Dean's Newsletter June 15, 2009 Commencement and Awards Issue

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On June 13th the School of Medicine held its Commencement Celebration, recognizing the accomplishments and successes of the 213 recipients of the Masters of Science (30 degrees conferred), Doctor of Philosophy (103 degrees conferred) and Doctor of Medicine (80 degrees conferred). Each of the recipients has worked long and hard for this day and we congratulate each one for their individual or joint degree(s). We also wish each one incredible success in the future and hope that their lives and careers bring them further personal and professional satisfaction.

We commemorated our Commencement Celebration by remarks from two students: Amy Radermacher, who received a PhD in the Immunology Program and Adeoti Oshinowo, who received a Doctor of Medicine degree. Their commencement remarks follow. I offer my thanks and congratulations to Dr. Radermacher, who will be leaving Stanford to join the McKinsey & Company in Minneapolis, Minnesota and to Dr. Oshinowo who soon begins her residency in Obstetrics & Gynecology at the University of Michigan. I have listed all of our stellar graduates below and congratulate each of them and their families and friends.

This year we had the privilege of benefiting from the Commencement Presentation by Dr. Helene Gayle, president and CEO of CARE USA, a leading humanitarian organization fighting global poverty. Dr. Gayle has been internationally recognized for her expertise on health, global development and humanitarian issues. After twenty years at the Centers for Disease Control (CDC), where she focused on combating HIV/AIDS, Dr. Gayle joined the Bill and Melinda Gates Foundation to lead global programs on HIV, TB and Reproductive Health. At CARE she leads one of the world's premier international humanitarian organizations. Her accomplishments have won her many awards and accolades including being named as one of Newsweek's top 10 "Women in Leadership" in 2008 and one of the Wall Street Journal's "50 Women to Watch" in 2006.

We also had the opportunity to offer our appreciation and gratitude to faculty and students who received awards for teaching, advising and patient care. Their awards and names are listed below.

Graduate Student Speaker: Amy Radermacher, PhD candidate in Immunology

Colin Powel once said, "There are no secrets to success. It is the result of preparation, hard work, and learning from failure." As we have all discovered, graduate school is a long and arduous process with a good bit of failure mixed in. This simple fact begs the question of why we were willing to endure five, six, seven, or even more years (and why we've continually put up with the question of "have you graduated yet?"). I suspect that for many of us, our reasons for staying in graduate school are not the same as those we started with. For some, a Ph.D. is a necessary step towards professorship. For others, running a research group in industry also demands a Ph.D. Others used the Ph.D. to figure out where to go from here and gravitated towards becoming science writers, policy makers, consultants, and patent lawyers. For still others, the knowledge gained during the Masters will be invaluable in future endeavors.

In spite of what of it seemed like in lab at midnight when samples ran off the gel or cells refused to cooperate or one of the other countless things that could have gone wrong and inevitably did at one point or another, a Ph.D. is not without its upsides. There's the moment when you walk into your family reunion and are introduced as a doctor for the first time. Unfortunately, this means that you too will have to look at Uncle Jim's neck rash at Christmas. Remember, you worked 6 years for this! Masters graduates, congratulations on your escape!

The lessons we learned over the years made graduate school worth all the hard work. They'll stick with us long after we've graduated. Now, some of these lessons may be more important than others. For example, knowing how comfortable the couch is in the lounge or, in the case of Beckman, the bathroom, may not be very useful in your next job. But learning that a bottle of two-buck chuck really isn't all that bad could come in handy (especially on a postdoc's salary).

In all seriousness, one lesson we must remember is that with a primarily publically funded degree, whether through the National Institutes of Health or the National Science Foundation, comes a responsibility to society. Giving back by using your extensive scientific training to educate the public, even a little, will not only benefit them, but you as well. Maybe you'll choose to give a public talk about your research. Or lead experiments at your local high school. Or write newspaper articles and editorials targeted at the public. Whatever you decide to do, increased public understanding of science will only positively impact scientific research. Even in the face of the failure of experiments, the lack of results, and the glacial pace at which things always seemed to move, the tremendous importance of friends became very clear. Without them, we wouldn't have weathered the stress that was, by another name, graduate school. Everyone got a laugh from putting an eppendorf tube filled with dry ice under the new postdoc's chair and watching him jump when it popped. And figuring out how to make ice cream using liquid nitrogen produced some fun times. Throughout everything, we know our friends were what kept us sane.

These memories and relationships will support us throughout our lives, especially as we conquer our next Ph.D.-like challenge. Because there will definitely be a next challenge. If we've learned nothing else, it's that after graduate school, we can survive pretty much anything.

And yet, perhaps, the greatest reward we received in pursuit of such an ambiguous and extremely frustrating goal was a deeper understanding of ourselves. Pay attention. Think about what you have learned. For, if absorbed, these lessons will guide us through life, towards what will satisfy us, what will make us happy, and what we should strive toward, allowing us to create our own definitions of success instead of following another's path. Perhaps you discovered what area of science excites you most. Or what motivates you. Or where you want to go from here.

Take the time to realize what a huge accomplishment you've achieved today and think about what you'll bring with you as you move on to the next stage of your life. What will you take away?

Medical Student Speaker: Adeoti Oshinowo

Welcome friends, family, and colleagues! Before I start I just want to give a quick shout out to my mom and dad who did not know I'd be speaking today. Surprise!

Over the past weeks I have tried to wrap my head around what I would talk about in the 5 minutes given to me, and it finally came to me while I was packing for the big move and sifting through the seemingly endless piles of stuff I have accumulated in my 5 years here at Stanford, I came across a pair of white, bejeweled, 4 inch, platform flip flops! As I often do, I narrated thru my Bluetooth this new find of an old treasure to my brother. AND as long as I live, I will never forget his words of wisdom 'Turn the page, Ade! Turn the page.'

After a brief moment of silence for my once fabulous platforms, I put them in the Goodwill pile and thought about turning yet another page in life and how much has changed since the last page.

