THIS BOOK BELONGS TO:

UN EXP CONNECTIONS: ED

TEDMED 2013

The

John F. Kennedy

Center

for the

Performing

Arts



TEDMED friends,

You stand poised at the beginning of an extraordinary journey.

For the next three and a half days at our home in the John F. Kennedy Center for the Performing Arts, you and your fellow TEDMED Delegates will explore the adventure that is health and medicine. You will hear inspiring stories and learn about infinite new possibilities. Above all, you will experience unexpected connections that can lead to new insights and exciting innovations.

Unexpected connections are what TEDMED is all about. Connections between people, between disciplines, between organizations and between ideas.

TEDMED IS ABOUT CONNECTIONS BETWEEN PEOPLE. TEDMED brings together doctors, nurses, scientists, researchers, technologists, business leaders, policymakers, rescue workers, educators, armed service personnel, artists, media and athletes all eager to

share, learn, listen and grow. The result? A series of creative collisions that spark imaginative new thinking.

TEDMED IS ABOUT CONNECTIONS

BETWEEN IDEAS. This year's stage program offers mind-expanding themes and topics, beginning with "A Broader Lens" that includes the first ever attempt to map the human brain. Our speakers will make the leap "From Data to Wisdom" with fresh connections

between personal and social uses of medical

data. Along the way, we'll find surprising ways to connect ability and disability, science and art, and even life and death.

TEDMED IS ABOUT CONNECTIONS THAT INSPIRE INNOVATION. New

this year, TEDMED (in association with the StartUp Health Network) proudly presents "The Hive." Fifty transformative new companies and the passionate entrepreneurs leading them — along with TEDMED's major partners — will inspire all of us to imagine and realize a better future in health and medicine. Incubators and accelerators, government-run challenges, academic-led programs and independent startups will represent exciting transformations across the innovation landscape of health and medicine. Together with our multidisciplinary community, we'll form new connections between today's innovators and the future leaders of tomorrow.

TEDMED IS ABOUT CONNECTIONS THAT REDEFINE CHALLENGES.

TEDMED's Great Challenges Program, sponsored by the Robert Wood Johnson Foundation, has been buzzing with its own activity since last April. Our 120 outstanding experts have contributed their unique perspectives on 20 Great Challenges in health and medicine, fueling live — and lively — community-wide discussions on Google+ Hangout nearly every Thursday this past fall and winter.

At the end of TEDMED in Washington this week, we'll bring these yearlong dialogs full circle with Great Challenges Day. Our community will embrace The Storytelling of Science at George Washington University in Georgetown, with a nod to the exciting emerging field of "narrative medicine."

TEDMED IS ABOUT GLOBAL

connections. Once again TEDMEDLive brings a simulcast of our entire stage program to some 2,000 U.S. medical schools, teaching hospitals, non-profits, VA clinics and health-focused government agencies. New this year, TEDMEDLive is expanding to the same kinds of institutions worldwide, making it possible for offsite Delegates to engage the power of the TEDMED community in their own cities, states and nations.

TEDMED IS ABOUT CONNECTING YOU

TO YOUR BEST SELF. You will have the chance to interact with fellow leaders and innovators from across society. TEDMED Delegates are people with different experiences but with a common goal — to contribute to a better future in health and medicine. Spending time sharing struggles and accomplishments alike with people outside your norm will inspire new possibilities in your own world and prepare you for your best work.

Prepare to be informed, inspired, engaged and energized as we embark together on this transforming experience. We are glad that you are a part of it.



Jay WalkerTEDMED Curator

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Scholars

This year we've identified two groups within our scholarship program. Those who are on the frontlines of health and medicine, our Front Line Scholars, and those entrepreneurs who are transforming the innovation landscape—our Innovation Scholars.

Ashely Alker

Medical School

Asher Hasan

Ashlev Alwood

Advocate Medical

Stony Brook University

Case Western Reserve

University School of

Alvi Dental Hospital

Beverley Bishop

Beverly Tchang

Madison Valley

Medical Center

Brent King

University of Florida

College of Medicine

Naya Jeevan

Atul Kumar

Medicine

Awab Alvi

Avi Goodman

Group

George Washington

FRONT LINE SCHOLARS

TEDMED's Front Line Scholars, a group of diligent thinkers and leaders, are dedicated to working in health and medicine, and will help usher in the next generation of patient care.

Aaron Neinstein

University of California, San Francisco

Abubaker Hashim Awad Yousif International University of Africa

Aditya Sharma University of Michigan

Adriane Randolph Kennesaw State

University Alessandro Demaio

Copenhagen School of Global Health

Alex Blum 00-O Benefit Corporation

Alexandra Moss The Public Good Projects

Amanda Angelotti Essential Medicines Rock Health

Arkadiusz Amir Kishon, Ph.D. Wellness Layers Amy Baxter, M.D.

Buzzy4shots.com Arun Das Goldman Sachs & Co.

Amy Robinson EveWire, MIT

Anastasia Fischer User Experience Design & Strategy

Andrew Cutler University of Florida. College of Medicine

Anish Joseph Georgia Institute of Technology

Anish Mehta OttoClave, Inc.

Annie Williams Movable Science

Anthony Back University of Washington

Antoinette Moore University of Texas at

Brooklyn Free Clinic Austin **Brad Dolin** Aria Ilyad Ahmad Universities Allied for Numerate Corp, Broccoli Labs

Stopczynski Technical University of Denmark

Brett Kessler Colorado Dental Association

Brucker Brenna Providence Alliance of Clinical Educators (PACE)

Carlen (Kay) Fung Vancouver Coastal Health

Carolina Dimsdale Duke University Medical Center

Carolyn Chen SynAm Vaccine

Catherine Serio Healthwise Catherine Pena

Mount Sinai School of Medicine **Chad Priest**

MESH

Charles Cuneo International Rescue Committee—Baltimore

Chris Raine Hello Sunday Morning **Christina Grimes** Ballinger

Christopher Gibson University of Utah

Clint Miller Stanford University School of Medicine

Courtney Crooks Georgia Tech Research Institute

Daniel Buckland Harvard Medical School

Daniel Penn Shift Health Paradiams

David Clever National Institutes of Health — Cambridae University

David Reid Your Health Talk

David Wright Emory

Dylan Suttle Brody School of Medicine at East Carolina University

Elizabeth Ricker Lumosity

Ellen Lawton George Washington University, School of Public Health & Health Services, Dept. of Health Policy

Emily Zolfaghari University of Southern California

Franklin Nwaoha Sitrep

Geetha Rao Technology Frontiers Collaborative

Georgia

Sambunaris United States Agency for International Development, Johns Hopkins Bloomberg School of Public Health **Greg Weintraub** The New School, NYC

Gregory Levey Movable Science

Harold Schloss Merrill Lynch

Hassan Tetteh US Navy

Ian Penn eVasc

Ivana Gadianski R&D Center for Bioengineering — BioIRC

Jaime Leonard Virainia Hospital Center

Jed Batchelder Independent Healthcare IT Consultant

Jeff Moulton Georgia Tech Research Institute

Jennifer Ide Rimidi Diabetes, Inc.

Jennifer Merschdorf Young Survival Coalition

Jess Jacobs Food and Drua Administration

Jessica Ladd Sexual Health Innovations

Navigant Consulting

Jim Schwoebel The Medical Device Entrepreneurship Association at Georgia Tech

Jodi Midiri Ross University School of Medicine

Jodie Auster. M.D., M.B.A.

John BuAbbud Ouillen College of Medicine

Jon Bardin The Public Good Projects

Jordan Garth Georgia Institute of Technology

Jovce Chan University Health Network

Julia Caponiti Navigant Consulting, Life Sciences Practice

Karuna Patel Turtle Rabbit Physical Therapy & Wellness

Kate Black HHS, Office of the National Coordinator for Health IT

Katherine Stone Postpartum Progress

Kathleen Raven Reuters Health Kiti Kaiana American Cancer

The George Society Landon Pratt **Nadine Hubert** ETSU Quillen College Toronto General &

Leigh Carroll Institute of Medicine

of Medicine

Lorcan Walsh CASALA/Netwell Centre, DKIT

Lucienne Ide Rimidi Diabetes, Inc.

Luke Westra Typenex Medical Lyndsey Heise

US Army

Maia Kecman Centre for Vision in the Developing World

Maria Chavez Universidad Francisco Marroquín/

Makeducation

Mario Ruiz Sistema Ser

> Mark Silverberg Social Health Insights (LLC)

Martin Kawalski Medical Innovation Laboratory

Mava Desai Navigant

Melanie Wyne Senior Technology Policy Representative

Mindy Hangsleben Department of Health and Human Services

Miriam Beecham Healthwise

Western Hospital

Naeem Ahmed

Nancy Bulgarelli

Oakland University

William Beaumont

School of Medicine

Nathan Moore

Netha Hussain

Symple Health

in St.Louis

Natasha Gajewski

Washington University

Wikimedia Foundation

Foundation

NHS

Robert Kelly Mitch Strobin UPMC Beacon Ireland Medication Adherence.org

Rupert Mohammad Adnan Dunbar-rees NHS Choices, UK Durhin

Sally Ann Muhammad Khan Lederman Washington University Columbia University

Sam Lin Children's National Medical Center

Parneet Pal

Philip Niles

Strategist

University

of Pittsburgh

Medical Center,

Mercy Hospital

Pierre Elias

Duke University

Rachel Davis

Strategies

Coelius

School of Medicine

Center for Health Care

Rebecca Mitchell

Office of the National

Coordinator for Health

IT. Office of Science

and Technology

Robert Arkin

Sensiotec. Inc.

Lifestyle and Wellness

Sanghee Suh Virginia Tech Carilion School of Medicine

Sarah Jameel McGill University Sean Escola

Columbia University Shamie Das

Radio Rounds Shamila Keyani UM Healthcare Trust

Sharon Rohrbach Dynamic Change

Sharon Warner Green Pregnancy, Inc. Shawna Pandva University of Alberta

Stacy Lewis Young Survival Coalition

Stacy McCarthy Learning Design Network, Inc.

Steven Feng Eastern Virainia Medical School

Steven Swann The United States Special Operations

Command

Susan Anderson The ArtReach Foundation

Swapneel Patel Washington University in St. Louis

Teresa Wang Boston University

Thomas Fowler Novel Bio-Spectrum Technologies

Tina Munial The Johns Hopkins University School of Medicine

Varun Boriah CardioCanary, Inc.

Victoria Seng American Cancer Society Cancer Action Network

William McGinly Association for Healthcare Philanthropy

Zankhna Parekh Foundation for Medical Education and Research

Zoe Dunn Hale Advsiors, Inc.

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INNOVATION SCHOLARS

Our 50 Innovation Scholars are a diverse community of innovators and determined entrepreneurs — with backgrounds from inside and outside of healthcare — who are at the forefront of transforming health and medicine.

Aaron McKethan, Ph.D. RxAnte

Alan Blaustein CarePlanners

Amit Mathew Uprise Medical

Ananth Annapragada Sensulin, LLC

Andrew Fine, M.D.

IntelligentM

Andrew J. DiMeo, Sr., Ph.D.,

Novocor Medical Systems

Anna McCollister-

Slipp Galileo Analytics

Anne Marie Biernacki AdhereTx

Anthony S. Voiers
Novocor Medical Systems

Anuj Desai New York eHealth Collaborative

Anula Jayasuriya nVision Medical

Art Papier, M.D.

Logical Images

Axel Setyanto CrowdMed

Bassam Saliba Avado

Bettina Experton, M.D., M.P.H. Humetrix

Bilal Mahmood
Science Exchange

Brad Hammonds
Sense Health

Brian Hermanspan
Health Leads

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Brian Yarnell Starling Health Cameron Sepah Omada Health

Caterina Hill Wellframe

Charles Mann Brain Sentry

Chris Lorenz SOMA Analytics

Christian Witt Beyond Lucid Technologies

Christine Lemke
AchieveMint

Christopher R. Burrow, M.D. Humetrix

Connie French
Health Leads

Cynthia Koenig Wello

Dave Chase

Dave Whitlinger
New York eHealth
Collaborative

David Haddad
Open mHealth

David Schuster
NudgeRx

Dr. Carol Ash, D.O.

Elizabeth Buffalo
Neurotrack

Elli Kaplan Neurotrack

Eric Conner

Eve Phillips
Empower Interactive

Fabio Thiers, M.D., Ph.D.

Fahd Albinali

OMedic

Gary Conkright

Greg Merril
Brain Sentry

Hina Chaudhry, M.D. Ventri Nova

VG Bio

Inder Singh
Transform Health

Jack Brown
ShapeUp

James S. Rives
Empower Interactive

Jared Heyman CrowdMed

Jen MacLean Ovuline

Jesse Clark Corengi Jessica

Harrington, M.D.
Ventri Nova

Johann Huber SOMA Analytics Jonathan Palley

Jonathon Feit

Beyond Lucid

Technologies

RxAnte

Josh Benner

Josh Selsky

Open mHealth

Josh Stein

AdhereTech

Justin Tan

Lisa Maki

Manik Bhat

PokitDok

Healthify

Karen Michaeli

M.S.W, M.B.A.

Health Tech Hatch

Jintronix

Spire

CarePlanners

Noah Craft, M.D.,
Ph.D.

Logical Images

Nita Stella

Marc Wilenzick.

Mark Maalouf.

M.Eng., M.B.Á.

Mark McJunkin

Medical Innovation

Maureen Maver

Max Graham

Oates-Zelesky

Mike Moradi

Sensulin, LLC

Mikki Nasch

Mitesh Patel,

M.D., M.B.A.

Nanoly Bioscience

Neema Moraveji

Docphin

Nanxi Liu

AchieveMint

Global Center for

Gecko Cap

(GCMI)

VG Bio

NudgeRx

Jintronix

Meghan

ShapeUp

Matt Pipke

Paris Wallace

Patricia S. Meisner AdhereTx

Patricia Salber, M.D., M.B.A. Health Tech Hatch

Qian Qian Tang Transform Health

Rich Boudoin
The Department of
Veterans Affairs (VA)/
Blue Button

Robert Goldberg, Ph.D., Neumitra

Ryan Abbott

Science Exchange

Ryan Luce, Ph.D.

Sachin Nanavati, M.B.A. Docphin

Sandra D. Elliott IMPak Health

Sean Duffy Omada Health

Seth Freedman
IntelligentM
Simon Fitall

Galileo Analytics

Sombit Mishra

QMedic

Sonia Sarkar Health Leads

Sruthi Sadhujan Wello

Stan Berkow Sense Health

Surbhi Sarna nVision Medical

Ted Tanner, Jr. PokitDok

Theresa Hancock
PAHM, The
Department of
Veterans Affairs (VA)/
Blue Button

Tiffany Wilson Karp

Global Center for Medical Innovation (GCMI)

Tim Schwartz Uprise Medical

Trishan Panch Wellframe

Vijay Bachani Starling Health Yechiel Engelhard, M.D., M.H.A.,

M.B.A Gecko Cap



This year, the TEDMED conversation has expanded even further. TEDMEDLive, our broadcast from the Opera House stage, reaches real-time and on-demand to affiliated medical institutions, schools, foundations and government agencies around the world at no charge. Many TEDMEDLive affiliates complement our program with their own speakers on topics of particular importance to them. Our mobile app, TEDMED Connect, brings all audiences together.

We gratefully acknowledge the generous support of our TEDMEDLive Partners:





Thank you to the following organizations for their support of TEDMEDLive Sessions:













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TEDMEDHealth

Each year at TEDMED, we promote health and wellness as part of our overall experience. From nutritious and flavorful meals and snacks to morning runs, yoga, meditation and (this year) simulcast "On the move", we aspire to nurture our collective physical and mental wellbeing in addition to inspiring and provoking Delegates intellectually. This year, we've taken these goals to a quantifiable new level. Thanks to our partner Fitbit, Delegates will engage in and track healthy activities as a community. We have also gathered an amazing team of health advocates, who will serve as aspirational guides each day.

RUNNING



DEAN KARNAZES is an acclaimed endurance athlete, honored by the White House for his commitment to U.S. fitness and hailed

by TIME magazine as one of the world's "100 Most Influential People." In 2006 he ran 50 marathons in all 50 U.S. states on 50 consecutive days. He has run 350 continuous miles, foregoing sleep for three nights; ran across the Sahara Desert in 120-degree temperatures; and ran a marathon to the South Pole at minus 40 degrees.

POWERED BY



MEDITATION



Wellness Practitioner RANA
CHUDNOFSKY is the
Director of Education for
the Benson-Henry Institute
for Mind Body Medicine

at Massachusetts General Hospital and a lecturer at Harvard Medical School Continuing Education Program. She is a frequent speaker on the topics of Stress Physiology, Meditation and Health Technology. Rana's training includes Biofeedback from Boston Behavioral Medicine, Vipassana Meditation from Vipassana Meditation Center, Qigong under the tutelage of Medical Qigong Master Yadong Yang, and Reiki certification. She earned her MEd from Harvard University and earned dual degrees in psychology and education from the University of Massachusetts in Amherst.

YOGA



International Yoga teacher, musician and Yogini, **BHAVANI MAKI** began her exploration of Patanjali's Ashtanga Yoga System in

1987 and has been teaching the Ashtanga System since 1995. Specializing in the Patanjali Yoga Sutras, Yoga Philosophy, Yoga Psychology, and Yoga Therapy, she offers unique insights into discovering greater joy and freedom within one's self. She is dedicated to exploring Yoga in its complete expression and her classes are steeped in the traditions of Patanjali's classical Eight Limbed Yoga, with an emphasis on integrity of alignment and the use of Yoga as therapy.





Special thanks: Rhode Island School of Design

STEM to STEAM In Action

In an intellectual and creative adventure, RISD faculty members and students have contributed their talents by creating captivating portraits of our TEDMED 2013 speakers. We thank them for graciously contributing such beautiful, thoughtful and inspiring elements to TEDMED 2013.

In his STEM to STEAM initiative, Rhode Island School of Design (RISD) President John Maeda is transforming thinking about the role of art and design in civic life, in commerce, and as an agent of innovation in the fields of Science, Technology, Engineering and Mathematics.

RISD's Illustration Department has long pursued partnerships in learning through its practical course offerings and partnerships with academic, corporate and research institutions, working side-by-side with physicians, scientists, computer programmers and engineers. Throughout, they have cultivated a deep commitment to the notion that art and design afford vital poetic and communicative form and spirit to scientific discovery, and all parties have come to recognize that human ingenuity of the highest level is what propels both research and innovation, whether in the laboratory or the studio.

In appreciation to Robert Brinkerhoff for leading the charge.

Robert Brinkerhoff

Professor and
Department Head
Rachel Branham
Aaron Harris
Rujun Liu
Benjamin Nadler
Lise Sasaki
Derek Timm-Brock
Anita Tung

Mary Jane Begin

Senior Critic
Alex Rowe
Samantha Dempsey
Pally Zhang
Leah Artwick
Teny Eurdekian

Susan Doyle

Asst. Professor of Illustration

Fred Lynch

Senior Critic Susie So Sara Bloem Karen JY Sung Yudi Chen Zoe Bae

Kelly Murphy

Critic
Alexander Kintner
Jackie Ferrentino
Katy Strutz
Jessica Alice
Kleinman

Antoine Revoy

Critic
Alison Rutsch
Ellen Alsop
Suzanne Geary
Yoora Chae

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AFRO BLUE

Howard University's premier vocal jazz ensemble



Which Great Challenge are you most passionate about?

Causes of Sleep **Deprivation**

In one word, what drives you to innovate?

In six words, tell us your hopes for the future of health and medicine.

Access to **QUALITY** healthcare for **EVERYONE**

What do you predict will be the biggest breakthrough in health and medicine in 2013?

Cure for Cancer

If you could hear what someone is thinking for a day, whom would you choose?

STEVIE WONDER

What is your hidden talent?

Problem Solving

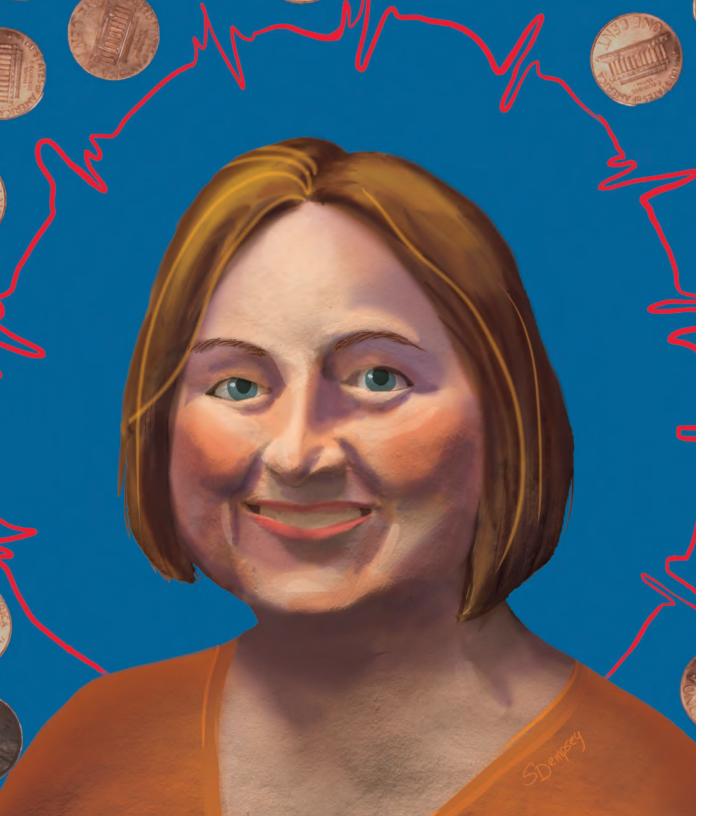
TEDMED 2013

THOUGHTS AND IDEAS:

Portrait by AARON HARRIS

AFRO BLUE, a widely-acclaimed vocal jazz ensemble, is known as a "vocal big band." Based at Howard University in Washington, DC, the group has repeatedly been named "best graduate college vocal jazz ensemble" by *DownBeat* magazine. Professor Connaitre Miller formed Afro Blue in 2002. Since then the ensemble has been featured on NPR's All Things Considered and has reached the final four on NBC's The Sing-Off. Afro Blue also collaborated with the legendary Bobby McFerrin in what has been called "the finest concert in DC Jazz Festival history." Recent honors include awards for Best A Cappella Group and Album of the Year from the Washington Area Music Association.

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AMANDA BENNETT

Executive Editor, Bloomberg News; Author, The Cost of Hope



Which Great Challenge are you most passionate about?

MEDICAL COMMUNICATION

In one word, what drives you to innovate?

EVERYTHING

In six words, tell us your hopes for the future of health and medicine.

Transparency, coordination, accountability, communication, coverage

What do you predict will be the biggest breakthrough in health and medicine in 2013?

WE WILL SEE THE BEGINNINGS OF PRICING TRANSPARENCY

If you could hear what someone is thinking for a day, whom would you choose?

MY SISTER KATHRYN who has Down Syndrome

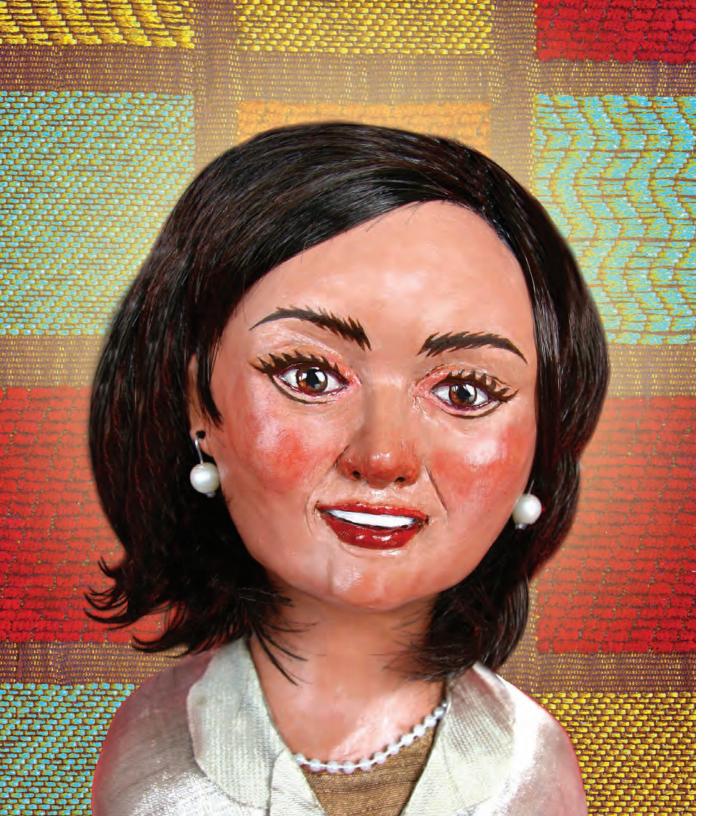
What is your hidden talent?
I used to be a
competitive
weightlifter

THOUGHTS AND IDEAS:

AMANDA BENNETT is Executive Editor/Projects and Investigations for Bloomberg News and author of *The Cost of Hope*, as well as several other books. With her colleagues at *The Wall Street Journal* and *The (Portland) Oregonian*, she has shared Pulitzer Prizes; a Loeb Award; an Overseas Press Club Award; several awards from the Society of American Business Editors and Writers; a George Polk Award; and a National Headliner Award. She won a Loeb Award in 2010 for the article that formed the basis of *The Cost of Hope*. She has served as editor of *The Philadelphia Inquirer* and *The Herald-Leader* (Lexington, Kentucky). She was managing editor/Projects for *The Oregonian*. As a *WSJ* reporter her beats ranged from the auto industry to the Pentagon and Beijing.

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AMERICA BRACHO

Director, Latino Health Access



Which Great Challenge are you most passionate about?

Impact of poverty

In one word, what drives you to innovate?

on health

EFFECTIVENESS

In six words, tell us your hopes for the future of health and medicine.

Socio-economic practices contributing to Health Equity

What do you predict will be the biggest breakthrough in health and medicine in 2013?

A MEDICATION OR PROCEDURE TO PREVENT OR MANAGE DIABETES

If you could hear what someone is thinking for a day, whom would you choose?

Someone from the year 4000 able to share with us solutions to the problems of 2013

What is your hidden talent?

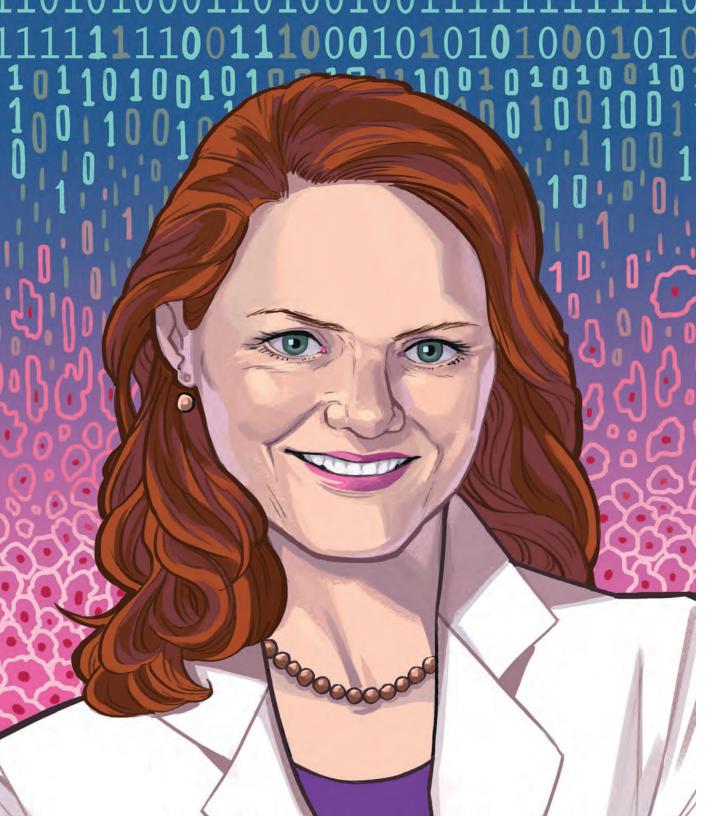
Singing

THOUGHTS AND IDEAS:

AMERICA BRACHO is the Executive Director of Latino Health Access, a center for health promotion and disease prevention located in Santa Ana, California. This Center was created under her leadership to assist with the multiple health needs of Latinos in Orange County.

Latino Health Access facilitates mechanisms of empowerment for the Latino community and uses participatory approaches to community health education. The programs train community health workers as leaders of wellness and change. Ms. Bracho worked as a physician in her native Venezuela for several years, after which she came to the U.S. to obtain a Master's Degree in Public Health at the University of Michigan. Her Public Health specialty is Health Education and Health Behavior.

TEDMED 2013 Portrait by TENY EURDEKIAN 17



AMY ABERNETHY

Director, Center for Learning Health Care, Duke Clinical Research Institute



Which Great Challenge are you most passionate about?

WHOLE PATIENT CARE

In one word, what drives you to innovate?

CURIOSITY

In six words, tell us your hopes for the future of health and medicine.

Technology at the service of patients

What do you predict will be the biggest breakthrough in health and medicine in 2013?

PATIENTS AS CATALYSTS FOR CHANGE

If you could hear what someone is thinking for a day, whom would you choose?

Quite honestly, my mother.
My mother...I am curious
what aspects of her
thinking contribute to her
perseverance, to her ability to
innovate, and to her massive
capability to care. I also
wonder what aspects of her
thinking need to advance - are
too fixed in another era to be
relevant today.

