


# Brent Segal

Greater Boston

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## Summary

Dr. Brent M. Segal serves as the 1st Director of Collaboration at #LockheedMartin. The opportunity to work with great commercial companies to push forward capabilities for DoD is here. Thank you to my great partners and leadership of James Taiclet . This is just the beginning.

Previously Dr. Segal served as the 1st Director of Artificial Intelligence leading a team providing GPU-enabled compute, training, engagement with programs and cutting edge capabilities in Artificial Intelligence. He also was the 1st Lockheed Martin Corporate Technology Scout focused on engagements with small medium enterprises and venture capital firms and the Deputy for Enterprise Autonomy.

Previously Dr. Segal served as Director of Advanced Research Programs at Lockheed Martin Corporate Engineering and Technology and also Chief Scientist, Nanotechnology at the Lockheed Martin Advanced Technology Center.

Dr, Segal is a Co-founder and former Chief Operating Officer of Nantero, a leading Nanotechnology company where he oversaw operations with ON Semiconductor, Brewer Science, BAE and ASML.

Dr. Segal is an active fundraiser, helping Nantero to raise more than \$31.5 M in three private equity rounds and >\$50M in government programs. He headed operations at Metaprobe LLC, raising >\$5 M in private equity financing. He was a Research Associate at Nycomed Salutar, Inc. where he developed X-ray contrast agents for medical imaging.

He received his PhD in Chemistry from Harvard University in 2000 and has published in journals including JACS and IC. He is frequently invited to speaking engagements such as TechConnect 2006-19.

He is co-author of over 250 patents and applications. He is a graduate of Reed College, with a BA in Biochemistry. Specialties: Autonomy, AI/ML, deep learning, Venture Capital, entrepreneurial startups, IP protection, nanotechnology, chemistry, biochemistry, pharmaceuticals, healthcare IT, interoperability, standards, nanoelectronics, cleantech, energy, clean energy and sustainability.

In his spare time he enjoys computer vision, reinforcement learning and programming edge computing powerhouses like the NVIDIA Xavier.

## Experience



### Director of Collaboration

Lockheed Martin

Jan 2021 - Present (7 months +)

Leading a Corporate team bringing Collaboration with commercial companies to the Enterprise.



### Scientific Advisory Board

## StealthMode

Feb 2019 - Present (2 years 6 months +)

Working with a small company investigating biologics to treat ALS and Parkinson's. This is important.

#alsawareness #parkinsonsdisease #neurodegenerativediseases



## Member of the FTF

### Bankinter

2005 - Present (16 years 7 months +)

#### Nanotechnology

Nanotechnology is composed by several techniques used to manipulate matter at the atoms and molecules scale. Nano is a measuring method: a millionth of a millimeter is a nanometer.

The key to understand the technology's potential is to know that principles of operation at the nano scale differ from the properties known to that matter at the bulk-materials scale. The long term goal is for scientists to achieve the molecular self-assembly to create materials, devices and systems with unique and novel properties.

Everybody agrees to state that nanotechnology will take us to the industrial revolution of the 21st century, just as Charles Vest (former MIT president) declared.

The revolution has started, and the Bankinter Foundation of Innovation is working on its next publication, in collaboration with international renowned experts, to analyze the future impact of nanotech on various business models.



## Director of Artificial Intelligence

### Lockheed Martin

May 2019 - Jan 2021 (1 year 9 months)

Dr. Brent M. Segal is the Director of Artificial Intelligence leading a team providing GPU-enabled compute, training, engagement with programs and cutting edge capabilities in Artificial Intelligence. This role afforded the most opportunity for learning since graduate school.

Making time to do programming and learning 1hr/day really made an impact. AI/ML is now a part of everything I do. If you are a deep domain expert in a technical field, you can learn AI/ML and use to to improve your workflows massively. #continuouslearning

#gpucomputing #acceleratedcomputing #ai4all @Dod Platform One



## Corporate Technology Scout and Deputy Enterprise Autonomy

### Lockheed Martin

Apr 2016 - May 2019 (3 years 2 months)

Dr. Segal is the Lockheed Martin Corporate Technology Scout reporting into the CTO office focused on small and medium enterprises. His role includes providing technical intelligence and strategy, engagement with global Science and Technology (S&T) and fostering cross-enterprise collaboration. He works closely with the Lockheed Martin Corporate Development group on strategic equity investments and venture capital engagements as well as strategic partnerships. The focus areas include a broad range of electronics, artificial intelligence, deep learning, autonomy, advanced materials, data analytics and other areas related to the technology strategy of Lockheed Martin. He collaborates with venture

capitalists in Silicon Valley, Boston and globally. He is also the Deputy for the LM Autonomy program, working across all Business Units to enable advanced autonomy solutions. Incorporating AI/ML technology is a key component of Autonomy.

