Specialized Capital Formation and Deployment to Support Synthetic Biology

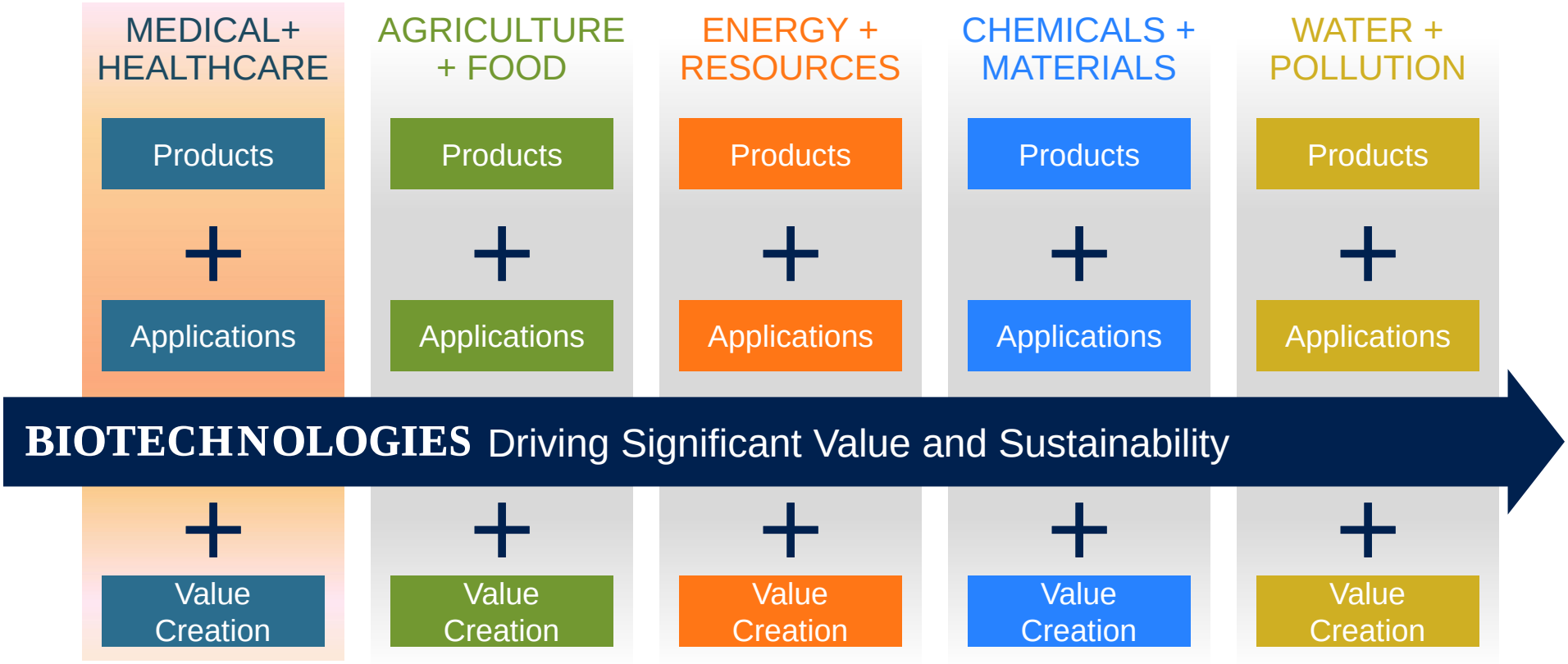
Denver Dale, Ph.D.
Founder, Chief Executive Officer
denver@onpointcapital.com

