

INNOGEST SGR

LEADING INVESTMENTS IN INNOVATION

INNOVATION IN HEALTHCARE: THE HEALTHY WAY THAT BENEFIT IN THE LONG TERM

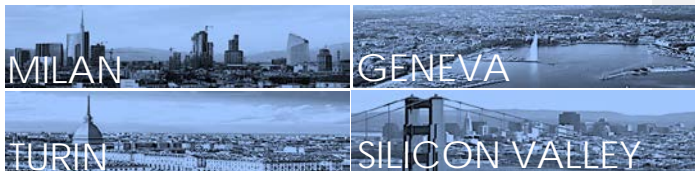
February 15th 2019

Milan, ANIA Innovation Summit

WHO ARE WE

SPECIALIZED IN INNOVATION

INTERNATIONAL PRESENCE



VERTICAL INDUSTRY FOCUS:
DIGITAL, HEALTHCARE

CONTROLLED BY ITS KEY
MANAGERS

- Independent **alternative investment** management company.
- Mission: deliver superior returns by investing in promising companies selected and managed through deep sector expertise
- **Leadership Program launched in 2016** to strengthen team and become the reference VC firm in selected areas in Digital and Healthcare

Corefund I



CARDIOVASCULAR AND
METABOLIC

Digitech I



DIGITAL AND
TECHNOLOGY

Signum I



ONCOLOGY



WHAT THEY SAY ABOUT US



15 MOST ACTIVE INVESTORS IN MEDICAL DEVICES WORLDWIDE

Traditional Venture Investors Support Device Most Active New Investors* in Device 2017 – 1H 2018

OF FIRMS



svb

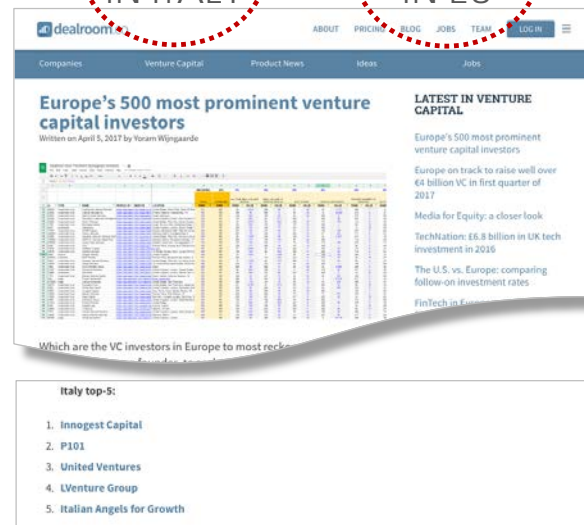
*Total deal volume based on medical device-related as of 7/27/2018. Total number of deals made in 2017-2018.
Source: PitchBook and SVB proprietary data.

«Trends in Healthcare Investments and Exits 2018»
Silicon Valley Bank, Jan. 2018
<https://www.svb.com/healthcare-investments-exits-report/>