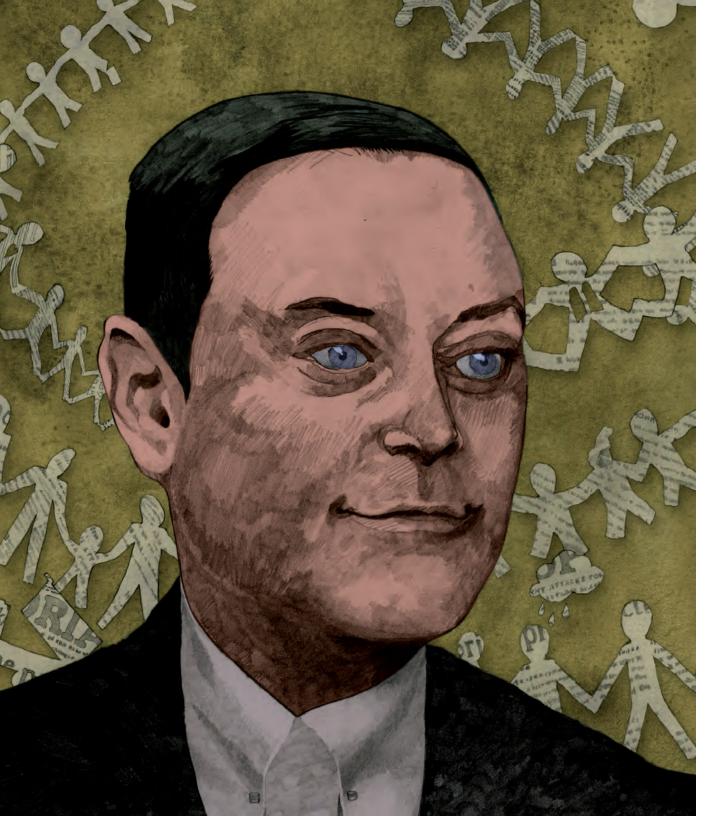
What is your hidden talent?

Laughing.

I can't tell a joke to save my soul, but I love to laugh. To be a part of a good time. To share. THOUGHTS AND IDEAS:

AMY P. ABERNETHY, M.D., a medical oncologist and palliative medicine physician, is a tenured Associate Professor in Duke University Schools of Medicine and Nursing, Director of the Duke Center for Learning Health Care (CLHC) in the Duke Clinical Research Institute, and Director of the Duke Cancer Care Research Program (DCCRP) in the Duke Cancer Institute. With over 300 publications, Dr. Abernethy is an internationally-recognized expert in health services research and delivery in patient-centered cancer care. She directs a prolific research program (CLHC/DCCRP) which conducts patient-centered clinical trials, analyses, and policy studies. She cochairs the National Institute of Nursing Research (NINR)-funded Palliative Care Research Cooperative Group (PCRC), and is President-Elect of the American Academy of Hospice & Palliative Medicine.

TEDMED 2013 Portrait by ELLEN ALSOP 19



ANDREW SOLOMON

Writer and lecturer on psychology, politics, and the arts; Winner of the National Book Award



Which Great Challenge are you most passionate about?

Medical communication

In one word, what drives you to innovate?

ANXIETY

In six words, tell us your hopes for the future of health and medicine.

Acknowledge and sustain a diverse world

What do you predict will be the biggest breakthrough in health and medicine in 2013?
The reclassification of all mental

of all mental illnesses as genetically and biologically related.

If you could hear what someone is thinking for a day, whom would you choose? JOHN ROBERTS

What is your hidden talent?



THOUGHTS AND IDEAS:

and psychology. The New York Times named his bestselling book, Far From the Tree: Parents, Children, and the Search for Identity, one of 2012's ten best. It tells stories of parents who find profound meaning in learning to deal with their exceptional children (coping with deafness, dwarfism, Down syndrome, autism, schizophrenia, multiple severe disabilities, etc.). The book also chronicles Solomon's journey to accepting his own identity. Solomon's previous book, The Noonday Demon: An Atlas of Depression (Scribner, 2001), won the 2001 National Book Award for Nonfiction and 14 other national awards. He is currently pursuing a Ph.D. in psychology at Jesus College, Cambridge.

TEDMED 2013 Portrait by ANTOINE REVOY 21



ASHLEY ATKINSON

Co-Director, The Growing of Detroit



Which Great Challenge are you most passionate about?
Reducing Childhood Obesity
In one word, what drives you to innovate?

(MY DETROIT) 'COMMUNITY'

In six words, tell us your hopes for the future of health and medicine.

Americans lead healthy lives; medicine no longer necessary.

What do you predict will be

the biggest breakthrough in health and medicine in 2013? SIMPLE AND ACCESSIBLE TECHNOLOGY DEVELOPMENTS/ improvements that connect Americans to greater health care options and help us play more active roles in managing our health and healthcare needs.

If you could hear what someone is thinking for a day, whom would you choose?

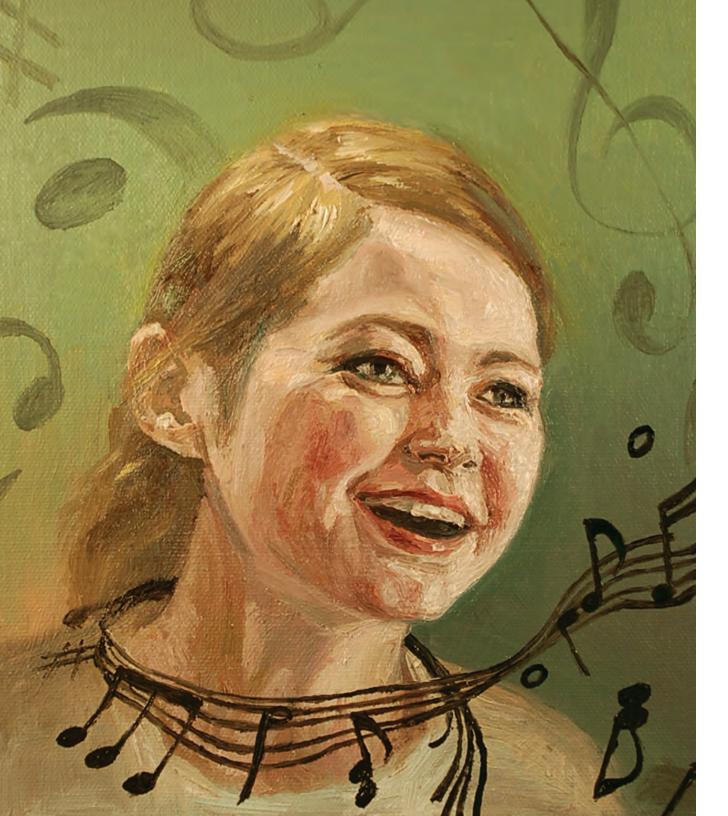
Wendell Berry

What is your hidden talent?
I can grow 50
varieties of fruits
and vegetables.

THOUGHTS AND IDEAS:

ASHLEY ATKINSON is an interim co-director with The Growing of Detroit, an urban agriculture-focused organization that provides resources and support for more than 1,400 gardens and farms in Detroit, Hamtramck, and Highland Park. She also serves as the sustainable agriculture representative for the Detroit Food Policy Council and as an Advisor to the Restaurant Opportunity Center-Michigan and Grow Dat youth farm in New Orleans. Ashley is a graduate of both Michigan State University and the University of Michigan where she studied International Development, Community Organization, and Environmental/Land Use Planning. In 2012 she was one of ten young people selected by the Robert Wood Johnson Foundation to receive their Young Leaders in Health award in celebration of the foundation's 40th anniversary.

TEDMED 2013 Portrait by KELLY MURPHY 23



CHARITY TILLEMANN-DICK

Singer



Which Great Challenge are you most passionate about?

Achieving Medical Innovation

In one word, what drives you to innovate?

 $T | \bigvee | \sqsubseteq$

In six words, tell us your hopes for the future of health and medicine.

Integrating family, music, medicine and wellness

What do you predict will be the biggest breakthrough in health and medicine in 2013?

Advances toward universal organ donation and regenerative medicine.

If you could hear what someone is thinking for a day, whom would you choose?

I WISH I COULD HEAR THE SECRETS OF MY OWN BODY, SO THAT I COULD KEEP THESE BEAUTIFUL LUNGS FOREVER.

What is your hidden talent?

I compose music.

I've written the music and lyrics for a full opera, operetta, and a few musicals. I can also cut a miniature cupcake into 12 equal pieces. **THOUGHTS AND IDEAS:**

CHARITY SUNSHINE TILLEMANN-DICK — a soprano,

blogger and advocate — has performed worldwide with noted artists including Jessye Norman, Joshua Bell, Patti LaBelle, Condoleezza Rice, and Bono at venues from New York to Italy. Her operatic roles include Gilda in Rigoletto, Violetta in La Traviatta, and Ophelia in Ophelia Forever. Her performances have been broadcast internationally on CNN, CBS, PBS, and the BBC. After receiving a diagnosis of Idiopathic Pulmonary Hypertension in 2004, Charity served as national spokesperson for the Pulmonary Hypertension Association, testifying before Congress while promoting more public awareness and research funding. She has since undergone two double lung transplants at the Cleveland Clinic in Ohio. At FIVE and The Huffington Post, she blogs about life, music, health, religion and organ donation.

TEDMED 2013 Portrait by YOORA CHAE 25



CHRISTOPHER J.L. MURRAY

Director, Institute for Health Metrics and Evaluation (IHME)



Which Great Challenge are you most passionate about?

Making prevention popular

In one word, what drives you to innovate?

DISPARITIES

In six words, tell us your hopes for the future of health and medicine.

People living longer in full health

What do you predict will be the biggest breakthrough in health and medicine in 2013?

I'm too focused on the problems of the present to predict the future.

If you could hear what someone is thinking for a day, whom would you choose?

MY DAUGHTER

What is your hidden talent?

Skiing

TEDMED 2013

THOUGHTS AND IDEAS:

CHRISTOPHER J.L. MURRAY, M.D., D.Phil., is the Director of the Institute for Health Metrics and Evaluation (IHME) and Professor of Global Health at the University of Washington. A physician and health economist, Dr. Murray is widely regarded as one of the founders of modern population health measurement. His work has helped shape public policy in countries around the world. Dr. Murray created the concept of the Global Burden of Disease with Dr. Alan Lopez while working as a professor at the Harvard School of Public Health. Dr. Murray led the coordination of the Global Burden of Disease Study 2010, the most comprehensive assessment to date of levels and trends in health worldwide. Dr. Murray's work has been cited more than 50,000 times in published articles.

27



DANNY HILLIS

Inventor, Scientist, Engineer, Entrepreneur, and Author



THOUGHTS AND IDEAS:



DANNY HILLIS, chairman and co-founder of Applied Minds, is also professor of research medicine at the USC Keck School of Medicine. Previously, Hillis was VP & Disney Fellow, R&D at Disney Imagineering, and co-founder of Thinking Machines Corp. An inventor, scientist, author and engineer, Hillis pioneered the concept of parallel computers that is now the basis for most supercomputers, as well as the RAID disk arrays. He holds over 200 U.S. patents, and is the designer of a 10,000-year mechanical clock. He co-chairs the Long Now Foundation and is Judge Widney professor of engineering and medicine at USC, co-founder of Applied Proteomics, and is on the board of the Hertz Foundation. He is a fellow of the American Academy of Arts and Sciences.

TEDMED 2013 Portrait by ALEXANDER KINTNER 29



DAVID AGUS

Professor of Medicine and Engineering, University of Southern California; Author, *The End of Illness*



Which Great Challenge are you most passionate about?

Whole patient care

In one word, what drives you to innovate?

In six words, tell us your hopes for the future of health and medicine.

Disease prevention, die of old age

What do you predict will be the biggest breakthrough in health and medicine in 2013?

Further understanding of the complex emergent system which is us

If you could hear what someone is thinking for a day, whom would you choose?

ANY ONE OF MY PATIENTS

What is your hidden talent?

I am still trying to find my hidden talent

THOUGHTS AND IDEAS:

Dr. DAVID B. AGUS is a professor of medicine and engineering at the University of Southern California Keck School of Medicine and Viterbi School of Engineering, and heads USC's Westside Cancer Center and the Center for Applied Molecular Medicine. He is one of the world's leading cancer doctors, and the co-founder of two pioneering personalized medicine companies, Navigenics and Applied Proteomics. Dr. Agus is an international leader in new technologies and approaches for personalized healthcare and chairs the Global Agenda Council on Genetics for the World Economic Forum. He has received numerous awards, including the 2009 Geoffrey Beene Foundation's Rockstar of Science Award. Dr. Agus' first book, *The End of Illness*, was published in January, 2012 by Simon & Schuster and is a New York *Times* #1 bestseller. It was also the subject of a PBS series entitled "The End of Illness with Dr. David Agus."

TEDMED 2013 Portrait by YUDI CHEN 31



DAVID ODDE & BLACK LABEL MOVEMENT

Professor and Director of Undergraduate Studies, Department of Biomedical Engineering, University of Minnesota; Dance Theatre

Which Great Challenge are you most passionate about?

David: Future of Personalized Medicine **BLM:** *Promoting Active Lifestyles*

In one word, what drives you to innovate?

David: FUN
BLM: UNDERSTANDING

In six words, tell us your hopes for the future of health and medicine.

David: Virtual cells to guide clinical practice

BLM: Access to universal healthcare for all

What do you predict will be the biggest breakthrough in health and medicine in 2013?

David: Engineered microsystems that detect rare tumor cells circulating in the blood stream

BLM: Forward movement in U.S. Government toward universal healthcare for all

If you could hear what someone is thinking for a day, whom would you choose?

David: Stephen Colbert **BLM:** Ohad Naharin

What is your hidden talent?

David: Fairly tough in front of a broomball net

BLM: I hold a law degree and practice for a social justice organization

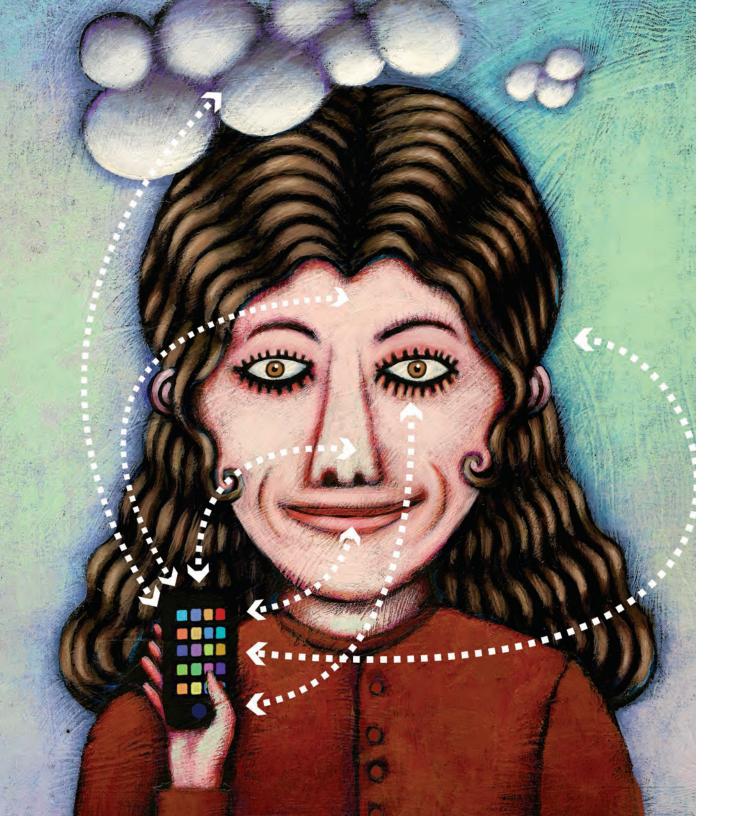
THOUGHTS AND IDEAS:

DAVID ODDE, a professor of biomedical engineering at the University of Minnesota, studies the mechanics of cell division and migration. His group builds computer models of cellular and molecular self-assembly dynamics, and tests them using digital imaging of cells in engineered microenvironments. Current applications include modeling chemotherapeutic effects on cell division and crawling of cancer cells through the brain. Ultimately, his group seeks to use the models to perform virtual screens of potential therapeutic strategies.

Odde is an elected Fellow of the American Institute for Medical and Biological Engineering and of the Biomedical Engineering Society. He served as the inaugural coeditor-in-chief of the journal *Cellular and Molecular Bioengineering*, and also serves on the editorial boards of *Biophysical Journal*, *Current Biology*, and *Physical Biology*.

BLACK LABEL MOVEMENT is a Minneapolis/ St. Paul, Minnesota-based dance theater led by choreographer Carl Flink, who is also the University of Minnesota's Nadine Jette Sween Professor of Dance.

TEDMED 2013 Portrait by ELLEN ALSOP 33



DEBORAH ESTRIN

Professor of Computer Science, Cornell Tech, NYC; Professor of Public Health, Weill Cornell Medical College; Co-founder, Open mHealth



Which Great Challenge are you most passionate about?

Managing chronic diseases

In one word, what drives you to innovate?

NEED

In six words, tell us your hopes for the future of health and medicine.

Productive

co-innovation among patients, clinicians, technologists

What do you predict will be the biggest breakthrough in health and medicine in 2013?

Unlocking the power of personal informatics

If you could hear what someone is thinking for a day, whom would you choose? MICHELLE OBAMA

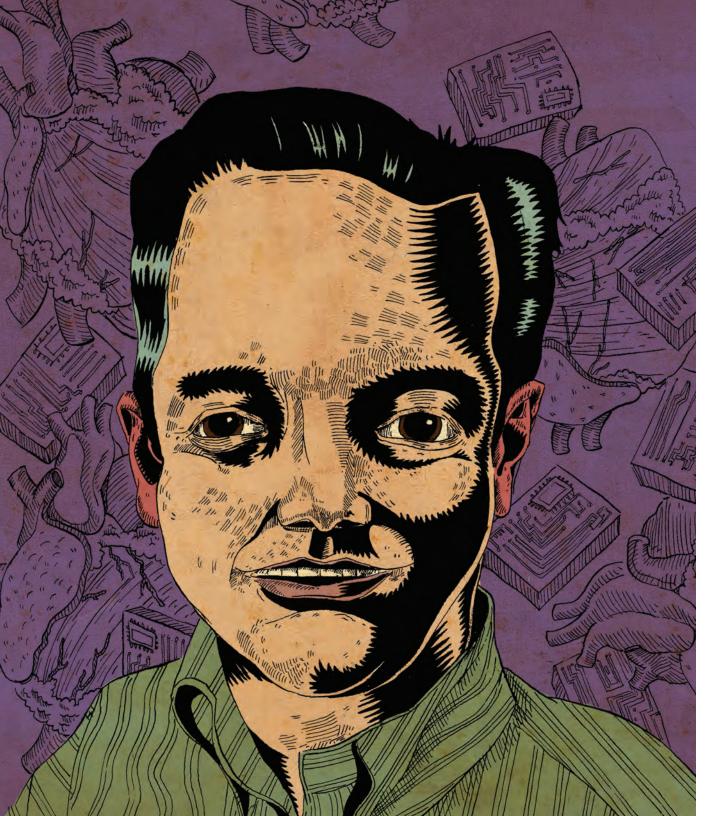
What is your hidden talent?

Pragmatism and **Authenticity**

THOUGHTS AND IDEAS:

at the new Cornell Tech campus in New York City and co-founder of the non-profit startup, Open mHealth. She was previously on faculty at UCLA and Founding Director of the NSF Center for Embedded Networked Sensing (CENS). Estrin is a pioneer in networked sensing, which uses mobile and wireless systems to collect and analyze real time data about the physical world and the people who occupy it. Estrin's current focus is on mobile health (mhealth), leveraging the programmability, proximity, and pervasiveness of mobile devices and the cloud for health management. She is an elected member of the American Academy of Arts and Sciences and the National Academy of Engineering.

TEDMED 2013 Portrait by ROBERT BRINKERHOFF 35



ELAZER EDELMAN

Thomas D. and Virginia W. Cabot Professor, Health Sciences and Technology, MIT Professor of Medicine, Harvard Medical School Director, Harvard-MIT Biomedical Engineering Center; Senior Attending Physician, Brigham and Women's Hospital



Which Great Challenge are you most passionate about?

Achieving Medical Innovation; Whole Patient Care

In one word, what drives you to innovate?

CURIOSITY

In six words, tell us your hopes for the future of health and medicine.

Focus on why/how, not what

What do you predict will be the biggest breakthrough in health and medicine in 2013?

none

If you could hear what someone is thinking for a day, whom would you choose?
CLASSROOM OF FOURTH GRADERS

What is your hidden talent?

Hockey Goalie

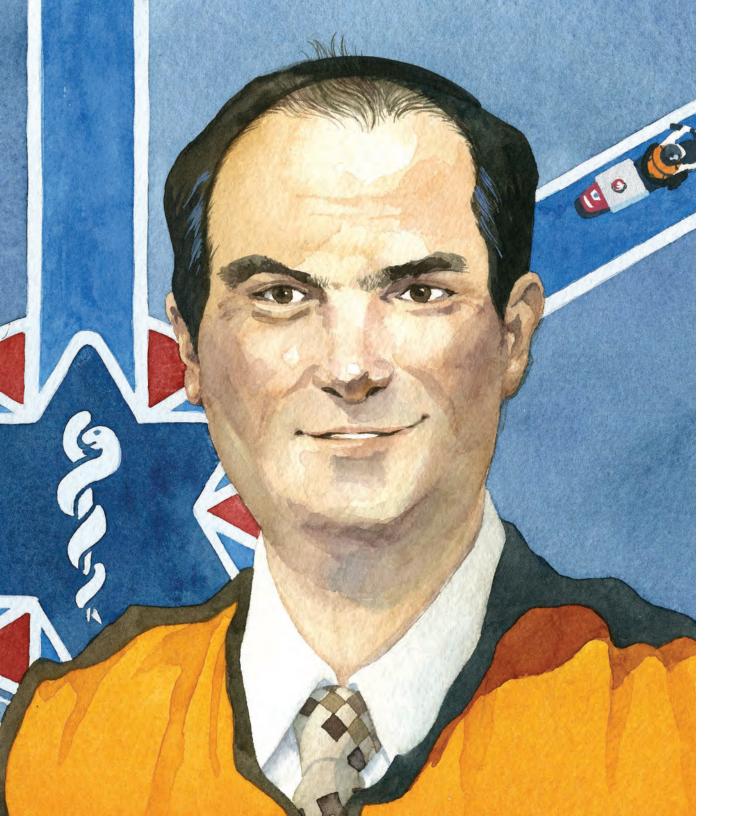
THOUGHTS AND IDEAS:

ELAZER R. EDELMAN holds faculty appointments at MIT where he directs the Biomedical Engineering Center, and Harvard Medical School where he serves as Senior Attending Physician in the Brigham and Women's Hospital Cardiac Intensive Care Unit.

His research combines his scientific and medical training using controlled drug delivery, growth factor biochemistry, tissue engineering, biomaterials-tissue interactions, and continuum mechanics to examine the mechanisms of tissue repair. His laboratory helped develop and optimize bare metal and drug-eluting stents, and advance endothelial cell and vascular biology, computational modeling of vessel formation, and the homology between endothelial paracrine and angiocrine regulation in cancer and vascular diseases.

As Chief Scientific Advisor of *Science Translational Medicine*, he has set the tone for the national debate on translational research and innovation.

TEDMED 2013 Portrait by BENJAMIN NADLER 37



ELI BEER

Founder and President, United Hatzalah



Which Great Challenge are you most passionate about?

Achieving Medical Innovation

In one word, what drives you to innovate?

TRAGEDY

In six words, tell us your hopes for the future of health and medicine.

Prevention is better than a cure

What do you predict will be the biggest breakthrough in health and medicine in 2013?

Social Media

empowering individuals to create lateral alliances to leverage medical knowledge and technology

If you could hear what someone is thinking for a day, whom would you choose? MY WIFE

What is your hidden talent?

Chutzpah;

challenging established ways of doing things to find a better way

THOUGHTS AND IDEAS:

ELI BEER was born in Israel, where he witnessed his first terror attack at the age of seven. This traumatic experience, coupled with his desire to help save people, encouraged him to become a volunteer medic. Beer has been involved in emergency medical first response in Israel since 1988. With 25 years of lifesaving experience, he has responded to some of the worst civil, wartime and terror-related incidents. He currently serves as Founder and President of United Hatzalah. Married with five children, when he's not saving lives or guiding United Hatzalah, he manages the family real estate company, Beer Realty.

TEDMED 2013 Portrait by ZOE BAE 39



ELIZABETH MARINCOLA

President, Society for Science & the Public; Publisher, *Science News*



Which Great Challenge are you most passionate about?

Achieving Medical Innovation

In one word, what drives you to innovate?



In six words, tell us your hopes for the future of health and medicine.

Patient Empowerment / Less Intervention / More Prevention

What do you predict will be the biggest breakthrough in health and medicine in 2013?

Clinical application of induced pluripotent stem cells

If you could hear what someone is thinking for a day, whom would you choose?

STEVE JOBS

What is your hidden talent?

Long distance indoor rower

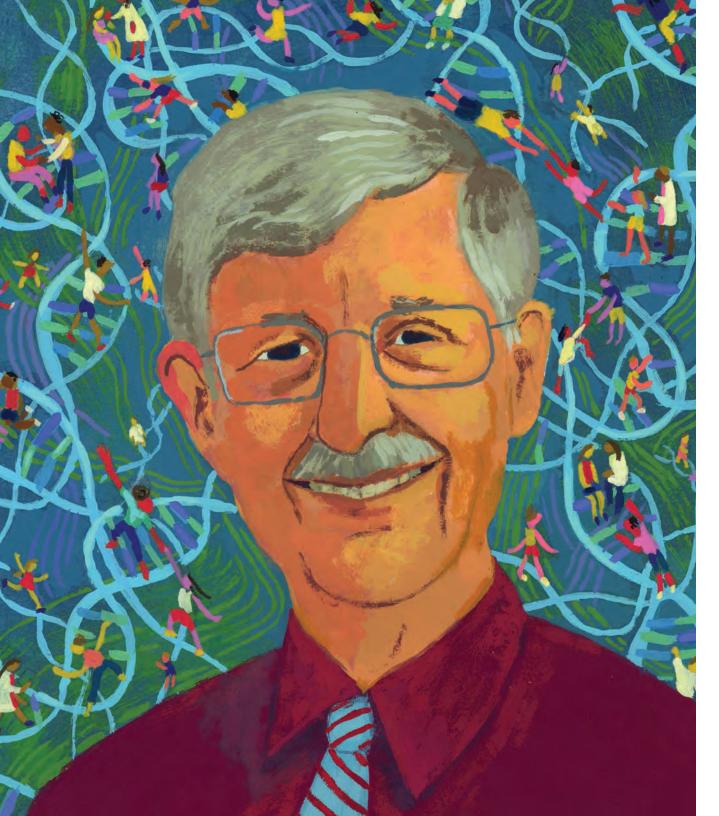
THOUGHTS AND IDEAS:

ELIZABETH MARINCOLA is President of Society for Science & the Public and publisher of *Science News*. She was Executive Director of the American Society for Cell Biology from 1991–2005, receiving the Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring. She was named, with the late actor-advocate Christopher Reeve, the first Citizen Member of the Society.

Marincola is a longstanding advocate for open access publishing, as a founding Director of the PubMed Central Advisory Committee and a Director of the Public Library of Science. She is now Chair of the Board of eLife, a collaboration of the Howard Hughes Medical Institute, the Wellcome Trust and the Max Planck Society.

Marincola publishes a *Huffington Post* blog. She earned her A.B. and M.B.A. at Stanford.

TEDMED 2013 | Portrait by RUJUN LIU 41



FRANCIS COLLINS

Director of the National Institutes of Health



Which Great Challenge are you most passionate about?
Achieving Medical Innovation

In one word, what drives you to innovate?

DESIRE TO SEE MEDICAL BENEFITS COME SOONE

In six words, tell us your hopes for the future of health and medicine.

Every child promised life without disease

What do you predict will be the biggest breakthrough in health and medicine in 2013?

New advances that contribute to the possibility of an AIDS-free generation

If you could hear what someone is thinking for a day, whom would you choose?

ONE OF THE INSPIRING YOUNG AWARDEES OF THE NIH EARLY INDEPENDENCE AWARD PROGRAM

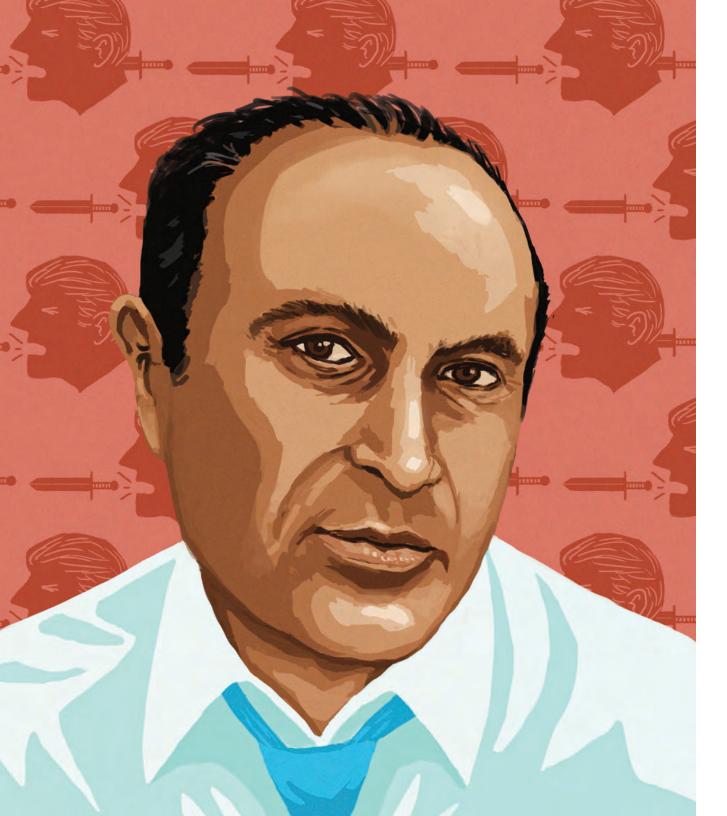
What is your hidden talent?

Music — but some people wish it was even more hidden

THOUGHTS AND IDEAS:

FRANCIS S. COLLINS, M.D., Ph.D., is the director of the National Institutes of Health, where he oversees the world's largest supporter of biomedical research, spanning the spectrum from basic to clinical research. A physician-geneticist, Dr. Collins is noted for his landmark discoveries of disease genes and for his leadership of the international Human Genome Project, which culminated with the 2003 completion of a finished sequence of the human DNA instruction book. He served as director of the National Human Genome Research Institute at the NIH from 1993–2008. Before coming to the NIH, Dr. Collins was a Howard Hughes Medical Institute investigator at the University of Michigan. He is an elected member of the Institute of Medicine and the National Academy of Sciences.

