The healthcare industry has changed dramatically in recent years and is certain to change even more in the coming years. This transformation has been powered by emerging new technologies. This new medical frontier promises to improve not only the quality, safety, and availability of medical care, but also the patient experience. The patient will be in charge, with more healthcare delivery options, more pricing transparency, and better outcomes. In addition, ambitious wellness initiatives are changing the focus from treatment to prevention.

This six-session series will explore what this new medical frontier means for us. And it also will focus on the global frontier – bringing medical care to people in poor countries and to casualties of local wars. Prominent speakers in this series will identify many of the changes and innovations underway, and the factors driving those changes, explaining how it can improve our lives, the lives of our children, and people around the world.

Summer Lecture Series 2016
Wednesdays, July 13 - August 17
9:00 - 11:30 AM
Hopkins Center - Spaulding Auditorium
The new frontier for the global healthcare industry is upon us. It is both exciting and daunting. It is exciting because new forms of healthcare delivery are emerging, from walk-in retail clinics to wearable monitoring devices and implants. New, less invasive surgical procedures are being developed, many available to patients in an outpatient setting and with far less side effects. Breathtaking new technologies - bioengineering, digital, 3D, and genetics - are converging to accelerate these advancements. It is daunting because there are still large underserved populations who desperately need free medical care - in the U.S. and throughout the world. And government reimbursement models are unpredictable. This lecture will focus on these macro developments.

**Rodney F. Hochman, M.D. • President & CEO, Providence Health & Services, Seattle**

Dr. Hochman serves as president and CEO of Providence Health & Services, the nation's fourth largest not-for-profit health system with 34 hospitals, 64,000 employees, and 3,000 physicians across five states. Providence was founded 160 years ago by the Sisters of Providence and continues to serve communities across the Western United States. Rod is leading Providence in transforming health care for the future through digital innovation, population health, specialty institutes, clinical quality and outreach to the poor and vulnerable. He was named the 2015 Innovator of the Year by Press Ganey. He was also selected by *Modern Healthcare* magazine as one of the 100 Most Influential People in Healthcare in 2014 and 2015, and has been named multiple times as one of *Modern Healthcare*’s 50 Most Influential Physician Executives. He served as a clinical fellow in internal medicine at Harvard Medical School and Dartmouth Medical School. In addition, Rod is a Fellow of the American College of Physicians, a Fellow of the American College of Rheumatology and a member of the American College of Healthcare Executives.

**JULY 20**

**HUMAN GENOMICS, PRECISION MEDICINE, AND ADVANCING HUMAN HEALTH**

Starting with the launch of the Human Genome Project in 1990, the past quarter-century has brought spectacular achievements in genomics that dramatically empower the study of human biology and disease. The human genomics enterprise is now in the midst of an important transition, as the growing foundation of genomic knowledge is being used by researchers and clinicians to tackle increasingly complex problems in biomedicine. Of particular prominence is the use of revolutionary new DNA sequencing technologies for generating prodigious amounts of DNA sequence data to elucidate the complexities of genome structure, function, and evolution, as well as to unravel the genomic bases of rare and common diseases. Together, these developments are ushering in the era of genomic medicine.

**Eric D. Green, M.D., Ph.D. • Director, National Human Genome Research Institute**

Eric D. Green, M.D., Ph.D. is the Director of the National Human Genome Research Institute (NHGRI) at the U.S. National Institutes of Health (NIH), a position he has held since 2009. In this role, he provides overall leadership of the Institute's research portfolio and other initiatives; this has included designing and launching a number of major programs to accelerate the application of genomics to medical care.
NEW DRUGS AND INNOVATIVE TECHNOLOGIES TO PREVENT AND TREAT CARDIOVASCULAR DISEASE

The rate of progress in our ability to prevent, diagnose, and treat cardiovascular diseases has never been greater. Advances in technology are leading to novel approaches to imaging the heart and blood vessels to better identify individuals at risk for heart attack and stroke. Innovative bioengineering has led to the application of a new generation of heart valves that can be inserted via catheter to repair or replace damaged valves; and stents that are bioresorbable are on the horizon to treat critical blockages of the coronary arteries. Discoveries in vascular biology and the application of genomics and proteomics to drug development are leading to more effective therapies to lower cholesterol and treat blood clots, and delivery of pluripotent stem cells holds the promise of restoring function to damaged hearts. These are important strides in the fight to reduce death and disability from cardiovascular disease.

