

## John M. Collins, Ph.D.

### Summary

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A tested leader in technology-driven businesses with over 40 years of experience focused on accelerating the design, development, and commercialization of innovative technologies, products, and services. Experiences integrate a broad geographic and technology base across industries from clean energy/tech to consumer durables, with a career long focus on medical devices. A proven ability to form and lead high performance project and operational teams, create and manage strong intellectual property portfolios, as well as develop, structure, and drive collaborative business relationships with companies ranging from start-ups to premier multi-national organizations. Maintains a hands-on approach and an intimate working knowledge of technologies, operations, and user needs.

### Experience

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2008 to Present	CIMIT: Consortia for Improving Medicine with Innovation and Technology	Boston, MA
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#### Director, Innovation Platforms

CIMIT is a consortium of the greater Boston area's premier clinical, research and academic institutions with a growing network of national and international affiliates ([www.CIMIT.org](http://www.CIMIT.org)). Based at the Mass General Hospital, its mission is to improve patient care by facilitating collaboration among clinicians, engineers, and entrepreneurs to catalyze the discovery, development, and implementation of innovative technologies and procedures that improve patient care. John started as CIMIT's Chief Operating Officer, being responsible for delivering CIMIT's "Finding, Funding, Facilitation and Following" functions to supported teams. Over the years he led the development of web-enabled platforms that enabled the scaling of CIMIT's support to collaborators in implementing CIMIT's successful innovation model. He now focuses on supporting and growing the CIMIT network with the CRAASH, CoLab, and GAITS platforms.

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2008 to Present	Reed Collins LLC	Lexington, MA
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#### Chief Technology & Innovation Officer

Technology, intellectual property, commercialization and business development consulting services for research teams, start-ups, IP law firms and risk capital organizations.

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2002 to 2008	TIAX LLC	Cambridge, MA
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#### President

In close collaboration with CEO and owner, Dr. Kenan Sahin, formed TIAX from the Arthur D. Little T&I group. Established TIAX as a 150-person strong, privately held technology development and commercialization business, successfully blending services work for government and commercial clients with technology development and licensing. TIAX ([www.TIAXLLC.com](http://www.TIAXLLC.com)) is a unique technology "transformation" organization focused in several core technology areas, including clean energy and materials, health and wellness, appliances and HVAC systems, and enhanced security. The World Economic Forum recognized TIAX as a Technology Pioneer in 2002 and as a New Champion in 2007.

Promoted to President in 2005 after having served as Executive Vice President since the company founding in 2002. In addition to an integral role in managing the transition and building a new business infrastructure, key accomplishments include attracting and hiring over 60 exceptionally qualified staff members, developing key technology platforms and intellectual property portfolios, and establishing several significant collaborative business relationships and licensing agreements.

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1999 to 2002

Arthur D Little, Inc

Cambridge, MA

### **Senior Vice President, Technology & Innovation (T&I) Directorate**

Reporting to the President and serving on the company's Executive Leadership Team, reestablished Arthur D. Little, Inc. (ADL) as a leader in technology consulting, linking strategy, innovation, and technology development. Architected and drove the turnaround of the technology business, reversing a declining revenue trend that persisted over several years to generate an average of ~20% annual growth. Successfully built a strong leadership team and focused the business on the integrated services of technology-based consulting, technology and product development, and intellectual property management. Grew the business to about 300 staff members and operated above target profitability levels (20% contribution margin). Drove a number of large commercial relationships that created significant success for clients. Board member of Cambridge Consultants Ltd. (a wholly owned subsidiary based in Cambridge U.K.), Nuvera Fuel Cells (an ADL spin-out with interests held by Gruppo De Nora and Amerada Hess, based in Cambridge, MA) and Strategic Food Solutions (a joint venture between ADL and TNO, the Netherlands research organization).

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1996 to 1999

Arthur D Little, Inc

Sydney, Australia

### **Managing Director, Asia Pacific Management Consulting Directorate**

Reporting to the President and serving on the company's Executive Leadership Team, restructured Arthur D. Little's Management Consulting business in Asia during the currency crisis of the late 90's. Aligned the offices in Sydney, Melbourne, Singapore, Tokyo, Seoul, Kuala Lumpur and Hong Kong to achieve services revenues of about \$30mm. Enabled the growth of ADL's three lines of business (Technology, Environment and Management Consulting) by expanding/extending relationships with multi-national corporations based in the US and Europe.

Initially, served as the Managing Director of the Sydney office and a member of the Asia Pacific Leadership team for two years before being promoted. In that time, opened an office in Melbourne and doubled the in-country revenues, returning the Australian operation to profitability, while also leading the expansion of the Technology & Innovation Management and the Organizational Learning practice across Asia Pacific.

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1988 to 1996

Arthur D Little, Inc

Cambridge, MA

### **Vice President, Technology and Product Development**

Joined Arthur D. Little, Inc. after completing Ph.D. to help establish the medical products group. Held a variety of positions of increasing responsibility while also maintaining an active hand in creating and managing engagements with clients. Created and implemented ADL's Product Development Process.