TEDMED 2013 Portrait by ALISON RUTSCH 43



GARY SLUTKIN

Founder and Executive Director of Cure Violence; Professor, Epidemiology and International Health, University of Illinois at Chicago School of Public Health



Which Great Challenge are

you most passionate about? Impact of Stress In one word, what drives you

to innovate?

In six words, tell us your hopes for the future of health and medicine.

Societal decisions are driven by health

What do you predict will be the biggest breakthrough in health and medicine in 2013?

Innovations in where and how health care is delivered, e.g., in homes and neighborhoods

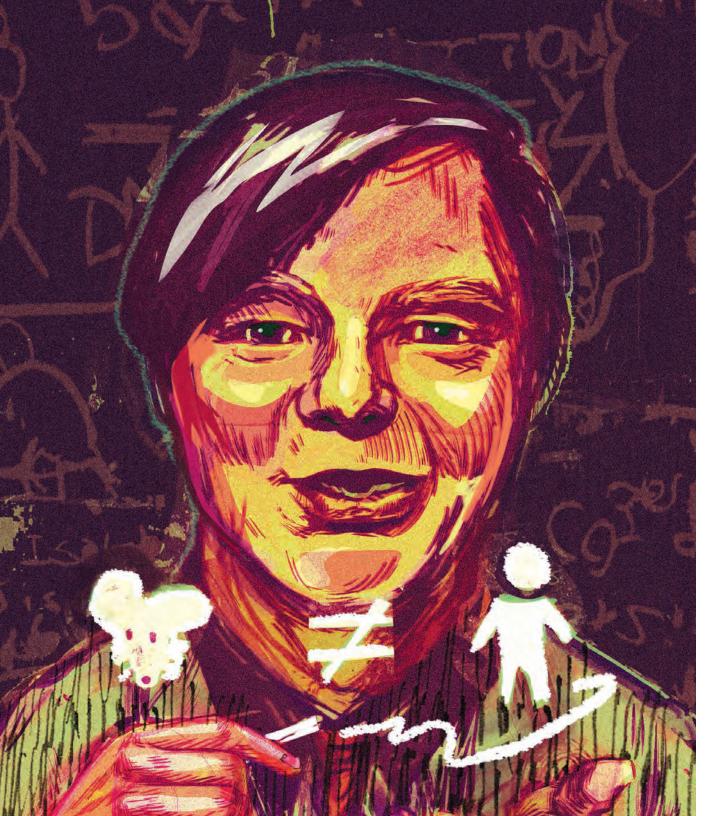
If you could hear what someone is thinking for a day, whom would you choose? A WHALE

What is your hidden talent?

Visualizing possible solutions

Dr. **GARY SLUTKIN**, an epidemiologist, is the founder and executive director of Cure Violence, based at the University of Illinois at Chicago School of Public Health. Cure Violence applies lessons Dr. Slutkin learned in his decade-plus experience at WHO, fighting disease epidemics in Africa and Asia, to the problem of violence. Cure Violence's public health approach has been statistically validated by two independent evaluations conducted by the Department of Justice and the CDC. The organization is currently being promoted or endorsed by the Institute of Medicine, National League of Cities, the National Governors Association, and the White House. In addition, the Cure Violence program is now being replicated at more than 30 sites in 15 U.S. cities, as well as five countries abroad.

45 TEDMED 2013 Portrait by PALLY ZHANG



H. SHAW WARREN

Physician and Pediatrician, Massachusetts General Hospital; Associate Professor of Pediatrics, Harvard Medical School



Which Great Challenge are you most passionate about?

Achieving Medical Innovation

In one word, what drives you to innovate?

Curiosity

In six words, tell us your hopes for the future of health and medicine.

EQUAL AFFORDABLE EXCELLENT CARE FOR ALL

What do you predict will be the biggest breakthrough in health and medicine in 2013?

Ability to (re) program cells

If you could hear what someone is thinking for a day, whom would you choose?

MY DOG

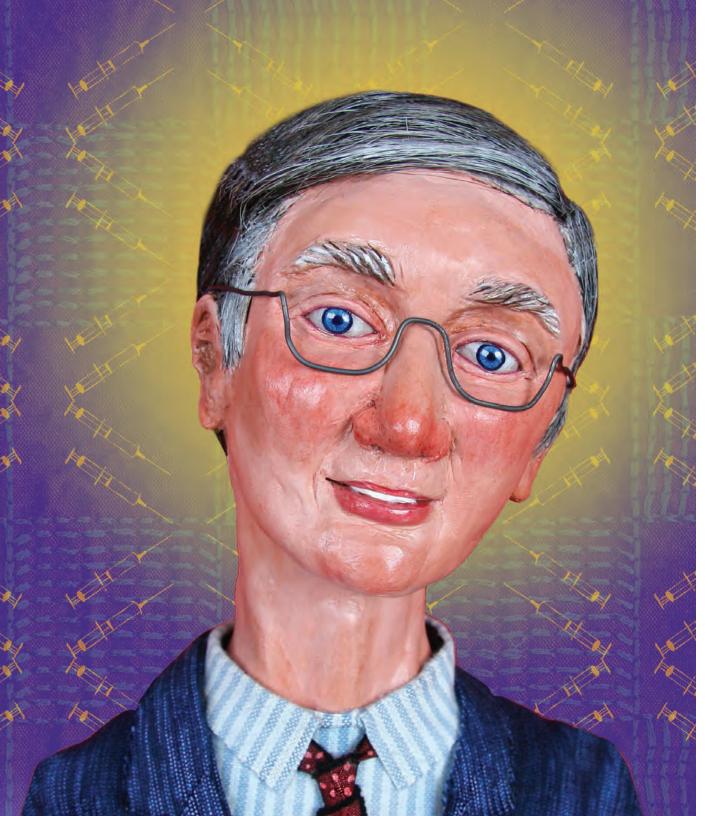
What is your hidden talent?

This is yet to be discovered

THOUGHTS AND IDEAS:

H. SHAW WARREN, M.D., is a physician and pediatrician in the Infectious Disease Unit at Massachusetts General Hospital in Boston and is an Associate Professor at Harvard Medical School. Shaw received his training from Harvard College and Harvard Medical School, and did further training in Infectious Disease in Boston and at the Institut Pasteur in Paris before returning to Boston. Shaw's research has focused on basic science and analysis of clinical studies in the area of host response and inflammation. He is director of SPIRIT (Species Inspired Research for Innovative Treatments), a new program whose overarching goal is to discover better approaches for drug development.

TEDMED 2013 Portrait by JACKIE FERRENTINO 4



HARVEY FINEBERG

President, Institute of Medicine



Which Great Challenge are you most passionate about?

Making Prevention Popular

In one word, what drives you to innovate?



In six words, tell us your hopes for the future of health and medicine.

Healthy individuals in healthy communities

What do you predict will be the biggest breakthrough in health and medicine in 2013?

Targeted cancer treatment

If you could hear what someone is thinking for a day, whom would you choose? MARY WILSON

What is your hidden talent?

Folding clothes

THOUGHTS AND IDEAS:

Medicine, one of the U.S. National Academies. He served as provost of Harvard University (1997–2001) after 13 years as Dean of the Harvard School of Public Health. He has devoted most of his academic career to the fields of health policy and medical decision-making. His past research has focused on the process of policy development and implementation, assessment of medical technology, evaluation and use of vaccines, and dissemination of medical innovations. Dr. Fineberg helped found and served as president of the Society for Medical Decision Making and has been a consultant to WHO. At IOM, he has chaired and served on a number of panels dealing with health policy issues, ranging from AIDS to new medical technology.

TEDMED 2013 Portrait by TENY EURDEKIAN



ISAAC KOHANE

Professor of Pediatrics and Health Sciences Technology, Harvard Medical School



Which Great Challenge are you most passionate about?

Faster Adoption of Best Practices

In one word, what drives you to innovate?

STATUS QUO

In six words, tell us your hopes for the future of health and medicine.

Data driven transparent and precise decisions

What do you predict will be the biggest breakthrough in health and medicine in 2013?

Wider disease applicability will be found for specific antiinflammatory agents currently on the market.

If you could hear what someone is thinking for a day, whom would you choose?

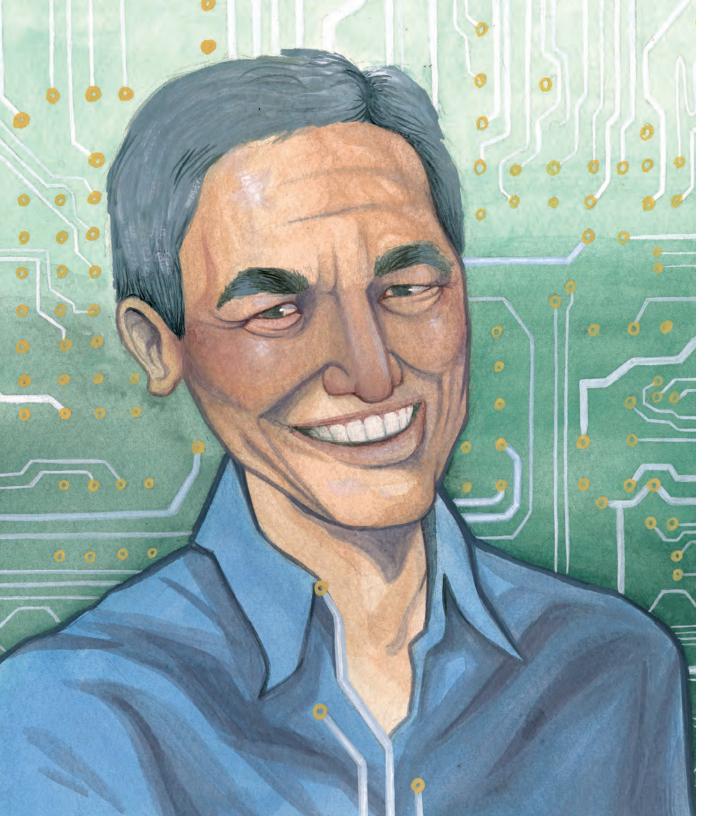
DOUGLAS HOFSTADTER

What is your hidden talent?
I can accurately
VISUALIZE
career trajectories for young people.

THOUGHTS AND IDEAS:

ISAAC KOHANE, M.D., Ph.D., co-directs Harvard Medical School's Center for Biomedical Informatics. He applies computational techniques, whole genome analysis, and functional genomics to study human diseases through the developmental lens. Kohane has led the use of whole healthcare systems, notably in the i2b2 project, as "living laboratories" to drive discovery research in disease genomics (with a focus on autism) and pharmacovigilance (including providing evidence for the cardiovascular risk of hypoglycemic agents which ultimately contributed to "black box"-ing by the FDA) and comparative effectiveness with software and methods adopted in over 84 academic health centers internationally. Dr. Kohane has published over 200 papers in the medical literature and authored a widely used book, Microarrays for an Integrative Genomics.

TEDMED 2013 Portrait by RUJUN LIU 51



JAY WALKER

TEDMED Curator



Which Great Challenge are you most passionate about?

MAKING PREVENTION

Popular and Profitable

In one word, what drives you to innovate?

CURIOSITY

In six words, tell us your hopes for the future of health and medicine.

We can

invent a better way

What do you predict will be the biggest breakthrough in health and medicine in 2013?

A tipping point in consumer awareness

If you could hear what someone is thinking for a day, whom would you choose?

THE NEW POPE

What is your hidden talent?

Wac-A-Mole

THOUGHTS AND IDEAS:

JAY WALKER, curator and chairman of TEDMED, LLC is a longtime TEDster and TEDMED supporter, having made over a dozen well-received presentations at the two conferences. One of America's best-known business inventors and entrepreneurs, Jay has founded multiple successful startup companies that today serve more than 75 million customers in 15 different industries. He is chairman of Walker Digital, a privately-held R&D lab founded in 1994 and based in Stamford, Connecticut. The company has specialized in creating innovative applications that work with large-scale networks such as cell phones and the Internet, notably including priceline.com. Jay is also known as the founder-curator of the Library of the History of Human Imagination, recently named one of the world's 20 greatest libraries — the only private institution so honored.

TEDMED 2013 Portrait by LEAH ARTWICK 53



JESSICA RICHMAN

Co-Founder, uBiome



Which Great Challenge are you most passionate about?

Achieving Medical Innovation

In one word, what drives you to innovate?

EXCITEMENT

In six words, tell us your hopes for the future of health and medicine.

EQUALITY, LONGEVITY, UBIQUITY, CONNECTION, HOLISM, LOVE

What do you predict will be the biggest breakthrough in health and medicine in 2013?

Citizen science – involving the public directly in health and medicine - will lead to unexpected breakthroughs in understanding of the human body. Expanding the range of human creativity and intelligence through tools that allow everyone to participate is the next step in learning about health and curing disease.

If you could hear what someone is thinking for a day, whom would you choose? CHELSEA CLINTON

What is your hidden talent? I don't think I have enough talents to hide any of them! **THOUGHTS AND IDEAS:**

JESSICA RICHMAN started and sold her first company after high school. At Stanford University she earned degrees in Economics and Science, Technology and Society (with a computer science focus). Along the way, she worked for Google, McKinsey, Lehman Brothers, the Grameen Bank, and top-tier Silicon Valley venture firms. Jessica arrived at Oxford University as a Clarendon Scholar and completed an M.Sc. at the Oxford Internet Institute. She is currently a D.Phil. student at Oxford with a focus on innovation, social networks, and collective intelligence.

Jessica is a co-founder of uBiome, the world's largest successful citizen science project. UBiome has been featured in *Wired, MIT Technology Review, Scientific American,* NPR, FoxNews, ABC News, and dozens of other media outlets. Jessica is also founder of Sciencecitizen.org, an organization that helps researchers incorporate the public into their work.

TEDMED 2013 Portrait by SARA BLOEM 55





Songstress



THOUGHTS AND IDEAS:



Over the course of five albums and a decade of recording, JILL SOBULE has mused on topics such as the death penalty, anorexia, shoplifting, reproduction, the French resistance movement, adolescence and the Christian right. Sobule inducted Neil Diamond into the Songwriter's Hall of Fame. She has performed with Neil Young, Billy Bragg, the late Warren Zevon, and has been a political troubadour for NPR stations across America. She is an American original.

TEDMED 2013 Portrait by JESSICA ALICE KLEINMAN 57



JOHN KHEIR

Staff Physician and Scientist, Cardiac Intensive Care Unit, Department of Cardiology at Boston Children's Hospital; Instructor of Pediatrics, Harvard Medical School



Which Great Challenge are you most passionate about?

Achieving Medical Innovation

In one word, what drives you to innovate?

EXCITEMENT

In six words, tell us your hopes for the future of health and medicine.

That nobody would die of hypoxia

What do you predict will be the biggest breakthrough in health and medicine in 2013?

Integrating evidence to real-time decision making.

If you could hear what someone is thinking for a day, whom would you choose? JESUS

What is your hidden talent?

Jerry-rigging things

THOUGHTS AND IDEAS:

JOHN KHEIR, M.D. is a staff physician in the Cardiac Intensive Care Unit at Boston Children's Hospital and an Instructor of Pediatrics at Harvard Medical School. He has developed and tested methods for the intravenous administration of oxygen using gas-filled microparticles. He is now the principal investigator at a lab which is further developing this concept and testing it in a variety of animal models.

John earned his B.S. in Chemistry and his M.D. from the University of Virginia. A residency in Pediatrics at Cincinnati Children's Hospital was followed by fellowships in Pediatric Intensive Care Medicine and Pediatric Cardiac Intensive Care Medicine at Boston Children's Hospital.

TEDMED 2013 Portrait by PALLY ZHANG 59



JOHN MAEDA

President, Rhode Island School of Design (RISD)



Which Great Challenge are you most passionate about?
The role of the patient

In one word, what drives you to innovate?

In six words, tell us your hopes for the future of health and medicine.

Low cost. High quality. No errors.

What do you predict will be the biggest breakthrough in health and medicine in 2013?

No idea.

If you could hear what someone is thinking for a day, whom would you choose? DANIEL KAHNEMAN

What is your hidden talent?

Origami

THOUGHTS AND IDEAS:

JOHN MAEDA is a leader who integrates technology, design and leadership into a 21st-century synthesis of creativity and innovation. An artist, graphic designer, computer scientist and educator, he was named one of the 75 most influential people of the 21st century by *Esquire*.

As president of Rhode Island School of Design since 2008, Maeda is leading the movement to transform STEM (Science, Technology, Engineering, and Math) to STEAM by adding Art. Called the "Steve Jobs of academia" by *Forbes*, his current focus is on imagining how design and technology can bring clarity to leadership in the era of social media.

Maeda previously served as associate director of research at MIT Media Lab. His books include *The Laws of Simplicity, Creative Code,* and *Redesigning Leadership*.

TEDMED 2013 Portrait by LISE SASAKI 61



JONATHAN BUSH

Co-Founder, President, Chairman and CEO, athenahealth



Which Great Challenge are you most passionate about?

innovation

In one word, what drives you to innovate?

FEAR

In six words, tell us your hopes for the future of health and medicine.

Healthcare choice becomes a form of self-expression

What do you predict will be the biggest breakthrough in health and medicine in 2013?

Diagnostics on an iPhone will exceed the quality of diagnostics obtained in the doctor's office.

If you could hear what someone is thinking for a day, whom would you choose?

BARACK OBAMA

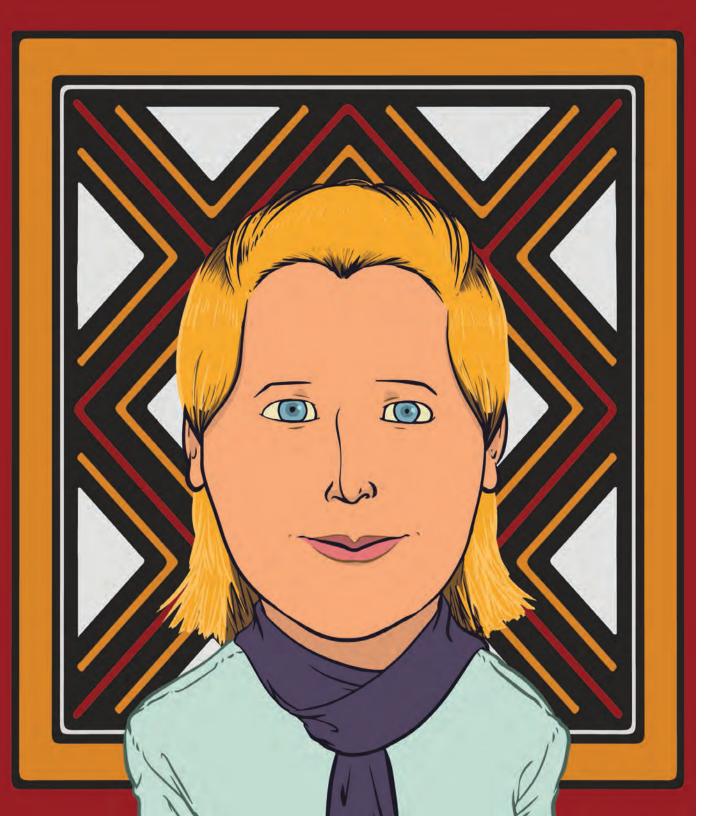
What is your hidden talent?

A strong feminine side

THOUGHTS AND IDEAS:

JONATHAN BUSH is co-founder, CEO and president of athenahealth, a women's health practice management company pursuing a vision of an information backbone that makes healthcare work as it should. Now a leading provider of cloud-based business services to U.S. medical groups, athenahealth serves over 38,000 providers across its practice management, electronic health record (EHR), and care coordination services. The company generates over \$400 million in annual revenue and was ranked 4th in the Forbes Fast Tech 25, a list of America's 25 fastest-growing tech companies. Mr. Bush, a Harvard M.B.A., previously served as an EMT for the City of New Orleans, was trained as a medic in the U.S. Army, and worked as a management consultant with Booz Allen Hamilton.

TEDMED 2013 Portrait by SUZANNE GEARY 63



KELLI SWAZEY

Anthropologist



Which Great Challenge are you most passionate about?
Whole-Patient Care
In one word, what drives you to innovate?

PEOPLE

In six words, tell us your hopes for the future of health and medicine.

Making healthcare inclusive of human experience

What do you predict will be the biggest breakthrough in health and medicine in 2013?

I predict the greatest innovation will be the re-imagination of what being healthy means to us as a society, and how that will impact what the healthcare system of the future will look like.

If you could hear what someone is thinking for a day, whom would you choose?

ANYONE.

It was my dream as a child to have a superpower that would allow me to hear people's thoughts. Since that wasn't possible, I just became an anthropologist. We can learn such amazing things about ourselves when we try to understand someone else's view of the world.

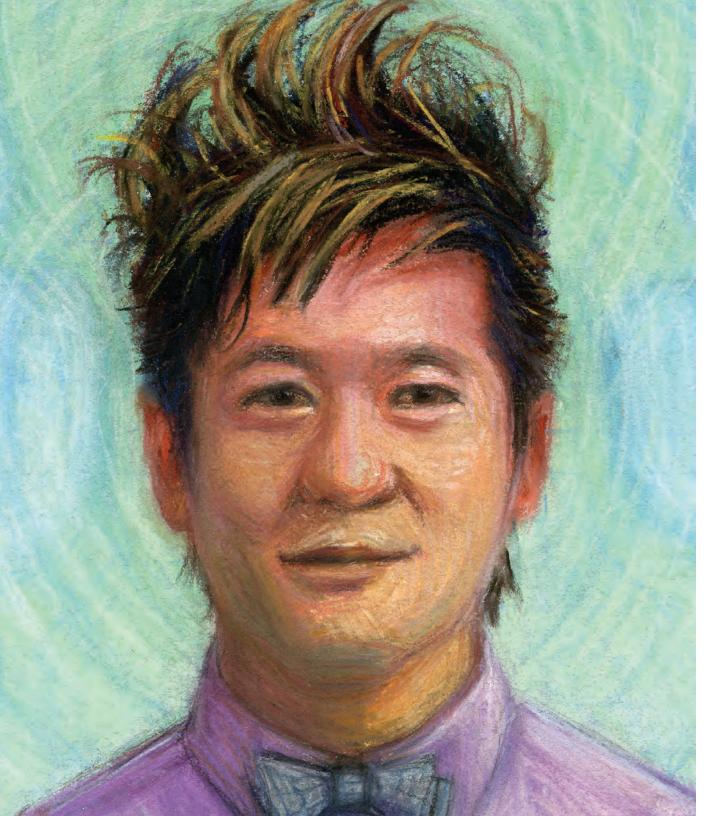
What is your hidden talent?

The "art of deep hanging out"

THOUGHTS AND IDEAS:

KELLI SWAZEY, Ph.D., is a cultural anthropologist who investigates the role that spiritual and religious practices play in defining group identity. She has conducted research on Indonesian society and culture as a National Science Foundation Graduate Fellow, a Fulbright-Hayes researcher, and a fellow of the East West Center in Honolulu, Hawai'i. In her current position as a lecturer at the Center for Religious and Cross-Cultural Studies (CRCS) at Gadjah Mada University in Central Java, Indonesia, she is engaged in community outreach programs that seek to give people tools for thinking about human difference. She also consults for cultural exchange and youth leadership programs that introduce the anthropological approach to studying 'others' as a means of empowering people to become self-aware citizens of the world.

TEDMED 2013 Portrait by KAREN JY SUNG 65



KISHI BASHI

Singer-songwriter, composer and performing artist



Which Great Challenge are you most passionate about?

Impact of Poverty on Health

In one word, what drives you to innovate?

INSPIRATION

In six words, tell us your hopes for the future of health and medicine.

Affordable access to quality healthcare

THOUGHTS AND IDEAS:

Kaoru Ishibashi, who goes by the professional name **KISHI BASHI**, is a singer-songwriter, composer and performing artist who appears both solo and with groups. He plays multiple instruments including violin, keyboard and guitar, and his musical repertoire ranges from indie pop and rock to psychedelic pop. He sometimes uses Japanese singing as one of many sound layers in his creations, helping to suggest (to Western ears, at least) a sense of the ineffable. His first EP, *Room For Dream*, was released on Aerobic International in 2011. The artist describes it as "a dance between the earthbound materialism of captured art and its airy origins." A second album, entitled 151a, appeared in 2012 on the Joyful Noise label.

TEDMED 2013 Portrait by SUSAN DOYLE 67



LARRY BRILLIANT

President and CEO, Skoll Global Threats Fund



THOUGHTS AND IDEAS:



LARRY BRILLIANT, M.D. Ph.D., is the President and CEO of the Skoll Global Threats Fund. He heads a team whose mission is to confront global threats imperiling humanity. Prior to joining Skoll, Larry was a vice president at Google, and Executive Director of Google.org. He co-founded The Well, a pioneering digital community, and founded The Seva Foundation, an NGO whose programs have given back sight to more than three million blind people in 20 countries. Larry lived in India for more than a decade, where he helped run the successful World Health Organization (WHO) smallpox eradication program. His recent awards include "TED Prize" and TIME magazine's "100 Most Influential People."

TEDMED 2013 Portrait by KELLY MURPHY 69



LARRY SMARR

Professor, University of California, San Diego, Director Calit2



Which Great Challenge are you most passionate about?

Future of personalized medicine

In one word, what drives you to innovate?

SCIENTIFIC DISCOVERY

In six words, tell us your hopes for the future of health and medicine.

From chronic disease to healthy living

What do you predict will be the biggest breakthrough in health and medicine in 2013?

Integrated Personal Health Portals

one is thinking for a day, whom would you choose? GEORGE CHURCH

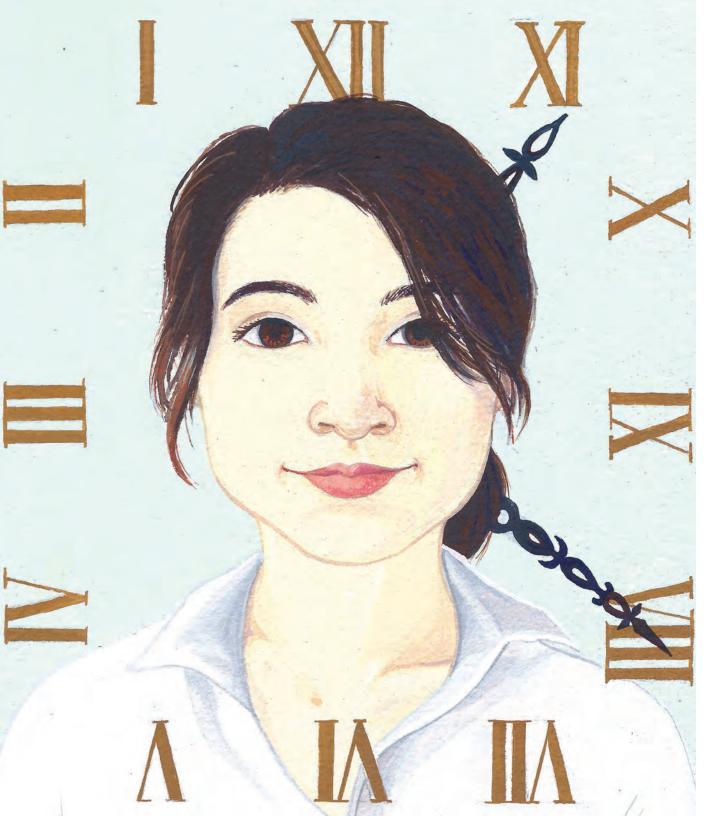
What is your hidden talent?

Following my inner sense of discovery

THOUGHTS AND IDEAS:

LARRY SMARR is the founding Director of the California Institute for Telecommunications and Information Technology (Calit2) and the Harry E. Gruber professor in UCSD's Department of Computer Science and Engineering (CSE). Before that he served as founding Director of the National Center for Supercomputing Applications (NCSA). He is a member of the National Academy of Engineering and a Fellow of the American Physical Society and the American Academy of Arts and Sciences. He serves on the NASA Advisory Council to the NASA Administrator, the DOE ESnet Policy Board, and chairs the NSF Advisory Committee on Cyberinfrastructure. For eight years he was a member of the NIH Advisory Committee to the NIH Director, serving three directors. His life-streaming portal is http://lsmarr.calit2.net.

TEDMED 2013 Portrait by DEREK TIMM-BROCK 71



LAURA DEMING

Partner, The Longevity Fund



Which Great Challenge are you most passionate about?

All of the Great Challenges

In one word, what drives you to innovate?

SYNAPSES

In six words, tell us your hopes for the future of health and medicine.

Biology will become a real science

What do you predict will be the biggest breakthrough in health and medicine in 2013?

Next-generation sequencing

If you could hear what someone is thinking for a day, whom would you choose?

NIKOLA TESLA

What is your hidden talent?

INDUBITABLENESS

THOUGHTS AND IDEAS:

Currently a *Forbes* 30 under 30 star and partner at The Longevity Fund, **LAURA DEMING** has wanted to cure aging since the age of eight. After years working on nematode longevity at the UCSF graduate school, Laura matriculated at MIT at 14 to work on artificial organogenesis and bone aging, and is now based in San Francisco, working to find and fund therapies to extend the human healthspan.

TEDMED 2013 Portrait by SUSIE SO 73



MANZARI BROTHERS

Tap Dancers, Performers



Which Great Challenge are you most passionate about?

Leo: Reducing Childhood Obesity **John:** *Promoting Active Lifestyles*

In one word, what drives you to innovate?

Leo: HAPPINESS John: DISSATISFACTION

In six words, tell us your hopes for the future of health and medicine.

Leo: For medicine to become easily accessible

John: Affordable preventive care, promoting individual responsibility

What do you predict will be the biggest breakthrough in health and medicine in 2013?

Leo: Another large advancement in molecular biology.

Leo: The eradication of Polio

If you could hear what someone is thinking for a day, whom would you choose?

Leo: Chris Lorrain. I feel that it would be very interesting to experience his brain work.