The word "Change" has almost become cliché, but So much has changed since we got here 4, 5, 6, 7, 8, 9, 10 years ago:

First of all, WE have changed.

From taking a history in one hour to taking one in 10 minutes.

From being afraid to touch a standardized patient, to fluidly examining a patient from head to toe.

Our list of possible diagnoses has increased from one to many.

From freaking out in Dr. G's office about what scholarly concentration to pick, to freaking out in Dr. G's office about what residency program to pick.

From not knowing what we wanted to do with our lives, to defining a clear path for ourselves

And with the advent of shows like ER, Scrubs, Nip/Tuck, House, Grey's Anatomy, and Private Practice, becoming a doctor, though always admirable, has now become chic and "cool."

We get asked the inevitable questions like: Ok, girl, answer me this: have you met any McDreamy's, McSteamy's, or McHotty's?

To which I answer: No...but I've met some McNerdy's, McGeeky's and McNotty's. ALL of which are cute in their own right.

Sorry, where was I, right change:

I've got three words for you: Barack Hussein Obama--won't say too much (because you know I can)....but real quick: It is only recently that I woke up and thought, "Wow! My first lady is a tall...beautiful...woman...dare I say... like me?

With changes in government doors have been open for innovations in research, healthcare policy, and international relations that were not open before.

BUT, as we turn the page...the more things change the more *some* things should stay the same; and seeing as tomorrow is Fathers Day, thought I'd quickly share four lessons from the Mama and Papa Oshinowo book of life that have gotten me through medical school thus far and that will definitely get me through residency and the rest of my life.

Lesson #1: You are a reflection of where you came from. In other words: You are representing more than just yourself. Once when I was in Nigeria, a man whom I had never met came to me and said, "The lives of many hang on your shoulders." As we go off to residency, we ARE the offspring of Stanford and should represent Stanford excellence in everything we do. Just like we represent our communities and our families.

Lesson #2: Know where your help (your source) comes from and seek it out. Our lives, believe it or not, are going to become infinitely more hectic, and without support we may get lost in the controlled chaos of residency. Prayer has been and always will be the source that has gotten me through. So if it be in your family, your friends or your faith, seek it and hold on tight.

Lesson #3: What you give, you get ten times over. Therefore, always take time to help those behind you. I think this lesson speaks to the spirit of mentorship. No matter how old or how young, everyone needs a mentor, but mentorship starts with us, starts with you. Even if you feel like you only have one or two words of wisdom, take a moment to drop that wisdom on the pre-med, med student, junior resident, or junior colleague. A little goes a long way.

Finally, Lesson #4: In the words of my Pops, "100% work and 100% play is the one and only way." At least when it pertains to work.

Medical school has given us good times: Luaus at Char's house; Moonlightings (That's med school prom for those of you who don't know); SUMMA conferences; Wilderness bonding, SWEAT trips, ski trips, road trips, spontaneous trips to Vegas, Carnival cruises, Halloween parties, Xmas parties, St. Patty's day parties, Economic Hardship parties, AND talent shows...SMS 05's, I hate to admit it, but your production was the funniest to date

All of this in the midst of studying for HHD exams and for boards!

Our ability to take time for ourselves and have fun in the face of daunting tasks, speaks to the spirit of the Stanford Medical Student community, and I, as well as my Pops, believe we should carry this spirit throughout our careers.

That is the end of the lesson, but, Class of 2009, today marks the beginning of a new era, today we turn the page with anticipation of what changes lie ahead, turn the page with confidence that we have been well prepared, and turn the page knowing that we will contribute to the greater good of the world. I am privileged to call you colleagues, and, more importantly, friends; and I can't wait to see what life has in store for us because I know the book of the Stanford University School of Medicine Class of 2009 will be a real page turner.

Thank you.

Commencement Speaker: Helene Gayle, MD, MPH, President & CEO, CARE USA

Dean Pizzo, distinguished faculty of Stanford Med, family, friends, guests, thank you for inviting me to share this day with the graduating class of 2009.

When Dean Pizzo invited me to be here, I asked what I should speak about. At first, he said I could talk about anything I liked. But I wanted to make sure my remarks were relevant, so I pushed for more clarity. "Really, any hints on what I should talk about would be helpful." At that point he said, "OK, if you really want to know, I'd like you to speak about 10-15 minutes."

So I'll be brief for that reason and two others.

The first is that I understand that I am the last speaker standing between you and getting your degree.

The second reason is that the best advice you are going to receive today will not come from me, the person standing in front of you, but it will come as it always has from the people sitting behind you whose wisdom, guidance and sacrifice have helped make this day a reality.

So, before we go any further, let's hear it for your parents, your families, your loved ones . . .

Seeing you all in your caps and gowns makes me reflect on how much has changed since I was in medical school. At that time, smallpox had recently been eradicated, the first test-tube baby was born and information technology was a handheld calculator.

However, one thing hasn't changed: A degree in medicine and medical sciences is one of the most powerful tools I know to enable you to have a positive impact on individuals, societies and our entire world.

I urge you to realize this power.

You are graduating today into a world of paradoxes.

There are more millionaires and billionaires than ever before, and yet half the world's people have to survive on less than \$2 a day; over a billion people live on less than one dollar a day. One out of every six people in our world has no access to safe drinking water.

Even in our country, the gap between affluence and poverty is growing. During this economic crisis, while so many are struggling, we have heard appalling examples of greed and excessive compensation.

Meanwhile, more than 45 million Americans, including 9 million children, have no health insurance.

In a World Health Organization report a few years back, America was ranked 37th in the world in overall health system effectiveness. Clearly, we have unfinished business in our own health agenda.

Then, consider for a moment the health gap between the developed and the developing world.

The average life expectancy in industrialized nations is 77 years, compared with 49 years in the developing world. Why? Well largely because, children in poor countries die at astonishing rates and from diseases we have essentially eliminated in this country

Today a child born in Africa is 20 times more likely to die before his or her first birthday than a child in America.

More than half of these deaths are due to preventable diseases – malaria, measles and diarrhea. And, while we fight obesity and diseases of over nutrition, the other half of those preventable childhood deaths are due to lack of food and malnutrition.