#1 VC
IN ITALY

TOP 5%
IN EU

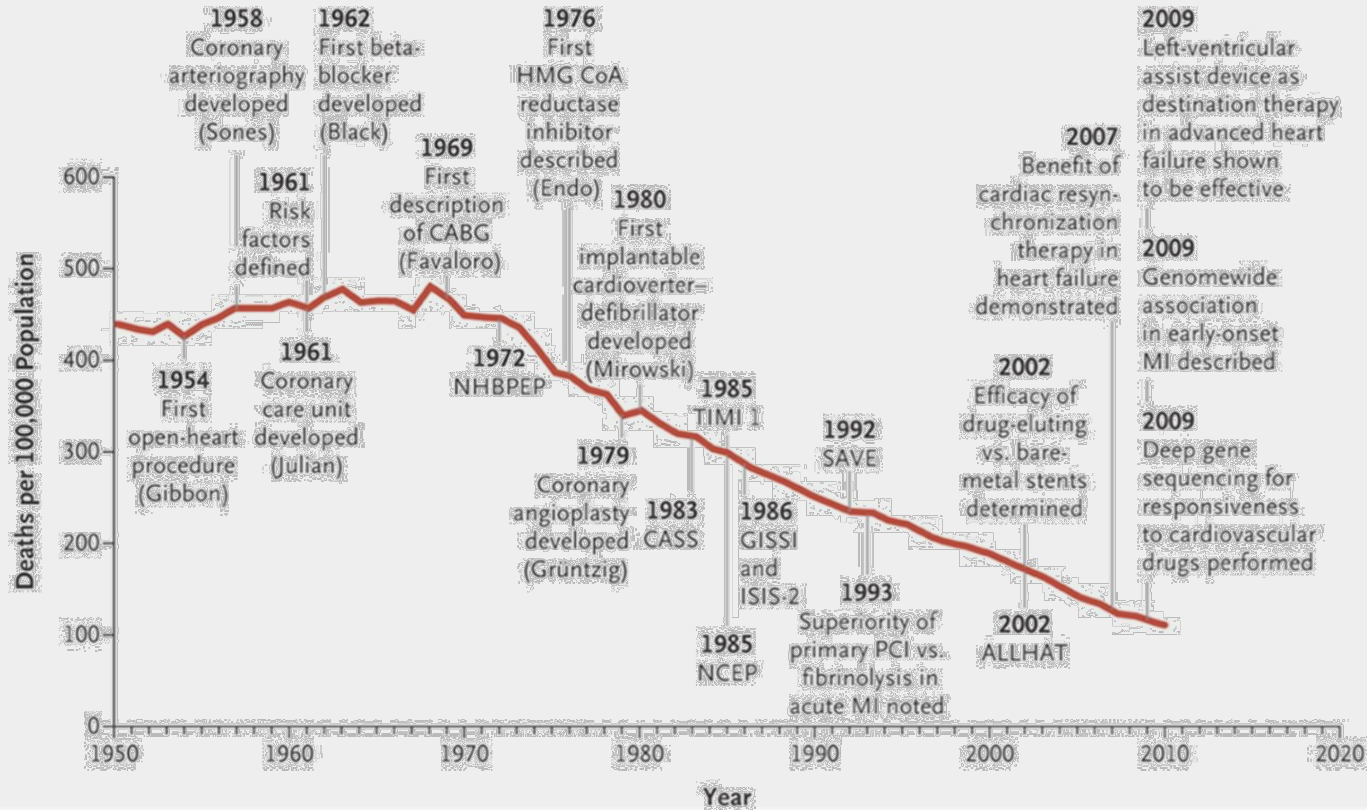


«Europe's 500 most prominent venture capital investors»
Dealroom, Jun. 2017

<https://blog.dealroom.co/europes-500-prominent-venture-capital-investors-now-online/>

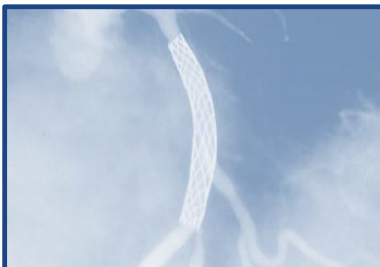
TECHNOLOGY MATTERS IN HEALTHCARE

TECHNOLOGY DEVELOPMENTS DO MATTER IN MEDICINE



SOURCE: Nabel EG, Braunwald E. NEJM 2012

NEW PARADIGM SHIFTS ARE CHANGING THE PRACTICE OF MEDICINE



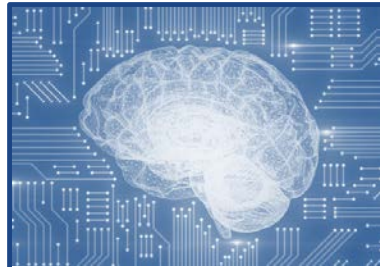
THE **PERCUTANEOUS** REVOLUTION

Life-saving therapies delivered through minimally-invasive approaches, changing forever the risk-benefit equation for patients



THE **PRECISION MEDICINE** REVOLUTION

Patient-specific prevention, diagnosis and therapy, to reduce the burden of diseases. Transformative innovation in biomarkers, mobile health, genomics, imaging and A.I.



