

DETROIT INTERNATIONAL RESEARCH
D I R E F
AND EDUCATION FOUNDATION

Prospectus

Post-Pandemic Medicine
at the Colony Club in Detroit
on Monday May 23, 2022

HealthQuake 2022
SUMMIT
The Convergence of Medicine and Technology

HealthQuake Summit 2022

IMPORTANT – COVID-19 – PLEASE READ

We expect that all speakers and delegates will have been vaccinated against COVID-19. Nevertheless, depending on the progress of the pandemic, face masks and social distancing may be required.

AGENDA

7:30 am	Bus to the Colony Club (for delegates staying at the Book Cadillac)
8:00 am	Breakfast & Welcome: DIREF Chair Dr. J. Edson Pontes
8:15 am	Summit goals & organization: Dr. Donald W. Weaver, President, DIREF
8:30 am	Postmodern Medicine: It's Here Charles J. Shanley , Founder & CEO, Medical Engineering Partners LLC, and Founder & CEO, Seraph Biosciences, Inc.
8:50 am	The Digital Touch David Keeley , CTO, The Electronic Caregiver Company
9:10 am	Watson: Elementary, Holmes Hermano Rocha , Head of Intelligence, ICC Brazil
9:30 am	Roundtable Discussion 1: Digital Medicine
10:20 am	Break
10:35 am	The Novel Neurotechnologies: Implications for Science, Medicine and Society Rafael Yuste , Director, NeuroTechnology Center at Columbia University, and Chairman, the NeuroRights Foundation
10:55 am	Roundtable Discussion 2: Bionic Medicine
11:45 am	Lunch
12:45 pm	Regeneration (Jerry C. Rosenberg Endowed lecture) John Fisher , Chair, Fischell Dept. of Bioengineering, University of Maryland
1:05 pm	Roundtable Discussion 3: Regenerative Medicine
1:55 pm	Break
2:10 pm	Rejuvenation Vittorio Sebastiano , Co-founder and scientific advisor, Turn Biotechnologies
2:30 pm	Roundtable Discussion 4: Rejuvenative Medicine
3:10 pm	Back to Earth: Innovative Technologies vs. Market Realities Ambassador George Hara , Group Chairman, DEFTA Partners, Chairman of the Board, Alliance Forum Foundation
3:25 pm	Break
3:40 PM	The Future of Medicine Charles J. Shanley , Founder & CEO, Medical Engineering Partners LLC, and Founder & CEO, Seraph Biosciences, Inc.
	Roundtable Discussion 5: The Future of Medicine
4:10 pm	Wrap-up Remarks: Summit Chair & Vice-Chair
4:30 pm	Free
5:00 pm	Dinner
6:00 pm	Summit concludes
6:30 pm	(Optional) Coach to Smart Sensors & Integrated Microsystems Lab (SSIM)
	Postprandial cocktails & SSIM Tour: Dr. Gregory W. Auner
8:00 pm	Transportation to Book Cadillac for delegates staying overnight

WHY “SUMMIT”?

Unlike a conference, a summit is an exclusive event reserved for top level leaders and people of influence within an institution, be it a social, academic, industrial, business, or other organization. Also unlike a conference, the focus is on the sharing of views and discussion leading to one or more conclusions, rather than just a one-way transmission of information.

TOPIC

POST-PANDEMIC MEDICINE

Even before the pandemic, postmodern medicine was poised to change—drastically, radically—the profession, practice, profit, policy, and place of medicine. The pandemic has served to catalyze the change. Telehealth is perhaps the most obvious manifestation of this, but there are others.

There will be major casualties of the catalyzed HealthQuake. Informed by global leaders in all four major branches of postmodern medicine — regenerative, genetic, bionic, and digital— Summit delegates will seek answers to:

INSIGHT

- **Where** are the seismic shifts occurring and where will future shifts occur? Where are the “fault lines”? What is the magnitude of the shifts?
- **Who** and **what** institutions are, or will be, sitting on a fault line?
- **When** will the shifts occur? What system of sensors and measurements will monitor pressures in the fault lines to provide early warning of a shift?
- **What** is being done, or could be done, to prevent or mitigate the effects of shifts?