Then there are diseases like HIV and tuberculosis that account for 5 million deaths each year, mainly in adults, most of whom were in the prime years of their lives. And, finally, chronic diseases in poor nations are on the rise, adding to the already daunting challenge of infectious disease.

Yet, at the same time that we seem <u>more distant and divided than ever before</u>, we are also <u>closer</u> and <u>more connected</u> than ever. Swine flu and other diseases remind us that microbes don't stop at borders. And technology allows us to bridge vast distances in a blink of an eye.

So, the art and science of building healthy societies has always been essential, but it seems especially crucial now.

We've seen advances in genetics and biotechnology that were incomprehensible 50 years ago, and almost unimaginable even a decade ago. At home and around the world, we've made it possible to live longer, better lives. However, the application of progress has fallen far behind the pace of change.

Our science may be superb and our medicines more effective than ever, but still, our ability to get care and treatment to the people who need it most in this country and around the world is deeply unimpressive.

If we believe that all life has equal value, then a preventable death anywhere in the world is a tragedy and should cause us some measure of pain.

Consider this: when the Air France flight from Brazil crashed last week, we heard immediately about the heartbreaking loss of the 228 people aboard -- and we mourned for them, their families and friends. Yet on that very same day, 8,000 children died from diseases that inexpensive vaccines could have prevented, 14,000 people were newly infected with HIV and 1,500 women died from childbirth.

Pennies a day could make the difference between life and death for millions of people. If we put our best minds and resources towards solving the problems that impact the greatest number of people in our world, we could dramatically change those statistics in our lifetime.

This strikes me as much more than a health problem. It raises profoundly important moral questions. What do we all stand for? What do we value for all human life? How should we use our careers as health professionals?

All of our finest philosophers have told us in simple language that we have an obligation to take care of each other. In the words of Martin Luther King: "We are caught in an inescapable network of mutuality, tied in a single garment of destiny. Whatever affects one directly, affects another indirectly." Or as the English poet and clergyman John Donne wrote, "Anyone's death diminishes me, because I am involved in mankind."

So what can we do about it?

Each of you will surely find a different way to find your highest calling and to impact the lives of people who are, after all, depending on you to make a difference.

As you sit here, thinking forward of the careers you are about to undertake, I feel the opposite impulse – to reflect backwards, on what I was thinking when I was in your shoes, about to start my new career.

When I was growing up, I never thought much about being a doctor. In high school, I considered myself to be, first and foremost, a social activist. Nixon. Racism. Sexism. Apartheid. Bras. You name it, I protested it.

It wasn't until half way through college that I began to see how a career in health could be an amazing path for contributing to social change... and that social change was better achieved by being for something, rather than against everything.

My growing interest in public health was solidified in medical school when I heard a commencement speech at my brother's graduation ceremony by Dr. D.A. Henderson, one of the leaders of the worldwide campaign to eradicate smallpox.

I was simply awed by the audacity of the effort he described.

Using the tools of public health, he and people like him around the world took on smallpox -- a disease that is estimated to have taken over 500 million lives since the time of the Pharaohs – and wiped it from the face of the earth.

I realized right then that I would use my career to impact social change and social justice by working to improve the health of people around the world.

After graduating, I trained in pediatrics and public health, and went to work at the Centers for Disease Control.

It didn't take long before I chose to work on HIV/AIDS or as I often say, HIV chose me, not only because it was a scientifically fascinating issue but equally because of the societal imperative that it poses.

Making a difference in the fight against HIV, a disease that disproportionately affects the poor, the socially marginalized and stigmatized, means affirming that all life matters and has equal value—whether it is the life of a injecting drug user in urban America, a young gay man in London or a teenage sex worker in northern Thailand.

That same commitment to use my skills to contribute to social justice eventually led me to work at the Bill and Melinda Gates Foundation and then to CARE.

It is deeply gratifying to be part of an organization that is tackling poor health in the context of fighting poverty and its root causes. With no access to clean and safe drinking water, when a child gets sick from dirty water, whether or not she gets medicine doesn't matter. The next time she fills her glass, she'll just get sick again.

This is how the cycle of poverty drags people down: one illness, one injury, one drink of water at a time.

For want of the most basic things, families lose their footing. The official cause of death might be diarrhea or malaria or cholera; but the real killer is poverty.

It is a great privilege to work for organizations that believe we can make a difference in the lives of people everywhere. And to support communities who are coming together to improve their health and quality of life – in places like Peru where rural women are trained as skilled birth attendants, in Angola where families help build and maintain clean water systems or in Bangladesh where improved management of dairy production is increasing incomes and nutrition.

But believe me, I am leaving plenty for you new graduates to do.

I talked earlier about the gaps in society... the advances in medicine and the incredible pace of change.

It will fall to you to combine your education... your commitment... and those advances to bridge the gaps and write a more hopeful chapter in the story of our national health... and global health.

This is a time of incredible challenge, but great challenges also bring great opportunities. When you return for your reunion 10, 20, 50 years from now, what do you want to be said about what you did with your career? How do you want your generation to be remembered?

Only you can answer those questions for yourselves... all I can offer is my hope, my prayers, my pride... and one final story:

I think one of the most remarkable people that I have ever had the privilege of meeting is Nelson Mandela.

In his inaugural address as the first democratically elected president of South Africa, he challenged all of us to acknowledge the potential we all have within but are often afraid to realize. He said, "Our deepest fear is not that we are inadequate. Our deepest fear is that we are powerful beyond measure."

As Nelson Mandela was waiting for his moment, during those long years of incarceration, he never lost his faith that he could help change the world. That same spirit was found in the townships of Soweto in South Africa, among the poor women who struggled against so many forms of adversity, but sang a song over and over with this verse: "We're the ones we've been waiting for," reminding themselves that they too had an important role to play in the future of their society.

Those two thoughts contain everything I want to say to you today.

The challenges the world presents to you are great, but so are the tools and talents you possess. You are powerful beyond measure.

