2020 MIT Startup Exchange Workshop: Sustainable Materials Innovation

April 22, 2020 8:30 am - 1:00 pm

8:30 Coffee & Registration

8:55 Welcome Remarks & Agenda Overview
James Gado
Senior Director, MIT Corporate Relations

James Gado
Senior Director, MIT Corporate Relations

James E. Gado manages relations with US, European, and Middle Eastern companies with a focus on developing a broader MIT presence in the MENA region. Gado has oversight responsibility for the MIT Startup Exchange program and managers.

Gado comes to MIT after more than 25 years in the specialty materials and chemical industry. His experience spans the sectors of construction, microelectronics, automotive, and food/beverage packaging all on a global basis. The majority of his career was spent at W.R. Grace & Co., with positions also at American Cyanamid Company and Teradyne, Inc.

Gado has held leadership positions at the director level for mergers and acquisitions, strategic planning, marketing, and research and development management. He has developed new business, both organically and via acquisition, across the globe including the emerging markets of China and India. His domestic investment experience includes collaboration with Grace/Horn Venture Partners.

9:05 Corporate Innovation Keynote: Braskem
Daniel MacEachran
Head of Open Innovation, Renewable Chemicals and Materials, Braskem
Donald R. Sadoway is the John F. Elliott Professor of Materials Chemistry in the Department of Materials Science and Engineering at the Massachusetts Institute of Technology. Born in Toronto, he obtained the B.A.Sc. in Engineering Science, the M.A.Sc. in Chemical Metallurgy, and the Ph.D. in Chemical Metallurgy, all from the University of Toronto. The author of over 145 scientific papers and holder of 18 U.S. patents, his research is directed towards the development of rechargeable batteries for grid-level storage and environmentally sound technologies for the extraction of metals. In 2012 he was named by Time magazine as one of the 100 Most Influential People in the World.

Professor Sadoway's research seeks to establish the scientific underpinnings for technologies that make efficient use of energy and natural resources in an environmentally sound manner. This spans engineering applications and the supportive fundamental science. The overarching theme of his work is electrochemistry in nonaqueous media. Specific topics in applied research are the following: grid-scale storage of electrical energy (colossal but affordable batteries), environmentally sound electrochemical extraction and recycling of metals, including steel, nickel, manganese, and titanium as well as ferroalloys such as ferrochromium, lithium solid-polymer-electrolyte batteries, and advanced materials for use as electrodes, separators, and walls in fused-salt electrolysis cells and batteries. Related to these are the following topics in fundamental research: the physical chemistry and electrochemistry of molten salts (including molten oxides), cryogenic electrolytes, and solid polymer electrolytes.
GTL Biofuel: Sustainable liquid fuels & protein from alternative sources
Bob Meng
Founder & CEO, GTL Biofuel

Bob Meng
Founder & CEO, GTL Biofuel

Bob Meng is the founder and CEO of GTL Biofuel. Previously, Meng cofounded and served as CEO of Shanghai GTL Biotech. He holds a Master's from Peking University.

Kalion: Creating high quality chemicals from biomass
Darcy Prather
President & CEO, Kalion, Inc.

Darcy Prather serves as President of Kalion, Inc. He has spent a couple of decades developing new businesses from emerging technologies. Mr. Prather received two SBs from the Massachusetts Institute of Technology in electrical engineering; and science, technology, and society. He received an MA in philosophy, politics, and economics from Oxford University which he attended on a Rhodes Scholarship.

Mr. Prather started his career as a management consultant at McKinsey & Co spending significant time studying R&D. He advised a major agriculture player on potential impact of various intellectual property strategies for a seminal biotech product that continues to drive value even today. He developed a new research and development organizational structure for a major packaged goods company that was immediately adopted.

At Kalion, he has successfully driven the development of glucaric acid to fulfill the potential of the molecule as described in a 2004 DOE report on the top value added chemicals from biomass. With the support of an exceptional team of individuals and research partners, Kalion has developed not only an original production processes for glucaric acid, but also developed new markets for the low-cost, high-purity glucaric acid and derivatives from their green production process.