John: MAHMOUD AHMADINEJAD

What is your hidden talent?

Leo: PLAYING BASKETBALL

John: APPARENTLY IT'S HIDING TALENT

THOUGHTS AND IDEAS:

The MANZARI BROTHERS, John and Leo, rocketed to overnight national stardom in 2010. Then ages 17 and 15, respectively, they co-starred with tap-dance legend Maurice Hines in Sophisticated Ladies at the Lincoln Theater in Washington, D.C. Hines, who discovered the Brothers and subsequently became their mentor, said John and Leo embody the great vaudeville tradition of performers who can "do it all" with style and charisma — tap, jazz, swing, ballet, calypso, singing and acting. John and Leo have appeared on PBS's NewsHour, America, America with Grammy-winning vocalist BeBe Winans, the Jerry Lewis Telethon, The Mo'Nique Show and the season finale of So You Think You Can Dance. Notable live performances include appearances with the Smithsonian Jazz Masterworks Orchestra, and others.

TEDMED 2013 Portrait by ALEX ROWE 75



MARIANO VÁZQUEZ

Researcher, Barcelona Computing Center



Which Great Challenge are you most passionate about?
Future of Personalized

Medicine Medicine

In one word, what drives you to innovate?

Curiosity

In six words, tell us your hopes for the future of health and medicine.

Massive use of computational resources

What do you predict will be the biggest breakthrough in health and medicine in 2013?

The biggest breakthroughs in health and medicine are beyond the scope of my imagination

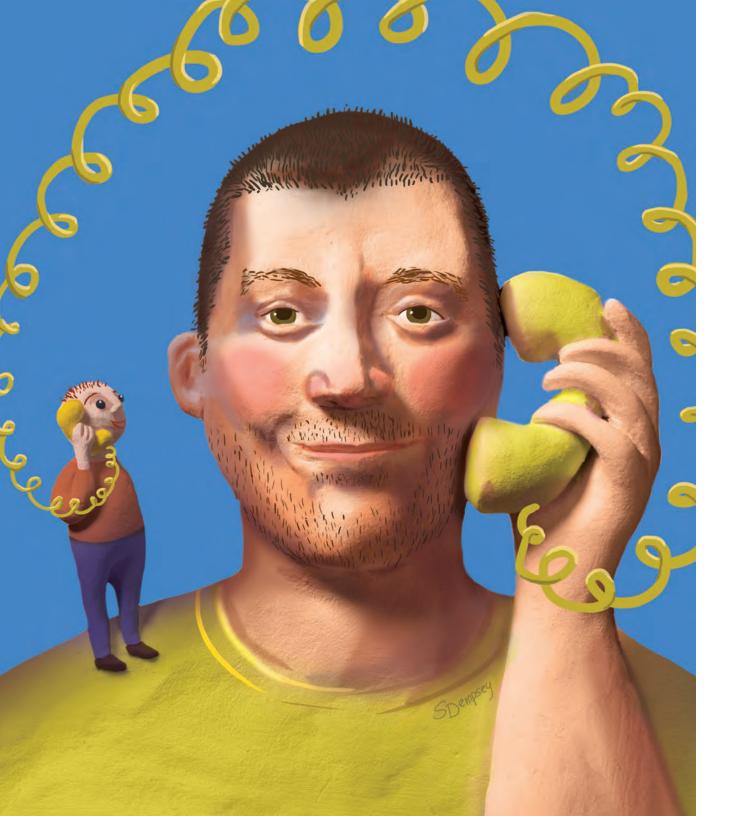
If you could hear what someone is thinking for a day, whom would you choose? MY GIRLFRIEND

What is your hidden talent?

Ask my girlfriend (or wait until the day I can read her mind) **THOUGHTS AND IDEAS:**

MARIANO VÁZQUEZ, Ph.D., is a researcher at the Barcelona Supercomputing Center. He helps lead a multi-disciplinary, international team of 25 researchers from the fields of mathematics, physics, computer sciences and engineering. Their common goal: to better understand nature through creating a "computational world" employing the world's most powerful supercomputers. The vast application field covers aerospace, meteorology, societal behavior, energy, environment, and biomedical research. Born in Buenos Aires, he holds degrees in physics from the Universidad de Buenos Aires (Argentina) and the Universitat Politecnica de Catalunya, in Barcelona. He has been a postdoctoral researcher at Dassault Aviation and INRIA Sophia Antipolis (France), consultant at a software company in Palma de Mallorca, and professor in Girona (Spain).

TEDMED 2013 Portrait by RACHEL BRANHAM 77



MAX LITTLE

Wellcome Trust/MIT Fellow, MIT Media Lab Human Dynamics Group, Visiting Senior Research Associate, Oxford Complete Systems



Which Great Challenge are you most passionate about?
Future of Personalized

MEDICINE

In one word, what drives you to innovate?

Dissatisfaction

In six words, tell us your hopes for the future of health and medicine.

Biology exploits computation and data.

What do you predict will be the biggest breakthrough in health and medicine in 2013?

Participatory medicine.

If you could hear what someone is thinking for a day, whom would you choose?

BURT RUTAN

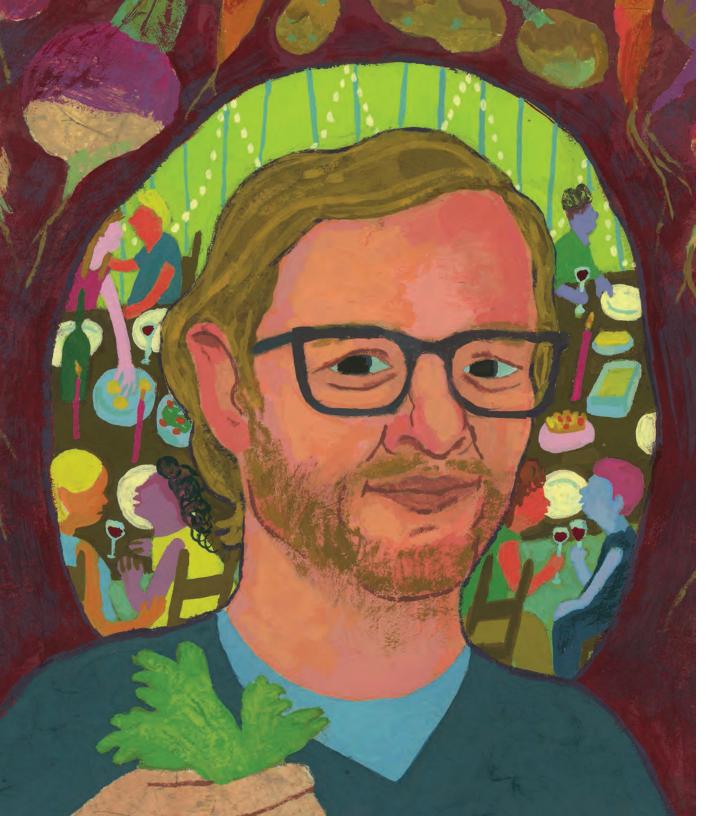
What is your hidden talent?

Musical composition

THOUGHTS AND IDEAS:

MAX LITTLE is an applied mathematician whose goal is to "see connections between subjects, not boundaries...to see how things are related, not how they are different." He has a background in applied mathematics, statistics, signal processing and computational engineering. His work has been applied across disciplines like biomedicine, extreme rainfall analysis and forecasting, biophysical signal processing, and hydrogeomorphology and open channel flow measurement. Little is best known for his work on the Parkinsons Voice Initiative, in which he and his team developed a cheap and simple tool that uses precise voice analysis software to detect Parkinsons with 99 percent accuracy. Little is a TEDGlobal 2012 Fellow and a Wellcome Trust-MIT Postdoctoral Research Fellow.

TEDMED 2013 Portrait by SAMANTHA DEMPSEY 79



MICHAEL HEBB

Food Provocateur and Founder, One Pot



Which Great Challenge are you most passionate about?

End of Life Care

In one word, what drives you to innovate?

Freedom

In six words, tell us your hopes for the future of health and medicine.

Heal fear

What do you predict will be the biggest breakthrough in health and medicine in 2013?

It is my hope that the extremely important work being done in the intersecting fields of meditation, mindfulness and neuroscience continue to gain credibility I believe we have only begun to scratch the surface of our ability to heal from the inside.

If you could hear what someone is thinking for a day, whom would you choose?

THE DALAI LAMA

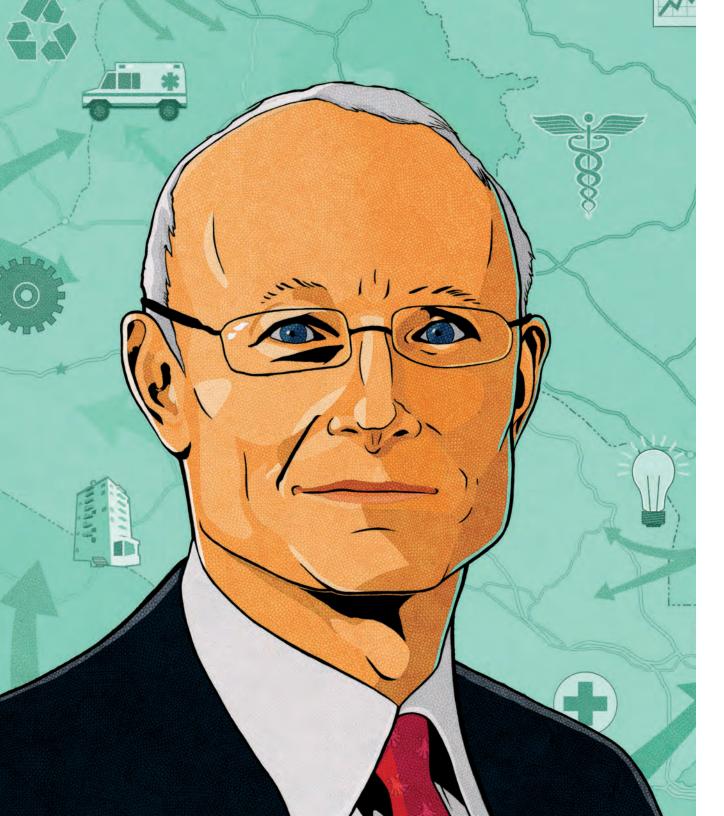
What is your hidden talent?

Table Tennis

THOUGHTS AND IDEAS:

MICHAEL HEBB is an innovative and influential cultural figure, entrepreneur and activist, described by the New York Times as an "underground restaurateur, impresario and provocateur." He is a leader in staging themed, invitation-only dinners as a vehicle for consciousness raising and social innovation. Michael's creative agency One Pot has worked closely with the Republic of Gabon, the Bill and Melinda Gates Foundation, the Clinton Global Initiative, the X PRIZE Foundation, the FEED Foundation, Architecture For Humanity, and the Summit Series. Michael is the founding Creative Director of The City Arts Festival, the founder of Night School @ The Sorrento Hotel, and is currently a Teaching Fellow at the University of Washington's Digital Media department. He is a co-founder of several Portland, Oregon restaurants and bars.

TEDMED 2013 Portrait by ALISON RUTSCH 81



MICHAEL E. PORTER

Bishop William Lawrence University Professor, Harvard Business School



Which Great Challenge are you most passionate about?

Addressing Healthcare Costs

In one word, what drives you to innovate?

INTRACTABLY COMPLICATED PROBLEMS

CIVII LIO/ (I LD I I TOBLLINIO

In six words, tell us your hopes for the future of health and medicine.

A value-based healthcare delivery system

What do you predict will be the biggest breakthrough in health and medicine in 2013?

The take-off

of true patient outcomes measurement globally

If you could hear what someone is thinking for a day, whom would you choose?

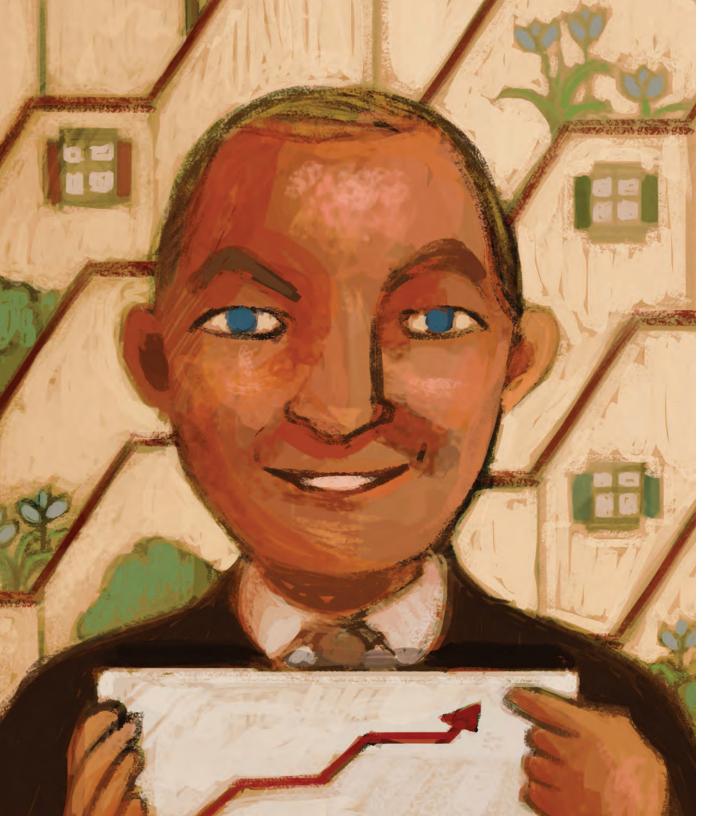
TOBY COSGROVE What is your hidden talent?

Any sport

THOUGHTS AND IDEAS:

MICHAEL E. PORTER, the Bishop William Lawrence University Professor at Harvard Business School, is a leading authority on strategy and the competitiveness of nations and regions. His work, recognized worldwide by governments, corporations, nonprofits, and academia, has redefined thinking about economically distressed urban communities, environmental policy, and corporations' role in society. His 19 books include Redefining Health Care (with Professor Elizabeth Teisberg), which developed a new strategic framework for transforming the value delivered by the healthcare system, with implications for providers, health plans, employers, and government. In 2012 he co-founded the International Consortium for Health Outcomes Measurement (ICHOM), a nonprofit organization committed to the advancement of value-based health care delivery by facilitating outcomes measurement and benchmarking globally.

TEDMED 2013 Portrait by ANTOINE REVOY 83



MICK CORNETT

Mayor of Oklahoma City, Oklahoma



Which Great Challenge are you most passionate about?

The Obesity Crisis

In one word, what drives you to innovate?

Failure

In six words, tell us your hopes for the future of health and medicine.

People inspired to make healthy choices

What do you predict will be the biggest breakthrough in health and medicine in 2013?

An obesity drug breakthrough

If you could hear what someone is thinking for a day, whom would you choose?
KIM JONG-UN

What is your hidden talent?

Knowledge of trivial facts

THOUGHTS AND IDEAS:

The world is noticing Oklahoma City's remarkable renaissance and its popular mayor, **MICK CORNETT**. His list of awards includes nods for urban design, health, sports and the arts. *Newsweek* called him one of the five most innovative Mayors in the country. London-based World Mayors listed him as the No. 2 mayor in the world and *Governing* magazine named him the Public Official of the Year.

Best known for helping Oklahoma City attract an NBA franchise and putting Oklahoma City "on a diet," Cornett also led the charge to pass MAPS 3, an innovative \$800 million investment in parks, urban transit, wellness centers and infrastructure that will dramatically reshape Oklahoma City and enhance the quality of life of its residents.

TEDMED 2013 Portrait by SARA BLOEM 85



MIKE PAZIN

Program Director, Functional Genomics, Division of Genome Sciences, National Human Genome Research Institute



Which Great Challenge are you most passionate about?

FUTURE OF PERSONALIZED

medicine

In one word, what drives you to innovate?

In six words, tell us your hopes for the future of health and medicine.

Better preventative care, keep people

HEALTHY

What do you predict will be the biggest breakthrough in health and medicine in 2013?

Proof of principle that epigenomes or transcriptomes can be used to track disease treatment or progression.

If you could hear what someone is thinking for a day, whom would you choose?

My son

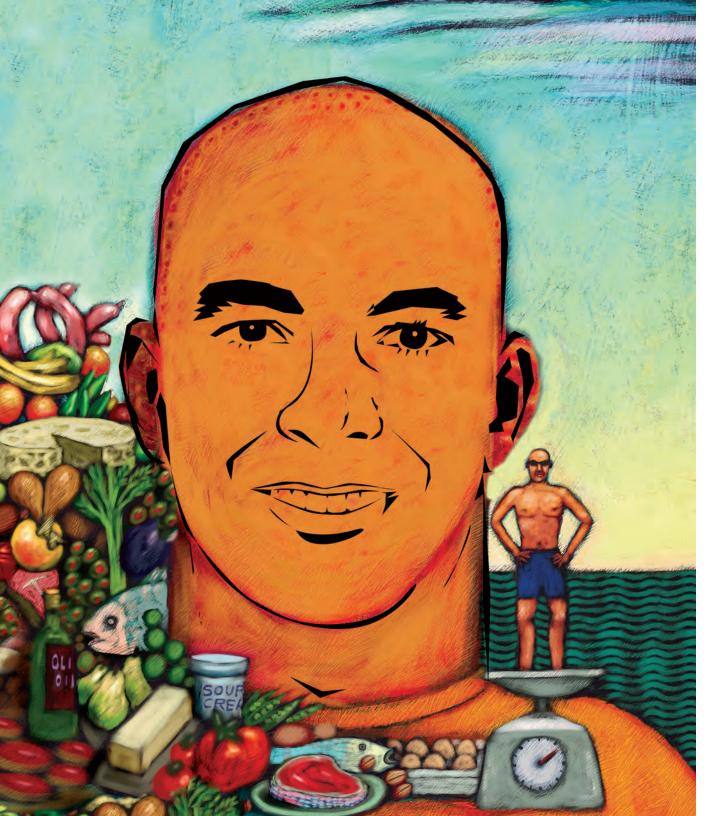
What is your hidden talent?

I play drums.

THOUGHTS AND IDEAS:

MICHAEL J. PAZIN, Ph.D., joined the Extramural Research Program of the National Human Genome Research Institute (NHGRI) in 2011. Mike is part of the NHGRI team overseeing the ENDCODE project, generating an encyclopedia of DNA elements from the human genome. He also manages a portfolio of grants in functional genomics. Prior to joining NHGRI, Dr. Pazin was a principal investigator conducting research on the role of chromatin remodeling in gene regulation, at the National Institute on Aging, and Massachusetts General Hospital/Harvard Medical School. He received his B.S. in chemistry from MIT, his Ph.D. in cell biology from the University of California, San Francisco, and completed postdoctoral training at the University of California, San Diego.

TEDMED 2013 Portrait by KATY STRUTZ 87



PETER ATTIA

Founder and President, Nutrition Science Initiative (NuSI)



Which Great Challenge are you most passionate about?

The Obesity Crisis

In one word, what drives you to innovate?

Enthalpy (mine)

In six words, tell us your hopes for the future of health and medicine.

Right questions, right experiments, right interpretations

What do you predict will be the biggest breakthrough in health and medicine in 2013?

NO MAJOR breakthrough in 2013

If you could hear what someone is thinking for a day, whom would you choose? MY 4 YEAR OLD DAUGHTER. (I WANT TO BE SURE SHE KNOWS HOW MUCH I LOVE HER.)

What is your hidden talent?

perfect circles on a white board.

THOUGHTS AND IDEAS:

PETER ATTIA is a physician and former McKinsey & Company consultant. Peter did his residency in general surgery at the Johns Hopkins Hospital and his fellowship in surgical oncology at the National Institutes of Health's National Cancer Institute under Dr. Steve Rosenberg, where his research focused on the role of regulatory T cells in cancer regression.

Peter is a 2012/2013 recipient of the French-American Foundation Young Leaders Fellowship, which recognizes the most promising leaders in the United States and France under the age of 40.

Peter is the author of the blog The Eating Academy. He earned his M.D. from Stanford University, and holds a B.Sc. in mechanical engineering and applied mathematics from Queen's University in Canada.

TEDMED 2013 Portrait by ROBERT BRINKERHOFF 89



PRITPAL S TAMBER

Founder, Optimising Clinical Knowledge Ltd.



Which Great Challenge are you most passionate about?

Faster Adoption of Best Practices

In one word, what drives you to innovate?

Justice

In six words, tell us your hopes for the future of health and medicine.

Work out why we do stuff

What do you predict will be the biggest breakthrough in health and medicine in 2013?

The acceptance that innovation is hard work

If you could hear what someone is thinking for a day, whom would you choose?

DR. ERNESTO GUEVARA DE LA SERNA

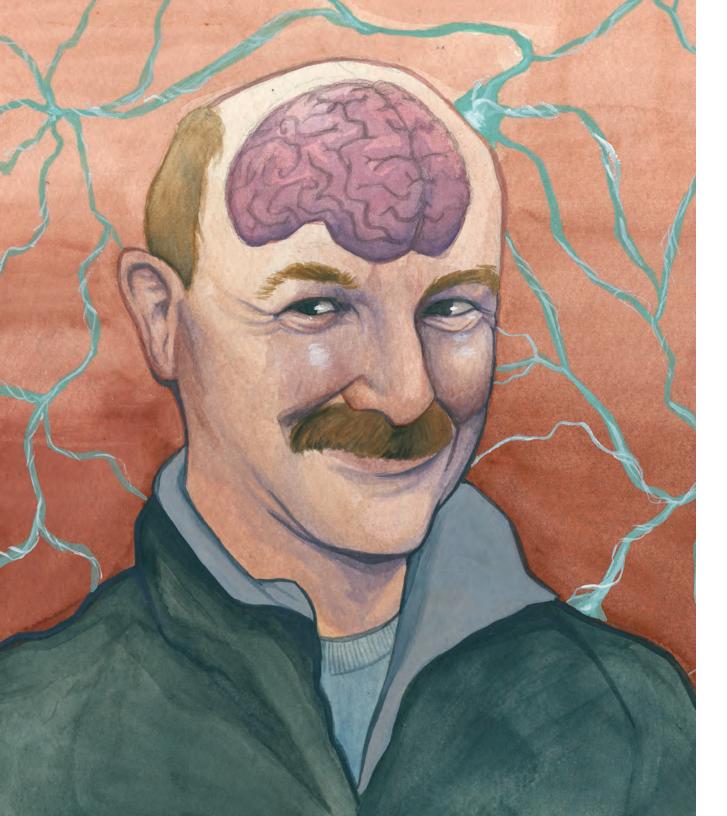
What is your hidden talent?

In-swinging crosses from the right

THOUGHTS AND IDEAS:

PRITPAL S TAMBER, a key member of the TEDMED editorial team, helps qualify and select speakers and assists with strategy for the stage program. A physician with over 12 years' experience in creating compelling content in health and medicine, Pritpal is the founder of Optimising Clinical Knowledge, a UK-based consultancy that helps organizations devise and deliver clinically credible strategies with measurable impact on care. His prior experience includes serving as the Medical Director of Map of Medicine Ltd., a company creating clinical pathways that help local health communities design services. Earlier posts include editorial director for Medicine for BioMed Central, managing director of Faculty of 1000 Medicine, editor/publisher of BMJ Group's international editions, and a council member of the Committee on Publication Ethics.

TEDMED 2013



RAFAEL YUSTE

Professor of Biological Sciences, Columbia University



Which Great Challenge are you most passionate about?

Achieving Medical Innovation

In one word, what drives you to innovate?

DAYDREAMING

In six words, tell us your hopes for the future of health and medicine.

A Psychiatry grounded in Pathophysiology

What do you predict will be the biggest breakthrough in health and medicine in 2013?

Neuronal Prostheses

If you could hear what someone is thinking for a day, whom would you choose?

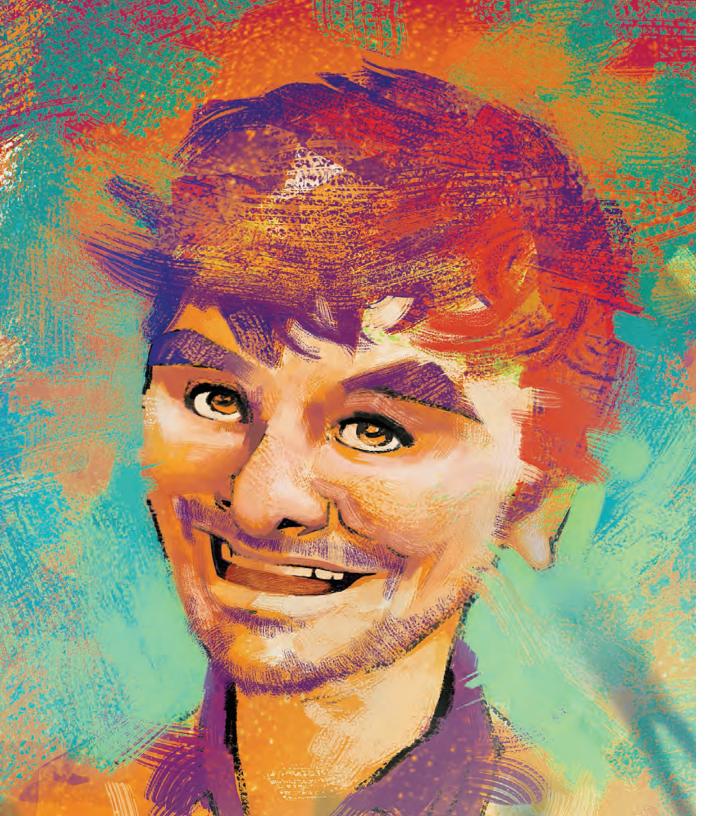
BARACK OBAMA

What is your hidden talent?
ACCURATELY
estimating time

THOUGHTS AND IDEAS:

Dr. RAFAEL YUSTE was tapped by Nature as "one of the five scientists to watch in 2013." An HHMI Investigator, professor of biological sciences and neuroscience at Columbia University and co-director of the Kavli Foundations Institute for Neural Circuitry, he is best known for his role in launching the Brain Activity Map (BAM) project, a large-scale international effort to record and manipulate the activity of every neuron in brain circuits. Dr. Yuste and his laboratory are pursuing a "reverse engineering" strategy to understand the function of the cortical microcircuit, a basic element of cortex architecture. Previously, Dr. Yuste pioneered such innovations as calcium imaging of neuronal circuits, two-photon imaging, photostimulation using caged compounds and holographic spatial light modulation microscopy.

TEDMED 2013 Portrait by LEAH ARTWICK 93



RAGHAVA KK

Multidisciplinary Contemporary Artist



Which Great Challenge are you most passionate about?

IMPACT OF STRESS

In one word, what drives you to innovate?

HOPE

In six words, tell us your hopes for the future of health and medicine.

Complete love, responsibility, PARTICIPATION AND OWNERSHIP

What do you predict will be the biggest breakthrough in health and medicine in 2013?

INNOVATION IN THE HEALTH CARE INDUSTRY WILL FOCUS ON PATIENT PARTICIPATION AS OPPOSED TO THE DEPLOYMENT OF SERVICES.

If you could hear what someone is thinking for a day, whom would you choose?

Practically anybody,

because the brain is such a beautiful device! I would rather go with someone who is inarticulate, because of the potential insights into human behavior that this could lead to. We always know much more than we can say or show that we know.

What is your hidden talent?

Dog Training

THOUGHTS AND IDEAS:

RAGHAVA KK is a multidisciplinary artist and storyteller whose work is shown in galleries and museums around the world. Having quit formal education at the age of 18 to start his career as a newspaper cartoonist, Raghava is today considered one of India's most successful young artists. He also applies his artistic practice beyond the gallery space. Raghava is actively involved in radical education initiatives to redefine the role of creativity in education.

His current work attempts to combine art and technology to bring multiple perspectives into the deployment of knowledge. He lives and works in New York and Bangalore, India. He is currently working on his next show to open up his artwork to invite participation and redefine the role of the spectator.

TEDMED 2013 Portrait by ALEXANDER KINTNER 95





RAMESH RASKAR

Associate Professor, MIT Media Lab



Which Great Challenge are you most passionate about?

Achieving Medical Innovation

In one word, what drives you to innovate?

Miracles

In six words, tell us your hopes for the future of health and medicine.

Mobile phones scientific instruments remote care

What do you predict will be the biggest breakthrough in health and medicine in 2013? "Hardware App Store" to unleash the creativity and entrepreneurship for Health Diagnostics on mobile phones via attachments

If you could hear what someone is thinking for a day, whom would you choose? ATUL GAWANDE

What is your hidden talent?

Listener and Observer (can listen, memorize, analyze for hours) **THOUGHTS AND IDEAS:**

RAMESH RASKAR is an Associate Professor at MIT Media Lab, where his research investigates computational photography, inverse problems in imaging and human-computer interaction. Recent projects and inventions include transient imaging to look around a corner, a next-generation CAT-Scan machine, imperceptible markers for motion capture (Prakash), long distance barcodes (Bokode), touch+hover 3D interaction displays (BiDi screen), low-cost eye care devices (Netra, Catra), new theoretical models to augment light fields (ALF) to represent wave phenomena and algebraic rank constraints for 3D displays (HR3D). Ramesh joined the Media Lab from Mitsubishi Electric Research Laboratories in 2008 as head of the Lab's Camera Culture research group. He holds over 40 U.S. patents and has received four Mitsubishi Electric Invention Awards. He is currently co-authoring a book on Computational Photography.