THE **ARTIFICIAL INTELLIGENCE** REVOLUTION

More precise, more real time applications that adapt and react to patients need in an unprecedented way



THE **CELL & GENE** **THERAPY** REVOLUTION

A new era is dawning where we will eliminate the disease, rather than minimize its effects. Several viral gene-carriers received FDA approval.

FOCUS ON DIGITAL HEALTH

GAME CHANGING INNOVATION

PHASE 1: **VIRTUAL CARE**



REPLACE WHAT YOU DO NOW (E.G. VIRTUAL VISITS);
IMPROVE ACCESS, PATIENT EXPERIENCE & ENGAGEMENT

SOURCE: Kamal Jethvani, Sr. Director, Connected Health Innovation, Partners Healthcare

GAME CHANGING INNOVATION

PHASE 2: REMOTE MONITORING

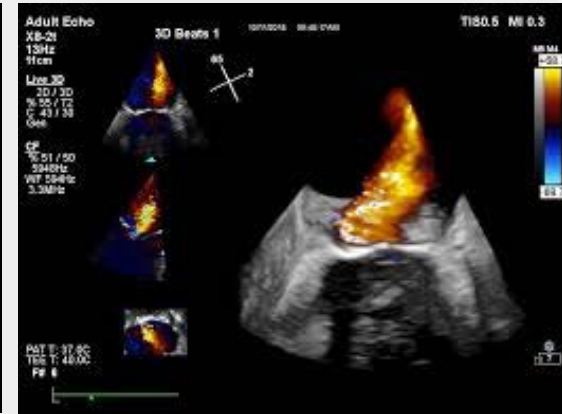
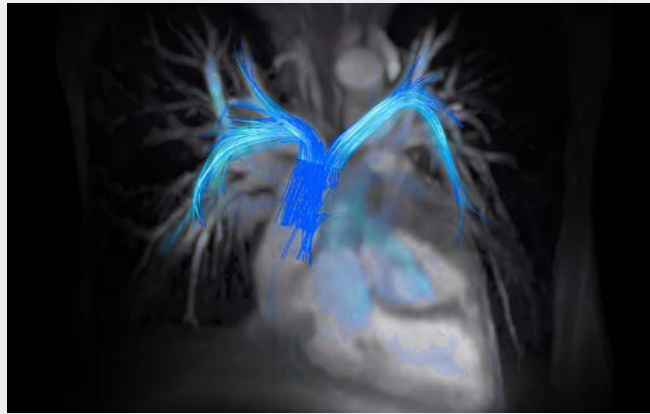


DATA WE DIDN'T HAVE BEFORE
TO INFORM CARE MANAGEMENT
(E.G. MOBILE, BIOSENSOR, VOICE, ETC.)

SOURCE: Kamal Jethvani, Sr. Director, Connected Health Innovation, Partners Healthcare

