Wearables for Patient Driven Healthcare: Development, Research, and Pitfalls to Commercialization

Program Description

Wearable personal medical devices are increasingly introduced into the market. Many devices provide instant user feedback and send data to the cloud to uncover trends. They often employ analytics to interpret and present data to the user in a way that is meaningful and improves outcomes.

Doctors use data to check on their patients. Parents monitor their child’s health with local “mHealth” products such as wireless body temperature sensors.

The possibilities are endless. However, to create a successful, FDA approvable, reliable product for the masses is a difficult path with many obstacles.

Geoff Gill, Shimmer Sensing, will introduce some of the wearable application research topics that have become more focused on understanding the links between physical parameters and specific disease states. We will explore the beginning, middle and end of the product development process, from research and technical feasibility to development and cloud data management.

Dr. Eric Hensen, FreeWavz, will focus on developing a consumer healthcare product, which is challenging on many fronts – from design and engineering to determining user preference and project funding.

Roozbeh Ghaffari, MC10, will discuss MC10 novel mechanics and designs for emerging classes of biosensors and microelectronics, which mechanically match the curvilinear shape and softness of soft connective tissues.

Joshua Drew, Microsoft, will discuss living in a mobile-first, cloud-first world that is more than devices and apps. And that it is the power of technology that moves further out of sight.

Keith Kowal will present a brief overview of wearable technology from CES 2017.

Target Audience for this Forum

- Medical development entrepreneurs
- Organizations looking to serve the needs of entrepreneurs
- Engineers and data scientists
- Medical technology and product management professionals
- C-level management from established companies to startups

For more information, go to mdgboston.org
MDG Boston 2016–2017 Forum Schedule

Sep 14  Reading Your Mind:
Understanding Your Brain Through Physical Response
Co-Champions: Peter Madras, Geoffrey Moodie, Trish Robertson

Sep 28  10th Annual:
Transitioning Into and Within the Medical Device Industry
Champion: Lisa Sasso

Oct 5  Medical Device Security in a Connected World
Co-Champions: Dick O’Brien, Eric Soederberg

Nov 2  Counterfeit Medical Devices:
A Threat to Your Business and Your Health
Co-Champions: Hank Allard, Rich Nadeau, Mark Schonfeld

Dec 13  Healthcare Innovation for Developing Countries
Co-Champions: Christina DeMur, Paul Hartung, Prakash Manandhar

Jan 18  Breakthroughs in Diagnosis and Treatment
of Ovarian and Breast Cancer
Co-Champions: Dave Jacobs, Jerry Shapiro

Feb 1  Game Changing Technology -
It’s Less Complicated Than You Think
Co-Champions: Peter Madras, Geoff Moodie

Mar 1  Wearables for Patient Driven Healthcare
Development, Research, and Pitfalls to Commercialization
Co-Champions: Jeff Karg, Keith Kowal

Apr 5  Valuing (And Pricing) Positive Outcomes
And How it Impacts The Therapies That Patients Receive
Champion: Aaron Cohen

May 1  Cost Effective Geriatric Care
Co-Champions: Hank Allard, John Libertino

Jun 12  Collaborating for Progress: What Engineers and
Entrepreneurs need to know to work with Doctors
Co-Champions: Peter Madras, John O’Gara

Location: Regis College Fine Arts Center, Weston, MA

Member News

Welcome these New MDG Members:

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Joshua Drew

Joshua Drew is a Senior Technical Evangelist at Microsoft for Startups where he is responsible for the growth of Microsoft Services within the startup ecosystem in Greater Boston.

His expertise in managing teams of developers and architecting client engagements helps startups understand and solve their back end cloud needs. Through Microsoft, he can provide programs to offset the cost of tools and services for startups.

Working in the digital agency field for over 15 years, Joshua’s technical background in application and cloud development helps startups build and scale their products.

As an evangelist, Joshua finds these startups and promotes them in 3 key areas, services & software, support and storytelling.

Roozbeh Ghaffari, Ph.D.

CTO and Founder, MC10

Dr. Roozbeh Ghaffari is co-Founder and Chief Technology Officer at MC10 Inc where he leads advanced research, developing soft bioelectronics systems for medical applications.

He also served as a founding editor of the MIT Entrepreneurship Review and is a Research Scientist in the MIT Research Laboratory of Electronics.

Dr. Ghaffari has published over 50 academic papers and is inventor on over 60 patent applications and awards.

He received his B.S. (2001) and M.Eng. (2003) degrees from the Electrical Engineering and Computer Science Department at the MIT and obtained his Ph.D. (2008) from the Harvard-MIT Division of Health Sciences and Technology in biomedical engineering with a focus in auditory neuroscience.

Geoff Gill, M.S.

President Shimmer Sensing USA

Geoff joined Shimmer in March 2016 as the President of Shimmer Americas. He leads the U.S. commercial operations and the global product and business strategy for the consumer neuroscience and medical markets.

Prior to Shimmer, Geoff has taken a wide variety of roles in both startup and established technology companies. Most recently he was the CFO/SVP of operations at Innerscope Research, Inc., a leading consumer neuroscience company.