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1982 to 1986

Booz, Allen & Hamilton

Cleveland, Ohio

### **Senior Consultant**

Held a variety of positions of increasing responsibility, transitioning from being a contributor in technology and strategy assignments to being a project leader.

## **John M. Collins, Ph.D.**

### **Education**

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Ph.D. – MIT 1987 to 1988	Doctorate in Mechanical Engineering from Massachusetts Institute of Technology, with a concentration in fluid mechanics and heat/mass transfer. Minor concentration in Technology & Innovation Management.
M.S. – MIT 1980 to 1982	Masters in Mechanical Engineering from Massachusetts Institute of Technology, with a concentration in fluids mechanics and heat/mass transfer. Minor concentration in Technology & Innovation Management.
B.S. – RPI 1976 to 1980	Bachelors in Mechanical Engineering from Rensselaer Polytechnic Institute, with a minor in Economics. General Motors Scholar/Intern.

### **Other**

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Patents	Over 20 US patents, with numerous corresponding international patents (see below)
Recent Publications	See below
Security Clearance	DoD Top Secret (no longer active)

**John M. Collins, Ph.D.****Issued US Patents**

<b>Patent Number</b>	<b>Date Issued</b>	<b>Title</b>
<b>Trocars for Minimally Invasive Surgery</b>		
US5350364	09/27/1994	Universal seal for trocar assembly
US5342315	08/30/1994	Trocar seal/protector assemblies
US5314417	05/24/1994	Safety trocar
US5209736	05/11/1993	Trocar method and apparatus
US5197955	03/30/1993	Universal seal for trocar assembly
<b>Automated Fryer</b>		
US5319939	06/14/1994	Frozen food storage and dispensing system
US5230279	07/27/1993	Frying apparatus
US5224415	07/06/1993	Frozen food storage and dispensing system
US5305615	04/26/1994	Frozen food storage & dispensing system
US5142968	09/01/1992	Automated deep fat fryer
<b>Blood/Fluid Warmer</b>		
US6047108	04/04/2000	Blood warming apparatus
US5846224	12/08/1998	Container for use with blood warming apparatus
<b>Rug Cleaner</b>		
US4712740	12/15/1987	Venturi spray nozzle for a cleaning device
US4570856	02/18/1986	Liquid and detergent mixing chamber and valves
<b>Catalytic Coating Process</b>		
US4550034	10/29/1985	Method of impregnating ceramic monolithic structures with predetermined amounts of catalyst
US4609563	09/02/1986	Metered charge system for catalytic coating of a substrate
<b>Ergonomic Table</b>		
US4637322	01/20/1987	Adjustable computer worktable
US4890561	01/02/1990	Extendable keyboard support assembly
<b>Tendon/ Ligament Repair</b>		
US6106556	08/22/2000	Tendon and ligament repair system
US6080192	06/27/2000	Tendon and ligament repair system
US5800544	09/01/1998	Tendon and ligament repair system

## **John M. Collins, Ph.D.**

### **Recent Publications**

#### **Accelerating the Healthcare Innovation Cycle**

IEEE Pulse, December 3, 2013

A description of the CIMIT Model for stimulating and accelerating healthcare innovations into practice

#### **Facilitating Translational Research**

Journal of Investigative Dermatology, May 1, 2015

An overview of the need for and CIMIT's approach to facilitating translational medical research.

#### **Deep Innovation in the Medical Domain a la Boston's CIMIT**

Venture Findings #3, November 25, 2015

An overview of how the CIMIT Model supports innovation

#### **National Institute of Biomedical Imaging and Bioengineering Point-of-Care Technology Research Network: Advancing Precision Medicine**

IEEE Journal of Transnational Engineering in Health and Medicine, August 16, 2016

This paper describes the Point-of-Care Technology Research Network and the three Centers funded by NIBIB as examples of academic-based organizations that support collaborations across disciplines, institutions, and geographic regions to successfully drive innovative solutions from concept to patient care.

#### **Healthcare Commercialization Programs: Improving the Efficiency of Translating Healthcare Innovations from Academia Into Practice**

IEEE Journal of Transnational Engineering in Health and Medicine, September 28, 2016

The article describes Healthcare Commercialization Programs (HCPs) which offer institutions and funders an additional option to improve the efficiency with which the healthcare projects translate into products and services that improve people's health. It describes programs such as CIMIT's CRAASH course that get teams out of the lab to interface with customers and stakeholders.

#### **Healthcare innovation methodology: codifying the process of translating knowledge into better healthcare products, services, and procedures**

Current Opinion in Biomedical Engineering 2019, 11:16–21

This article provides an overview of the differences between research and innovation and discusses why treating them as distinct processes is important to help maximize the successful translation of research into population health benefits.