October 21, 2013

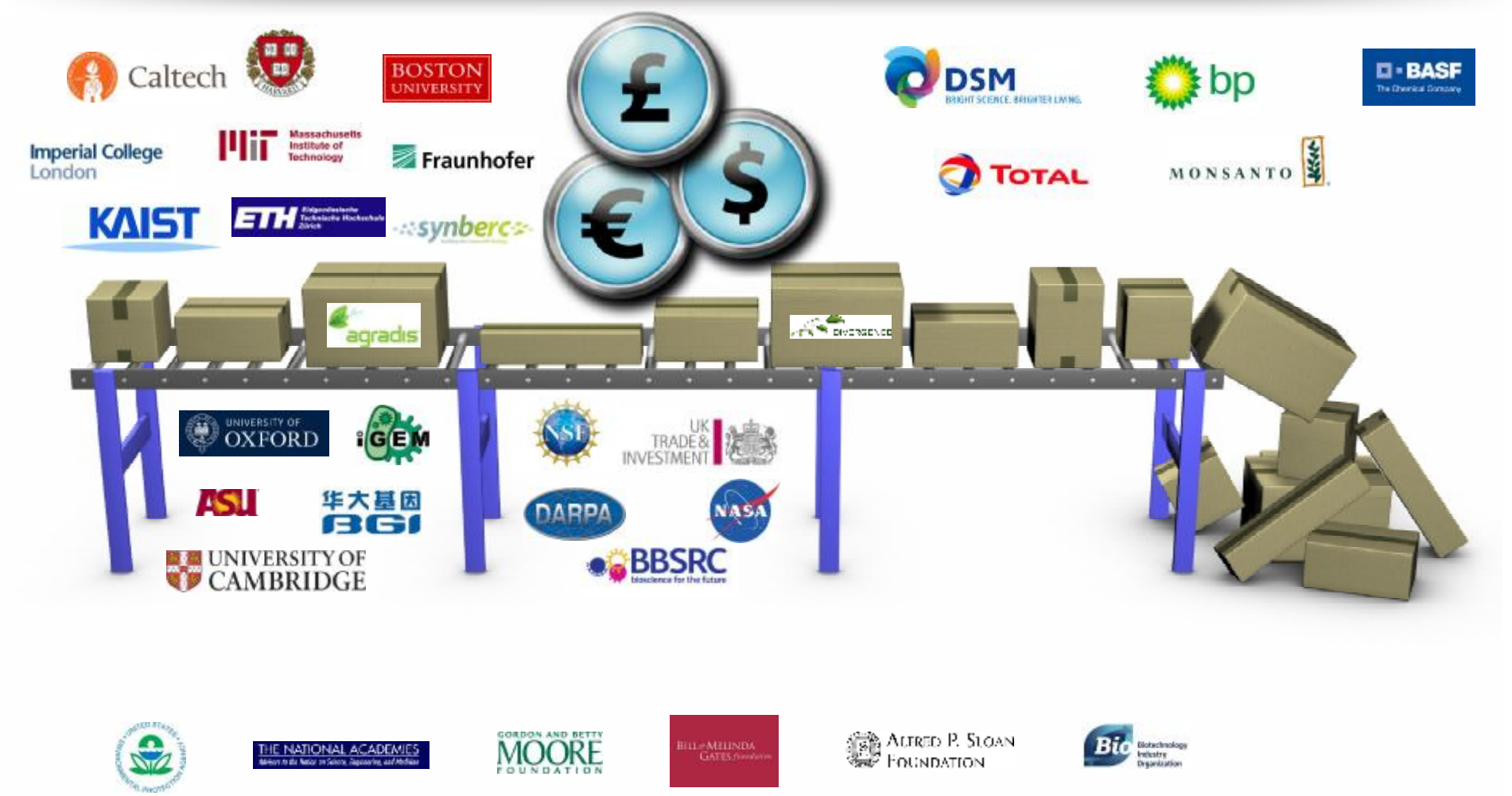
OPC Bioventures:
Helping to Support SynBio

Conviction	• That synbio-related technologies will drive enormous value creation in major industries and significantly improve the human condition in the years and decades ahead
Contribution	• Helping significant investors understand the SynBio opportunity • Providing an expert investment platform through which various stakeholders can express their support for and participate in the economic potential of SynBio
Stakeholders	• Research Institutions, Translational Offices, Entrepreneurs, Governments, Endowments, Foundations, Family Offices, Corporations, NGOs, Investors
Message	• Sufficient, well-suited risk capital is essential if we are to fully exploit the promise of SynBio (and manage its risks)
Mandates	• Establish the leading investment platform dedicated to SynBio and related technologies • Raise significant investment capital and support from stakeholders • Work to extract the maximum human benefit from SynBio and related technologies
Questions	• ???
Comments	• !!!