This is the moment you've been waiting for. And as the world waits for people of talent and vision to bridge the yawning chasm between what appears inconceivable and what we hope to make inevitable, realize this: You are the ones you've been waiting for.

Congratulations and thank you, Stanford med class of 2009!

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University Commencement Award Winners from the School of Medicine

The Walter J. Gores Faculty Achievement Award "in recognition of excellence in teaching in its broadest sense" Sudeb Chandra Dalai, Stanford Medical Student - 5

The Lloyd W. Dinelspiel Award for Outstanding Service to Undergraduate Education at Stanford University

Judith T. Ned, Executive Director, Stanford Medical Youth Science Program

Faculty and Student Awards for Teaching, Mentoring and Patient Care

I am pleased to acknowledge and thank our faculty and students who have been chosen by their peers and our students because of their dedication to teaching, mentoring and advising, and excellence in patient care. Congratulations to all.

The Lawrence H. Mathers Award for Exceptional Commitment to Teaching and Active Involvement in Medical Student Education:

Andy Connolly, Associate Professor of Pathology

The Henry J. Kaiser Family Foundation Award for Excellence in Preclinical Teaching:

Pree Basaviah, Clinical Associate Professor, General Internal Medicine **Marty Bronk,** Adjunct Clinical Associate Professor, General Surgery **Neil Gesundheit,** Associate Professor (Teaching) of Medicine

The Henry J. Kaiser Family Foundation Award for Excellence in Clinical Teaching:

James Baxter, Clinical Associated Professor (Affiliated) Peter Pompei, Associate Professor of Medicine, General Internal Medicine Lars Osterberg, Clinical Associate Professor

The Arthur L. Bloomfield Award in Recognition of Excellence in the Teaching of Clinical Medicine:

Douglas Fredrick, Clinical Professor in Opthalmology **Abraham Verghese,** Professor of Medicine, Senior Associate Chair **Drew Nevins,** Clinical Assistant Professor, Infectious Diseases

The Henry J. Kaiser Family Foundation Award for Outstanding and Innovative Contributions to Medical Education:

Kay Daniels, Clinical Associate Professor, Obstetrics and Gynecology Steve Lipman, Clinical Assistant Professor, Anesthesia

The Franklin G. Ebaugh, Jr. Award for Advising Medical Students: Maurice Druzin, Professor-Med Center Line, Obstetrics & Gynecology

- **The Alwin C. Rambar-James B.D. Mark Award for Excellence in Patient Care** *David K. Stevenson, M.D.* Vice Dean and Senior Associate Dean for Academic Affairs, the Harold K. Faber Professor of Pediatrics and Professor, by courtesy, of Obstetrics and Gynecology
- Award for Outstanding Graduate Student Teaching (Faculty): Tim Stearns, Professor of Biology and Genetics

Award for Outstanding Teaching Assistant (Student): Sara Brownell, Department of Biology Dina Finan, Department of Biochemistry

Award for Outstanding Service to Graduate Students (Faculty):

- W. James Nelson, Rudy J. and Daphne Donohue Munzer Professor in the School of Medicine and Professor of Molecular and Cellular Physiology
- Award for Outstanding Service to Graduate Students (Student): Amy Palin, Department of Immunology
- Award for Outstanding Contributions toward Advancing Diversity (Student): Matthew Zack Anderson, PhD candidate in Genetics
- Senior Associate Dean's Special Award for Exceptional Leadership: Jessica Allen, Department of Immunology Amy Radermacher, Department of Immunology

SUPD Award for Outstanding Postdoc Mentoring: Michaela Kiernan, Senior Resident Scientist Kang Shen, Assistant Professor of Biology

The Gradates of 2009

Following are the students who received Master, PhD and MD degrees in 2009. A number of these graduates are dual degree recipients. Again, congratulations to all.

MASTER OF SCIENCE

Mirza Muhammad Sarim Baig Biomedical Informatics

Eran Bendavid, M.D. Health Services Research

Subarna Biswas Biomedical Informatics

Christine Blasey Epidemiology

Nicole Marie Cobb Biochemistry

Hilary Lynne Copp Epidemiology

Sudeb Chandra Dalai Epidemiology Joel Dudley Biomedical Informatics

Zandro Luis Mayuga Gonzalez Biomedical Informatics

Nina Palad Gonzaludo Biomedical Informatics

Cristian Gradinaru Biophysics

Rajesh Gupta Health Services Research

Ying Hao Epidemiology

Genaro Hernandez, **Jr.** Biomedical Informatics

Basit Javaid, M.D. Epidemiology Kenneth Jung Biomedical Informatics

Mia Alyce Levy, M.D. Biomedical Informatics

Jane MacLean Epidemiology

Fernando Jose Martinez Biophysics

Maureen M. O'Brien, M.D. Epidemiology

Christopher Everett Olin Neurosciences

Walter Gwang-Up Park, M.D. Health Services Research

Sonia Partap Epidemiology

DOCTOR OF PHILOSOPHY

Nancy Elizabeth Adleman

Neurosciences Neural Correlates of Depression in Adolescent Females: Identification and Differentiation Using Fmri

Matthew Zack Anderson

Genetics The Role of Pseudouridylation in Cellular Differentiation of Toxoplasma Gondii

Tovi Marit Anderson Genetics *Molecular Basis for Coat Color Variation in Canines* Joanna Miriam Schaenman Epidemiology

Florian Frowin Schmitzberger Biomedical Informatics

Lamiya Abdul Azeez Sheikh Epidemiology

Shila Shyam Soni Epidemiology

Nikki Stoddart Epidemiology

Jason Patrick Turner - Maier Biomedical Informatics

Randall Gene Walker Biomedical Informatics

Wade Charles Anderson

Developmental Biology Mobilization and Localization of Hematopoietic Stem and Progenitor Cells

Janelle Samantha Ayres Microbiology and Immunology Resistance and Tolerance in Drosophila Melanogaster

Leigh Ashley Baxt Microbiology and Immunology Characterization of Rhomboid Proteases in Entamoeba Histolytica