GAME CHANGING INNOVATION

PHASE 3: **AI DRIVEN CARE**



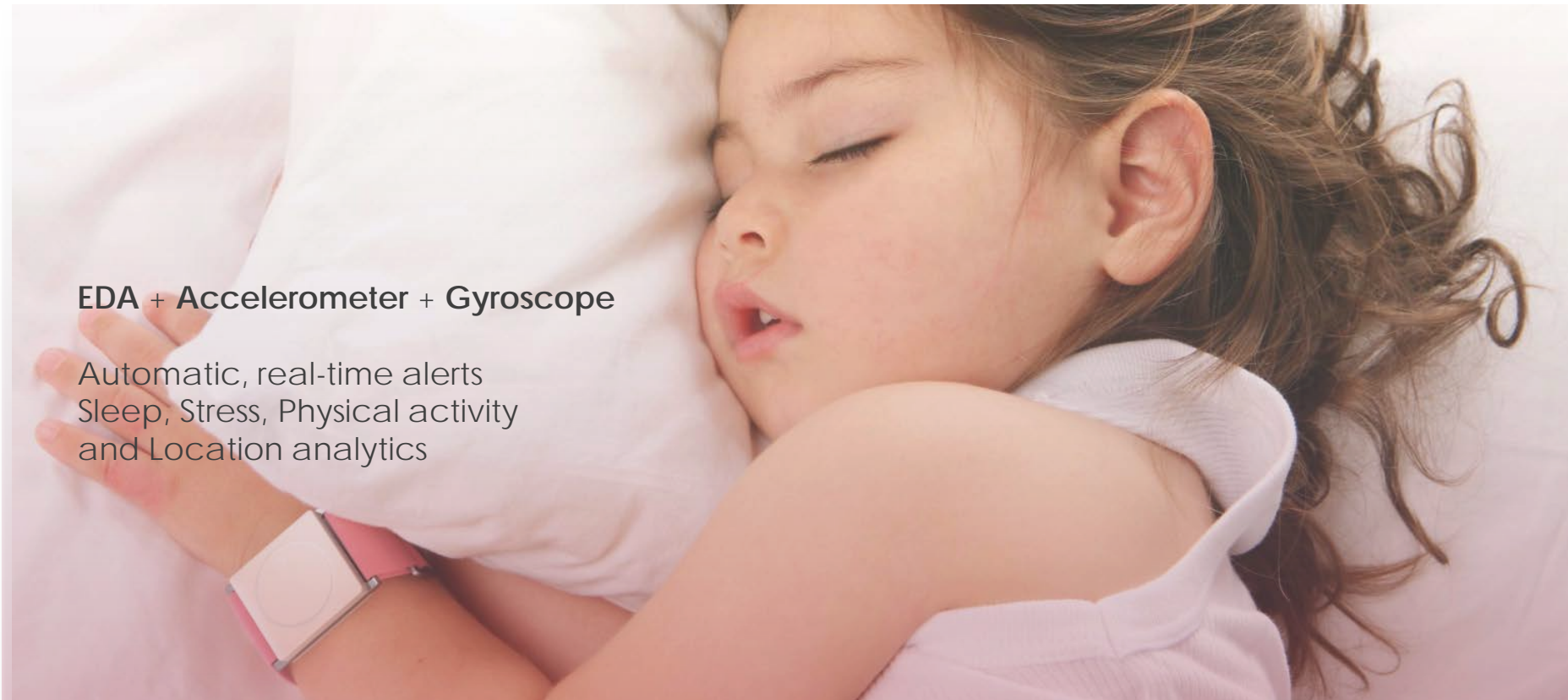
PREDICTION, INTERPRETATION, CARE RECOMMENDATIONS; DIGITAL THERAPEUTICS
(INCLUDING DIRECT TO PATIENTS AND CARE TEAM ACTING ON IT)

SOURCE: Kamal Jethvani, Sr. Director, Connected Health Innovation, Partners Healthcare

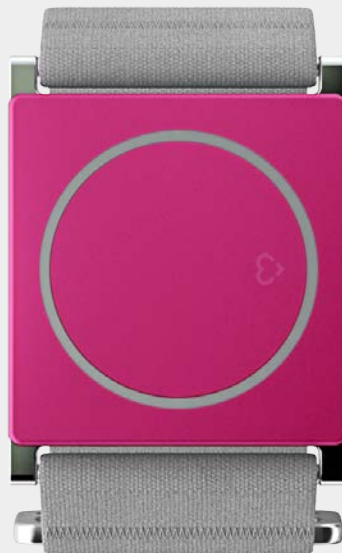
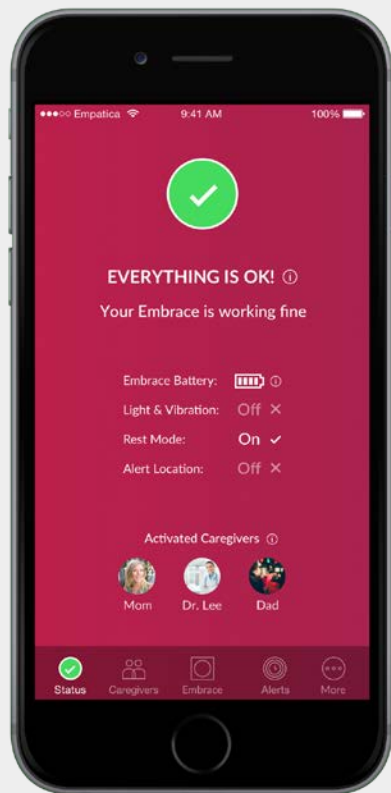