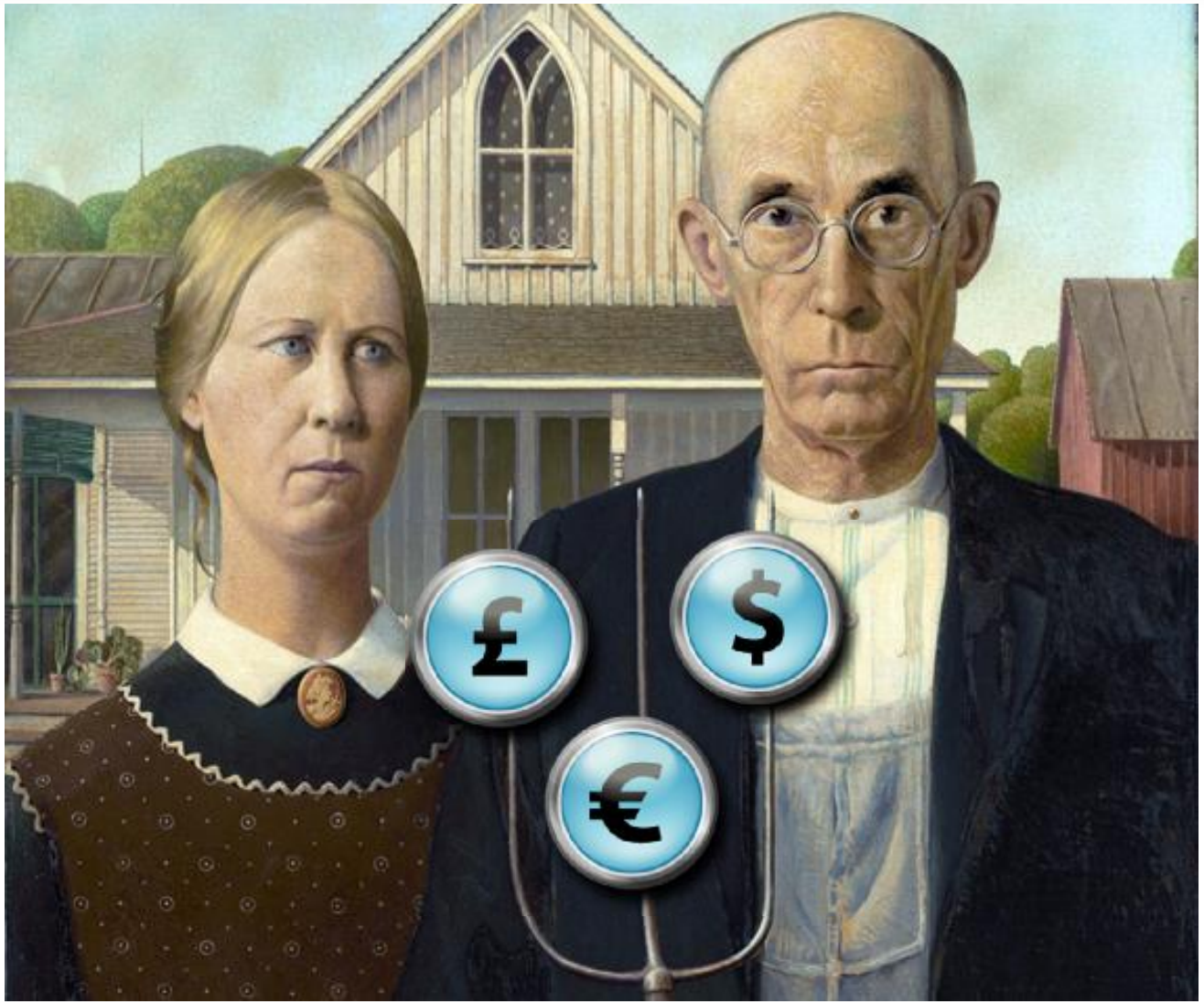
Moving Beyond Medical: Exploiting Major Industrial Markets