FORMAT

Each of the 20-minute topical keynote presentations will be followed by about an hour of intense discussion by delegates, who consider the presenters’ insights in the light of potential advances in:

- **Automation:** Autonomous intelligent robots to replace doctors and nurses;
- **Simplification:** Medicine to become so simple that anybody, including patients, can practice it;
- **Globalization:** Holography and haptic virtual and augmented reality technologies to give healthcare providers (and patients) a global market; and
- **End of Disease:** An industry without cancer, diabetes, and other diseases to sustain it.

The day’s discussions will be interspersed with lunch and morning and afternoon coffee breaks. The formalities will conclude with a dinner guaranteed to be alive with discussion of the day’s stunning insights. Informally, for those able to stay a little longer, postprandial cocktails will be served during a tour of the Smart Sensors and Integrated Microsystems Labs of the Michael and Marian Ilitch Department of Surgery at Wayne State University.

SPEAKER-DELEGATES



Ambassador George Hara

Group Chairman, DEFTA Partners, Board Chair of the Alliance Forum Foundation, and Special Advisor to the Cabinet Office of the Prime Minister of Japan

Ambassador Hara is also former Senior Advisor to the Japanese Ministry of Finance, the Prime Minister's Special Advisory Member on the Government Tax Panel of Japan, and Inter-governmental Ambassador Extraordinary and Plenipotentiary to the United Nations.

He has served on the boards of the San Francisco Opera, San Francisco Zoo, University of San Francisco, Tokyo Foundation, and Hara Research. He was a UN Fellow and holds an LL.B. from Keio University and an M.S. from Stanford.



David Keeley

Chief Technology Officer, Electronic Caregiver, Inc.

Dr. Keeley works on providing precision enhancements to health-care access through innovative technology, scaling down research-grade systems to provide real-world, real-time metrics to patients and providers.

Dr. Keeley led ECG's effort to deliver a real-time COVID exposure analytics app to European Futbol teams looking to return to competition. At ECG he led the team that created ADDI, a highly integrated and bleeding edge remote monitoring platform, and he is now readying Addison Care, a Virtual Caregiving augmented reality app for enhanced patient interaction and engagement.



Hermano Rocha

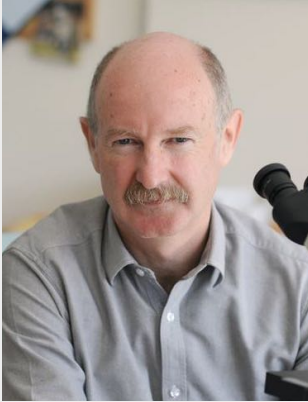
Professor, Federal University of Ceará, and Head of Intelligence at the Instituto do Câncer do Ceará (ICC)

In a joint project with IBM and Harvard University, Dr. Rocha is leading the use of Watson for Oncology at the ICC, one of the biggest cancer centers in Brazil.

The model they have developed takes the adoption of AI in medical diagnosis to a new level by using Watson to more accurately and efficiently prepare a prognosis and treatment plan for all cancer patients, not just those at advanced stages.

The result has taken months off the treatment timeline, saving money and lives.

SPEAKER-DELEGATES

**Rafael Yuste**

*Professor & Director,
NeuroTechnology
Center at Columbia
University, and Chair-
man, the NeuroRights
Foundation*

Dr. Yuste led the re-searchers who proposed the US BRAIN Initiative and coordinated the launch of the International BRAIN Initiative.

He also led the “Morningside” group of 25 re-searchers and clinicians who proposed novel human rights (“Neurorights”) to protect citizens from neuro-technologies.