EDA + Accelerometer + Gyroscope

Automatic, real-time alerts
Sleep, Stress, Physical activity
and Location analytics



EMBRACE: FIRST EPILEPSY SMART WATCH TO BE CLEARED BY



Event
detection



Event
notification



Share alerts
with
Caregivers

HUGE OPPORTUNITIES & PITFALLS

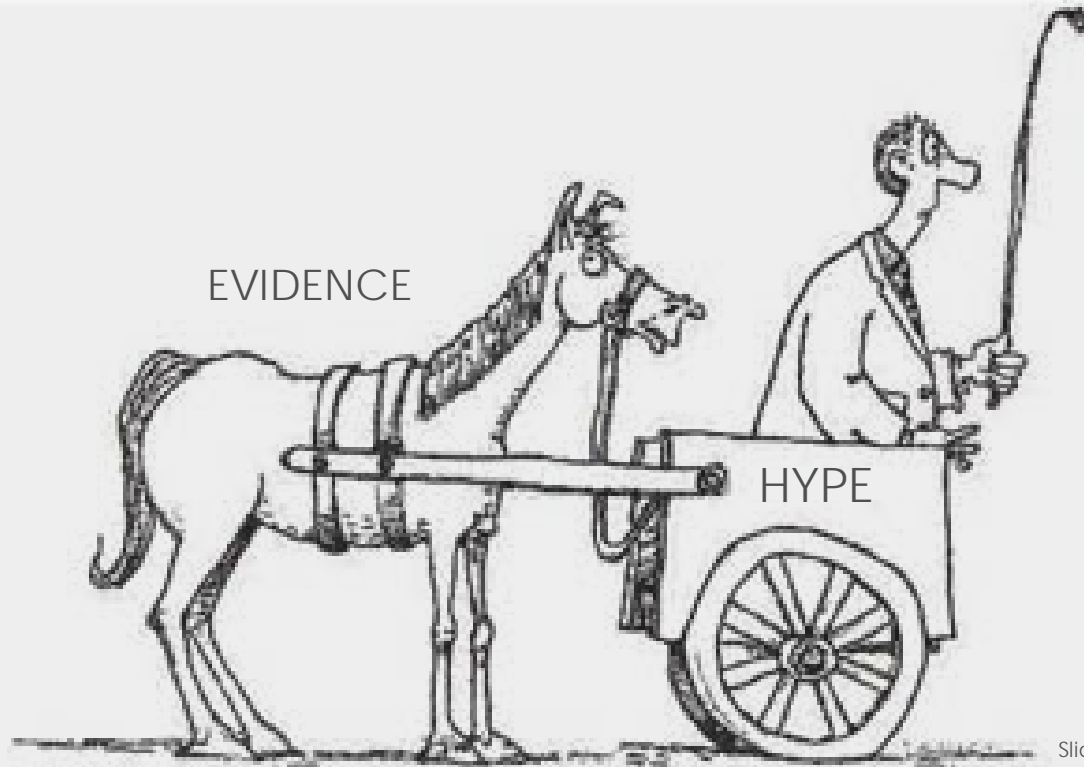
HEALTH TECHNOLOGY: MUCH GOING ON



Health Technology

Contact
info@venturescanner.com
 to see all 802 companies

Clinical Admin (68 Companies) ABILITY, MINDBODY, nextdocs, kareo, MedHOK, TALYST, QSI, imprivata, remedy partners, wavemark, ClearDATA, AuthentiDate	Digital Med Devices (71 Companies) proteus, integrity, sensible, patientsafe, iRhythm, Sotera, O-Sense, GenapSvs, vitalconnect, ORTHOSENSOR, tribogenics, BL Healthcare, Resonance Motion Inc	EHR/EMR (65 Companies) patientkeeper, practice fusion, LifeNEXUS, AVENTURA, ShareableInk, dr, PROGNOSIS, corventis, medivo, AIRSTRIPE, hellohealth, QSI, CareCloud, simplyMD, MODERNIZING MEDICINE, CASHEALTH, AkLex			
Population Health Mgmt (50 Companies) R-Ante, AXIONHEALTH, keas, wellcentive, wisr, Jiff, agile, care team connect, Limeade, ZeOmega, KINNSER, sherpaa, PHYTEL, TANGO	Online Health Communities (21) wisr, omada, Glow, sharecare, patientslikeme	Gamification (7) hubbub, SUPERBETTERJARS	Patient Engagement (46) WellFX, WellDoc, Silverlink, eliza, SKYLIGHT, simplee, LINCOR, PROPELLER HEALTH, glooko	Genomics (29 Companies) GUARDANTHEALTH, 23andMe, SVBio, genophen, CARDIO DX, 1eq, Khome, COUNSYL, NEXT GDX	
Medical Big Data (53 Companies) STATION, HUMEDICA, APXIO, Predilytics, TREATO, ZEPHYR, ARIONMETRIX, bina, HealthCatalyst, NEXTCODE, FLATIRON, go comprehend, AYASDI	Services Search (28) ZocDoc, GoHealth, Brighter, CHANGE, GRAND ROUNDS, LINKWELLHEALTH, CU COACHUP	Doctor Networks (28 Companies) sermo, Dicom Grid, QuantiaMD, COMS interactive, perfectserve			