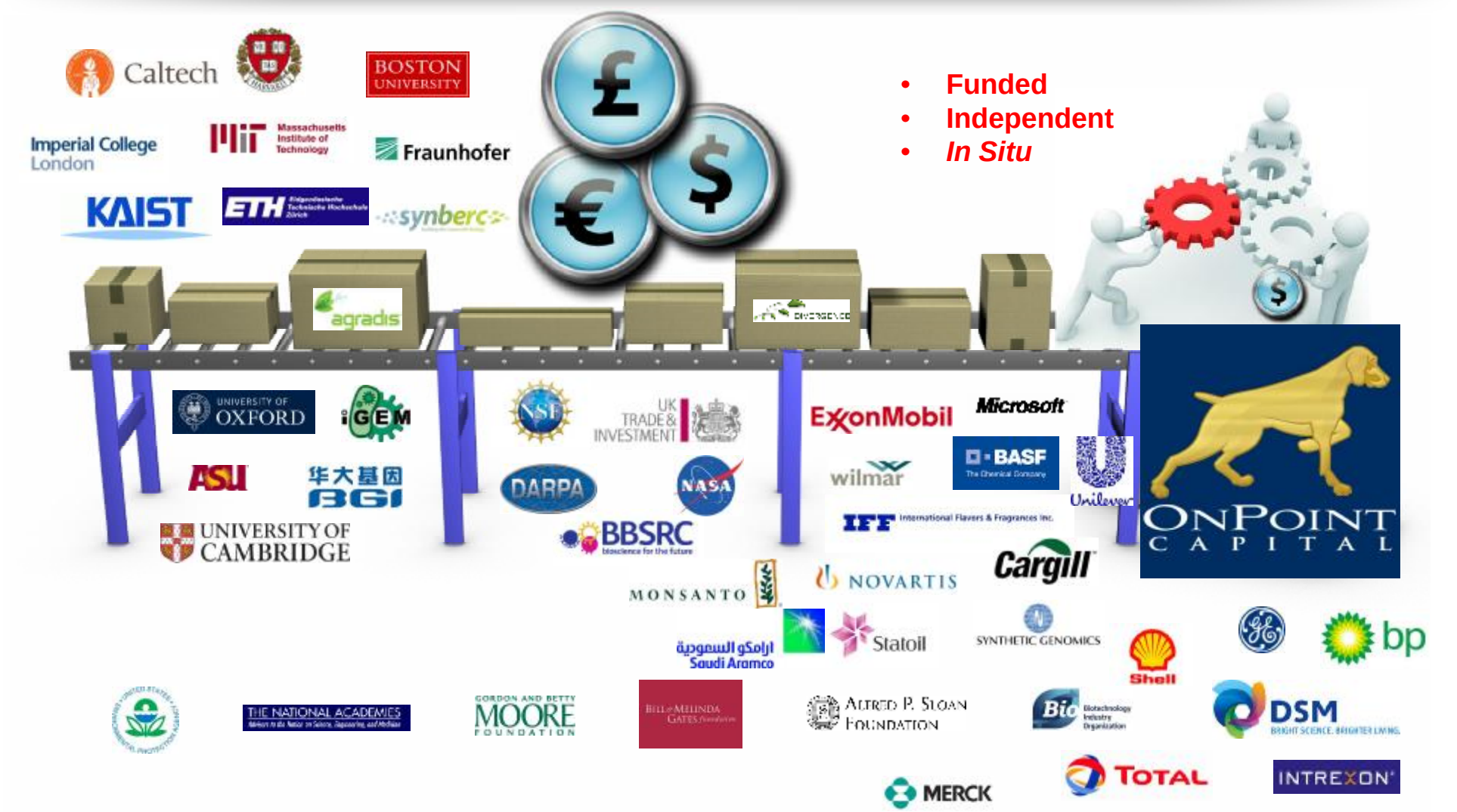
Fully Exploiting SynBio's Potential: Research-Stimulus Without Risk Capital can…



Fully Exploiting SynBio's Potential: …Lead to Loss of Public Investment (and ROI)