TEDMED 2013 Portrait by ANITA TUNG 97



REGINA BENJAMIN

Surgeon General of the United States



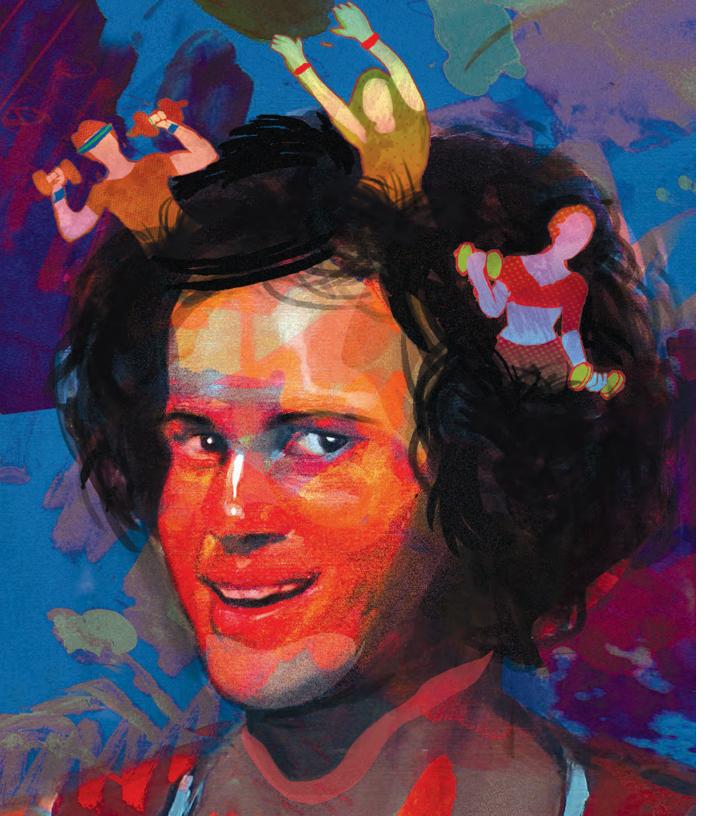
THOUGHTS AND IDEAS:



REGINA M. BENJAMIN, M.D., M.B.A. is the 18th Surgeon General of the United States. As "America's Doctor," she provides the public with the best scientific information available on how to improve their health and the health of the nation. Dr. Benjamin also oversees the operational command of 6,500 uniformed health officers, who serve in locations around the world to promote and protect the health of the American people.

A member of the Institute of Medicine, Dr. Benjamin is founder and former CEO of the Bayou La Batre Rural Health Clinic in Alabama, former Associate Dean for Rural Health at the University of South Alabama College of Medicine in Mobile, and past chair of the Federation of State Medical Boards of the U.S.

TEDMED 2013 Portrait by KATY STRUTZ 99



RICHARD SIMMONS

Fitness personality and actor



Which Great Challenge are you most passionate about?

CHILDHOOD OBESITY

In one word, what drives you to innovate?

CRUSADE

In six words, tell us your hopes for the future of health and medicine.

We can knock out obesity forever.

What do you predict will be the biggest breakthrough in health and medicine in 2013?

Doctors will prescribe exercise.

If you could hear what someone is thinking for a day, whom would you choose?

I HAVE READ COLOR AURAS SINCE I WAS FIVE. I READ EVERYONE.

What is your hidden talent?

PLAYING THE HARMONICA. I am from New Orleans— I play jazz. **THOUGHTS AND IDEAS:**

RICHARD SIMMONS has been on a 30-year crusade to encourage Americans to "take control of their fitness destiny." Delivering a serious message with trademark zany humor, Richard has helped millions of overweight men and women lose more than three million pounds by adopting sensible balanced eating programs and exercise regimes that are energetic, fun and motivating. After beating his own childhood weight issues, Richard launched an innovative Los Angeles fitness center for the overweight and out-of-shape, then went on to host his multiple Emmy-winning nationally syndicated TV series, The Richard Simmons *Show.* He has authored nine books including the *New* York Times bestseller Never Say Diet. His offerings also include smart eating products and 65 fitness videos that have collectively sold over 20 million copies.

TEDMED 2013 Portrait by JACKIE FERRENTINO 101



RONI ZEIGER

CEO, Smart Patients



Which Great Challenge are you most passionate about?

The role of the patient

In one word, what drives you to innovate?

PATIENTS

In six words, tell us your hopes for the future of health and medicine.

Human networks, COllaborative discovery, thoughtful personalization

What do you predict will be the biggest breakthrough in health and medicine in 2013?

We'll get closer to bringing patients to the table as equal partners and collaborators in designing and delivering

better care.

If you could hear what someone is thinking for a day, whom would you choose?

ABRAHAM VERGHESE

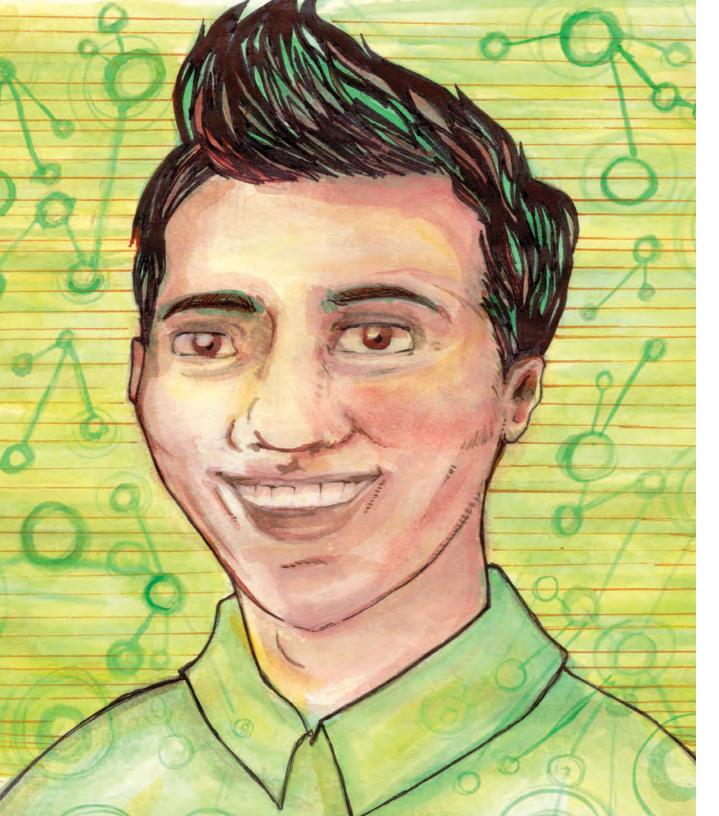
What is your hidden talent?
Choosing delicious
aVOCACOS
and eating them

THOUGHTS AND IDEAS:

RONI ZEIGER, M.D., is the former Chief Health Strategist at Google, where he led efforts ranging from Google Flu Trends to Symptom Search. In 2012, he and Gilles Frydman founded Smart Patients in order to amplify the knowledge created by networks of engaged patients. Roni serves as CEO of Smart Patients and continues to see patients part time at a local urgent care center.

Roni earned his M.D. at Stanford University and completed his internal medicine residency at the University of California, San Francisco. He has served as a clinical instructor of medicine at Stanford University School of Medicine and received a master's degree in biomedical informatics from Stanford.

TEDMED 2013 Portrait by SUZANNE GEARY 103



RYAN PANCHADSARAM

Senior Advisor, The White House,
Office of Science and Technology Policy



Which Great Challenge are you most passionate about?
THE ROLE OF THE PATIENT

In one word, what drives you to innovate?

Optimism

In six words, tell us your hopes for the future of health and medicine.

Access. Transparency. Interoperability. Blue Button. Participation. Co-creation.

What do you predict will be the biggest breakthrough in health and medicine in 2013?

One-click access to your personal health record.

If you could hear what someone is thinking for a day, whom would you choose?

THE LOST PATIENT. I WOULD STEP INSIDE THE SHOES OF SOMEONE WHO IS STRUGGLING TO NAVIGATE THE HEALTHCARE SYSTEM. NO ONE EXPERIENCE IS THE SAME AND ONLY THROUGH THEIR EYES CAN YOU EMPATHIZE WITH THEIR STRUGGLE.

What is your hidden talent? **Photoshop.**

You can do some powerful things if you are able to reimagine them...

THOUGHTS AND IDEAS:

RYAN PANCHADSARAM, a senior advisor to the U.S. Chief Technology Officer at the White House, works with the Office of the National Coordinator of Health IT and the Department of Veterans Affairs on Blue Button. This initiative is designed to enable millions of Americans to easily and securely download their own health information. Ryan's previous posts include a stint at Ginger.io, a spin-off from MIT Media Lab, using big data to transform health. He has been a Fellow at Rock Health. Pipette, the company he founded and incubated at Rock Health, was ultimately acquired by Ginger.io. Ryan has also worked at Salesforce.com and at Microsoft, where he filed multiple patents. Ryan serves on the board of SeventyK, a young adult cancer advocacy group.

TEDMED 2013 Portrait by RACHEL BRANHAM 105



SALLY OKUN

VP Advocacy, Policy & Patient Safety, PatientsLikeMe



Which Great Challenge are you most passionate about?

Whole Patient Care

In one word, what drives you to innovate?

Possibility

In six words, tell us your hopes for the future of health and medicine.

COLLABORATIVE, INTERDISCIPLINARY, COMPASSIONATE,

transparent, democratized, innovative

What do you predict will be the biggest breakthrough in health and medicine in 2013?

Patients MATTER

If you could hear what someone is thinking for a day, whom would you choose?

JOHN LENNON

What is your hidden talent?
Irish Step Dancing

THOUGHTS AND IDEAS:

SALLY OKUN is vice president for Advocacy, Policy and Patient Safety at PatientsLikeMe in Cambridge, Massachusetts. In this post she is responsible for the company's patient advocacy initiatives; participates and contributes to health policy discussions at the national and global level; and serves as liaison to government and regulatory agencies. Sally joined the company in 2008 as the manager of Health Data Integrity and Patient Safety overseeing the site's medical ontology, including the curation of patient-reported health data and an ever-evolving patient vocabulary. A registered nurse and independent consultant, she has contributed to multiple clinical, research, and educational projects for such institutions as Brown University, Harvard Medical School, the Massachusetts Department of Mental Health, Hospice Education Network and the Robert Wood Johnson Foundation.

TEDMED 2013 Portrait by YUDI CHEN 107



SALVATORE IACONESI

Interaction Designer, Robotic Engineer, Artist & Hacker



Which Great Challenge are you most passionate about?

The role of the patient

In one word, what drives you to innovate?

In six words, tell us your hopes for the future of health and medicine.

Care for body, soul and society

What do you predict will be the biggest breakthrough in health and medicine in 2013?

The shift from data to information

If you could hear what someone is thinking for a day, whom would you choose?

Myself (it's difficult/ impossible to really do it, if you think about it)

What is your hidden talent?

Cooking!

THOUGHTS AND IDEAS:

SALVATORE IACONESI, founder of Art is Open Source, is an interaction designer, robotics engineer, artist and hacker. He currently teaches interaction design and cross-media practices at the Faculty of Architecture of the "La Sapienza" University of Rome, at ISIA Design Florence, at the Rome University of Fine Arts and at the IED Design Institute. Salvatore has produced videogames, artificial intelligence, expert systems dedicated to business and scientific research, and entertainment systems. His artworks and performances have been featured worldwide at festivals and conferences, including mobile ecosystems, interactive architectures, cross-medial publications, and augmented reality systems. In collaboration with a wide range of institutions, enterprises and international research groups, Salvatore actively participates in global discussions and efforts focused on freedom and new forms of expression.

TEDMED 2013 Portrait by KAREN JY SUNG 109



SEKOU ANDREWS

Internationally-Acclaimed Spoken Word Artist, Playwright, Actor, Poet



Which Great Challenge are you most passionate about?

POPULAR

In one word, what drives you to innovate?

Creativity

In six words, tell us your hopes for the future of health and medicine.

Healthcare transformed by wellness, prevention and equality.

What do you predict will be the biggest breakthrough in health and medicine in 2013?

"Necessity is the mother of invention."

I predict an emergence of new, creative solutions and models for providing more equitable care as a response to Obamacare

If you could hear what someone is thinking for a day, whom would you choose?

IT'S A TOSS UP BETWEEN A JADED AUDIENCE MEMBER OR CLIENT WHO'S SKEPTICAL ABOUT BOOKING ME...AND MY CAT.

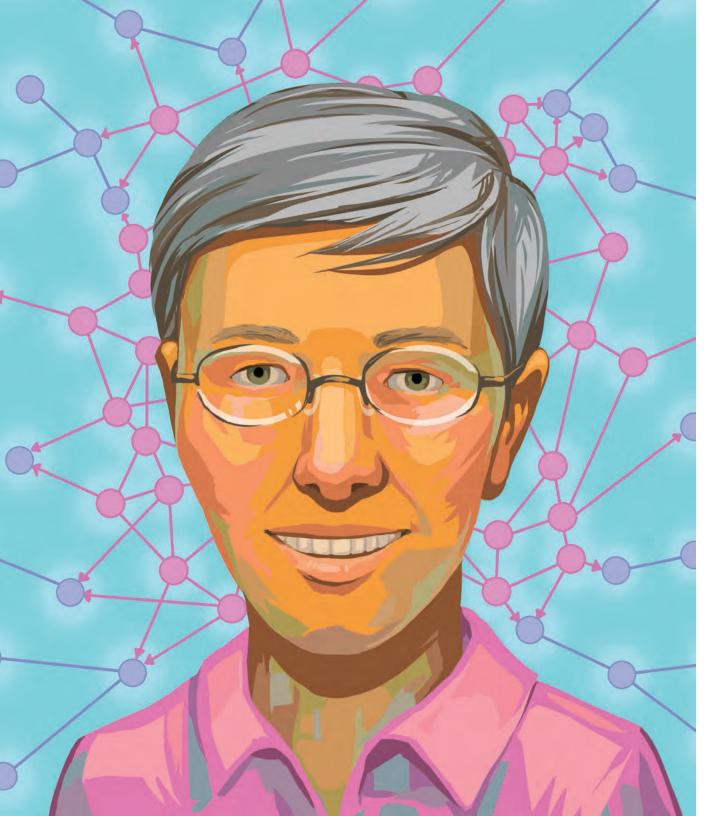
What is your hidden talent?

Telekinesis — the ability to move things (people, messages, events) with my mind

THOUGHTS AND IDEAS:

SEKOU ANDREWS is inspiring the business world one story at a time with *poetic voice* — a new, cutting-edge speaking category that combines strategic storytelling, inspirational speaking, spoken word poetry, and the power of theater and comedy to make the messages and missions of organizations more moving and memorable. An elementary schoolteacher turned actor, musician, national poetry slam champion, entrepreneur, and now award-winning poetic voice, Sekou's personalized poetic presentations are in high demand. Sekou has also emerged as an engaging voice for healthcare, routinely evoking tears, standing ovations, and transforming thought at various cutting edge conferences/clients. With all of the innovation and inspiration that is poetic voice, Sekou Andrews does more than inspire us with his story; he inspires us with our story.

TEDMED 2013 Portrait by YOORA CHAE 111



STEVE GULLANS

Managing Director, Excel Venture Management



Which Great Challenge are you most passionate about?

Achieving Medical Innovation

In one word, what drives you to innovate?

Compassion

In six words, tell us your hopes for the future of health and medicine.

Sustaining a culture of health innovation

What do you predict will be the biggest breakthrough in health and medicine in 2013?

More cures of rare diseases — with gene therapy, stem cells, etc.

If you could hear what someone is thinking for a day, whom would you choose? CHARLES DARWIN — TODAY.

What is your hidden talent?

MENTORING

THOUGHTS AND IDEAS:

entrepreneur, writer, and scientist. At Excel Venture, he focuses on life science technology companies with a particular interest in disruptive platforms that can impact multiple industries. Steve was a faculty member at Harvard Medical School and Brigham and Women's Hospital for nearly 20 years. He has published more than 130 scientific papers touching many areas of biology and medicine, lectured internationally, and co-authored numerous patents. He and Juan Enriquez recently co-authored *Homo evolutis: A Short Tour of Our New Species*, which describes the future of human evolution, as well as a recent commentary in *Nature* entitled "Genetically Enhanced Olympics Are Coming."

TEDMED 2013 Portrait by ANITA TUNG 113



SUE AUSTIN

Artist, Freewheeling



Which Great Challenge are you most passionate about?

INVENTING Wellness Programs

In one word, what drives you to innovate?

Transformation

In six words, tell us your hopes for the future of health and medicine.

Creating life enhancing opportunities for all

What do you predict will be the biggest breakthrough in health and medicine in 2013?

NEW DEVELOPMENTS IN STEM CELL RESEARCH

If you could hear what someone is thinking for a day, whom would you choose?

ECKHART TOLLE

What is your hidden talent?

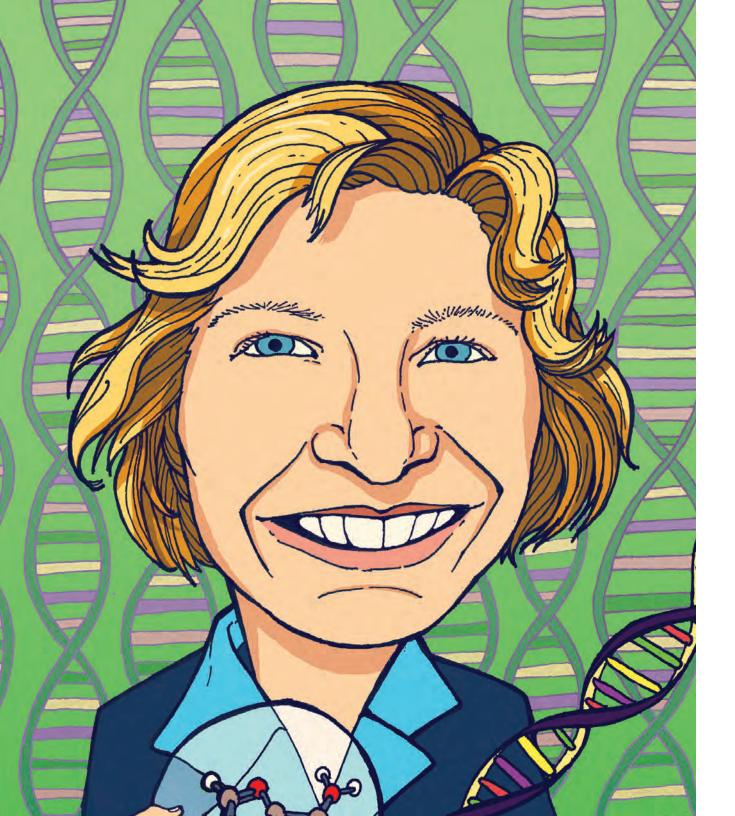
Using the arts as a catalyst for change

THOUGHTS AND IDEAS:

SUE AUSTIN is a multimedia, performance and installation artist with a socially engaged practice. As Artistic Director and Co-founder of Freewheeling she "recognises the power of starting at the 'personal' and finding archetypal, numinous images that 'communicate' through connecting with universality of human experience." She aims to find dramatic and powerful ways to reveal the 'Hidden Secret' of disability, arguing that this 'secret,' if explored, valued and then shared, can act to heal the divisions created in the social psyche by cultural dichotomies that define the 'disabled' as 'other.'

Sue Austin's Unlimited Cultural 2012 Olympiad Commission 'Creating the Spectacle!', a groundbreaking series of live-art and video works of an underwater wheelchair flying along midwater, received international acclaim.

TEDMED 2013 Portrait by LISE SASAKI 115



SUSAN DESMOND-HELLMANN

Chancellor, Arthur and Toni Rembe Rock Distinguished Professor, University of California, San Francisco



Which Great Challenge are you most passionate about?

All of the Great Challenges

In one word, what drives you to innovate?

Cures

In six words, tell us your hopes for the future of health and medicine.

Patient-informed, data-driven, TARGETED CURES.

What do you predict will be the biggest breakthrough in health and medicine in 2013?

The remarkable nature of discovery is that we can't predict big breakthroughs.
The key is giving scientists the funding they need to explore big questions, and the freedom to

take risks.

If you could hear what someone is thinking for a day, whom would you choose?

A PREGNANT WOMAN JUST ABOUT TO HAVE HER FIRST CHILD

What is your hidden talent?
Being a provocateur

THOUGHTS AND IDEAS:

SUSAN DESMOND-HELLMANN, M.D., M.P.H. is

Chancellor of the University of California, San Francisco, overseeing all aspects of the university and medical center's strategy and operations. An oncologist and renowned biotechnology leader, she is UCSF's Arthur and Toni Rembe Rock Distinguished Professor. As Chancellor, Desmond-Hellmann has supervised an in-depth review of the University's business model, developed a three-year plan, and supported creation of research partnerships with industry leaders such as Pfizer and Bayer. In 2011, Desmond-Hellmann co-chaired a National Academies committee that produced the report, "Toward Precision Medicine: Building a Knowledge Network for Biomedical Research and a New Taxonomy of Disease." She also served as a member of the National Institutes of Health's advisory committee on the National Center for Advancing Translational Science.

TEDMED 2013 Portrait by DEREK TIMM-BROCK 117



VICTOR WANG

Founder and CEO, GeriJoy Inc.



Which Great Challenge are you most passionate about?

The Caregiver Crisis

In one word, what drives you to innovate?

CHALLENGES

In six words, tell us your hopes for the future of health and medicine.

Life becomes more

joyful with age

What do you predict will be the biggest breakthrough in health and medicine in 2013?

Tech-enabled social motivators to improve health

If you could hear what someone is thinking for a day, whom would you choose?

MY FAVORITE DOG

STEVIE

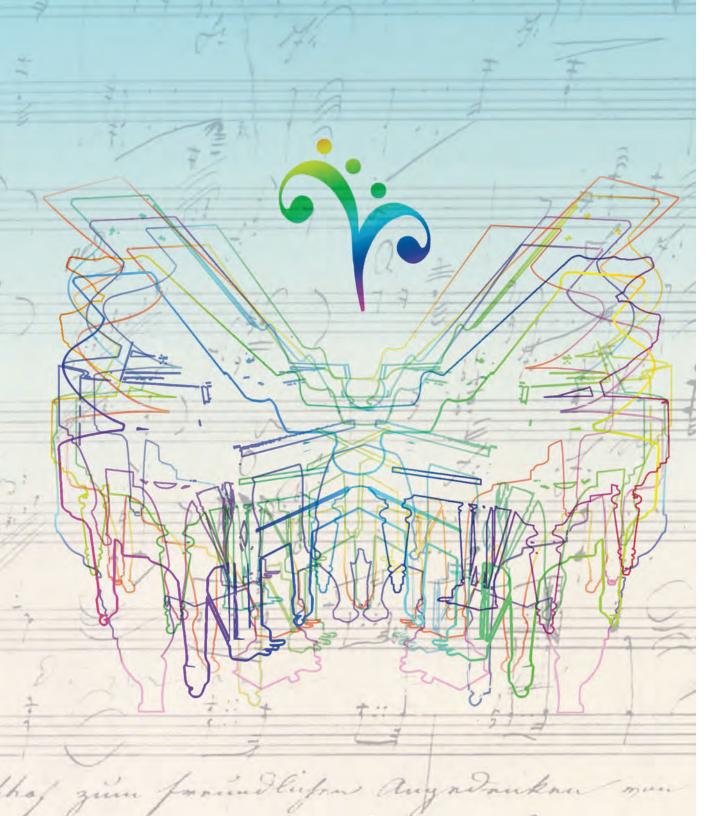
What is your hidden talent?

I'm a virtual dog whisperer

THOUGHTS AND IDEAS:

VICTOR WANG, CEO of GeriJoy Inc., co-founded the company with the mission to bring joy to seniors living away from family. GeriJoy supports seniors' well being through patent-pending virtual companions that can provide benefits similar to live pet therapy. These virtual pets serve as real-time avatars for a worldwide network of humans who provide intelligent, compassionate conversation about topics like family photos and news. This user-friendly Internet connection also provides peace of mind for caregivers by updating them on how the senior is doing. Victor received a Bachelor of Applied Science from the University of British Columbia, majoring in Mechatronics Engineering and minoring in Commerce, and was awarded the Wesbrook Scholar designation. He earned his Master of Science at MIT.

TEDMED 2013 Portrait by ZOE BAE 119



WASHINGTON CONSERVATORY

Pianists



Which Great Challenge are you most passionate about? Achieving Medical

In one word, what drives you to innovate?

Innovation

In six words, tell us your hopes for the future of health and medicine.

Creative collaboration for mind body harmony

What do you predict will be the biggest breakthrough in health and medicine in 2013?

Connection between wellness and creativity

If you could hear what someone is thinking for a day, whom would you choose? A CREATIVE CHILD

What is your hidden talent? **Inspiring adult beginner** piano students

THOUGHTS AND IDEAS:

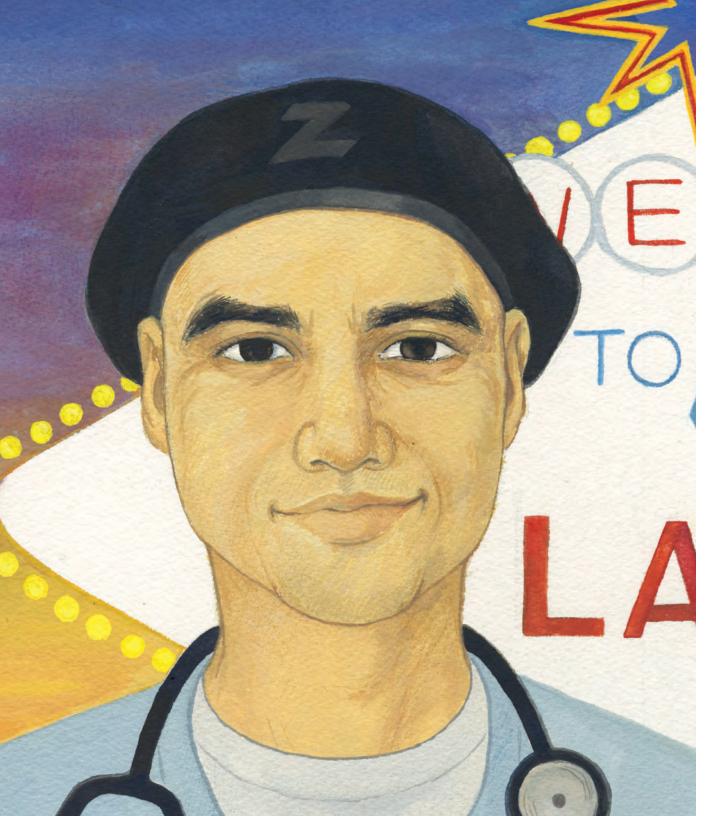
THE WASHINGTON CONSERVATORY OF MUSIC is

a nationally accredited community music school in Bethesda, Maryland and Glen Echo Park, founded in 1984 to serve the Greater DC area. At WCM, children and adults, without audition, study with performing artist faculty. Individual lessons are the cornerstone of WCM, along with Early Childhood, Jazz, Classical, Folk, Irish classes and an amateur adult orchestra. WCM presents free professional concerts featuring WCM faculty and guest artists.

Members of the Washington Conservatory Piano Faculty include graduates of acclaimed Conservatories and Universities in the US, Russia, and Korea, winners of esteemed International Piano Competitions, soloists with major symphony orchestras in North and South America and Europe, collaborative partners with world-renowned artists, and solo recitalists in famous concert venues throughout the world.

TEDMED 2013 Portrait by SUSAN DOYLE

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ZUBIN DAMANIA

Director of Healthcare Development, Downtown Project Las Vegas



Which Great Challenge are you most passionate about?

Making Prevention

Popular

In one word, what drives you to innovate?

Vengeance!

In six words, tell us your hopes for the future of health and medicine.

ELEVATE

human relationships, then add technology

What do you predict will be the biggest breakthrough in health and medicine in 2013?

A revolution in the conception and practice of primary care medicine

If you could hear what someone is thinking for a day, whom would you choose?

Steve Jobs,

after his passing. Imagine his take on the aesthetics of the afterlife!

What is your hidden talent?

A photographic memory for annoying song lyrics

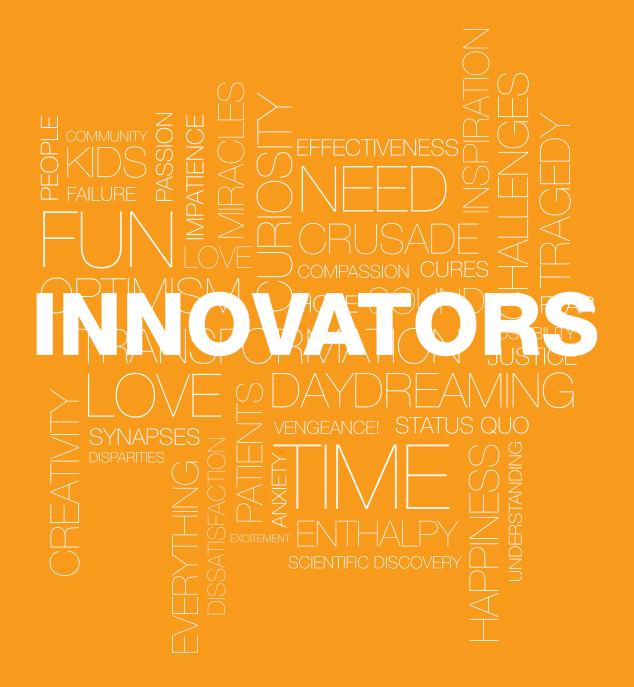
THOUGHTS AND IDEAS:

ZUBIN DAMANIA, M.D. is the Director of Healthcare Development for Downtown Project Las Vegas, an ambitious urban revitalization movement spearheaded by Zappos.com CEO Tony Hsieh. During his 10-year hospitalist career at Stanford, Zubin received the Russell Lee Award for Clinical Teaching while maintaining a shadow career performing standup comedy for medical audiences worldwide. His videos, created under the pseudonym ZDoggMD, have amassed nearly a million views while educating patients and providers and mercilessly satirizing our dysfunctional healthcare system.

In Las Vegas, Zubin is making the leap from satire to actionable change by developing an innovative model of healthcare delivery that promotes wellness at both the individual and community level.

TEDMED 2013 Portrait by SUSIE SO 123





TEDMED2013



nnovators

The innovation landscape around health and medicine is undergoing an important transformation, with entrepreneurs from inside and outside the industry creating new approaches to change. The Hive, new to TEDMED 2013, gathers leaders of tomorrow to showcase novel approaches to innovation and scalable ideas. We hope our collective or "hive" mind will spark unexpected connections and new possibilities.