Jacqueline Benjamin Cancer Biology Dissection of Alpha-E-catenin Organization and Function in Cells: Manipulation of Cellular Pools Reveals Non-canonical Roles in Regulating Actin and Membrane Dynamics

Marina Bershteyn

Cancer Biology MIM is a Novel Centrosomal Protein Required for Dermal Primary Cilia Formation During Hair Follicle Regeneration

Michael Thomas Bethune

Biochemistry Detection and Destruction of Gluten Peptides in Celiac Sprue

Melanie C. Bocanegra

Cancer Biology Functional Consequences of Recurrent Copy Number Alterations and Transcriptional Modifications in Breast Cancer

Michael Paul Bokoch

Biophysics NMR Spectroscopy for Structural and Dynamic Studies of the Beta2adrenergic Receptor

Rely Brandman

Chemical and Systems Biology Insights from Molecular Dynamics Simulations of the 70S Bacterial Ribosome

Ian N. Brennan

Biochemistry Chemical Inhibitor Studies of Polo-like Kinase in Cell Division

Alayne L. Brown Genetics Genome-wide Analysis of DNA Methylation Patterns

Paul David Bryson

Microbiology and Immunology The Nonstructural 4B Protein Plays an Important Role in the Hepatitis C Viral Life Cycle

Trever Bradley Burgon

Microbiology and Immunology Growth and Spread of Poliovirus Carrying a 2A Mutation that Enhances Apoptosis and a 2C Mutation that Enhances Secretion

Deborah Lynn Burkhart

Cancer Biology Understanding Transcriptional Networks Enabling Rb-family Compensation

Michael Nathaniel Cantor

Biomedical Informatics Rational Engineering of Genetic Circuits: A Genetic Pulse Generator

Hector Yesier Caro-Gonzalez

Molecular and Cellular Physiology Regulation of Adenomatous Polyposis Coli Protein (APC) by ERK/MAPK Pathway During Growth Factor Induced Cell Extension

Lauren Christine Case

Neurosciences Defining the Contributions of Axon Guidance Molecules to Central Nervous System Regeneration Block

Yingguang Frank Chan

Developmental Biology The Genomic Basis of Parallel Evolution in Three-spined Sticklebacks

Debbie Jimway Chang

Chemical and Systems Biology Defining the Molecular Mechanism and Functions of PCNA Ubiquitination in the DNA Damage Response

Daniel Lee Chao

Neurosciences Understanding Mechanisms of Synaptogenesis in C. Elegans: From Cell Adhesion to Vesicle Transport

William Chuan-Ching Chen

Genetics Construction and Use of C. Elegans Chromosome Substitution Strains to Map a Novel p38 MAPK Component Involved in Innate Immunity

Wendy Ching

Developmental Biology Analysis of Post-translational Regulation of Wnt Signaling

Jinkuk Choi

Cancer Biology Telomerase Function in Epithelial Development and Tumorigenesis

Leremy Colf

Microbiology and Immunology Cross-reactivity in Protein-protein Interactions: Studies of the 2C T Cell Receptor Recognition of Peptide-MHC Complexes and the Hemagglutinin of Measles Virus Binding Cellular Entry Receptors SLAM and CD46

Elizabeth Dunn Covington

Molecular and Cellular Physiology Oligomerization and Dynamic Clustering Underlying Activity of Storeoperated Calcium Channels

Tamara Doukas

Microbiology and Immunology Positive-sense Single-stranded RNA Virus Interactions with the Human Host Peter Jacob Robert Ebert Immunology Peptide Requirements and Immunological Synapse Formation in the Thymic Selection of T Cells

J. Sebastián Espinosa

Neurosciences Genetic Mosaic Analysis of Lineage and Activity In Wiring the Mouse Brain

Eric Andrew Evans

Genetics The Role of the DAF-2 Insulin-like Signaling Pathway in C. Elegans Innate Immunity

Rebecca Fenn

Biophysics Reassessing the Mechanical Properties of DN

Deveroux Ferguson

Neurosciences Remodeling Neuroendocrine Receptors to Enhance Cognitive Function and Decrease Stress-induced Anxiety and Memory Impairments with Herpes Simplex Viral Vectors

Christopher Brian Franco

Immunology Distinguishing Mast Cell and Granulocyte Differentiation at the Single Cell Level

Juan Jose Fung

Molecular and Cellular Physiology Structural Dynamics of G Proteincoupled Receptor Monomers and Oligomers: Insights from the Beta2adrenergic Receptor

John Francis Garcia

Cancer Biology The Role of Extracellular Matrix Proteins in Epithelial Tumorigenesis

Nanibaa' Angela Garrison

Genetics Genetic Architecture of Human Pigmentary Variation

Michael Thomas Gleimer

Immunology Evolution of the HLA-A *02 Peptide Specificity in Hominoids

Kristina M. Godek

Biochemistry Investigating the Assembly of Centromeric Chromatin

Allison Camille Gontang

Neurosciences Identification and Characterization of Regulators of Photoreceptor Targeting in the Drosophila Visual System

Eric Matthew Green

Chemical and Systems Biology The Tumor Suppressor elF3e Regulates Calciumdependent Endocytosis of the Ltype Calcium Channel CaV1-2

Nicholas Raymond Guydosh

Biophysics Putting Two Heads Together: How Processivity Arises in Kinesin

Carolyn Inés Phillips Hall

Microbiology and Immunology Targeted Small Molecule Screen Identifies a Novel Mediator of Toxoplasma Gondii Attachment to Host Cells

Kimberly Anne Harnish

Developmental Biology Analysis of Swim, a NovelWnt Binding Protein that Promotes Long-range Signaling by Maintaining Wingless Solubility

Garret Lance Hayes

Biochemistry Vesicle Tethering, Molecular Motors, and Rab9 Effectors in Mannose 6-Phosphate Receptor Transport

Maureen Hillenmeyer

Biomedical Informatics Identifying Relationships between Genes and Small Molecules, from Yeast to Humans