Mark A. Creager, M.D., FAHA, FACC • Dartmouth College - Geisel School of Medicine, Dartmouth-Hitchcock Medical Center

Dr. Mark A. Creager is a Professor of Medicine and Surgery at the Geisel School of Medicine at Dartmouth, and Director of the Heart and Vascular Center at Dartmouth-Hitchcock Medical Center in Lebanon, NH. Dr. Creager earned his medical degree at Temple University in Philadelphia. He completed his internship, medical residency, and fellowships in Vascular Medicine and Cardiology at University Hospital in Boston. Dr. Creager is President of the American Heart Association and serves on its National Board of Directors. He is an editor of the textbook Vascular Medicine, and the editor emeritus of the journal Vascular Medicine. He is the author of more than 350 published contributions to medical literature, including research papers on vascular function, book chapters, and monographs on vascular disease.

THE BRAIN

There is growing recognition that concussions, whether caused by an improvised exploding device in warfare, repeated blows to the head in football or a seemingly innocuous “bell-ringer” can lead to poor cognitive outcomes. Nevertheless, our ability to identify objective changes to the brain after mild concussion remain poor, limiting clinical management, return to play decisions and the development of effective new therapies. Dr. Grafton's work focuses on the creation of novel MRI scanning methods that are combined with modern mathematical techniques and computer science algorithms. Together, they provide a way to map how brain wiring can be changed with impacts to the head. The approach is also used to understand possible causes for developmental disorders like dyslexia and stuttering.

Scott Grafton, M.D. • Behavioral Neurologist at UC Santa Barbara

Dr. Grafton holds the Bedrosian Coyne Presidential Chair in Neuroscience at University of California, Santa Barbara. He directs a research program in multimodal imaging of the brain to accelerate discovery and diagnosis of the human nervous system. He trained in both neurology and nuclear medicine. He joined UC Santa Barbara in 2006 where he directs the UCSB Brain Imaging Center. He uses fMRI, magnetic stimulation and high density EEG to characterize the neural basis of normal plasticity as well as change after injury using an approach that is grounded in 20 years of clinical experience. He is currently doing research on concussions for the NFL and women’s soccer.
The group Doctors Without Borders (Medecins Sans Frontieres) strives to provide healthcare to populations facing emergencies like military conflict, natural disasters, and epidemics, or to marginalized people. While the problems we face in trying to meet health needs in these settings are vastly different in many ways from those facing the U.S. health care systems, there are common themes between the two, such as the need for fiscal oversight, accountability to populations served, and prioritization of services to be funded. In this presentation the experiences of a surgeon who worked for nearly a decade with MSF will be contrasted to the care provided in the U.S. health care system.

**John Lawrence, M.D. • FACS, FAAP, Staff Pediatric Surgeon - Maimonides Medical Center**

Dr. John Lawrence, a native of Illinois, currently serves as Vice President on the Board of Directors for MSF (Medecins Sans Frontieres/Doctors Without Borders) - USA. Dr. Lawrence attended Dartmouth College and Dartmouth Medical School, then completed a family practice internship and worked as a general medical officer in Tuba City, Arizona, on the Navajo Reservation. He then returned to residency and completed training in general surgery at the University of Rochester, in Rochester, New York, and then pediatric surgery at St. Christopher’s Hospital in Philadelphia. For the past 20 years, he has been a practicing pediatric surgeon primarily in academic settings, and he is currently a staff pediatric surgeon at Maimonides Medical Center in Brooklyn, NY. Owing in part to a longstanding interest in global health, Lawrence has completed eight surgical missions with MSF since 2009 and has recently begun coursework for an MPH degree through the Bloomberg School of Public Health at John’s Hopkins University. Dr. Lawrence has served MSF as a surgeon in the Central African Republic, Cote D’Ivoire, Haiti, Syria and the Democratic Republic of the Congo.

**AUGUST 10**

**INTERNATIONAL FRONTIER**

**AUGUST 17**

**BRINGING IT HOME**

This final session will cap the series by shining the spotlight on some amazing innovations underway at Dartmouth-Hitchcock. D-H is a nonprofit academic health system that serves a patient population of 1.9 million in New England and is leading the way in creating a sustainable health system. This is a system designed to promote health, not health care. Through its telehealth and ImagineCare initiatives, it is leveraging technology to give individuals and communities the tools and support they need to better manage acute and chronic illnesses and meet their personal health goals.