Mobile Fitness / Health Apps (55 Companies) LARK, Netpulse, mindbloom, Mango Health, endomondo, health123, GAINFITNESS, Sway	Payments & Insurance (21) oscar, ZENEFITS, bloom HEALTH, TCC	teleHealth (55 Companies) VGO, Teladoc, Breakthrough, corventis, DOCTOR onDEMAND, CARENIA, CoreCom, Iagnosis, health	Remote Monitoring (32) caremerge, Caring, Lively, motherknows, Q-Medic, Core.com, Caring.com, vitalconnect	Online Health Sites (21 Companies) lumosity, Greatist, HealthCentral, Healthguru, HealthNation, happify, Healthline	Healthcare Mobile Communications (13) voalte, IOMAX, tigertext, vocera
	IOT Fitness (95 Companies) fitbit, BASIS, BODYMEDIA, Withings, awarepoint, striv, watermark, mc10, Whistle	Robotics (11) ekso BIONICS, myomo	Healthcare Marketing (12) evariant, Appature, Connecture, brightwhistle		



Slide courtesy F. Masoudi, MD MSPH FACC

HEALTH TECHNOLOGY: REAL IMPACT?



NO CLINICAL BENEFIT

Research

JAMA | Original Investigation

Effect of Wearable Technology Combined With a Lifestyle Intervention on Long-term Weight Loss The IDEA Randomized Clinical Trial

John M. Jakicic, PhD; Kellian K. Davis, PhD; Renee J. Rogers, PhD; Wendy C. King, PhD; John M. Jakicic, PhD; Kellian K. Davis, PhD; Renee J. Rogers, PhD; Wendy C. King, PhD

Original Investigation | HEALTH CARE REFORM

Effectiveness of Remote Patient Monitoring After Discharge of Hospitalized Patients With Heart Failure The Better Effectiveness After Transition-Heart Failure (BEAT-HF) Randomized Clinical Trial