Siang Shawn Hoon

Genetics High-throughput Approaches and Applications for Chemogenomics

Jason Jonathon Hoyt

Genetics Application and Engineering of Phage Integrases for Gene Therapy

Alexander Katsov

Neurosciences Genetic Dissection of Neural Circuits that Inform Visual Behavior

Nicholas William Kelley

Biophysics Application of Novel Sampling Methods to the Simulation of Protein Misfolding and Oligomerization

Matthew Phil Klassen

Neurosciences Specification and Maintenance of Neuromuscular Connectivity in Caenorhabditis Elegans

Kirstin Suzanne Knox

Genetics An Investigation of Evolution, Endocrine Function, and Disease Pathogenesis of the Murine Placenta

Matthew H. Larson

Biophysics Single-molecule Measurements of Prokaryotic and Eukaryotic Transcription

Star Wangoong Lee

Neurosciences Function and Rescue of Hippocampal Neurogenesis Following Cranial Irradiation

Milica Margeta

Neurosciences From Building a Neuron to Building a Circuit: Polarity and Synaptic Specificity in C. Elegans

Simone Sigrid Marticke

Genetics Ultra-high Throughput Sequencing Analysis of FOXP2 Target Occupancy in the Human Genome

Heather Louease McCullough

Genetics Systematic Analysis of Ribosome Occupancy and Density in the Human Transcriptome

Geoffrey Wilson Meissner

Neurosciences Identifying Fundamental Elements of Drosophila Courtship Behavior

Leslie Allyn Meltzer

Neurosciences Hippocampal Physiology and Neurogenesis in a Model of Depression and its Treatment

Julie JoAnn Miller

Chemical and Systems Biology A Primary Cilia Disease Protein Network Centered at the Centrosome

Kiristen Jane Milks

Biochemistry In Vitro Assembly of Centromeres and Kinetochores: the Role of CENP-C in Maintaining Proper Chromosome Segregation

Madeleine Moule

Microbiology and Immunology Innate Immunity in Host-Pathogen Relationships: Examining Francisella Tularensis in a Drosophila Immunity Model

Ryan Michael Nottingham

Biochemistry Regulation of Rab GTPase Activating Proteins by Non-substrate Rab GTPases

Justin Iver Odegaard

Immunology Macrophage Alternative Activation in Obesity and Metabolic Syndrome

Erika Anne O'Donnell

Immunology Modulation of Cytokine Signaling Responses in Tumor-infiltrating T Cells

Anastazia Older Aguilar

Immunology Comparison of Human and Orangutan KIR/MHC Interaction Systems

Janelle Ann Olson

Immunology Natural Killer Cell Tissue-specific Trafficking and Direct Inhibition off Graft-versus-host Disease-inducing T Cells in Bone MarrowTransplantation

Maulik R. Patel

Neurosciences Molecular Mechanisms of Presynaptic Assembly

Mickey Pentecost

Microbiology and Immunology Molecular Mechanisms of Listeria Invasion of the Intestinal Epithelium

Paula Marcela Petrone

Biophysics Computational Approaches to Conformational Change and Specificity in Biomolecules

Sarah Elizabeth Pierce

Genetics High Throughput Methods for Functional Genomics in S. Cerevisiae

Vivian Yi Nuo Poon

Neurosciences Localization of Presynaptic Components in C. Elegans

Saurabh Prakash

Neurosciences Classical Cadherins and Neuronal Target Selection in the Drosophila Visual System

Robin Owen Price

Neurosciences Maternal Health and Fetal Brain Development: Altered Fetal Neurogenesis Following Maternal Inflammation

Elizabeth Race

Neurosciences Integrating the Past and Present: Experienced dependent Learning and Cortical Plasticity in the Human Brain

Amy Radermacher

Immunology PKC Alpha Plays an Essential Proofreading Role During Negative Selection in T Cell Development by Modulating Bim Transcription Sandeep Ravindran

Microbiology and Immunology Effector Protein Secretion by Toxoplasma Gondii

Diana Rios – Cardona

Biochemistry A Role for G Protein-coupled Receptor X in the Maintenance of Meiotic Arrest in Xenopus Laevis Oocytes

Alan E. Rorie

Neurosciences The Behavioral and Neuronal Integration of Sensory and Value Information

Robert John Schafer

Neurosciences Neural Mechanisms Linking Perception, Action and Cognition in the Primate Brain

Tobi L. Schmidt

Microbiology and Immunology Cytokine-induced Killer Cell Tumor Trafficking: A Chemokine-directed Migration

Jennifer Cynthia Shieh

Neurosciences The Role of Adhesion and Endocytosis in Neuronal Migration

Lucinda Kay Southworth

Biomedical Informatics Methods for Integrating and Comparing Coexpression Information Over Multiple Data Sets and Applications in Mice Aging

John Seth Strattan

Structural Biology Chromatin-mediated Transcriptional Regulations in the Yeast Saccharomyces Cerevisiae

Leo Sugrue

Neurosciences Neural Mechanisms of Value Based Decision Making

Brian Russell Summers

Developmental Biology Molecular Genetics of Dorsal Spine Reduction in Threespine Sticklebacks (Gasterosteus Aculeatus)

Jing Lucy Sun

Structural Biology Structural and Biochemical Characterization of Beta-catenin and Its Transcription Binding Partners in Wnt Signaling

Kaustubh Supekar

Biomedical Informatics Computational Methods for Detecting and Characterizing Large-scale Human Brain Networks

Meng How Tan

Developmental Biology Investigating Novel Essential Genes in Caulobacter Crescentus

Zhao Ying Pearline Teo

Immunology Using the Allergic Immune System to Target Cancer

Evonne Leeper Thompson

Genetics Genomic Analysis of Neuron-Restrictive Silencer Factor Activity in Neuronal and Non-neuronal Human Cell Lines

Amy Bidong Truong Cancer Biology *Control of Epidermal Proliferation and Differentiation by p63*

Christopher Van

Chemical and Systems Biology Characterization of a Direct Role for Primer Synthesis in Checkpoint Activation from a Stalled Fork