**Pictured, l to r:**

Weinstein, Greene, Fusca, Pletcher

**James Weinstein, D.O., M.S. • CEO and President of Dartmouth-Hitchcock**

**Robert Greene, M.D. • Executive Vice President and Chief Population Health Management Officer, Dartmouth-Hitchcock**

**Vincent Fusca III • Vice President of ImagineCare, Dartmouth-Hitchcock**

**Sarah Pletcher, M.D. • Medical Director of TeleHealth, Dartmouth-Hitchcock**
SPECIAL THANKS TO OUR UNDERWRITERS

Their support makes this series possible!
President: Sylvia Sands Paxton
Summer Lecture Chairs: Pete Bleyler, John Ferries
Summer Lecture Committee: Ginia Allison, Tom Blinkhorn, Michael Galbraith, Deborah Luquer, Corlan Johnson, Joe Medlicott, John Mathews, Rosemarie Scibetta, Iain Sim, Townsend Swayze, Steve Tofel
Staff: Lisa King, Laura Belback, Sarah Chamberlin, Diane Doe

Osher Lifelong Learning Institute at Dartmouth
7 Lebanon St., Suite 107
Hanover, NH, 03755
Ph: 603-646-0154 Fax: 603-646-0138
E-mail: OSHER@dartmouth.edu
Web: osher.dartmouth.edu

LECTURE CALENDAR 2016

Wednesdays
9:00 am to 11:30 am
Hopkins Center, Spaulding Auditorium
Hanover, NH

The New Medical Frontier

Lecture #1  7/13  Hochman  The Big Picture
Lecture #2  7/20  Green  Human Genomics, Precision Medicine, and Advancing Human Health
Lecture #3  7/27  Creager  New Drugs and Innovative Technologies to Prevent and Treat Cardiovascular Disease
Lecture #4  8/3  Grafton  The Brain
Lecture #5  8/10  Lawrence  International Frontier
Lecture #6  8/17  Weinstein, Greene, Fusca, Pletcher  Bringing It Home
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SUMMER LECTURE SERIES 2016
REGISTRATION FORM

The New Medical Frontier

Six consecutive Wednesdays beginning July 13, ending August 17, 2016
9 a.m. to 11:30 a.m., Hopkins Center, Spaulding Auditorium
REGISTRATION OPENS MAY 25, 2016!

Yes, I/we would like to attend the OSHER@Dartmouth Summer Lecture Series 2016. Enclosed is a non-refundable check made payable to Dartmouth College. Mail to: Osher at Dartmouth, 7 Lebanon St., Suite 107, Hanover, NH 03755.

Name(s) ____________________________________________________________
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Current (2015-2016) Member: Series Ticket(s): _____ @ $95 = $_____ (Price does not include 2016-2017 membership)
Non-Member: Series Ticket(s): _____ @ $120 = $_____ (Price does not include nor require 2016-2017 membership)

OR $25 per lecture at the door

YOU CAN ALSO REGISTER ONLINE
Visit our website at https://osher.dartmouth.edu, then click on the Summer Lecture Series page. You must log in or open an account in order to register online. Please contact the office if you have registered for a previous Summer Lecture Series, or if you have participated in any OSHER@Dartmouth or ILEAD courses, as you may already have an account available.

Questions? Call (603) 646-0154 or e-mail us at: OSHER@dartmouth.edu

REGISTRATION DEADLINE IS JUNE 27, 2016
(to give us time to process and mail your tickets)
You can purchase admission at the OSHER@Dartmouth office after this date, or at the OSHER@Dartmouth table (near the entrance to Spaulding Auditorium) on Wednesday mornings during the series.

READING MATERIALS
Several of our speakers have supplied articles related to their subject. These articles will be available in June both in print and digitally. The printed cost is $10 per copy. Printed packets will be made available for pick-up in the OSHER@Dartmouth office at 7 Lebanon Street in Hanover, NH. A link to the electronic version will be supplied to series ticket-holders via email at no extra charge. We must receive your request for a printed reading packet by June 15th.

Yes, I would like to order the reading packet: Number of copies __________________
(Reading packets are $10 per copy; please include check with registration)
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