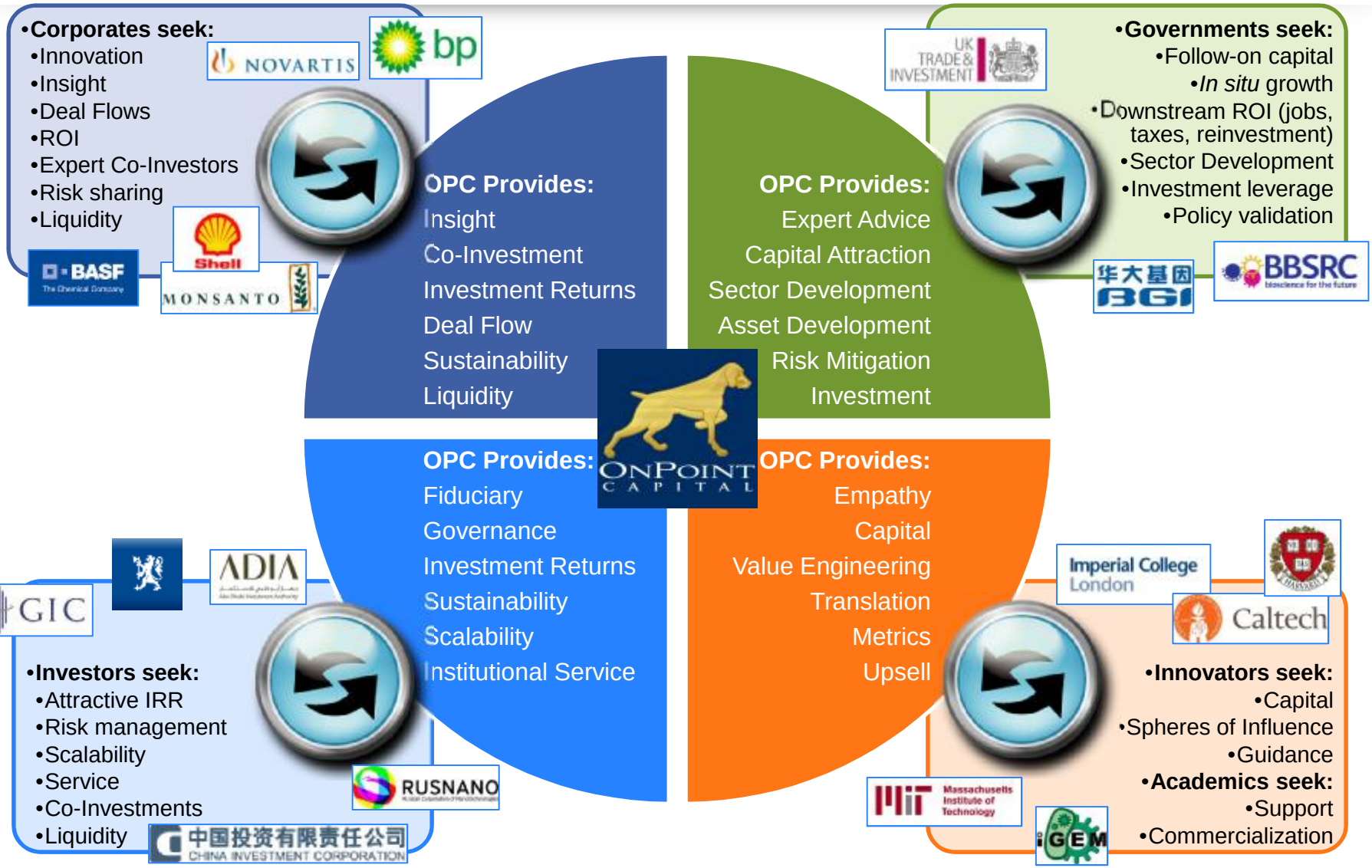


Fully Exploiting SynBio's Potential: Helping to Set the Conditions for Strong ROI



- **Funded**
- **Independent**
- ***In Situ***

Aligning Interests: Unifying SynBio's Stakeholders Through Capital



OPC's Expert Platform: Innovation Relationships (partial list)