This year, we'll celebrate 50 new companies and the amazing talent behind them as they join our partners in The Hive. Out of more than 250 applications submitted, these carefully chosen entrepreneurs represent some of today's best and brightest innovators. Representing a variety of approaches, these start-ups, coming from accelerators, government-run challenges, academically-led programs and independent ventures will help us explore the technology, creativity and imagination transforming health and medicine.

Special thanks to the team at the StartUp Health Network for their collaboration and partnership.

We extend our gratitude to The Hive curators for helping to ensure the appropriate mix of amazing entrepreneurs, new approaches to innovation and transformative new businesses:

Charles Huang

Vice President at Equity
Health LLC, Blackstone Group

Greg Downing

Executive Director for Innovation, Department of Health and Human Services

Jonah J. Czerwinski Senior Advisor to the

Senior Advisor to the Secretary and Director, VA Center for Innovation

Lesa Mitchell

Vice President, Innovation & Networks, Kauffman Foundation

Lisa Kennedy

CMO, GE Healthymagination

Sara Holoubek

CEO and Founder, Luminary Labs

Scott Case

CEO, Startup America Partnership

TEDMED 2013 125



Special Session: Innovation in Focus

Thursday morning, in celebration of The Hive and the passionate, entrepreneurial spirit of the TEDMED community, we've created a special session to examine innovation in health and medicine even more closely. In this two-hour special program, TEDMED, in partnership with Big Think, will explore the central question of what drives innovation with the aim of identifying ways to drive it faster and farther. To do this, we will shift lenses from one of innovation as an outcome of breakthroughs and big ideas, to one of innovation as a process as experienced from the vantage points of both healthcare insiders and outsiders.

DISCUSSION I

Shifting the Curve from Start to Scale to Exit: Lessons from the trajectory of innovation

In the first hour, we will examine the lifecycle of healthcare innovation across three key stages — start, scale and exit — from the insider perspectives of entrepreneurs, investors and institutional stakeholders.

MODERATED BY



JUAN ENRIQUEZ

Excel Venture Management

Juan, bestselling author, businessman and academic, is recognized as one of the world's leading authorities on the economic and political impacts of life sciences. He is currently Chairman and CEO of Biotechonomy LLC, a life

sciences research and investment firm. He was the Founding Director of the Harvard Business School Life Sciences Project, and author of the global bestseller As the Future Catches You: How Genomics & Other Forces are Changing Your Life, Work, Health & Wealth (selected by Amazon's editors as one of the best business books of the year). His latest book, The Untied States of America: Polarization, Fracturing, and Our Future, which explores why some countries are successful while others disappear, was published by Crown Business in November of 2005.

INNOVATORS



PARTICIPANTS



MICHAEL WEINTRAUB

Humedica

Michael is Founder and CEO of Humedica, recently acquired by UnitedHealth

Group. Previously, he was CEO of PharMetrics, which was sold to IMS Health in 2005. Michael has 30 years of experience in healthcare information technology. He is Founding Chairman of Phreesia, and sits on the board of the medical informatics subsidiary of the American Medical Group Association (AMGA). Michael is on the board of JDRF New England Chapter. He received his M.B.A. from Harvard Business School and his B.A. in Economics from Brandeis University.



NINA NASHIF Healthbox

Nina is Founder and CEO of Healthbox, a business accelerator created to

support early-stage entrepreneurs and stimulate innovation in the healthcare industry. Nina is best known for her expertise in creating entrepreneurial ventures and leading high performing teams to achieve results. Her background includes more than ten years of global business experience within very different organizational settings. Nina has been recognized by the World Economic Forum as a Young Global Leader and by *Crain's Chicago Business* as a 40 Under 40.



GIOVANNI COLELLA

Castlight Health

Giovanni co-founded Castlight Health in 2008, along with Todd Park (currently U.S.

chief technology officer and formerly the CTO of the U.S. Department of Health and Human Services) and Bryan Roberts of Venrock. Prior to co-founding Castlight, Giovanni was Founder, President and CEO of RelayHealth, which was acquired by McKesson. Giovanni graduated with an M.D. from the Universita Degli Studi di Milano in Italy and earned his M.B.A. from Columbia Business School.



GRANT VERSTANDIG

Audax Health

Grant, CEO & Founder of Audax Health, is an entrepreneur who

has developed exceptional capabilities and relationships in the worlds of social networking, online gaming, and healthcare. Grant has worked with high-profile medical professionals, like Dr. Marston Linehan, leading expert on urologic malignancies; Dr. Kenneth Lee, Cardiac Surgeon at Washington Hospital Center; and Dr. Roger Packer, Chief of Neurology for Children's National Medical Center. Grant was placed on *Forbes* 30 Under 30, Science and Healthcare category, showcasing "innovators, disruptors and brightest stars of 2012."



DISCUSSION II

Every Company is a Healthcare Company: Innovating from the outside in

In the second hour, we will step beyond the boundaries of healthcare to look at how innovation is being driven by outside forces, opportunity and necessity.

MODERATED BY



JEFF DeGRAFF Ross School of Business at the University of Michigan

Jeff has been a top rated Professor of Management and Organizations at the University of Michigan's Ross School of Business for over twenty years. His

work on how to make innovation happen is widely influential in top companies worldwide. He teaches M.B.A. and Executive Education courses on leading creativity, innovation and change. Jeff's research and writing focuses on leading innovation, change and innovation competency development, creativity and innovation practices and methods, and creativity communities and innovation networks. Often referred to as the Dean of Innovation because he has taught hundreds of executives how to effectively lead innovation, Jeff has been a guru to many innovation gurus. He holds a Ph.D. from the University of Wisconsin-Madison.

PARTICIPANTS



JENNIFER KURKOSKIGoogle

Jennifer directs Google's People & Innovation Lab (PiLab) that conducts

research aimed at improving the company's organizational practices. Her work has been featured in the *New York Times*, the *Wall Street Journal, Fast Company*, and *Slate*, as well as on the BBC and ABC's *Nightline*. Previously, Jennifer led community management for Excite@Home and consulted with nonprofit organizations on leadership development. Jennifer holds a Ph.D. in Business Administration (Organizational Behavior) from UC Berkeley's Haas School of Business.



GEETA NAYYAR AT&T

Geeta Nayyar, M.D., M.B.A., is the chief medical information officer for AT&T, helping guide

the company's ForHealth portfolio strategy. She is also an assistant clinical professor of medicine in George Washington University's rheumatology department. Prior posts include serving as Vangent's principal medical officer, providing subject matter expertise, thought leadership and strategic direction as a senior member of Vangent's Health Strategy and Innovation Group. As APCO Worldwide's chief medical officer, she advised healthcare clients of the firm. Named one of the "Top 25 Minority Healthcare Executives" by Modern Healthcare in 2012, Dr. Nayyar is a popular blogger and leading Twitter correspondent on health IT issues. She also serves on the Healthcare Information and Management System Society's advisory board.



RICK VALENCIA

Qualcomm

Rick, leader of Qualcomm's healthcare subsidiary, Qualcomm Life Inc., directs

Qualcomm's global, wireless health product and technology strategy. He also has a hand in driving innovation through Qualcomm's \$100 million Qualcomm Life Fund. Prior to joining Qualcomm, Rick was a serial entrepreneur — most recently as the founder and CEO of ProfitLine — where he built the company from a one-man show into a multi-million dollar enterprise. He now shares his entrepreneurial know-how by helping fellow entrepreneurs launch meaningful and enduring businesses as a mentor at Rock Health, The Founder Institute, EvoNexus, CONNECT and on the Executive Committee of the San Diego MIT Enterprise Forum.



MARLEECE BARBER
Lockheed Martin

In 2011, Dr. Marleece Barber joined Lockheed Martin as Director of Health

& Wellness and Chief Medical Officer. Dr. Barber is responsible for the corporation's strategy for health & wellness, which includes developing innovative and cost-conscious methods for increasing the overall health of Lockheed Martin's 120,000 employees. Dr. Barber's focus is on developing a workforce that is knowledgeable about health care and that is more responsible for their personal health and well-being. Creatively highlighting the importance of prevention is key to the program's success.

The Hill / C: 50 Innovative Startups at TEDMED 2013

Our TEDMED 2013 Delegates are leaders of change in health and medicine and care deeply about promoting innovation in these fields. To that end, we have launched TEDMED's newest platform, The Hive, which debuts at this year's event in association with the StartUp Health Network.

The Hive comprises 50 startup companies, selected from more than 250 applicants that will share their products, services and ideas under our tent at the Kennedy Center. These passionate entrepreneurs — 97 in all — will help spark connections that have the potential to transform health and medicine as we know it. We hope that fusing their energy with the wisdom of the TEDMED Delegation will help each of these startups grow and thrive as they draw from your passion, experience, support and guidance.

The Hive at TEDMED 2013 is only the beginning of what we hope are long-lasting relationships that promote continued progress. We encourage you to connect with the Hive entrepreneurs as closely as possible over the next few days, and to continue these relationships and collaborations by joining them online, in partnership with the StartUp Health Network.



INNOVATORS

Based on research from the MIT Media Lab, the ACHIEVEMINT platform delivers a unique gateway between the healthcare industry and consumers through the mobile app ecosystem. AchieveMint provides an advertising platform as well as analysis of smart data. The aggregated smart data collected from the application provides insight into what motivates life-changing healthy behaviors to enable evidence-based decision-making that isn't available today. The platform not only incentivizes individuals to engage in healthy behavior, it improves outcomes through a combination of social networking and rewards.

achievemint.com

ACHIEVEMINT

STARTUP, ACCELERATOR (ROCKHEALTH)

MIKKI NASCH has more than 20 years of experience as an entrepreneur helping build high growth technology companies. Mikki is part of a team of dedicated individuals passionate about health. The focus is on using data from the mobile and social health ecosystem, turning it into smart insights that empower wellness and simplify healthy decisions for all people. She has held executive leadership roles in Sense Networks, Fair Isaac, Company DNA and BackWeb.

CHRISTINE LEMKE leads product and operations at AchieveMint. Prior to cofounding AchieveMint, Christine was the co-founder and Chief Operating Officer of Sense Networks, developers of the first machine learning platform for mobile activity data. She's also held roles at 3iGroup (Paris), Microsoft XBOX and co-founded product analytics firm Channel Velocity/IQ.

ADHERETECH has created patented smart pill bottles that improve medication adherence. These bottles measure the exact number of pills (or amount of liquid) in the bottle in realtime, wirelessly send this HIPAA-compliant data into the cloud, and remind patients to take their medication via phone call or text message. The devices are built with an open API, which facilitates partnerships and fosters integration with other adherence solutions. In addition to increasing adherence, the bottles record and send granular data that, until now, has only been collected in trials — never before in the real world.

adheretech.com

AdhereTech <a>

STARTUP, ACCELERATOR (BLUEPRINT HEALTH)

JOSH STEIN is the CEO and co-founder of AdhereTech. He is passionate about creating simple scalable tools that improve health and wellness. Previously, Josh worked for innovative tech companies like FreshDirect and Lot18. He holds an M.B.A. from Wharton and a bachelor's degree from Washington University in St. Louis.

The ADHERETX solution supports team-based medication management and medication reconciliation for high-risk patients, improving patient outcomes and reducing hospitalizations, ED visits and readmissions. Cloud-based software automatically accesses medication information available from a patient's EMR, which is reconciled with self-reported behavior. An evidence-based rules engine identifies risk in the patient's therapeutic regimen for the care team. All data are structured, validated and available for analysis and exchange.

adheretx.com



STARTUP

AVADO greatly improves communication between patients, families and their health team...during the 99% of time they're away from the clinic. Avado is the market-defining Patient Relationship Management system and is the first cloud-based EHR-agnostic patient engagement platform built specifically for healthcare providers in accountable models. Avado partners with EHR vendors and mobile app developers to provide their customers with a competitive advantage over siloed systems that don't work well with other systems.

avado.com | @avado



STARTUP, ACCELERATOR (STARTUP HEALTH, DIGITAL HEALTH ACC, NEW YORK DIGITAL ACCELERATOR)

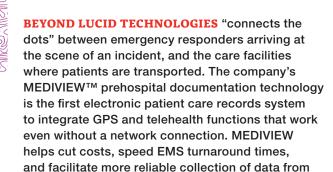
CEO and Co-founder **PATRICIA S. MEISNER** has 25 years of experience in medical device, diagnostics, and life science companies. She also founded cloud-based RedTail Solutions for middle-market manufacturers. Patricia holds a B.A. in biology from Kenyon College, and an M.S in Biochemistry and an M.B.A. from Case Western Reserve University.

ANNE MARIE BIERNACKI, CTO and Co-founder, has prior experience in today's rapidly evolving e-health sector, and as a career entrepreneur with over 18 years of experience in developing innovative, rules-based systems. Anne Marie holds a B.S. in Electrical Engineering from the University of Dayton and an M.S. in Electrical Engineering from Tufts University.

BASSAM SALIBA is a co-founder and CTO of Avado, the solution for patient engagement. He's held leadership roles at disruptive technology startups since 2000. Previously, Bassam spent ten years at Microsoft in leadership roles. Bassam is an active investor and serves as an advisor and board member to several startups.

DAVE CHASE is the CEO of Avado. He is also co-editor and writer of the seminal book on patient engagement published by HIMSS as well as writing for *Forbes*, TechCrunch, Reuters and healthcare industry publications. Previously, Chase founded a \$2 billion healthcare business.

INNOVATORS



the field and sharing across the care continuum.

beyondlucid.com



STARTUP, ACCELERATOR (ROCKHEALTH, STARTUP HEALTH)

JONATHON FEIT is Co-founder and CEO of BLT. He formerly worked in the White House Office of Management and Budget, where he helped relaunch USAJOBS, the federal government's hiring portal. Before that, he published *Citizen Culture* magazine and was the youngest faculty member of Boston University's College of Communication.

christian witt, Co-founder, President and CTO, has worked as an engineer and program manager in semiconductor devices, Internet applications, and custom software and hardware at HP, Northrop Grumman, and Boeing. Chris also worked on the team that integrated National City Bank's payment products into PNC Bank.

The DEPARTMENT OF VETERANS AFFAIRS

(VA) operates the nation's largest integrated healthcare system and administers a variety of benefits and services including financial, healthcare, burial, memorial and other types of assistance to Servicemembers, Veterans, their dependents and survivors.

va.gov | @DeptVetAffairs







GOVERNMENT

THERESA HANCOCK, PAHM is the Director of the My HealtheVet Program and Executive Sponsor of the Blue Button for the Department of Veterans Affairs. Prior to working for the VA, Theresa served as a consultant and was employed by Johns Hopkins and the National Institute on Drug and Alcohol Abuse, focusing on the use of technology and clinical administration to improve the delivery of healthcare services.

RICH BEAUDOIN joined the Veterans Administration (VA) in 2005. Since March 2011 he has been the Program Manager for the My HealtheVet suite of products that supports over two million users. Rich retired from the Navy in 1999 as a Lieutenant Commander in the Medical Service Corps after 26 years of service. He received a Bachelor's Degree from Troy State University in 1985 and a Masters in Health Administration from Baylor University in 1991.

BRAIN SENTRY has developed a helmet-mounted sensor that alerts when an athlete experiences a big impact to his/her head. Playing with an undiagnosed concussion and suffering repeated concussions can have dire consequences for an athlete. One of the biggest challenges in concussion management is determining if a head impact in a game or practice was hard enough to warrant sideline evaluation. Primary targeted customers include youth leagues for football, lacrosse and hockey.

brainsentry.com | @BrainSentry



STARTUP

GREG MERRIL, founder of three VC-backed fast growth wellness and medical product companies, led Immersion Medical to become a worldwide leader for computer-based training simulators. His work has twice been named CES Innovation of the Year, as well as BusinessWeek's "Best Product Design of the Year," and PopSci's "Best of What's New."

CHARLES MANN is a 12-year NFL veteran and three-time Super Bowl Champion. He has served as Chairman of the Inova Alexandria Hospital Quality Committee, and has been involved with the National Kidney Foundation, United Way, Ronald McDonald Children's Charities, The Children's Cancer Foundation and President Clinton's National Service Initiative Committee.

CAREPLANNERS is a service that helps you manage life's changes — serious illness, new diagnosis, or need for senior services. CarePlanners eliminates the frustrations of healthcare so you can make the best decisions for yourself and your loved ones. Our network of healthcare experts (social workers, nurses, billing and insurance experts) along with our online tools, simplify and clarify health + care. Alan Blaustein founded CarePlanners with Dr. Nancy Synderman, Chief Medical Editor for NBC News.

careplanners.com | @CarePlanners



STARTUP, ACCELERATOR (STARTUP HEALTH)

Founder of CarePlanners, **ALAN BLAUSTEIN**'s passion for healthcare began when he became frustrated trying to navigate the system after his cancer diagnosis. In 2012, he launched CarePlanners with Dr. Nancy Snyderman, NBC's Chief Medical Editor. Alan was co-founder of OpenSky. com, President, Worldwide Corporate Development & Strategy for About.com and CEO of Flexplay Technologies.

NITA STELLA, Head of Product Strategy at CarePlanners, is a healthcare management executive who has led consumer and product strategy for over 19 years. Nita successfully developed new products in the eHealth, healthcare technology, managed care, and PBM spaces. Most recently, Nita was the SVP Product Development for ActiveHealth Management, a wholly-owned subsidiary of Aetna.

INNOVATORS



corengi.com



STARTUP, ACCELERATOR (HEALTHBOX)

Doctoral advisor of **RYAN LUCE**, Ph.D. would be embarrassed at how little chemistry Ryan actually remembers. Since 2000, he's been working on building applications to help a variety of patients better manage their health conditions. In 2010, he launched Corengi to help transform how potential participants explore and connect with clinical research.

JESSE CLARK's first love is food. From Arkansas to San Francisco, he's worked in every possible role in restaurants. Luckily for Corengi, he went on to spend the last decade building tasty applications for web startups. He's an expert on Ruby on Rails and iOS, and is our VP of Technology.

crowdmed uses 'the wisdom of crowds' to help solve even the world's most difficult medical cases quickly and accurately online. After four years of development and refinement, our patented prediction market technology can suggest diagnoses to real-world medical cases that have stumped doctors for years. Instead of relying on individual physicians, CrowdMed gathers the collective intelligence of hundreds of Medical Detectives (MDs) to produce astonishingly accurate diagnoses in just hours.

crowdmed.com | @CrowdMed



STARTUP, ACCELERATOR (Y COMBINATOR)

JARED HEYMAN was inspired to start CrowdMed after his sister spent three years with a nearly fatal undiagnosed illness. A seasoned technology entrepreneur who previously founded Infosurv, an Internet survey company with over \$20M in cumulative revenue, Jared just finished an around-the-world sabbatical that landed him on the cover of *Inc.* magazine.

AXEL SETYANTO is a full-stack developer and hacker extraordinaire. Axel joined CrowdMed from Loku, another venture-backed Silicon Valley startup, amidst competing job offers from Facebook and Square. Axel aced graduate-level CS classes as an undergrad, scored a perfect 2400 on his SAT, and dreams in jQuery.





STARTUP, ACCELERATOR (STARTUP HEALTH, ROCKHEALTH)

MITESH PATEL, CEO of Docphin, is a practicing physician, entrepreneur and behavioral economist. His work has been published in the *New England Journal of Medicine* and featured in the *New York Times*. He is a Robert Wood Johnson Clinical Scholar. Mitesh obtained his M.D. from the University of Michigan and M.B.A. from the Wharton School.

SACHIN NANAVATI, COO of Docphin, is an entrepreneur and industry expert and leads Docphin's commercial strategy and operations. Prior to founding Docphin, Sachin was a consultant at IMS Consulting Group, where he specialized in global commercial strategies for Bio-Pharmaceutical clients.

EMPOWER INTERACTIVE, INC. is a leading digital behavioral health company. Empower transforms the experience of evidence-based psychotherapy into interactive e-learning programs, teaching structured coping techniques to address behavioral health issues in a cost-effective, highly accessible way. Empower's programs, based on cognitive-behavior therapy, address these issues both in self-help settings and in conjunction with traditional talk therapy, where published clinical evidence shows they can reduce required clinician time by 50%.

empower-interactive.com



STARTUP, ACCELERATOR (STARTUP HEALTH, SPRINGBOARD)

EVE PHILLIPS, Chief Executive Officer is an experienced Silicon Valley entrepreneur and investor. Her operational roles include positions at Trilogy and Microsoft, and investment roles at Vector Capital and Greylock Partners. Eve holds an M.B.A. from Stanford University and an S.B. and M.Eng. in Computer Science from the MIT.

JAMES S. RIVES, Chairman, has been an operator and advisor to healthcare and technology businesses. His clients have included advisory work with Humana's healthcare information spin-outs and Kindred Healthcare. Jim is the Vice Chair of the University of Louisville Depression Center, a founding member of the National Network of Depression Centers (NNDC).

INNOVATORS



GALILEO ANALYTICS is a visual data exploration and advanced analytics company aimed at democratizing health data research. Galileo's visually dynamic, cloud-based platform, Galileo Cosmos™, helps researchers mine vast stores of complex data in real-time. Through a series of click, drag and drop menus, any user with a Web-enabled computer can rapidly generate and refine hypotheses, defining cohorts and validating assumptions. This enables researchers anywhere to view, analyze and share data, fueling scientific collaboration and catalyzing new understanding of health, disease and care.

galileoanalytics.com



STARTUP

ANNA Mccollister-slipp is Co-Founder of Galileo Analytics. As a diabetes patient advocate, she speaks frequently on the need for innovation in medical device design, data standardization and comparative effectiveness research. She previously worked in global health communications and is a passionate advocate for improving healthcare quality for pets.

SIMON FITALL, Co-Founder and CEO of Galileo Analytics, has 30 years experience in health data analytics and business intelligence within the life science industries, including multiple patents for methods of analyzing complex health data. Simon received the 2012 Lifetime Achievement award from the Pharmaceutical Business Intelligence and Research Group.

gecko Health Innovations is founded by parents, engineers, and physicians from MIT and develops products that simplify medication adherence and improve the quality of life of those using chronic medications. GeckoCap motivates kids, engages parents, and informs clinicians. It includes a smart button that attaches to existing inhalers and an online user interface that provides direct monitoring, games, and data visualizations. GeckoCap also allows caregivers to monitor adherence on their mobile devices.

geckocap.com | @GeckoCap



STARTUP, ACCELERATOR (HEALTHBOX)

YECHIEL ENGELHARD, M.D., M.H.A, M.B.A, CEO and Founder of Gecko Health Innovations, has more than 15 years of experience as an entrepreneur, practicing physician, and researcher. He has cofounded and worked with multiple medical and healthcare IT companies. Dr. Engelhard has an M.D. and M.H.A. from BGU (Israel), and an M.B.A. from MIT Sloan.

MARK MAALOUF, M.Eng., M.B.A., CTO and Founder of Gecko Health Innovations, has more than five years of experience at Microsoft as a developer and engineering manager. He has also worked at Samsung Telecommunications and founded a sports analytics company. Mark has a Bachelor's and a Master's degree in Electrical Engineering from McGill University, and an M.B.A. from MIT Sloan.

GLOBAL CENTER FOR MEDICAL INNOVATION

(GCMI) is an independent, non-profit organization that has launched the Southeast's first comprehensive medical device innovation center. GCMI is bringing together core members of the medical device community, including universities, research centers, clinicians, established device and drug companies, investors, and early-stage companies, with the goal of accelerating the commercialization of innovative medical technology.

devices.net | @medtechinnovate



ACCEL FRATOR

TIFFANY WILSON KARP, General Manager and Chief Operating Officer, has spent over 10 years working with scientists, physicians, investors, attorneys and other experts to bring innovative medical technology from benchtop to bedside. She leads day-to-day operations at GCMI and is building an organization that brings together core members of the medical device ecosystem across the Southeast.

MARK McJUNKIN, Director of Operations, brings over 20 years of concept development, design, CNC manufacturing and rapid prototyping capabilities to the GCMI team. A sought-after mentor and award-winning designer, Mark possesses a unique ability to lead real-time collaboration sessions with innovators across many disciplines to get ideas to "work" and bring concepts to life.

HEALTH LEADS enables doctors and other healthcare providers to "prescribe" low-income patients basic resources like food and heat, just as they do medication and refer patients to Health Leads just as they do any other specialty. We train and mobilize college students who volunteer their time as advocates to "fill" prescriptions by working side-by-side with patients to connect them with the basic resources they need to be healthy.

 $health leads us a. or g \mid @Health Leads Natl$



FOUNDATION

CONNIE FRENCH joins Health Leads from a long career in high-tech marketing. Most recently, she managed all aspects of marketing for InnoCentive, a leading provider of open innovation and crowdsourcing services. In her role at InnoCentive, Connie discovered a passion for working with the firm's non-profit clients. As Director of Marketing for Health Leads, Connie is excited to use her marketing experience toward affecting positive change in the world.

SONIA SARKAR served on Health Leads' Board of Directors and in 2006 co-founded the organization's Baltimore site. She is a Truman Scholar, Rotary Scholar, and a World Economic Forum Young Global Shaper. She serves on the board of Boston Young Healthcare Professionals and worked previously as a Baltimore City Mayoral Fellow.

INNOVATORS



healthtechhatch.com | @healthtechhatch



STARTUP

PATRICIA SALBER, M.D., M.B.A. is founder and CEO of Health Tech Hatch. She is a board-certified internist and emergency physician and physician executive. She has held leadership roles in many different areas of healthcare and hosts the popular, widely read healthcare blog The Doctor Weighs In.

KAREN MICHAELI, M.S.W., M.B.A., is co-founder and COO of Health Tech Hatch. Her background in patient engagement led her to health technology, and since 2006 she has been immersed in startup environments, focusing on product and program development and project management.

startup building a modular eHealth platform to help care teams address varied patient psychosocial risks and conduct smarter patient outreach.

Our software improves health outcomes in primarily low-income populations by empowering patients with information on the basic resources needed to be healthy, contextualizing a patient's environment for a healthcare provider, and leveraging mHealth tools to coordinate care and engage patients outside the clinical setting. We hope to effectively bring a patient's social environment into the healthcare equation.

healthify.us | @healthifyUS



STARTUP

MANIK BHAT perpetually thinks about ways to improve the status quo in healthcare. He started Healthify to address major pain points observed when volunteering (Health Leads) and working in various urban clinics in Baltimore. Manik is the executive officer of Healthify and a graduate of Johns Hopkins University.

A self-described policy wonk, **ERIC CONNER** develops sustainable strategies for improving health outcomes by combining his business experience at the World Trade Center Institute and clinical experience volunteering with Health Leads. Eric manages Healthify's finances. He graduated from Johns Hopkins University with a Bachelor's and a Master's degree in History.

HUMETRIX is the developer of the iBlueButton mobile apps, enabling over 70 million Americans to securely access their online Blue Button® and other health records, and to transmit these to their physicians — device to device — in a novel way. The iBlueButton apps won the 2012 HHS Industry Innovation "Blue Button Mashup" Challenge for putting in the hands of Medicare beneficiaries actionable health records into their mobile devices, to save lives and billions of dollars in healthcare costs.

humetrix.com | @humetrix



CORPORATION

BETTINA EXPERTON, M.D., M.P.H. is the Founder/CEO of Humetrix, a mobile application pioneer whose solutions have been deployed worldwide and is now a leading developer of mobile healthcare apps. Dr. Experton is a serial entrepreneur, author of multiple IT patents, and has been a national healthcare policy advisor for the U.S., China, and France.

CHRISTOPHER R. BURROW, M.D., joined Humetrix in 2010 as EVP of Medical Affairs with a strong clinical and research background as a molecular biologist/nephrologist and former faculty member at the Johns Hopkins School of Medicine. Dr. Burrow co-founded CardioDx, a pioneering company in the application of genomics to personalized medicine.

IMPAK HEALTH develops low-cost, cloud connected devices and condition-specific solutions that capture and report "just enough" information to help medical providers and patients to collaborate and coordinate care and decrease costs for managing chronic conditions. The company's initial efforts aim to enable patients to easily share clinically relevant data with physicians via low-cost sensor-based technologies, helping alert clinicians to events that may require interventions. iMPak is funded by Meridian Health.

impakhealth.com | @impakhealth

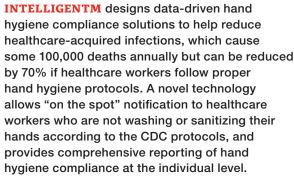


STARTUP

Executive Director **SANDRA D. ELLIOTT** is Director of Consumer Technology and Service Development with Meridian Health, where her role is to develop new technology-based services and business ventures targeting population segments such as the boomer and aging populations.

CAROL ASH, D.O., is a board-certified general internist, fellowship-trained pulmonary, critical care and sleep medicine specialist with more than 15 years' experience in clinical medicine. Currently, Dr. Ash is the Director of Sleep Medicine at Meridian Health and the Senior Consumer Medical Advisor for iMPak Health.

INNOVATORS



intelligentm.com



STARTUP, ACCELERATOR (BLUE PRINT HEALTH)

SETH FREEDMAN, Founder and CEO of IntelligentM, is a successful entrepreneur who, after a career in sales management, brand marketing and strategic planning with two Fortune 1000 companies, ventured off onto the entrepreneurial path. He has bought, built and sold several small manufacturing companies over the last twelve years.

ANDREW FINE, M.D. is a practicing neurosurgeon in Sarasota, Florida. Dr. Fine has received numerous awards, honors and grants during his training and in practice. He is widely published and regarded for his scholarly presentations. In 2009 Dr. Fine received the Patients Choice Physician Award from the American Registry of Business Excellence.

JINTRONIX is a biomedical device company designing software for physical rehabilitation. With offices in Montreal, Quebec, and Seattle, Washington, it began as a passion project to help stroke victims recover. Now venture-capital funded, Jintronix has broadened its sights, developing tools to help both patients and physicians. By developing unique, engaging and effective software solutions, Jintronix's goal is to provide everyone with an affordable means of receiving physical rehabilitation.

iintronix.com | @iintronix



STARTUP

MAX GRAHAM, a Civil Engineering graduate from McGill University, began working in project management directly after graduation. Now at Jintronix as Director of Business Development to build new partnerships and refine its business strategy, Max is particularly interested in seeing Jintronix develop more activities for pediatrics.