He has served as VP of Technology for NiaOnline, the largest online community for African Women, and VP of Strategy for Beta Data Services, Inc., a telecommunications billing system company.

Kebotix: Discovering materials & chemicals from data, AI, & robotics
Scott Healey
VP of Business Development, Kebotix
Scott Healey
VP of Business Development
Kebotix

Scott Healey is trained as a Materials Engineer but has worked in Sales and Business Development for most of the past 20 years, including several multi-national packaging materials companies and three different technology startups. He has a long track record of partnering business needs with technology solutions. When he isn't working, he enjoys spending time with his family doing anything outdoors.

Arunas Chesonis
Chairman & CEO, Sweetwater Energy

Arunas Chesonis joined Sweetwater Energy as Chairman and CEO in December 2011 after serving as its Chairman since 2010. Prior to Sweetwater, Mr. Chesonis served as Chairman and Chief Executive Officer of PAETEC Holding Corp., a Fortune 1000 telecommunications company acquired in 2011 by Windstream Corp. (NASDAQ: WIN), one of the largest national telecom carriers. Mr. Chesonis founded PAETEC in 1998.

Mr. Chesonis has a long history in sustainability. His private philanthropic organization, the Chesonis Family Foundation, has supported numerous environmental and renewable energy projects at the Massachusetts Institute of Technology to address climate change. He also personally invests in clean tech, life sciences, renewable energy and artificial intelligence ventures through his involvement at universities in Boston and Rochester.

Mr. Chesonis received the Ernst & Young Entrepreneur of the Year Award, the Herbert W. Vanden Brul Entrepreneurial Award by the College of Business at Rochester Institute of Technology and was elected to the Rochester Business Hall of Fame.

He holds a B.S. in Civil Engineering from Massachusetts Institute of Technology, an MBA from the William E. Simon Graduate School of Business at the University of Rochester, and an Honorary Doctor of Laws from the University of Rochester. Mr. Chesonis is also a member of the M.I.T. Corporation and is a life trustee of the University of Rochester.

Adam Rauwerdink
VP, Business Development, Boston Metal

Boston Metal: Efficient, emissions-free steel production
Adam Rauwerdink
VP, Business Development
Boston Metal

Adam Rauwerdink spent the last decade leading global business development for new technologies in the energy industry. At Vionx Energy, a vanadium flow battery company, Adam led sales and developed multi-MW projects in partnership with Siemens and Starwood Energy. Prior to Vionx, Adam was VP of Business Development at SustainX where he led first market partnerships in Korea and Japan and raised over $20M in equity from GE and others.
10:05

**Startup Lightning Talks Part II**

**Cambridge Crops: A new kind of protection for all kinds of foods**

Adam Behrens

Cofounder & CEO, [Cambridge Crops](#)

Adam Behrens has spent his career developing and translating technologies in the areas of food, agriculture, healthcare, and nutrition. Previously, he was a postdoctoral associate in the Langer Lab at MIT where he managed several projects focused on improving healthcare and nutrition in the developing world. He was named to the Forbes 30 under 30 list in 2017. Adam holds a BS in chemical engineering and a PhD in bioengineering from the Kofinas lab at the University of Maryland.

**C16 Biosciences: Sustainable alternatives to palm oil**

Shara Ticku

CEO, [C16 Biosciences](#)

**Ladera Tech: Proactive wildfire management**

Wes Bolsen

President & CEO, [Ladera Tech](#)

Wes Bolsen is an entrepreneur and executive that brings almost 20 years of business experience to Ladera Tech. He was a former executive at Cool Planet, developing solutions for the renewable energy as well as Ag technology and animal nutrition markets. Prior to that, he served on the executive team of public company Codexis (NASDAQ: CDXS) in Redwood City, CA as their CMO. He was one of the founding executives at Coskata in Chicago, and served as the CFO of ICM, Inc. in Colwich, KS. He has worked extensively both in the U.S. and internationally during his years at McKinsey & Co. in both the Chicago and Palo Alto offices. He holds a BS in Electrical Engineering and a minor in economics from Rose-Hulman Institute of Technology, and a MBA from Stanford’s Graduate School of Business.