Mauricio Enrique Vargas

Neurosciences Control off Axon Regeneration and Wallerian Degeneration by the Humoral Immune System

Andrew Sean Venteicher

Biophysics Identification of Novel Human Telomerase Components Essential for Holoenzyme Assembly and Function

Philip Martins Vitorino

Chemical and Systems Biology Modular Control of Endothelial Sheet Cohesion and Collective Cell Migration

Jordan Wang

Cancer Biology Interplay of Epigenetic Modifiers in the HOX Loci and Development

Stacey Ellen Wirt

Cancer Biology The Requirement of the Rb Gene Family for Cell Cycle Exit and Differentiation During Mouse Embryogenesis

Ilana Basya Witten

Neurosciences Auditory Processing in a Complex Spatial Environment

Lauren Elizabeth Woodard

Cancer Biology Safety and Utility of Phage Integrases for Gene Therapy

Shirley Wu Biomedical Informatics Characterization of Protein Function Using Automated Computational Methods

Yufeng Yang

Neurosciences A Drosophila Melanogaster Model of Pinkl Associated Parkinson's Disease

DOCTOR OF MEDICINE

Achal Kirti Singh Achrol Stanford Hospital and Clinics Palo Alto, CA • Neurological Surgery

Chioma Ada Agbo Brigham & Women's Hospital Boston, MA • Emergency Medicine

James Scott Andrews University of California at San Francisco San Francisco, CA • Internal Medicine

Simon Ronen Bababeygy

Harbor-UCLA Medical Center Los Angeles, CA • Transitional University of Southern California Los Angeles, CA • Ophthalmology

Pavan Bachireddy

Brigham & Women's Hospital Boston, MA • Internal Medicine

Diana Badillo

New York Presbyterian Hospital Columbia University Medical Center New York, NY • Family Medicine

Nancy Jean Benedetti Kaiser Permanente Medical Center Santa Clara, CA • Medicine – Preliminary University of California at San Francisco San Francisco, CA • Diagnostic Radiology

Cheri Ann Blauwet

Brigham & Women's Hospital Boston, MA • Medicine – Preliminary Spaulding Rehabilitation Hospital of Harvard University Boston, MA • Medicine – Physical Medicine & Rehabilitation

Paula Marry Borges Stanford Hospital and Clinics Palo Alto, CA • Otolaryngology

Beau Alan Briese Stanford Hospital and Clinics Palo Alto, CA • Emergency Medicine

Erik Stephen Cabral

Santa Clara Valley Medical Center San Jose, CA • Transitional Stanford Hospital and Clinics Palo Alto, CA • Dermatology

Stephanie Waygwen Chan

Kaiser Permanente Medical Center Santa Clara, CA • Medicine – Preliminary University of California at San Francisco San Francisco, CA • Diagnostic Radiology

Emiley Chang

University of California at Davis Medical Center Sacramento, CA • Internal Medicine

Sravana Kumar Chennupati

Kaiser Permanente Medical Center San Francisco, CA • Medicine – Preliminary Oregon Health & Science University Portland, OR • Radiation Oncology

James Adam Colbert

Brigham & Women's Hospital Boston, MA • Medicine – Primary Care

Rubi Delgadillo Cortes Kaiser Permanente Medical Center San Francisco, CA • Internal Medicine – Preventative Medicine

Jason Montgomery Cuéllar New York University School of Medicine New York, NY • Orthopaedic Surgery Vanessa Gabrovsky Cuéllar New York University School of Medicine New York, NY • Orthopaedic Surgery

Jason Michael Davies

University of California at San Francisco San Francisco, CA • Neurological Surgery

Harpreet Singh Dhatt

University of California at San Francisco Fresno, CA • Medicine – Preliminary University of Utah Affiliated Hospitals Salt Lake City, UT • Diagnostic Radiology

John Redmond Downey

Memorial Sloan Kettering Medical Center New York, NY • Transitional Stanford Hospital and Clinics Palo Alto, CA • Diagnostic Radiology

Betsy Encarnacion

University of California at San Francisco San Francisco, CA • Obstetrics & Gynecology

Cainan Hunter Foltz

University of California at San Diego La Jolla, CA • Internal Medicine

Mani Foroohar

Master in Business Administration Program

Melanie Sue Gipp

Kaiser Permanente Medical Center Santa Clara, CA • Medicine – Preliminary Stanford Hospital and Clinics Palo Alto, CA • Anesthesiology

Eric Matthew Green

Brigham & Women's Hospital Boston, MA • Internal Medicine

Jocelyn Rebecca Grunwell

Emory University School of Medicine Atlanta, GA • Pediatrics

Rajesh Gupta Residency to Begin in 2010

Helena Monika Horak

University of California at Los Angeles Medical Center Los Angeles, CA • Emergency Medicine

Melissa Horoschak

Kaiser Permanente Medical Center Santa Clara, CA • Medicine -Preliminary University of Chicago Medical Center Chicago, IL • Radiation Oncology

Andrew Ray Hsu Rush University Medical Center Chicago, IL • Orthopaedic Surgery

Jocelyn Rose James University of Washington Affiliated Hospitals Seattle, WA • Medicine – Primary Care

ChaRandle Stanlett Jordan Essex Woodlands Health Ventures

Palo Alto, CA

M. Yashar S. Kalani St. Joseph's Hospital and Medical Center Phoenix, AZ • Neurological Surgery

Kirstin Suzanne Knox Hospital of the University of Pennsylvania Philadelphia, PA • Internal Medicine

Geoffrey Wayne Krampitz Stanford Hospital and Clinics Palo Alto, CA • General Surgery

Gina Park Kwon University of Maryland Mercy Medical Center Baltimore, MD • Medicine – Preliminary Johns Hopkins University – Wilmer Eye Institute Baltimore, MD • Ophthalmology

Elizabeth Anne LaBuz

Geisinger Health System Danville, PA • Medicine – Preliminary Geisinger Health System Danville, PA • Dermatology