#### **The Role of CoLab and GAITS in Enabling the RADx Tech Program**

IEEE Open Journal of Engineering in Medicine and Biology, VOL. 2, 2021, pages 199 to 124

## **John M. Collins, Ph.D.**

This article describes how two of CIMIT's Innovation platforms, GAITS and CoLab enabled the RADx program to rapidly mobilize the biomedical community in developing tests to detect the SARS-CoV-2 virus.

### **RADx Tech Viability and Steering Panels: A Model for MedTech Translational Grant Review**

IEEE Open Journal of Engineering in Medicine and Biology, VOL. 2, 2021, pages 125 to 130

This article describes how the highly experienced members of the RADx Tech Viability and Steering Panels worked in a process to “assess, improve, and then select” which resulted in improved timing, efficiency, and effectiveness of reviews.

### **The RADx Tech Deep Dive and Work Package 1 Process**

IEEE Open Journal of Engineering in Medicine and Biology, VOL. 2, 2021, pages 131 to 137

This article describes the novel Deep Dive and Work Package 1 phases of RADx Tech which enabled comprehensive project reviews and project de-risking at unprecedented speeds.

**Prior Cases in which Dr. Collins Served as an Expert Witness  
As of February 2024**

<b>Parties</b>	<b>Case</b>	<b>Subject</b>
<b>NJOY, INC.</b> , Petitioner, vs. Fontem Holdings 1 B.V., Patent Owner.	IPR2014-01289 and IPR2014-01300	Electronic Cigarette
Fontem Holdings B.V., vs. <b>NJOY, INC.</b> , et al.	Consolidated Case No. CV 14-01645 GW (MRW)	Electronic Cigarette
<b>Nu Mark LLC</b> vs. Fontem Holdings 1, B.V.	IPR2016-01773, IPR2016-01641, IPR2016-01664, IPR2016-01707, IPR2016-01706, IPR2016-01705, IPR2016-01668, and IPR2016-01642	Electronic Cigarette
<b>Juul Labs</b> , Inc vs. Eon Smoke et. al.	US ITC Investigation No. 337-TA-1139 and No. 337-TA-1141	Electronic Nicotine Delivery Systems
<b>Below are Cases in the Last 4 Years</b>		
Trudell Medical Int'l, Plaintiff, vs. <b>D R Burton Healthcare LLC</b> ,	Civil Action No.: 4:18- cv-00008-H-KS	Oscillating Positive Pressure Respiratory Devices
<b>C.R. Bard, Inc., et.al</b> vs. Medical Components, Inc.	Case No.: 2:17-cv- 00754-HCN-DAO	Vascular access ports
Fuma International, LLC vs. <b>RJ Reynolds Vapor Company</b>	Case Nos 1:19-cv- 00260 and 1:19-cv- 00660	Electronic Cigarettes
<b>Purewick Corp.</b> vs. Sage Products LLC	C.A No. 19-1508-MN	Urine Collection Device
Fisher & Paykel Healthcare Limited vs. <b>Flexicare Inc., et al.</b>	Case No. 8:19-CV- 00835JVS (DFMx)	Ventilatory Breathing Tubes
Altria Client Services LLC, et al. vs. <b>R.J Reynolds Vapor Company, et al.</b>	Case No.: 1:20-cv- 00472-NCT-JLW	Electronic Cigarettes
The Travelers Property Casualty Company of America vs. <b>LG Chem Power, Inc., et al.</b>	Case No. 6:18-CV- 01728-JD	Condensation in Lithium-Ion Battery Packs
Inexian Corporation vs. <b>Venable LLP</b>	Case No. 24-C-21- 000200	Electronic Cigarettes
Beijing Choice vs. <b>Contec Medical Systems</b>	Civil Action No. 1:18- cv-00825 (NDIL)	Fingertip Pulse Oximeters
<b>Facet Technologies LLC</b> , vs. Lifescan, Inc.	Case No. 2:22-cv- 01717-MCS-MAR	Medical Lancets
Lifescan, Inc. vs. <b>Facet Technologies LLC.</b>	IPR2023-00712, and IPR2023-00713	Medical Lancets

<b>Purewick Corp.</b> vs. Sage Products LLC	C.A. No. 22-102-MN-JLH	Urine Collection Device
<b>C.R. Bard, Inc. and Bard Peripheral Vascular, Inc.</b> vs. Angiodynamics, Inc.	C.A. No. 20-1544 (CFC)	Vascular access ports
<b>Provisur Technologies Inc.</b> vs. Weber Maschinenbau GMBH Breidenbach	IPR2024-00235. IPR2024-00224	Food handling equipment
NJOY Netherlands BV vs. <b>VMR Products LLC.</b>	UPC Case Numbers: ACT_571537/2023 (EP2875740), ACT_571565/2023 (EP3456214), ACT_571730/2023 (EP3613453), and ACT_571745/2023 (EP3626092)	Electronic Cigarettes