Primary Care CME/CE

Study: Pillbox Gadgets Do Nothing to Improve Rx Adherence

— Multifaceted problem likely needs additional support mechanisms

MEDPAGE TODAY

PeerJ

A prospective randomized trial examining health care utilization in individuals using multiple smartphone-enabled biosensors

Cinnamon S. Bloss^{1,*}, Nathan E. Wineinger^{1,*}, Melissa Peters¹, Debra L. Boeldt¹, Lauren Ariniello¹, Ju Young Kim², Judith Sheard¹, Ravi Komatireddy¹, Paddy Barrett¹ and Eric J. Topol^{1,3,4}

mobihealth news PROVIDER PAYER PHARMA CONSUMER INVESTOR

Scripps Wired for Health study results show no clinical or economic benefit from digital health monitoring

By Jonah Comstock | January 19, 2016

The results are in for the Scripps Translational Science Institute's *Wired for Health* study, and there's no sugar-coating it: they're disappointing for those working in digital health. The six-month randomized control trial found no short-term benefit in health costs or outcomes for patients monitoring their health with connected devices.



It was a bit disappointing, but remember, this was a six-month trial that's

Congresso ESC: troppo colesterolo "buono" può anche nuocere

Livelli molto alti di colesterolo ad alta densità (HDL) e "buono", così come quelli troppo bassi, possono essere associati a un maggiore rischio di infarto e morte, secondo una ricerca recentemente presentata al Congresso ESC 2018 a Monaco.

"Potrebbe essere il momento di cambiare il modo in cui vediamo il colesterolo HDL", ha spiegato Marc Allard-Ratick, Emory University School of Medicine di Atlanta, Stati Uniti, autore dello studio. "Tradizionalmente, i medici dicono ai loro pazienti che più alto è il colesterolo "buono", meglio è. Tuttavia, i risultati di questa ricerca, come altri, suggeriscono che questo potrebbe non essere vero".



Dr. Marc Scherillo
Troppo colesterolo buono (HDL) fa male al cuore. Studio americano

GUARDA IL VIDEO

Il colesterolo HDL è da sempre considerato "buono" perché questa molecola è coinvolta nel trasporto di colesterolo dalle pareti del sangue e dei vasi sanguigni al fegato e, infine, al di fuori dal corpo, riducendo così il rischio di arterie ostruite e aterosclerosi. Le persone con colesterolo HDL basso hanno un rischio maggiore di aterosclerosi e malattie cardiovascolari. Tuttavia, in letteratura l'effetto protettivo del colesterolo HDL molto alto non appare chiaro. Da qui la scelta di approfondire.

I partecipanti sono stati divisi in cinque gruppi in base al loro livello di colesterolo HDL:

- meno di 30 mg / dl (0,78 mmol / L);
- 31-40 mg / dl (0,8-1 mmol / L);
- 41-50 mg / dl (1,1-1,3 mmol / L);
- 51-60 mg / dl (1,3-1,5 mmol / L);
- superiore a 60 mg / dl (1,5 mmol / L).

Lo studio

Questo studio, condotto nell'ambito dell'Emory Cardiovascular Biobank, ha indagato sulla relazione tra i livelli di colesterolo HDL e il rischio di infarto e morte in 5.945 individui, la maggior parte dei quali aveva una malattia cardiaca. L'età media dei partecipanti era di 63 anni e il 39% era di sesso femminile.

Durante un follow-up mediano di quattro anni, 769 (13%) partecipanti hanno avuto un infarto o sono morti per cause cardiovascolari.

THE LANCET

Log in

ARTICLES | VOLUME 391, ISSUE 10207, P2009-2012, NOVEMBER 04, 2017

Associations of fats and carbohydrate intake with cardiovascular disease and mortality in 18 countries from five continents (PURE): a prospective cohort study

Dr Mahabir Delghian, PhD, et al. • Andrew Wente, PhD • Xiaohu Zhang, MSc • Sumathi Swaminathan, PhD • Prof Wei Li, PhD • Prof Viswanathan Mohan, MD, et al. • Show all authors • Show footnotes

Published: August 29, 2017 • DOI: [https://doi.org/10.1016/S0140-6736\(17\)32252-3](https://doi.org/10.1016/S0140-6736(17)32252-3) • Check for updates

PumX Metrics

Summary

Background

The relationship between macronutrients and cardiovascular disease is controversial. Most available data are from European and North American populations, and nutrition excess is more likely, so their applicability to other populations is uncertain.