DEVELOP ASSETS

MITIGATE RISKS

IDENTIFY OPPORTUNTIES

+ ONPOINT CAPITAL +

EVALUATE OPPORTUNITIES

OPC's Expert Platform: Founders

Scientific Leadership

Financial Leadership

Entrepreneurial Experience

Sector Presence

LEADERSHIP

	EXPERIENCE / AFFILIATIONS	EDUCATION / PROFILE
 **Dr. Denver Dale**	• Founder and CEO, On-Point Capital, LLC • Investment Management, Goldman, Sachs & Co. • Tutor, Biomedical Sciences, Oxford University	Ph.D. (Oxford) B.Sc. (Hons) (Queensland) Profile: LINK
 **Prof. Jim Collins**	• Distinguished Professor, Boston University • Founding Faculty, Wyss Institute, Harvard University • Investigator, Howard Hughes Med. Research Institute	Ph.D. (Oxford) B.A. (Holy Cross) Profile (BU): LINK Profile (Harvard): LINK

Appendix 2:
OPC Bioventures Founders

Denver Dale, Ph.D. is the Founder and CEO of On-Point Capital LLC, an investment management firm that provides specialized investment services to a select group of significant investors. In this capacity, Denver sets overall strategy for the firm and leads investment platform design, development and execution. In addition, Denver leads the investor relations- and business development teams.

OPC is in the process of launching a series of expert venture capital funds focused on investing at the intersection of Synthetic Biology and major industries such as Energy-Resources, Agriculture-Food, Industrial Chemicals-Materials, Water-Environment and Medicine-Healthcare. OPC's venture investment platform has been carefully designed to provide investors with an expert vehicle through which to both support and participate in the enormous human- and economic potential of Synthetic Biology.

Prior to forming OPC, Denver founded and led an elite investment unit within Goldman Sachs & Co. directly managing more than US$4 billion on behalf of a number of significant investors. In addition, Denver has been the founder, CFO and director of several technology-enabled businesses where he designed/managed global operations, investor relations, client services and business development.

Denver has a Ph.D. in biomedical sciences from Oxford University and a B.Sc. (Hons) in medical, marine and evolutionary biology from the University of Queensland, Australia. His detailed profile can be found at http://www.linkedin.com/in/denverdale

Professor Jim Collins is a founding Core Faculty Member and Platform Lead, Anticipatory Medical and Cellular Devices at the Wyss Institute, Harvard University. Jim is developing innovative ways to reprogram organisms, particularly bacteria, to perform desired tasks, such as attacking tumors and guiding development of stem cells. These programmed bacteria could lead to cheaper drugs, greener fuels, and more effective treatments for antibiotic-resistant infections and diseases. The work is part of the new field of synthetic biology, which Jim founded by combining science and engineering to construct biological circuits that can program organisms, much like we program computers now. He is also a pioneer in systems biology, stochastic resonance, biological dynamics, and neurostimulation, with the goal of improving the function of physiological and biological systems. His research has led to a new class of medical devices, such as vibrating insoles that provide sensory enhancement stimulation to the feet of the user. His team at the Wyss is developing these insoles for a variety of purposes, such as improving balance among elderly users.

At Boston University, Jim is a William F. Warren Distinguished Professor, a University Professor, Professor of Biomedical Engineering, Professor of Medicine, and Co-Director and Co-Founder of the Center of Synthetic Biology. In 2008, he became the first Boston University faculty member to become a Howard Hughes Medical Institute Investigator. His many awards include a MacArthur "Genius Award," a National Institutes of Health Director's Pioneer Award, as well as numerous teaching awards. He has been named to the Technology Review list of top 100 young innovators and the Scientific American list of top 50 outstanding leaders in science and technology. Jim is also an elected member of the National Academy of Engineering, the American Academy of Arts & Sciences, the Institute of Medicine of the National Academies, and the National Academy of Inventors. He chairs the Scientific Advisory Board (SAB) of Sample6 Technologies and EnBiotix, and serves on the SAB of Joule Unlimited, Selventa, Seres Healthcare, LifeWave Ltd, Ensof, and Synereca Pharmaceuticals.