Among his many awards, Dr. Yuste shared the Tällberg/Eliasson Global Leadership Prize in 2018 for his science and ethics advocacy.

**Vittorio Sebastiano**

*Asst. Professor,
Stanford University
Co-founder,
Turn Biotechnologies.*

Dr. Sebastiano is working on the partial or total reversal of aging effects at the cell, tissue, and organ system level. In short: Rejuvenation.

The approach is based on the technology of induced pluripotent stem cell (iPSC) re-programming. iPSCs are “adult” stem cells that have been re-programmed back into their original embryonic-like state. But until now, they could not be tested in humans because iPSCs spontaneously form tumors. The work of Dr. Sebastiano and colleagues has overcome this barrier.

**John Fisher**

*Chair, Fischell Dept. of
Bioengineering at the
University of Maryland*

Dr. Fisher’s lab focuses on 3D printing and bioprinting for regenerative medicine applications, investigating biomaterials, stem cells, bioprinting, and bioreactors for the regeneration of lost tissues, particularly bone, cartilage, and cardiovascular tissues.

The lab’s novel class of biodegradable polymers are used to create biomimetic environments for cell culture and a novel perfusion bioreactor for dynamic cell culture.

Most recently, Dr. Fisher’s lab has developed strategies for the 3D printing of a variety of tissue engineering biomaterials and scaffolds.

WHO IS INVITED

- **World-renowned experts** who shape the future of healthcare.
- **Leaders of major economic sectors** that will be affected, for better or worse, by this future.
- **Pharmaceutical, biotechnology, IT and medical device companies** developing the tools of postmodern medicine, from personalized drugs to surgical robots to DNA analyzers.
- **Investors in biomedicine and biotechnologies**, whose success depends on their ability to predict the future.
- **Policymakers** who need to understand the magnitude and direction of the seismic forces acting on healthcare throughout the world today.
- **Hospital and other healthcare executives and trustees** who need to identify the location of their institutions in relation to the fault lines in order to minimize the impact of tremors on their institutions.
- **Physician, nurse, and other professional leaders** who need to understand the emerging, profession-changing landscape and their role (or not) in it.

____SOME PAST DELEGATES____

(Among others)

Chief Engineer for Vehicle Research and Technology at a major auto manufacturer
Dean of a major medical school
Chief scientist of one of the world's biggest medical device manufacturers
Former United States Surgeon General
Vice chairman of one of the biggest for-profit hospital systems in the US
CEO of a 2,000+ bed hospital system
CEO, surgeons and physicians from a major cancer center in Brazil
Senior vice president of a national bank
Adjunct professor of public health from a "Big 10" university
COOs of two medical device startup companies
World leader in the development of regenerative medicine
Director of an advanced bioengineering laboratory
Chief data scientist from a major US university system
Co-creator of the world's first implantable bioartificial kidney
Former Deputy of the French National Assembly
Founder of a non-profit maternal and child health organization
President of a global consulting company
Chief operating officer of a national sports equipment manufacturer
Professor of law from a major law school
Chairman of a major regional medical supplies & equipment company
Chief Futurist from a Big 3 automaker
Chairman of a national and regional business & industry publications company

WHERE & WHEN

Colony Club
ON PARK AVENUE

2310 Park Avenue, Detroit, MI



Monday, May 23, 2022

A buffet dinner will be available for delegates arriving Sunday, May 22, 2022, from 6 - 8 pm at the Westin Book Cadillac Hotel. Room Reservations: 1-888-236-2427

____CONVENED BY____



____SUPPORTED BY____



____SPONSORS | EXHIBITS____

DIREF welcomes sponsors to help defray the costs of the Summit. Small exhibits may be accommodated, though space is limited. Contributions will be acknowledged in the Program and final report, and in the Chairman's opening and closing remarks.

Please call David Ellis at **313-405-6054** or email dellis@diref.org to discuss.

HealthQuake Summit 2022

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