Total fat and types of fat were not associated with cardiovascular disease, myocardial infarction, or cardiovascular disease mortality

IS ALL DIGITAL HEALTH SOLID?





CREDIBILITY

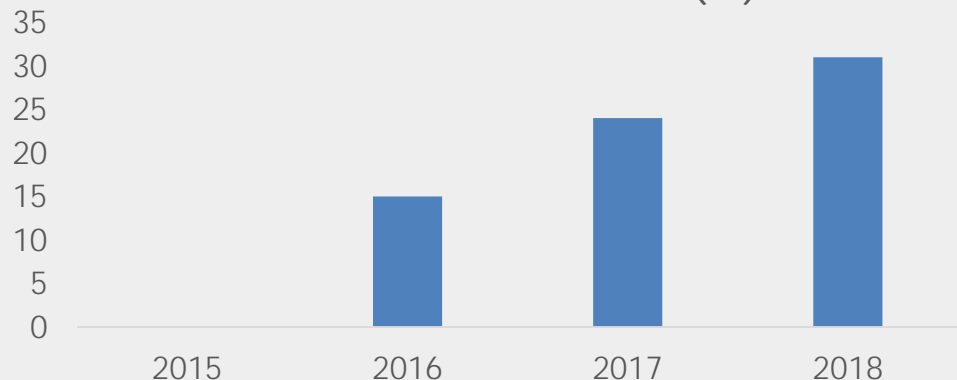
SMART REGULATORS ARE FRIENDS (NOT ENEMIES)



FDA E-HEALTH APPROVED DEVICES: BEGINNING OF A NEW ERA

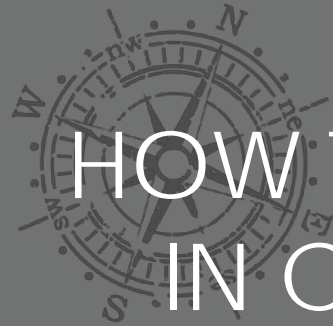


Monitoring cleared devices
2015 – 2018 (#)



2016: **change in FDA regulation** to speed patient access to new medical devices and **evolution in technology**

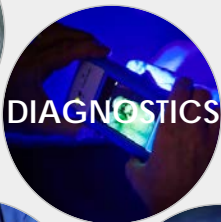
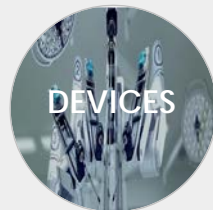
In last 3 years significant **increase in number of digital health monitoring devices approved by FDA**



HOW TO NAVIGATE IN COMPLEXITY

THOROUGH VISIBILITY

IT'S A JUNGLE OUT THERE



400+
PROFESSIONAL HEALTHCARE INVESTORS

X

10
MAJOR
THERAPEUTIC AREAS

X

30
MAJOR COUNTRIES

X

200
MAIN RESEARCH CENTERS/UNIVERSITIES
PER COUNTRY



A COMPASS IN THE JUNGLE

REGULATORS ARE FRIENDS
(NON ENEMIES) ...



EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

... SO ARE VENTURE FIRMS



... as long as they bring:

- in-depth clinical expertise
- Regulatory expertise
- state of the art knowledge in therapeutic areas

INNOGEST IN HEALTHCARE: A DIFFERENT APPROACH

FOLLOW THE PATIENT THROUGHOUT ITS JOURNEY



WE START FROM THE SINGLE UNMET MEDICAL NEEDS

(diabetes, heart failure...), and then we identify the best solutions or set of solutions

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