JUSTIN TAN, CEO of Jintronix, graduated from MIT with a B.Sc. in Biology and Biological Engineering. Justin has also completed a Masters in Public Health and Public Policy from Cambridge University, which provided him with a keen interest in healthcare technologies and innovation.

NANOLY BIOSCIENCE, founded in 2011, is developing a polymer that enables vaccines to survive without refrigeration. According to the World Health Organization (WHO), 2.1 million people die each year from vaccine-preventable diseases. People living in hard-to reach areas of the world struggle to receive immunization. Our technology decreases vaccine transportation costs, increases immunization access in remote areas of the world, and decreases vaccine spoilage. Nanoly was named Intel's Top Social Innovation in 2012.

nanoly.info | @nanolyB



STARTUP, ACADEMIA (KAIROS SOCIETY—UC BERKELEY, DUKE UNIVERSITY, STANFORD UNIVERSITY, UNIVERSITY OF COLORADO SCHOOL OF MEDICINE

NANXI LIU studied business administration, political economy, and engineering at UC Berkeley. She founded Nanoly Bioscience during her senior year in college. Nanxi currently serves as a youth advisory board member of Lady Gaga's Born This Way Foundation and an advisory board member of UNICEF's Chinese Children's Initiative.

Can your doctor know everything about you and all the medical literature to make an accurate diagnosis in seven minutes? Doctors are only human. **LOGICAL IMAGES** improves diagnostic accuracy by combining a structured-knowledge approach, a visual search interface, more than 100,000 of the world's best medical images, and deep medical expertise into VisualDx — helping doctors and empowering patients. VisualDx is used in almost half of all medical schools and more than 1,500 hospitals nationwide.

logicalimages.com



STARTUP

ART PAPIER, M.D., is CEO of Logical Images. Art's passion is reducing diagnostic errors. In the 1980s he trained with Larry Weed, the inventor of the SOAP note. Since the 1990s Art has led a team creating VisualDx, the only diagnostic decision support software tool to be widely used by physicians.

NOAH CRAFT, M.D., Ph.D., is CMO of Logical Images. Noah has trained in microbiology, immunology, dermatology, and tropical medicine and was an Associate Professor at UCLA. At Logical Images, he is now focused on transforming the practice of medicine through the development of computerized diagnostic decision support tools to reduce diagnostic errors.

INNOVATORS

NEUMITRA is building wearable and mobile technologies for daily brain health. Our mission is to measure, monitor, and manage the daily effects of life demands on brain health, productivity, and happiness. Our first product is bandu, a self-learning biowatch that continuously measures the autonomic nervous system for personalized biofeedback, in the clinic and at-home. Dashboard analytics enable brain health and performance comparisons from one person to thousands across industries and the population. From veterans to mothers to executives and students, we bring data to mind to improve how we all live, work, and play.

ROBERT GOLDBERG, Ph.D. is a neuroscientist with published research in neuroimaging and cognitive science examining executive control and sensorimotor brain regions. His family history of mental illness led him to founding Neumitra. Rob dreams of a world where brain health and performance is measured, monitored, and managed during daily life demands.



STARTUP, ACCELERATOR (ROCKHEALTH)

NEUROTRACK's technology can diagnose Alzheimer's disease years before symptoms appear, enabling pharmaceutical companies and researchers to recruit qualified candidates for clinical trials and to more effectively measure drug efficacy, speeding up drug discovery and development. Neurotrack is on track to become the gold standard for early clinical screening of Alzheimer's- and dementia-related disorders.

neurotrack.com



STARTUP, ACCELERATOR (ROCKHEALTH)

ELLI KAPLAN, Co-founder and CEO of Neurotrack, has worked at the White House, the State and Treasury Departments, and the United Nations Development Program. She helped found Flashpoint, a startup accelerator program at Georgia Tech. Elli is a graduate of Mount Holyoke College and has an M.B.A. from Harvard Business School.

ELIZABETH BUFFALO is Associate
Professor of Neurology at Emory University
School of Medicine and Core Faculty at
the Yerkes National Primate Research
Center. She received her B.A. from
Wellesley College and her Ph.D. at the
University of California, San Diego. Her
research investigates neural mechanisms
that support learning and memory.

NOVOCOR MEDICAL SYSTEMS provides solutions that help Emergency Medical Service first responders save lives. Our patent-pending product, HypoCore, is an innovative rapid chilling device for inducing therapeutic hypothermia in cardiac arrest, traumatic brain injury, heat stroke and heavily concussed patients to markedly improve patient survival rate. HypoCore is ready on demand. It is easily stored in ambulances, fire trucks, and helicopters. It does not require external power and is compatible with standard medical equipment.

novocormed.com



STARTUP, ACADEMIA (UNC CHAPEL HILL)

ANDREW J. DIMEO, Sr., Ph.D. is a coach, student, and fan of biomedical engineering, baseball, and life. He started in the NYC movie business and is now Assistant Professor and Director at UNC and NCSU. He's founded multiple companies including service, non-profit, and bootstrapped.

ANTHONY S. VOIERS is a seasoned medical device inventor with ten patents and over twelve marketed products. In eighteen years at Closure Medical (later Ethicon), Tony rose to Director of R&D and site lead while developing devices like Dermabond® Topical Skin Adhesive.

NUDGERX provides an internet-based, post hospital daily discharge monitoring service that helps reduce unplanned readmissions and ER visits. The company's technology provides tools for patients and their caregivers to monitor, track and report a patient's status and adherence to their recovery plan. NudgeRx's proprietary backend software also allows call center nurses to assist and triage patients throughout recovery. The company's all-factors readmission rate for heart surgery patients is 12% for 30 days and 15% for 90 days with a 90% patient satisfaction rating.



STARTUP

DAVID SCHUSTER, CEO and Cofounder, has over 20 years of experience as a pioneer in healthcare and technology startups, with key corporate development and management roles at Hythiam (Catasys), Galt Strategy, LifeMasters and Matria. David received his B.S. in Business Administration from Marquette University.

MAUREEN MAYER, VP of Clinical Services, is an R.N. specializing in ER, trauma and surgery practice management and concierge medicine. Founder of The MDMC Group, she applies her technical skills and knowledge of complex medical procedures in environments requiring medical marketing expertise, sophisticated practice management, and comprehensive patient treatment protocols.

INNOVATORS

NVISION MEDICAL is an early-stage, venture backed medical device company dedicated to filling the void in female health-related innovation. Our current areas of interest are reproductive health and early detection of ovarian cancer. Infertility is a five billion dollar (U.S. alone and growing) market and we have developed a catheter-based device which will significantly advance the diagnosis of the leading cause of female infertility, fallopian tube blockage. Current iterations of this product will allow physicians to detect ovarian cancer in office at earlier, more treatable stages, therefore preventing the spread of this lethal cancer.

lmnvc.com/portfolio/nvision



STARTUP, LMN VC

When she was 13, **SURBHI SARNA**, CEO and Founder, was a patient. It was then that she realized she wanted to fill the void in female-health related innovation. She went to study at Berkeley and then worked as an engineer. Finally, she decided to tackle some of the issues she witnessed in women's health and is now CEO and founder of nVision Medical.

ANULA JAYASURIYA, Board Member of nVision, is co-founder of Evolvence, which makes investments in healthcare in India. She was previously a partner with Skyline Ventures, and prior to that with TVM. Anula received a B.A. from Harvard summa cum laude, and an M.D.-Ph.D. from Harvard Medical School. She received an M.B.A. with distinction from Harvard Business School.

The goal of the NEW YORK EHEALTH
COLLABORATIVE (NYeC) is to create health
information technology that ensures fast,
secure, accurate, and accessible patient data.
NYeC helps providers shift to EHRs, develops
policies and standards, and coordinates a state
network of healthcare providers (SHIN-NY).
NYeC deployed the first clinical API affording
standardized access to the SHIN-NY with appropriate
security and privacy policies. With the Partnership
Fund for NYC, NYeC launched the New York Digital
Health Accelerator, providing funding and access to
providers for early-stage health tech companies.

nyehealth.org | @nyehealth



STARTUP, NEW YORK DIGITAL HEALTH ACCELERATOR

As Executive Director, **DAVE WHITLINGER** has overall responsibility for NYeC. Previously, Dave was a Director at Intel, responsible for healthcare device interoperability strategies and standards development. He has also led a cross-industry consortium, the Continua Health Alliance, focused on the establishment of an ecosystem of interoperable, personal telehealth systems.

ANUJ DESAI leads the NY Digital Health Accelerator, the development of the SHIN-NY clinical API, standards development, and the incubation of new capabilities. Anuj has over 12 years of experience in the healthcare industry. Most recently, he worked at Johnson & Johnson, focused on forming business cases for M&A in health technology.

OMADA HEALTH combines exceptional design with evidence-based medicine to create groundbreaking products that foster lifestyle change, prevent chronic disease, and reduce the burden of healthcare costs. Omada's flagship product Prevent, based on the NIH-sponsored Diabetes Prevention Program clinical trial, is the first online diabetes prevention program for the general public. Prevent has demonstrated significant weight loss results for people with prediabetes by delivering a world-class, engaging 16-week program.

omadahealth.com | @omadahealth



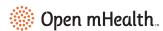
STARTUP, ACCELERATOR (ROCKHEALTH)

Co-Founder and CEO **SEAN DUFFY** cares deeply about healthcare innovation and is dedicating his career to building systems and technologies that bring increased patient-centered value to the U.S. healthcare system. He was previously an M.D./M.B.A. candidate at Harvard and has worked at both Google and IDEO.

CAMERON SEPAH, Medical Director of Omada Health, has a mission to create tools that alleviate human suffering and promote well-being. Trained at Harvard & UCLA, he has clinical and scientific expertise in behavioral medicine and disease management. He has also worked in venture capital and at consulting firms such as McKinsey & Company.

While there might be an app for this and an "app for that," many mHealth applications are built in silos. **OPEN MHEALTH** aims to break down these silos by building an open architecture for mobile health applications.

openmhealth.org



STARTUP, ROBERT WOOD JOHNSON FOUNDATION, CHEF

DAVID HADDAD is the director of Open mHealth. He comes with a breadth of experience in both domestic and global health. He's worked for organizations like the mHealth Alliance and the World Bank. David holds a bachelor's from UC Berkeley and a master's degree from the London School of Economics.

JOSH SELSKY is Open mHealth's Chief Software Architect. He holds a B.S. in Computer Science from the Illinois Institute of Technology and is a software developer with 15 years of professional experience working at startups, within academia, and at corporations both large and small.

INNOVATORS



and manage their health through technology. With our Smart Fertility and Smart Pregnancy products, Ovuline helps women conceive faster and have healthy pregnancies by analyzing users' key health metrics collected through self-reporting and quantified self devices. Ovuline then creates personalized recommendations for each user based upon her unique data set, clinical guidelines and insights gained from analysis from the 1M+ data points shared by our users.

ovuline.com | @ovuline.com



STARTUP, ACCELERATOR (TECHSTARS)

PARIS WALLACE is CEO and President at Ovuline, founder at Good Start Genetics, Co-President of HBS Angels Boston, and mentor at Techstars Boston. Paris holds an M.B.A. and M.P.A. from Harvard and a B.A from Amherst College.

JEN MacLEAN, business development lead at Ovuline, is an experienced digital media executive who has worked at Comcast, AOL, and video game industry. Jen holds an M.B.A. from Columbia and a B.A. from Johns Hopkins.

POKITDOK is a web and mobile health marketplace founded in 2011 and based in Menlo Park, California. PokitDok's price-transparent health marketplace contains a database of over three million healthcare providers nationwide. Consumers can shop directly from these providers for high value health services, search by condition or specialty and request a price quote directly from the provider before the service is performed.

pokitdok.com | @pokitdok



STARTUP, CHARLES RIVER

LISA MAKI, previously CEO and co-founder of BeliefNetworks (Benefitfocus, 2010) and veteran of multiple roles in consumer product development at Microsoft (including Director of Program Management, Consumer Division), brings 20 years of consumer and enterprise software experience including the team that invented wizards and a semantic system for processing benefits data.

TED TANNER, JR., with experience ranging from startups to public corporations, has held architect positions at Apple and Microsoft and instrumental roles in start-ups including digidesign (IPO; Avid, 1994), Crystal River (Creative Labs, 1996), MongoMusic (Microsoft, 2000) and BeliefNetworks (Benefitfocus, 2010). He was CTO at NASDAQ:SPAZ and holds a Top Secret Clearance.



Vedic

STARTUP

During his M.B.A. at MIT Sloan, Sombit was awarded the Patrick J. McGovern Prize for raising over \$1 Million for MIT startups. FAHD ALBINALI is the Founder and CTO of QMedic. Formerly at the MIT Media Lab, Fahd co-led the design/development of the Wockets, an open-source sensing platform used to study physical activity,

sleep, and autism. His work has been published in UbiComp (2009 Best Paper

Award), AAAI, CHI and PerCom.

SOMBIT MISHRA is the Founder and

CEO of QMedic. His career has spanned

development, and user interface design.

RXANTE is a healthcare technology company with an integrated analytics platform that predicts medication adherence for individual patients, provides intervention decision support, and measures intervention performance. RxAnte's technology uses healthcare data to determine which patients need extra support and which medication improvement intervention is the best choice for each individual. The RxAnte system is currently in use by large healthcare payers, providers, and life sciences companies.

rxante.com | @rxante



STARTUP

IOSH BENNER. Pharm.D., Sc.D., is the founder and CEO of RxAnte, a healthcare analytics and technology startup company focused on improving outcomes and lowering the cost of healthcare. As a pharmacist, researcher, consultant, and entrepreneur, Josh's career has focused on preventing the problem of medication non-adherence.

AARON McKETHAN, Ph.D. is a cofounder and SVP of Strategy & Business Development for RxAnte, a healthcare analytics and technology startup company. Aaron was previously director of the Obama Administration's signature health IT demonstration and was Research Director at the Brookings Institution focusing on health IT and new care models.

INNOVATORS



SCIENCE EXCHANGE is a community marketplace for scientists to list, discover, access and pay for scientific services. The Exchange helps researchers access resources and expertise, and connect with providers who can conduct their experiments. Science Exchange was founded by Elizabeth Iorns, Ryan Abbott and Dan Knox in May 2011, and is based in Palo Alto, California. The company is backed by Y Combinator, Andreessen Horowitz, Yuri Milner and Sam Altman, among others.

scienceexchange.com | @scienceexchange



STARTUP, ACCELERATOR (Y COMBINATOR)

RYAN ABBOTT is Co-Founder and CTO of Science Exchange. As the technical architect of Science Exchange, Ryan makes sure the company's vision translates into a tangible, functional and well-designed product. Ryan is a graduate of the Computer Science program at Michigan State University.

BILAL MAHMOOD leads Customer & Business Development for Science Exchange. In his role, Bilal handles customer outreach campaigns, and also helps with developing new partnerships and initiatives. He was previously a policy analyst at the U.S. Office of Innovation & Entrepreneurship. Bilal is a Gates Cambridge Scholar and Stanford alum.

SENSE HEALTH helps healthcare providers deliver mobile support to patients in between appointments. Support is delivered to patients through text message plans called Scripts. Scripts interactively remind, motivate, and check-in with patients. We believe the key to helping patients improve their health lies in patient accountability, behavioral triggers, and individually tailored support. With Sense Health, providers can now efficiently create, deliver, and monitor support plans for their patients in between appointments.

sensehealth.com | @sensehealth



STARTUP

STAN BERKOW. Co-Founder of Sense Health, has a passion for understanding behavior. Graduating from Bowdoin College with a degree in neuroscience, he went on to study exercise and cognition at the Columbia Medical Center. Shortly thereafter, he caught the startup bug and founded Sense Health.

BRAD HAMMONDS. Co-Founder of Sense Health, has a background in behavioral sciences. He went to graduate school at Columbia University and worked at Columbia University's Department of Behavioral Medicine, where he ran the psychophysiology lab and coordinated trials on exercise and cognition before founding Sense Health.

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SENSULIN, LLC is developing the first single dose 24-hour glucose-responsive insulin, which may mimic a healthy human pancreas. SensulinT may eliminate the need for basal and prandial insulin, offer a substantial improvement in the standard of care, and most importantly, give those with diabetes a chance at a normal life.

sensulin.com | @mikemoradi



STARTUP

MIKE MORADI is a co-founder or principal in Charlesson (biopharma discovery, #264 fastest growing private company in the 2009 Inc. 500); Southwest Nanotechnologies (worldwide leader in carbon nanotubes); Nanopolaris/Unidym (acquired for \$145MM in 2011), and NanoSource (acquired by DuPont in 2002—widely considered the first liquidity event in nanotech).

ANANTH ANNAPRAGADA is Professor of Radiology and Director of Basic Research at Texas Children's Hospital. He is a co-founder of three biotech companies based on research originating in his laboratory, Marval Biosciences Inc., Sensulin LLC, and Alzeca LLC.

SHAPEUP is the leading global provider of clinically-proven, social networking-based employee wellness programs. Founded in 2006 by two doctors, ShapeUp pioneered an innovative behavior change approach that leverages the power of social networking, gaming, coaching, and financial rewards to improve the health of large populations and reduce healthcare costs. ShapeUp's social wellness platform covers two million lives across 90 countries and is used by more than 200 employers and health plans.

shapeup.com | @shapeupdotcom



STARTUP

MEGHAN OATES-ZELESKY is vice president of marketing for ShapeUp, the leading provider of social wellness solutions. Meghan also held leadership positions at NaviNet, The TriZetto Group, and Health Dialog Services Corporation. Meghan received her B.A. in History from Harvard University and her M.A. in political science from London School of Economics.

JACK BROWN is the director of product management for ShapeUp, the global leader in social networking based wellness programs. Previously, Jack has driven product strategy at Warner Bros Games, Invensys, Outcome, Vivox, and mentcher Group. Jack earned his B.S. and M.S. in aerospace engineering from Boston University.

INNOVATORS



soma analytics is a London-based start-up that radically improves the way companies cope with the impact of work stress on their employees. Therefore SOMA Analytics quantifies and enhances employee well-being through real-time data analysis based on everyday smartphone interaction. Personalized feedback is provided for the individual and tailored organizational improvements are delivered for the company. With a patent pending technology and German software engineering, SOMA Analytics brings back human in human resource management.

soma-analytics.de



STARTUP, ACCELERATOR (HEALTHBOX)

With his background in Mathematics and Data Analysis, **CHRISTOPHER LORENZ** brings understanding to the application's data outputs and identifies key insights. Holding an Honors Masters in Mathematics, he is doing a Ph.D. in Financial Mathematics at the University of Mannheim.

JOHANN HUBER is a German engineer by education but an entrepreneur at heart who is silly enough to ask questions and not too proud to see the world through the eyes of a child. He is doing a Masters in Business Innovation at the University of St. Gallen, Switzerland.

BREATHWEAR is the world's first truly clip-on-and-go respiration sensor. It streams a user's breathing patterns to a smartphone for real-time monitoring and guidance. Breathwear is virtually invisible yet tracks both physical behavior (i.e., steps) and mental/emotional behavior (anxiety, calm), making it a consumer-friendly means of providing real-time anticipation, prevention, and recovery from asthma attacks, hypertension, chronic pain, PTSD, and other stress- and cardiorespiratory-related disorders.

breathwear.com



STARTUP

NEEMA MORAVEJI is the co-founder of Spire, makers of Breathwear. He also founded Stanford University's Calming Technology Lab, where he completed his Ph.D. on "Augmented Self-Regulation" using respiratory monitoring and influence on mobile devices. He received his M.S. in Human-Computer Interaction from Carnegie Mellon University.

JONATHAN PALLEY has spent 10 years building successful technology-enabled companies in the U.S. and Asia. Previous to Spire, he co-founded the first synchronous on-demand learning platform, Idapted; the first internet-connected smart flashcard software, Virtual FlashCards; and a big data platform used by some of the world's largest companies in China, Brainpage. Jonathan studied physics, computer science, and theater at Stanford University.

STARLINGHEALTH creates technology to facilitate communication between patients and providers in hospitals and long-term care facilities. Its platform helps patients communicate specific needs directly from the bedside and provides a framework for care providers to resolve those requests. Patients receive a configurable set of icons that are supported by text and audio in any language to articulate needs. Staff can receive and resolve requests via dedicated touchscreen dashboards, web interfaces and mobile devices.

starlinghealth.com | @starlinginfo



STARTUP

multiple industries including manufacturing and retail, business intelligence, digital media and healthcare. He currently oversees technology, business development and dayto-day operations at StarlingHealth. Brian earned a B.S. in Marketing and International Business from Pennsylvania State University.

CFO of StarlingHealth, VIJAY BACHANI has over a decade of experience in finance and accounting from global firms like Arthur Andersen, Societe Generale and PaineWebber. He currently oversees all financial activities at StarlingHealth. Vijay earned his Bachelor's and Master's degrees from New York University's Stern School of Business.

BRIAN YARNELL has been creating

technology for more than 13 years across

TRANSFORM HEALTH is advancing how people care for themselves and their families through unique mobile software and hardware products that help create a real-time map of human health. Our first product is an ultra-low-cost smartphone-connected thermometer. Caregivers can easily capture a temperature, seek advice from medical professionals, compare symptoms to "what's going around," and keep a health history. Together, all of our products give local parents and physicians the information needed to track and stop the spread of disease.

transformhealth.me | @inderstweet

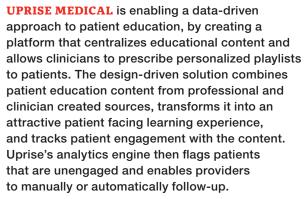


STARTUP

INDER SINGH, Co-Founder & CEO, Prior to Transform Health, Inder was Executive VP of the Clinton Health Access Initiative and led efforts to improve access to HIV and malaria medicines. He has worked in four technology startups and founded a children's health nonprofit organization. Inder holds degrees from Harvard, MIT, and the University of Michigan.

QIAN QIAN TANG, Deputy to CEO. Prior to joining Transform Health, Qian Qian was an Associate at the Boston Consulting Group where she advised Fortune 500 companies and helped establish an international healthcare non-profit. Qian Qian graduated from MIT with a B.Sc. in Chemical-Biological Engineering and also did a year at the University of Cambridge.

INNOVATORS



uprisemedical.com

uprise medical

STARTUP, ACCELERATOR (HEALTHBOX)

TIM SCHWARTZ is the co-founder and CEO of Uprise Medical. Tim believes technology that improves consumer's health knowledge and empowers the healthcare system to engage patients is central to reversing the current trends of healthcare costs. He has a diverse background across the business side of startups, investing, and advising.

AMIT MATHEW is the co-founder and CTO of Uprise Medical. His passion for fixing patient education began after his father, a physician, was diagnosed with cancer and the difficulty his family faced with understanding and sharing health information. Amit has been writing software for over fifteen years.

VENTRINOVA, INC. develops treatments for cardiovascular disease based on the use of cyclin A2 to induce cardiac regeneration after myocardial infarction or in heart failure. VentriNova's unique approach for heart regeneration relies on stimulating the endogenous fetal gene program that causes heart muscle cells to divide. The company was awarded a small-business grant from the NIH. Initial venture investment in VentriNova is through Broadview Ventures.



STARTUP

HINA CHAUDHRY, M.D. is Founder/ President of VentriNova. She is also Associate Professor of Medicine, Director of Cardiovascular Regenerative Medicine at Mount Sinai School of Medicine. She holds B.S. degrees in Biology and Chemistry from MIT. an Honors M.D. from Harvard. and was Irving Assistant Professor of Medicine at Columbia University.

IESSICA HARRINGTON. M.D., is a director at Broadview Ventures. Inc., a firm with a mission to accelerate the development of promising technology in cardiovascular and neurovascular disease through targeted investments in and support of early stage ventures. She has been a member of the VentriNova leadership team since 2009.

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VGBIO has developed a proprietary, personalized, predictive analytics-based solution to wirelessly acquire and analyze multiple biological signals and reliably identify significant medical abnormalities earlier than current systems. Our solution provides daily monitoring of chronically ill patients, giving clinicians early notification of an exacerbation, enabling modified therapy to maintain the patient's health and avoid costly hospitalizations. We seek to transform the management of chronic diseases from a reactive to a proactive care delivery model.

vgbio.com



STARTUP

VIS is a new approach to finding researchers and sites for clinical trials. The platform puts comprehensive, up-to-date analytics about research centers around the world at the fingertips of trial planners. ViS also provides a social network for sites to easily communicate their expertise. All of this information is efficiently shared through visualizations, computational engines, and communication tools, leading to faster and cheaper development of medical treatments.

visresearch.org



STARTUP

GARY CONKRIGHT is a serial entrepreneur and visionary leader with a passion and track record for building exceptional teams to take transformational technology from laboratory to commercial success. Gary has an M.B.A. from the University of Chicago, a B.S. in Aeronautical Engineering from Purdue University and is the inventor on four U.S. Patents.

MATT PIPKE is a University of Chicago trained physicist, technical visionary and seasoned entrepreneur, working at the intersection of machine learning and medicine to drive exponential change to solve some of the most daunting challenges facing global healthcare today. He is also a patent attorney and inventor on seven U.S. Patents.

FABIO THIERS, M.D., Ph.D., CEO, is a Harvard-MIT physician-scientist and IT entrepreneur. He is a pioneer in the field of global clinical research analytics and published a landmark Nature paper on the subject. He was Director of MIT's Strategic Global Trials research program and researched trends in trial design at the U.S. FDA.

MARC WILENZICK, Esq., Head of Stakeholder Engagement, is an experienced FDA attorney and innovator. He serves as Senior Advisor to Harvard University's Multi-Regional Clinical Trial Center and as a board member of the Association for the Accreditation of Human Subject Protection Programs. He was previously an attorney at the FDA and Pfizer Inc.





outside the hospital. We are developing technology to optimize recovery among patients with complex high-cost diseases, including heart attacks/ failure, organ transplant recovery, and cancer.

is delivered and extend the reach of healthcare

wellfra.me | @archthat



STARTUP, ACADEMIA (KAIROS SOCIETY-HARVARD, OXFORD, MIT)

TRISHAN PANCH, M.D. is the Chief Medical Officer of Wellframe. He is a U.K. board-certified Primary Care M.D. and Harvard-trained health systems expert. He is an MIT lecturer in health sciences and technology and inaugural recipient of Harvard's Public Health Innovator of the Year award (2012.)

CATERINA HILL is the head of research and evaluation at Wellframe. She is an Epidemiologist and Researcher at Harvard Medical School, and is a nationally recognized expert in information systems and quality improvement in primary care and public health quality.

Globally, over one billion people lack reliable access to safe water. WELLO's WaterWheel is a rolling water container that moves 50 liters of water in a single trip, 3-5 times more than the amount possible using traditional methods. By reducing the physical and time burdens of water collections, families enjoy better health. Wello's innovative business model is designed to make the WaterWheel available at an affordable price.

wellowater.org | @wellowater

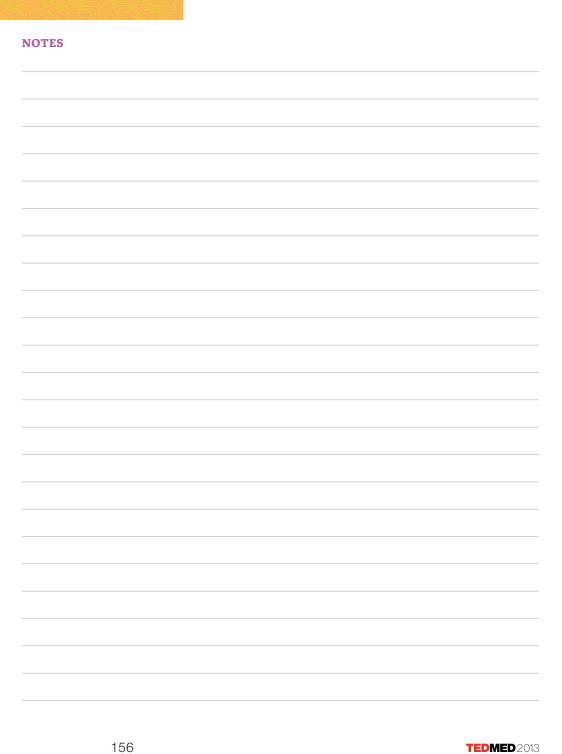


STARTUP, ACCELERATOR (UNREASONABLE INSTITUTE)

CYNTHIA KOENIG has lived on four continents, working with ventures ranging from community-run eco-businesses in Latin America to a national strategy for sustainable tourism development in Bhutan. Cynthia is a 2011 Unreasonable Institute Fellow and earned a B.A. in Anthropology from Trinity College and M.B.A./M.S. degrees from the University of Michigan.

SRUTHI SADHUJAN brings years of experience in corporate retail strategy in New York, donor relations in Mexico City, and community development in Philadelphia to the Wello team. She holds degrees in International Relations and French from the University of Pennsylvania.

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The Great Challenges Program: An Update

Now entering its second exciting year, TEDMED's Great Challenges Program engages our global community in year-round dialog on 20 of the most complex problems in health and medicine. The Program's mission: to provide the world with unbiased, inclusive views and thoughtful, multi-disciplinary perspectives that can set the stage for truly effective action for progress in health.

Using an innovative mix of Twitter, Google+ Hangout, Facebook and the web, we tackle such questions as: How can we promote faster medical innovation? How can we tackle obesity? Stress? The changing role of the patient?

As we continue conversations at the event around these challenges, we wanted to provide the community with a brief update around the Program's progress.

Since last April, we've:

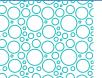
- Launched an online engagement platform at TEDMED.com/greatchallenges, welcoming all contributions from the broader community.
- Recruited 20 teams of multi-disciplinary experts: patients, systems engineers, clinicians, non-profit leaders and more.
 Each of our 120 Team members represents a different discipline and diverse perspective in his or her field.
- Hosted 20 live Google+ Hangouts where Team members answered questions from the TEDMED community. They're archived on TEDMED.com.

 Engaged a digital community of 35 million explorers. We continue to welcome new members to share their perspectives, findings and reflections. Live events and discussions will continue throughout the year.