Bradford William Lee

University of Hawaii Honolulu, HI • Transitional University of Miami -Bascom Palmer Eye Institute Miami, FL • Ophthalmology

Jessica Tekla Les Sutter Medical Center of Santa Rosa Santa Rosa, CA • Family Medicine

Yakir Shlomo Levin Emory University School of Medicine Atlanta, GA • Transitional Emory University School of Medicine Atlanta, GA • Dermatology

Helen Liu

Santa Clara Valley Medical Center San Jose, CA • Transitional Oregon Health & Science University Portland, OR • Dermatology

Yueyi Irene Liu Santa Clara Valley Medical Center San Jose CA • Transitional Stanford Hospital and Clinics Palo Alto, CA • Diagnostic Radiology

Jane MacLean Stanford Hospital and Clinics Palo Alto, CA • Pediatrics

Stanford Hospital and Clinics Palo Alto, CA • Child Neurology

Melanie Catherine Majure Stanford Hospital and Clinics Palo Alto, CA • Internal Medicine

Angela Raquel McGuire Stanford Hospital and Clinics Palo Alto, CA • Pathology

Courtney Stritar McGuire Johns Hopkins Hospital Baltimore, MD • Pediatrics

Anna Akua Minta Johns Hopkins Hospital Baltimore, MD • Pediatrics

Anna Elizabeth Monroe-Wise University of Washington Affiliated Hospitals Seattle, WA • Internal Medicine

Nathan Thomas Morrell University of New Mexico School of Medicine Albuquerque, NM • Orthopaedic Surgery

Jolene H. Nakao St. Lukes – Roosevelt Hospital New York, NY • Emergency Medicine

Phuong Nguyen

University of California at San Francisco Fresno, CA • Medicine – Preliminary The Ohio State University Medical Center Columbus, OH • Radiation Oncology

Justin Iver Odegaard

Stanford Hospital and Clinics Palo Alto, CA • Pathology **Olushola Bidemi Olorunnipa** New York Presbyterian Hospital Columbia University Medical Center New York, NY • Plastic Surgery

Adeoti Efundademu Oshinowo

University of Michigan Hospitals Ann Arbor, MI • Obstetrics & Gynecology

Rena Chiman Patel

Stanford Hospital and Clinics Palo Alto, CA • Internal Medicine

Josemaria Tapia Paterno

Stanford Hospital and Clinics Palo Alto, CA • Medicine – Preliminary Massachusetts General Hospital Boston, MA • Anesthesiology

Candace Yoong-Fong Pau

Stanford Hospital and Clinics Palo Alto, CA • Otolaryngology

Yannis Mantas Paulus Memorial Sloan Kettering Medical Center New York, NY • Transitional Stanford Hospital and Clinics

Palo Alto, CA • Ophthalmology

Saurabh Prakash Santa Clara Valley Medical Center San Jose, CA • Medicine – Preliminary Barnes – Jewish Hospital St. Louis, MO • Diagnostic Radiology

Robin Owen Price

Carilion Clinic Saint Albans Hospital Roanoke, VA • Transitional University of California at San Francisco San Francisco, CA • Diagnostic Radiology

Leelanand Prabhu Rachakonda

University of California at San Francisco Fresno, CA • Medicine – Preliminary Albert Einstein College of Medicine – Jacobi Medical Center Bronx, NY • Diagnostic Radiology

Benjamin Yehouda Rafii

New York University School of Medicine New York, NY • Otolaryngology

Tara Ramachandra

Vanderbilt University Medical Center Nashville, TN • Otolaryngology

Naresh Ramarajan

University of California at Los Angeles Medical Center Los Angeles, CA • Emergency Medicine

Nadeem Riaz

Stanford Hospital and Clinics Palo Alto, CA • Medicine – Preliminary Memorial Sloan Kettering Medical Center New York, NY • Radiation Oncology

Jonathan Charles Riboh Duke University Medical Center Durham, NC • Orthopaedic Surgery

Seth Adam Sherman Harvard University - Longwood Medical Area Boston, MA • Psychiatry Margie Shi -Shr Teng Stanford Hospital and Clinics Palo Alto, CA • Emergency Medicine

Ricky Tsee-Wai Tong California Pacific Medical Center San Francisco, CA • Medicine – Preliminary University of California at San Francisco San Francisco, CA • Diagnostic Radiology Dung David N. Tran Stanford Hospital and Clinics Palo Alto, CA • Preliminary University of California at San Francisco San Francisco, CA • Diagnostic Radiology

Victor Alan Tubbesing

University of California at Davis Medical Center Sacramento, CA • Medicine – Preliminary University of California at Davis Medical Center Sacramento, CA • Anesthesiology

Mauricio Enrique Vargas

White Memorial Medical Center Los Angeles, CA • Medicine – Preliminary University of California at Los Angeles Jules Stein Eye Institute Los Angeles, CA • Ophthalmology

Luis Enrique Vazquez

Hospital Episcopal San Lucas Ponce, PR • Transitional University of Southern California Los Angeles, CA • Ophthalmology

Anand Veeravagu Stanford Hospital and Clinics Palo Alto, CA • Neurological Surgery

Marie E- Jen Wang

Lucile Salter Packard Children's Hospital at Stanford Palo Alto, CA • Pediatrics

Jacqueline Nerney Welch

Private Medical Device Industry San Francisco Bay Area, CA

Emilee Ruth Wilhelm-Leen

Stanford Hospital and Clinics Palo Alto, CA • Internal Medicine

Lena Elisabeth Winestone

Lucile Salter Packard Children's Hospital at Stanford Palo Alto, CA • Pediatrics

Shirin Yasaman Zarafshar

Stanford Hospital and Clinics Palo Alto, CA • Internal Medicine

Other Awards and Honors

Ronald G. Pearl, MD, PhD, the chair of the Department of Anesthesia and associate medical director of the intensive care units at Stanford Hospital & Clinics, was named the first incumbent of the Richard K. and Erika N. Richards Professorship at an investiture ceremony on June 9th. Congratulations to Dr. Pearl.