 **Partner****JMM Partners LLC**

Mar 2007 - Dec 2018 (11 years 10 months)

JMM Partners works with small and mid-size companies to unleash value. Our areas of operations include California, Massachusetts and Spain.,

 **Visiting Professor****UCL**

Apr 2013 - Nov 2018 (5 years 8 months)

Visiting Professor in the Electronic and Electrical Engineering Department which has been working on novel materials' integration in electronic devices. The breadth of new devices has the potential to transform power systems, computers and even healthcare. In association with the London Center for Nanotechnology (LCN), researchers at UCL are moving quickly to prototype and demonstrate nanotechnology advances. The entrepreneurial spirit is strong at UCL.

 **Chairman of the Nanotechnology Standards Committee****IEEE**

Mar 2012 - May 2018 (6 years 3 months)

The IEEE Nanotechnology standards committee is working closely with IEC TC 113 to bring forth nanotechnology standards that are useful to the electrotechnical community. Work is ongoing involving carbon nanotubes and graphene.

 **Director of Advanced Research Programs****Lockheed Martin**

Jul 2013 - Jan 2016 (2 years 7 months)

Dr. Segal leads a cross functional team catalyzing growth opportunities for stakeholders in the areas of advanced manufacturing, energy, cyber security, nanotechnology, quantum computing and data analytics. He works with several internal university initiatives involving Rice University, MIT and institutions across the United Kingdom. In addition Brent is active in the Healthcare, Energy and Cleantech spaces acting as a technology scout bringing small companies and university projects to Lockheed Martin.

 **Chief Scientist, Nanotechnology****Lockheed Martin**

Aug 2008 - Jun 2013 (4 years 11 months)

Dr. Segal is currently the Chief Scientist, Nanotechnology at Lockheed Martin Nanosystems following the acquisition of the government unit of Nantero in August 2008. In his role at Lockheed Martin, Brent has a broad charter to integrate nanotechnology throughout the Lockheed Martin product portfolio. In addition Brent is active in the Healthcare, Energy and Cleantech spaces acting as a technology scout bringing small companies and university projects to Lockheed Martin. He assists with government

program management for projects involving sensors, nanoelectronics, and materials science with DOD, DOE, and other customers.

## Partner

### Atomic Venture Partners

Apr 2006 - Jan 2012 (5 years 10 months)

Atomic Venture Partners is an early stage venture capital fund with offices in the Silicon Valley, Boston, and OKC. AVP invests in early stage companies that leverage cutting-edge technology for game-changing results - which address very large potential markets and have compelling high margin business models.

We add significant value beyond the capital that we invest: AVP is led by successful venture-backed entrepreneurs and technology executives, who have founded several best-of-breed companies in our target industries. This provides to entrepreneurs an intimate understanding of our chosen industries, the ability to provide a vast network, and an invaluable operational skill set for explosive growth.

The Fund invests in the following areas: Semiconductors; Pharmaceuticals; Digital Media; and Nanotechnology.

## COO

### Nantero

Jun 2001 - Aug 2008 (7 years 3 months)

Dr. Brent M. Segal is the Chief Operating Officer of Nantero where he oversees operations roles focusing on intellectual property management and partnerships. He is Chairman of the Industrial Advisory Board of the Center for High-Rate Nanomanufacturing (CHN) at Northeastern University, U. Mass Lowell and University of New Hampshire. He previously ran laboratory operations at Metaprobe LLC and was a Research Associate at Nycomed Salutar, Inc.. He received his PhD in Chemistry from Harvard University in 2000 and has published frequently in journals including Journal of the American Chemical Society and Inorganic Chemistry. He is frequently invited to speak at conferences on the topic of nanotechnology intellectual property creation and management. He is co-author of over 100 patents and has worked extensively on intellectual property creation and protection issues at both Nycomed and Metaprobe. He is a graduate of Reed College, with a degree in Chemistry.

## Pharmaceutical Chemist

### Takeda Pharmaceuticals (formerly Nycomed)

Sep 1991 - Aug 1993 (2 years)

Worked on development of new X-ray and MRI contrast agents. Wrote several new patent applications involving the use of tungsten clusters as pharmaceuticals

## Education



### Harvard University

PhD, Chemistry

1994 - 2000



### Reed College

BA, Chemistry

1987 - 1991



**Menlo High School**

6 year Club, How to Learn

1983 - 1987



**Selby Lane School**

K-6, Life, Liberty and The Pursuit of ...

1974 - 1980

**Licenses & Certifications**



**Global Offset and Countertrade - GOCA**

**Skills**

Nanotechnology • Venture Capital • Start-ups • Computer Vision • Artificial Intelligence (AI) • Machine Learning • Materials Science • Chemistry • Entrepreneurship • Patents