

Charles F. Haines, M.D.

Johns Hopkins University Hospital (Internal Medicine); M.D., Duke University School of Medicine

Elizabeth S. Hart, M.D.

Case Western Reserve University/University Hospitals of Cleveland (Pediatrics); M.D., University of Pennsylvania School of Medicine

Lynn Huang, M.D., M.P.H.

New York Medical College at St. Vincent's Hospital and Medical Center (Ophthalmology); M.D., David Geffen School of Medicine at UCLA

Frank S. Hwang, M.D.

University of Wisconsin Hospital and Clinics (Ophthalmology); M.D., Mount Sinai School of Medicine

John Josephson, M.D.

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**Participated in CRTP for a second year*

***Participating in the NIH-Cambridge University Graduate Partnerships Program (GPP) after CRTP year*

CLINICAL RESEARCH TRAINING PROGRAM **Benefits**

Stipend (12 months, taxable)	\$33, 000
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Book allowance	\$250
Paid health insurance	
Conference travel (domestic)	\$1,400
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Lectures and dinners with Howard Hughes Medical Institute – NIH Research Scholars	
Annual visit to research laboratories of Pfizer Inc (subject to confirmation)	

2008–2009



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