Other experience includes work as the VP of R&D for Bayer Diagnostics Critical Care division and the Global Market Manager at Weidmann Electrical Technology.

Geoff has a AB in Applied Math and Physics from Harvard University and an MS in Management of Technology from the MIT Sloan School of Management.

Eric Hensen, M.D.

President and Founder, Hear Gear Inc.

Eric L. Hensen is board certified in Otorhinolaryngology, Head and Neck Surgery and Orofacial Plastic Surgery.

He brings a physician’s unique perspective in hearable technology development. He created FreeWavz Smart Earphones with fitness monitoring.

His device streams music, has a patented ergonomic design allowing a comfortable and secure fit during exercise; and monitors health biometrics such as heart rate and pulse oxygen levels.

His company has raised private funds and was successful in a Kickstarter campaign that raised over $325K. FreeWavz has won numerous awards from CES, SXSW, NASA and Red Herring. FreeWavz is heading to production as the final technical hurdles are overcome.

Eric will share the successes and obstacles of his journey in the hearables industry.

Jeff Karg, MSME

CEO/President, Boston Innovation Inc

Jeff is a career product development professional with demonstrated success in technology creation and product introduction.

Prior to Boston Innovation, Jeff started nAscent Biosciences, resulting in its sale to ThermoFisher Scientific. As CEO of nAscent, Jeff developed the core technology, negotiated pharma corporate funding and led the sales effort.

He is a prolific inventor accumulating 23 patents in areas including mechanics, fluidics and electromechanics. More recently, he has focused on developing, implementing and managing processes for technical innovation, formal product development and quality management systems.

Keith Kowal

Control Systems EE Manager, Applied Materials

Keith has been a VP Engineering at 2 start-up companies including AT/Comm, a predecessor to “E-ZPass” and also a VP Engineering at Ergo Computing, the maker of the “Brick” computer and polycom.

Keith has worked at several medical companies, including Philips and has many patents. He has published technical articles in several magazines and has been a presenter at many technical conferences.

Keith owns electronic design consulting service and has also taught at MIT as an electronic technical instructor. Currently, Keith is an Electronics technology expert and manager for Applied Materials, in Gloucester.
MDG Boston

We would like to thank the hundreds of volunteers who help to make this organization a success.

MDG Officers, 2014-2016

President
Peter Madras
pmadras@mdgboston.org

Secretary
Iris Stammberger
istammberger@mdgboston.org

Treasurer
Peter Fuchs
pfuchs@mdgboston.org

MDG Board of Directors

Hank Allard
hallard@mdgboston.com

Art Combs
acombs@mdgboston.com

Christina DeMur
cdemur@mdgboston.com

Paul Hartung
phartung@mdgboston.org

Lisa Sasso
lsasso@mdgboston.org

Jerrold M. Shapiro, PhD
jshapiro@mdgboston.org

MDG Special Interest Groups

CEO SIG
Dick O’Brien
dick@nagoghillpartners.com

Diagnostics SIG
John Wyatt
john.wyatt02@gmail.com

Entrepreneurial & Clinical
Roy Coleman
rcoleman@iandiorio.com

Marketing & Sales SIG
John Knott
johnk@jdtechsales.com

David Hamacher
davidh@getbettersales.com

Medical Software SIG
Eric Poole
eric@rkt-tech.com

Product Development SIG
Michael Aprea, Co-Chair
maprea-sdw@cox.net

Kevin Pelletier, Co-Chair
kpelletier@massmaterials.com

MDG Staff

Director of Operations
William Munger
wmunger@mdgboston.org

MDG Committee Co-Chairs

Program Central
Geoffrey Moodie
gmoodie@mdgboston.org

Joe Berkowitz, Co-Chair Networking
jberkowitz@mdgboston.org

Michael Mills, Co-Chair Networking
MJDMills@gmail.com

Event Operations
David Ennen
dennen@mdgboston.org

Membership
Paul Hartung
phartung@mdgboston.org

Marketing
Dick O’Brien
robrief@mdgboston.org

Mark Hersum
mhersum@mdgboston.org

Partners & Alliances
Alan Kivnik
akivnik@mdgboston.org

Jim Roman
jroman@mdgboston.org

Business Development
Joe Berkowitz
jberkowitz@mdgboston.org

Leaders/Resources
Jeff Karg (Program Central)
jeff.karg@techen.com

FoleyHoag:  David Pierson, Partner

Sponsorship
Hank Allard
hallard@mdgboston.org

Ed Hogan
ehogan@mdgboston.org

Jack Beszczak
jbeszczak@mdgboston.org

MDG Consultants

CPA
Andrew S. Goloboy

Graphic Design and Photography
Bill Denison
bill@denisondesigngroup.com

About MDG Boston

MDG is the professional association for career building, knowledge acquisition and mutual support for New England medical technology professionals.

MDG sponsors Forums, Networking, SIGs (Special Interest Groups), Workshops and Special Events where diverse industry leaders can share their experience and knowledge as presenters and through peer-to-peer communications.