10:30

**Networking Break & Startup Exhibit**
10:50 Corporate Investor Keynote

11:10 Startup Lightning Talks Part III

InEnTec: Turning waste into ultra-clean energy, electricity, & industrial materials
InEnTec

Nth Cycle: Low-cost electronics, rare earth, & specialty metals recycling
Megan O’Connor
Cofounder & CEO, Nth Cycle

Megan O’Connor is the CEO and cofounder of Nth Cycle. Nth Cycle is commercializing a technology to recycle critical metals from electronics waste to generate a new, secondary source of these materials in the United States to enable true energy independence on our path to a clean energy economy. Megan received her bachelor of science degree in Chemistry from Union College, and her Ph.D. in Civil and Environmental Engineering from Duke University. She was recently named one of Forbes 30 under 30 in Energy, 2019, and is an entrepreneurial fellow in the Department of Energy’s program Innovation Crossroads.

Phoenix Tailings: New metals & metal powders from re-mined discarded ore
Nick Myers
CEO & Cofounder, Phoenix Tailings

Nick Myers, CEO & Cofounder of Phoenix Tailings, has a background in physics and in the financial industry, but along with his three cofounders at Phoenix Tailings, Nick shares a passion for leveraging entrepreneurship to make a deep, and scalable impact on the world. Prior to Phoenix, Nick worked at Techstars Boston as well as held several executive-level positions in a number of startups, growing them from pre-revenue to high growth companies today.
John Fernández

Professor of Building Technology, MIT Department of Architecture
MIT Environmental Solutions Initiative

John E. Fernández is a professor of building technology in the Department of Architecture at MIT and a practicing architect. Fernández founded and directs the MIT Urban Metabolism Group, a highly multidisciplinary research group focused on the resource intensity of cities and design and technology pathways for future urbanization. He is author of two books, numerous articles in scientific and design journals including Science, the Journal of Industrial Ecology, Building and Environment, Energy Policy and others, and author of nine book chapters. He is Chair of Sustainable Urban Systems for the International Society of Industrial Ecology and Associate Editor of the journal Sustainable Cities and Society. Fernández served as Director of the Building Technology Program in the Department of Architecture from 2010 to 2015 and as the Director of the International Design Center at MIT from 2012 to 2015. He previously served as the Director of Research for Sustainable Energy Systems of the MIT Portugal Program.

Fernández is a member of the Board for New Ecology, Inc., and a member of the Board of Advisors for the Center for Sustainable Energy of the Fraunhofer Institute. At MIT, Fernández serves on the Committee on the Innovation Initiative, the Faculty Policy Committee, and the Institute Planning Committee, as well as the Campus Sustainability Task Force, the MIT Materials and Waste Management Working Group, and the Metropolitan Warehouse Advisory Group. Fernández is Housemaster for MIT's Baker House.

Fernández has served on several National Science Foundation Review Panels, as a member of the Department of Energy Roadmap 2020 Advisory Committee, and as a member of the Board of Directors of the Building Envelope Technology and Environmental Council of the National Institute of Building Science. He also served as a member of the Research Committee of the United States Green Building Council. Fernández has participated in the launch of two startup companies in the past 5 years. With his partner and wife, Malvina Lampietti, Fernández has been designer of more than 2.5 million square feet of new construction. As senior designer in two major New York City architecture firms Fernández led the design and construction of major commercial, institutional, and residential buildings in Washington D.C., New York City, Philadelphia, Los Angeles, Honolulu, Jakarta, Tokyo, Shanghai, and other locations.

12:00 Networking & Startup Exhibit

Light refreshments will be served.

1:00 Adjournment