If you haven't already joined in and included your extended communities, we welcome you to do so!

We thank our sponsor, the Robert Wood Johnson Foundation, for their invaluable support of this Program. We also gratefully acknowledge Fenton Communications, The Hastings Center and Home Front Communications for their thoughtful hard work.





Introducing

Great Challenges Day

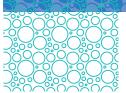
An Afternoon of Great Provocations and New Mental Models

After six months of dynamic online dialogs and three and a half days of exploration and inspiration we will cap off TEDMED 2013 with a brand new, full afternoon session called "Great Challenges Day." Organized around the 20 Great Challenges of health and medicine and leveraging the storytelling of science, we will get together in small workgroups at George Washington University in search of new insights and a more complete understanding of the key issues that impede a healthier future.

Great Challenges Day kicks off with three inspiring speakers and gives our community a chance to roll up our sleeves and work side-by-side in service of a better future in health and medicine. There could be no better host for this event in Washington, DC than George Washington University. In addition to our partnership with the **Robert Wood Johnson Foundation**, the Great Challenges Day is made possible by the contributions of these leadership companies, each of which will facilitate multiple working group sessions:

Booz Allen Hamilton, Edelman, Innosight, and Jump Associates as well as members of George Washington University Faculty.

GREAT CHALLENGES



OPENING SPEAKERS

Great Challenges Day begins with three inspiring speakers who will discuss and display the power of storytelling and its importance in the fields of health, medicine and science.

The "And, But & Therefore" of Storytelling



RANDY OLSON is a scientist-turned-filmmaker who is the writer/director of the feature films, *Flock of Dodos: The Evolution-*

Intelligent Design Circus (Tribeca 2006, Showtime 2007), Sizzle: A Global Warming Comedy (Outfest 2008), and author of Don't Be Such a Scientist: Talking Substance in an Age of Style (Island Press 2009). His work focuses on the challenges involved in communicating science to the general public. He is a former marine biologist (Ph.D. Harvard University) who achieved tenure at the University of New Hampshire before changing careers to filmmaking by obtaining an M.F.A. in Cinema from the University of Southern California. His production company, Prairie Starfish Productions, is based at Raleigh Studios in Los Angeles.

Why Your Life is as Interesting as Your Research



BEN LILLIE, Co-founder and director of *Story Collider*, is a high-energy particle physicist who left the ivory tower for the wilds of New York's

theater district. He now writes and performs stories about science and being a scientist, and is a Moth StorySLAM champion. He also writes for TED.com, and likes to say that life is different now, largely because it is.



ERIN BARKER, Senior Producer at *Story Collider*, is a writer and a copy editor who has worked with more than eighty-five novels,

including several New York Times bestsellers. If you catch her after the show, she will gladly explain to you the difference between who and whom. She is the producer/host of The Story Collider, as well as editor of its upcoming online magazine, and can be seen every first Tuesday of the month performing with her storytelling team, Mimsy, at the Pacific Standard. She is a recent Moth GrandSLAM champion.



The Role of the Patient

Patient empowerment can be a double-edged sword. From hospitals and insurance companies to doctors and patients themselves, much of the medical system increasingly treats patients as "customers" or "consumers," terms that some people love and others hate. If patients are customers, does that mean "the customer is king" or does it mean "buyer beware" — or both?

If patients retain their traditional role, does that mean doctors are in charge? Are both in charge somehow? How is "power" shared among all stakeholders and how should it be shared?

DISCUSSION FACILITATORS



ANDY HAGERMAN
Business & Innovation
Strategist,
Jump Associates

Andy has worked with numerous healthcare organizations, from Stanford Medical Center to GE Healthcare to the New York State Department of Health, on topics of innovation, business design, and organizational change. Outside of Jump, he runs an education start-up in NYC and loves traveling the world, one restaurant at a time.



JOY LIU Senior Strategist, Jump Associates

Joy is a Senior Strategist at Jump. Her work spans

helping Fortune 100 companies increase their ROI on design, studying new materials for low-cost solar cell manufacturing, and implementing a transformative complex care delivery model at a leading children's hospital. Joy studied product design at Stanford's d.school and also holds an M.S. in electrical engineering from Stanford and a B.S. from University of California, Berkeley.

GREAT CHALLENGES



Managing Chronic Diseases Better

Chronic disease is America's leading cause of premature death and disability. Heart disease, cancer, respiratory illness and certain others are among the most costly and common health problems, yet they are often among the most easily prevented and controlled.

How can we innovate better approaches to help patients prevent, manage and treat their chronic diseases and achieve better outcomes?

DISCUSSION FACILITATOR



LAURA GORDON General Manager, Health, Edelman

Laura combines expertise in communications and policy with her background in medical

journalism. As the leader of Edelman's Washington Health practice, she has extensive knowledge of multiple disease areas, advocacy strategies, the workings of Capitol Hill and the reimbursement arena. Laura also oversees Edelman's Federal Government Services practice, and serves on the Board of the American Pharmacists Association Foundation.

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Coming to Terms with the Obesity Crisis (Adults)

In 40 years, the U.S. population has gone from 40% overweight to 68% overweight. Half of American adults are dangerously obese, leading to many chronic conditions and deadly (and expensive) diseases.

Scientists and doctors generally agree the obesity epidemic is behavioral in nature (not the result of a pathogen).

The key drivers are our choices of food and activity, but multiple additional factors also play a role—from family dynamics to cultural roots, stress, economics, lifestyle and many more. Unlike smoking or drinking, eating is not optional. How can Americans move to healthier lifestyles—or, if we can't change these trends, how can the healthcare system cope with the results?

DISCUSSION FACILITATOR

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LUCY STRIBLEY
Vice President,
Booz Allen Hamilton

For over 20 years, Lucy has provided strategy and technology consulting to multiple

commercial and government clients within the health industry. With a focus on the health market, she has worked with a wide range of clients including pharmaceutical, biotech and medical device companies, as well as with the Centers for Medicare and Medicaid Services, and the Food and Drug Administration.

GREAT CHALLENGES



The Caregiver Crisis

An estimated 44 million people provide full-time or part-time care for the elderly, disabled veterans, new mothers, the injured, the sick, etc.—a problem that eventually impacts everyone in the nation.

Caregivers have few tools, few support systems and receive minimal, if any, training for these responsibilities. What innovations can we develop specifically to support the caregiver community?

DISCUSSION FACILITATOR



CHRISTIAN FOSTER
Vice President,
Booz Allen Hamilton

Booz Allen Hamilton Vice President Christian Foster is a leader in the firm's

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Strategy and Organization capability, focused on strategic communications within the healthcare business. His professional experience includes a broad knowledge of public health, managed care, healthcare provider groups, media relations, and pharmaceutical marketing, as well as brand communications and reputation management. He has worked in a variety of environments ranging from global public relations agencies and trade associations to national political campaigns and health insurance companies.

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Eliminating Medical Errors

All humans make mistakes. Doctors and nurses are human; they make mistakes. All systems are imperfect. Medical professionals use systems.

Errors by medical professionals and systems are inevitable (unfortunately, they send 2.4 million patients to hospitals yearly and are directly linked to 200,000 annual fatalities). Regardless of methods used to detect, prove and compensate for medical errors, how much better can we do in reducing or eliminating medical errors and what areas should we focus on to get the best improvements?

DISCUSSION FACILITATOR

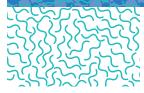


DIANNE FAUP Vice President, Booz Allen Hamilton

As a specialist in healthcare for over 20 years, Ms. Faup has provided consulting

services for over 70 organizations including hospitals, health plans, foundations, pharmaceutical companies, and state and federal government agencies. She has led projects that include merger planning, operational and performance improvement, corporate development, physician compensation planning, regulatory compliance strategies, e-strategy, and the development and implementation of public policy. Ms. Faup's government experience includes serving in the U.S. Department of Health & Human Services, and at the Centers for Medicare and Medicaid Services.

GREAT CHALLENGES



Achieving More Medical Innovation, More Affordably

New medical tests, treatments and devices are often very expensive when first introduced. Eventually, market forces bring the prices down. However, since most patients don't pay for healthcare out of their own pockets, they don't want to wait.

Patients disproportionately demand the latest, best medical products and services immediately—often, even if the demanded good is of marginal relevance to their condition. Leaving out questions of universal access and rationing, how can we make more medical innovations more affordable, more quickly, for more people?

Which proven strategies from Silicon Valley, the Moon landings or other successful models could be applied effectively to achieving faster, yet less costly innovation in health and medicine?

DISCUSSION FACILITATOR



TEDMED 2013

TIM GUSTAFSON
Principal,
Innosight

Tim Gustafson, M.D., is a Principal at Innosight, where he focuses exclusively

on healthcare innovation and growth strategy. He has worked with companies across a broad range of industries with a focus on healthcare, including providers, payers, and pharmaceutical and medical device manufacturers. Previously, Tim spent four years as a consultant at McKinsey & Company. Tim attended medical school at the University of Pennsylvania, completed his internship at Mount Sinai Medical Center, and has a B.A. from Williams College.

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Reducing Childhood Obesity

The challenge of childhood obesity is significantly different, some argue, from the challenge of adult obesity. Children don't have the power over their lives, decisions, and lifestyles that adults have (parents and adults make many decisions for them and have the power to enforce certain behaviors). Social institutions have more impact on kids than on adults (like church, YMCA, and especially school—including school lunch programs, mandatory gym classes, possible nutritional education, etc.).

Finally, there is the fact that kids are less set in their ways than adults, so it's easier to change their behaviors and teach them new concepts. The number of obese children has just passed 20% and continues to grow. What is the full range of underlying causes for this trend and which combined causes are chiefly responsible?

DISCUSSION FACILITATOR

Edelman

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LEE LYNCHExecutive Vice President, Group Head,

Lee leads the Edelman Alliances group — a dedicated team of advocacy experts

who link clients with influencers to carry out impactful engagement campaigns. Her two decades of experience extend across advocacy, public relations, public affairs, issues management, and journalism. She is a trained facilitator and leads Edelman's global stakeholder mapping offering.

GREAT CHALLENGES

Coming to Grips with End-of-Life Care

Modern medicine has extended the life expectancies of many terminally ill Americans. In turn, prolonging lives can mean incurring more intensive care and the associated costs.

In 2010, Medicare paid \$55 billion for doctor and hospital bills during the last two months of patients' lives. Quality end-of-life care requires balancing the input of doctors, families and patients themselves. And making crucial end-of-life decisions can take physical and emotional tolls on patients and their loved ones.

How should we help people manage end-of-life care choices to maximize individual well-being and minimize social cost?

DISCUSSION FACILITATOR



MARGARET (MAGGI) CARY Adjunct Assistant Professor, Clinical Research & Leadership, George Washington University School of Medicine & Health Sciences

Maggi Cary, M.D., M.B.A., M.P.H. is an author, speaker and facilitator who moved from country doctor into executive leadership and now coaches physicians to become more effective leaders. She developed and teaches the Narrative Medicine course at Georgetown University School of Medicine. At George Washington University School of Medicine and Health Sciences, Maggi delivers an annual faculty development seminar on executive coaching. Selfidentifying as a Boundroid, she interfaces among people, organizations and cultures to create change through synergies, innovation, asking questions and sharing stories.



CHUCK APPLEBY
President,
Appleby & Associates, LLC;
Adjunct Faculty,
George Washington
University and
Georgetown University

Chuck Appleby, Ph.D. is the head of Appleby & associates, LLC, an organization development consulting firm that helps clients solve challenges in the health, environment, finance and government sectors. He is an Adjunct Faculty Member of both George Washington University and Georgetown University. Dr. Appleby is the co-founder of the World Institute for Action Learning, a non-profit organization dedicated to the growth and advancement of Action Learning in business and government.

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Preparing for the Dementia Tsunami

It's no secret that mental health tends to decline as we age (Alzheimer's, dementia, etc.). Some is natural cognitive decline; some is disease with severe cognitive impairment due to diseases associated almost entirely with aging.

By 2020 there will be 43 million Americans over 65 and 15 million over 85 (double the figures of 1980). Almost certainly, we are facing an unprecedented number of mentally impaired citizens.

Hope for cures is not a strategy. What should we be doing to prepare to meet the needs of tens of millions of mentally impaired older citizens?

DISCUSSION FACILITATOR



GRANT McLAUGHLIN Vice President, Booz Allen Hamilton

With more than 20 years of experience, Mr. McLaughlin is a leader in the firm's

Human Capital, Learning and Communications Center of Excellence, assisting organizations with stakeholder insights, reputation management and designing behavior change interventions as a result of a transformation/modernization, or launch/implementation of a new program/service offering. He has extensive experience in establishing, fostering, and maintaining multi-sector relationships among stakeholders as well as developing targeted messaging for strategic communications, organizational communications, social marketing, social media and risk communications and outreach strategies to key stakeholders.

GREAT CHALLENGES



Addressing Whole-Patient Care

Regardless of patients' roles in their own healthcare, there will always be questions about how doctors should approach medical problems — by focusing more on the symptoms and disease, or on the patient who has them?

Most doctors specialize due to a variety of pressures and incentives from economic and technological to social, professional and educational. The number of medical specialists (and specialties) continues to grow while the number of primary care physicians continues to shrink.

In the process, the goal of fitting all these specialties together for effective wholepatient care becomes ever more elusive. How can we treat the whole patient rather than the disease?

DISCUSSION FACILITATOR



JOHN POULIN Engagement Manager, Innosight

John is an Engagement Manager at Innosight, focusing on helping healthcare and life

sciences clients retool core business models and catalyze growth. He has worked with leading companies across a range of industries, but primarily focuses on the healthcare and life sciences spaces. John has worked with leading payors to catalyze business model transformation, from fee-for-service to fee-for-value. He has also leveraged his experience in the public health space, working with non-profits and governments to develop strategies that increase affordability and access.



Making Prevention Popular and Profitable

America spends \$2 trillion a year on healthcare — mostly treating people after they become sick. How can we unlock prevention as a trillion-dollar business in America so we spend less on "sick care" and get Americans to "buy" healthy lifestyles?

DISCUSSION FACILITATOR

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LORETTA DIPIETRO
Professor and Chair,
Department of Exercise Science,
George Washington University

Loretta DiPietro, Ph.D., is Chair of the

Department of Exercise Science at the GWU School of Public Health and Health Services. Recognizing that many of today's critical public health problems can be addressed, in part, through improved nutrition and physical activity, Professor DiPietro has built bridges between population-based public health and the clinical and physiological domains of exercise science. An accomplished, widely published researcher with interest in the role of physical activity in the health of older adults, she has been awarded grants from the National Institute on Aging and the American Cancer Society, and has lectured at medical schools, public health schools, and organizations around the world.

GREAT CHALLENGES

Improving Medical Communication

Physicians are not typically trained in interpersonal communications and are not rewarded based on their communication skills.

Equally important, patients are often intimidated when talking to doctors and often feel they don't have a receptive audience, especially when doctors are rushed. What can be done about this on both sides of the challenge (patients and doctors) — including possible initiatives in areas ranging from education to technology, to possible changes in the physical workspace? How do we make this issue a priority?

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DISCUSSION FACILITATOR



SUSAN ISENBERG Vice Chair, Health Edelman

With more than 26 years in healthcare public relations, Susan has been

providing strategic communications counsel for many of the world's leading biopharmaceutical, consumer health and medical device companies. She also counsels other health-related organizations and institutions across a broad array of therapeutic areas and health issues.

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Faster Adoption of Best Practices

Medical progress only occasionally depends on double blind, placebo-controlled studies. Most healthcare improvements come through small, incremental steps across tens of thousands of surgeries, procedures and protocols — from a better way to take a temperature to a better stitch or a better way to ask a question in the ER. But most of these improvements are not captured, shared and replicated across the healthcare system.

Even when best practices are identified and publicized, many providers seem slow to adopt them. What can we do to capture millions of improvements per year and make best practices available to benefit many more providers and patients?

DISCUSSION FACILITATOR



JOE SHIELDS
Innovation Strategist,
Jump Associates

Joe Shields, M.Des., M.B.A., works with organizations to

re-imagine care delivery models, co-create and implement solutions, and connect with their greater purpose. He has a background in physics, creative writing, design and business, and loves building guitars almost as much as performing with them on stage.

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ANNIE CHANG Senior Strategist, Jump Associates

Annie is a systems thinker working with numerous

Fortune 100 companies to build processes and cultures that foster innovation. Her experience at Jump covers a wide range of industries, with clients such as Merck, Target, HP and MasterCard. Annie is also interested in the social impact of business, and has translated insights from Jump's client work to support the missions of organizations such as UNICEF and the Girl Scouts.

GREAT CHALLENGES



Addressing Healthcare Costs and Payment Systems

The U.S. remains locked in a decades-long controversy over how citizens should pay for healthcare, what healthcare should cost, who should pay, how much, and what incentives, if any, should be "paid" to patients who stay well (or try to).

How do we foster a thoughtful, civil dialog that focuses on science and the public interest, in a way that has a reasonable chance of eventually creating an approach we can all support?

DISCUSSION FACILITATORS



COLLEEN MURRAY

Vice President of Talent, Jump Associates

Colleen is Vice President of Talent at Jump, where

she leads their unique Human Capital Management System. She is passionate about helping leaders achieve greatness and unleash the talent of their organizations. Colleen holds a Masters of Design from Illinois Institute of Technology and a B.F.A. from the University of Illinois.



IBANGA UMANAH

Senior Strategist and Head of Insurance Practice, Jump Associates

Ibanga is passionate

about growth — for organizations, and more importantly, for people. At Jump he's spent the better part of a decade pioneering growth strategy, transformation, and service design for healthcare including: insurance, technology, logistics, pharma, and providers. On the side, he builds non-profits and social change conferences.

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Addressing the Impact of Poverty on Health

The 46 million Americans who live in poverty are measurably less healthy and have far worse health outcomes than the rest of the population. Less certain is how much of these negative health outcomes are directly caused by poverty and how much is caused by other factors.

America would be better off if everyone were healthy, regardless of income — especially since government programs cover some of these costs directly. How should we think about the role and impact of poverty within the larger question of health?

DISCUSSION FACILITATOR

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JON JUDAH Senior Associate, Booz Allen Hamilton

Jon has over 13 years of experience in IT strategic planning and governance,

architecture, technology modernization, and change management. He has assisted both public and private sector clients on business case development and IT economics, including analyses of modernization and outsourcing strategies. Jon also serves as a subject matter expert on public sector financial asset management processes and software. He is a member of the Strategic Innovation Team at Booz Allen.

GREAT CHALLENGES

Promoting Active Lifestyles

There is no disagreement that people who are more active have dramatically better overall health. Yet today's average American adult burns 500 fewer calories per day than farmers and factory workers did 100 years ago — while consuming many more calories.

How do we invent broadly popular and achievable ways for people to become more active, so as to replace those "lost" energy expenditures?

DISCUSSION FACILITATOR



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ALAN E. GREENBERG

Professor and Chair,
Department of Epidemiology and Biostatistics,
George Washington University School of
Public Health and Health Services; Director,
District of Columbia Developmental Center
for AIDS Research

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Alan Greenberg, M.D., M.P.H. is Professor and Chair of the Department of Epidemiology and Biostatistics at the George Washington University School of Public Health and Health Services and Director of the NIH-funded District of Columbia Developmental Center for AIDS Research. In 2006, he cofounded the GWU HIV/AIDS Institute, and he serves as Co-Director of the GW Graduate Certificate Program in HIV/AIDS Studies. Professor Greenberg retired from a 20-year career as a Commissioned Corps Officer in the U.S. Public Health Service at the Centers for Disease Control and Prevention in 2005, where he provided scientific leadership for domestic and international HIV/AIDS epidemiologic research. Dr. Greenberg received his M.D. from the GW School of Medicine and his M.P.H. from the Harvard School of Public Health.

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Inventing Wellness Programs that Work

From corporate America to the U.S. government and its armed forces, small businesses and even religious and educational institutions, many large-scale organizations have a strong economic motive to encourage their workforces to adopt healthier lifestyles (worker wellness often means lower insurance rates for employers).

Many organizations have discovered elements that support worker wellness to some degree, and more strive to put it all together for large scale, long-term success. Compounding this problem is a disagreement over the relative responsibility of the individual versus the responsibility of the organization for employee health (with issues ranging from workplace environment and stress, to on-the-job support for healthy lifestyles — or the lack of such support).

What kinds of innovation should we be thinking about and how can we encourage them to come to market as soon as possible?

DISCUSSION FACILITATORS



NATALIE PAINCHAUD Director of Learning, Innosight

Natalie is the Director of Learning at Innosight.

Since joining Innosight in 2005, she has designed and delivered innovation programs and workshops for Fortune 50 companies, including Johnson & Johnson, Procter & Gamble and McKesson. Natalie has a strong interest in the human side of innovation and making the patterns of successful innovations accessible and usable to a wide audience. She also leads forums internally at Innosight working toward the design of a custom wellness program for the firm. Natalie holds a B.A. with distinction in Industrial Relations from McGill University.



CHRIS JOHNSON Manager,

Innosight
At Innosight, Chris Johnson,
M.B.A., helps leading

healthcare organizations develop and commercialize new growth businesses. Previously, he was part of the founding team at Innosight Ventures, a co-founder at Predilytics (a healthcare predictive analytics company) and an early employee at Kyruus, a healthcare big data company. He has deep experience in the medical device, payor/provider, health IT, and service spaces and has worked extensively with clients across a number of markets, including the U.S., Europe, Middle East, and Asia. Chris is a graduate of Harvard College and Harvard Business School.

GREAT CHALLENGES



Waking Up to the Causes and Effects of Sleep Deprivation

While sleeping too few hours each night can have serious health consequences, we now know that better sleep is a tool that can be applied to many other Great Challenges of health and medicine. More and better quality sleep can fight obesity, help reduce medical errors, improve outcomes for the chronically ill, help special needs children cope better in society, fight stress, etc.

Sleep fights an uphill battle as American society seems to conspire against it. Children set off for school at dawn. Tough financial times push cashstrapped workers to take multiple jobs. Shift work conflicts with the body's natural clock. Type A personalities push themselves to work long hours and take redeye flights. Undiagnosed sleep apnea is rampant. Medical students work 30-hour shifts with no sleep. Teenagers text into the night.

What is the full range of causes (social, medical, technological, economic, etc.) that engender and promote this widespread problem? What are the first-order and second-order effects, and beyond, of sleep deprivation? What would it take, and what would it mean, for America to view sleep as the third pillar of total health, alongside diet and exercise?

DISCUSSION FACILITATOR



ASHLEY SKYRME Vice President, Booz Allen Hamilton

At Booz Allen Hamilton, Ms. Skyrme's extensive experience in the professional

services industry has centered on technology strategy and transformation. As a leader in the firm's information technology business, Ms. Skyrme focuses on enterprise solutions, full lifecycle systems development, and change management while also managing Federal grant and loan programs. Her work spans multiple benefit and assistance segments including disability, nutrition, education, disaster assistance, rural development, and agriculture assistance.

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TEDMED 2013



Coping with the Impact of Stress

Tranquilizers, antidepressants, sleeping pills and antianxiety medications exceed 33% of annual U.S. prescriptions. Unhealthy levels of stress are far more prevalent than most people recognize, and stress contributes to many other mental and physical health problems.

Given that stress is difficult to quantify and varies from person to person, how do we better understand the role of stress in the larger picture of health?

DISCUSSION FACILITATOR

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KIRSTY HOSEA Senior Associate, Booz Allen Hamilton

Kirsty's professional experience in marketing communications has had a footprint in more

than 15 countries from Olympic campaigns to rebranding Australia and HIV/AIDS awareness in Southeast Asia. Today she leads Booz Allen's Design Thinking capability, charged with helping the federal government think more innovatively, designing solutions to their most wicked problems from Veteran employment and reintegration to health and financial reform.

GREAT CHALLENGES

Shaping the Future of Personalized Medicine

Science is harvesting more and more information about the human population, and individual patients specifically. Medicine is understanding the roles of genomics and the environment in a patient's medical history. Yet translating this data to practice has proved difficult. The fundamental question for a physician is still: will this treatment work for my patient?

How can the wealth of medical information be factored into patient medical records and into everyday care — more quickly, more usefully and more completely?

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How can insights into individual patients — gleaned from *in vitro* and *in vivo* diagnostic tests — allow us to zero in on targeted therapies?

DISCUSSION FACILITATOR



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KYM WHITE Global Practice Chair, Health, Edelman

Kym is the Global Practice Chair for Health at Edelman, where she applies her experience

in corporate communications, healthcare product marketing and issues management to the firm's clients. She has had a long career in healthcare communications, having spent 16 years at Ogilvy PR Worldwide and most recently serving as head of corporate communications for Baxter International Inc. She graduated from Northwestern University.

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Blending technology, analytics and human-centered dynamics create provocative and unexpected insights, inspiring us to imagine what's possible for the future of health and medicine. It's these thoughtful comprehensive insights that make it personal, and drive innovation at Booz Allen Hamilton.

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healthy.kaiserpermanente.org



Effective healthcare requires actionable information and collaboration. Providing the healthcare ecosystem with secure, reliable and powerful communications solutions drives us. Level 3 is dedicated to improving access to critical information and enhancing care quality. We're thankful to partner with TEDMED 2013.

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Panasonic Corporation of North America is transforming healthcare through a carefully-considered application of proven technologies and key alliances with major healthcare providers, improving patient lives and clinical outcomes. We're proud to be a TEDMED sponsor.

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Let's simplify the business of healthcare. Bringing our expertise in innovation, technology and business process transformation, we're changing the delivery of care across the healthcare ecosystem. Driving better access and better outcomes. Xerox is proud to be a sponsor of TEDMED 2013.

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Our mission: Help clinicians spend less time learning new technologies and more time treating patients. The Breakaway Group, A Xerox Company, endeavors to bring innovation to the process of learning to amplify the impact of those providing care.

breakawaygrp.com





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fitbit.com



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Our communication design firm partners with educational and cause-related organizations, helping them convey their missions with intelligence, wit, surprise, and delight. The Alexander Isley Inc. team is energized by our ongoing collaboration with TEDMED, with whom we develop the annual program guide, speaker portraits, and environmental graphics.

alexanderisley.com



Health today is everyone's business. Edelman is thrilled to collaborate with TEDMED and organizations from across industries and sectors to pull clarity from uncertainty, to help turn knowledge into action, and to advance personal and public health.

edelman.com







The human brain, our most amazing organ, is an intricate and complex network of connections. It is highly successful at extracting patterns from overwhelming amounts of data to build our personal reality. At Emotiv, we are pushing the frontier in gaining insights into the brain. Emotiv is a proud partner of TEDMED 2013.

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Fenton's declared mission is to serve the public interest by creating powerful issue campaigns that make change. At TEDMED 2012, Fenton's dynamic team filmed and co-produced Perspectives, a video series of conversations between health leaders. Fenton also partnered with TEDMED on the Great Challenges Program — recruiting Advocates and Team Members representing the Great Challenges of health and medicine.

fenton.com



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As the only school of public health in the nation's capital, the George Washington University School of Public Health and Health Services is determined to transform the public health of underserved populations everywhere. Our students, faculty, alumni and partners have the passion and commitment to affect positive change.

gwu.edu



We take on ethical challenges in health, medicine, and the environment, recommending ways to promote fairness, respect for individuals, and community well-being. On far-ranging controversial issues, we engage people with different viewpoints to find paths forward. The Hastings Center is a proud partner of TEDMED 2013.

thehastingscenter.org



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Our smart, creative and endlessly energetic communications agency Home Front created recap videos of each day at TEDMED 2012. They lead our conference social media effort, contribute to our blog during the event, and produce live events for our Great Challenges Program.

homefrontdc.com



Let's disrupt the business of healthcare. We're focused on building new business models and innovation capabilities so organizations can transform towards a new future. We're passionate about helping clients deliver better health at lower cost.

innosight.com



IOMEDIA

An agency focused on thinking bigger to deliver extraordinary digital visualizations and media experiences, providing the stunning animation for our conference video, session introductions and science stories.

IOMEDIA harnesses the transformative power of visual storytelling to educate and evolve behavior.

io-media.com



Using a hybrid approach combining culture, design, and business allows us to see across silos, around barriers, and towards new opportunities. We work with the entire health ecosystem to improve outcomes, lower costs and transform the care experience.

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Our social mission is embodied in the The KIND Movement, which inspires unexpected KINDINGS—ie, unexpected acts of kindness. Here too, the act of KINDING someone else makes both the recipient of the kindness, and the person doing the KINDING, just a little happier. We are proud partners of TEDMED 2013.

kindsnacks.com



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lifeinmobile.com



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Our agency has been built on innovation, imagination and success. Rogers & Cowan provides consumer health brands a strategic communication platform to make the complex easy to understand by leveraging the combination of public relations with the forces of entertainment.

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"Craftsmen, conjurers and dreamers" are the words SubRosa uses to describe its team. We couldn't agree more. In this spirit, they create awe-inspiring, engaging and meaningful experiences that thoughtfully leverage the commitment to health and medicine that each of our partners brings to TEDMED and the world.

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Specializing in translating complex scientific concepts into compelling visual creations, the XVIVO team brings astonishing creativity and passion to TEDMED, from designing powerful medical illustrations and medical animations to creating a stunning backdrop for the TEDMED 2012 stage.

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We are beyond grateful for the abundance of help, support and encouragement we have received from so many in creating TEDMED 2013. As such we would like to extend our sincere gratitude to all those who assisted with the outreach, planning, organization, and support of this amazing event.





Staying active this week is going to be much more fun thanks to Fitbit! We are all being outfitted with a Fitbit One[™] to help track our steps, distance, calories burned, and sleep cycles — contributing to our shared "quantified self" experience while at TEDMED, and beyond!

Special thanks to Fitbit!

What better way to tote your TEDMED 2013 Program Guide and event materials than in a TEDMED bag! Thanks to Target for providing this bag and helping us rock the week!



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clouds. It's all about patterns in the clouds. It's all about connections. It's all about seeing things that everybody else has seen before but thinking about them in ways that nobody has thought of them before. And that's really what discovery and imagination is all about.

- Jay Walker

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