

Testimony of
Herbert Tsvi Goldenberg, Ph.D.
CEO and Co-founder, eemRA
on behalf of CONNECT
For the U.S. House of Representatives
Committee on Oversight and Government Reform
Subcommittee on TARP, Financial Services and
Bailouts of Public and Private Programs
Hearing on
“America’s Innovation Challenge:
What Obstacles Do Entrepreneurs Face?”
November 2, 2011

Chairman McHenry, Ranking Member Quigley and other distinguished House members, my name is Herbert Goldenberg and it is a distinct honor and privilege to testify before this Committee of the United States Congress. I want to earnestly thank you for your invitation to testify today which gives me the opportunity to share with you my first-hand experience as an entrepreneur and to help you understand the challenges entrepreneurs face today. Let me be clear, entrepreneurs want to see the economy recover, and we are doing our best to help it along, but market conditions are challenging as I’ll explain.

For over 20 years, I have been an entrepreneur, co-founder and executive of a medical device company, a biotech company, and most recently, a healthcare IT company located in Orange County and San Diego, California. I am here today to describe how difficult life is in the ‘valley of death’ of healthcare startup companies. I will compare and contrast my experience funding startup companies 20 years ago to the difficulties that I am currently encountering and the pitfalls that presents to the public at large.

My goal is to convince you of the need for Congress to act to create new opportunities for funding which is vital to the advancement of medical technology and unfettered access for all Americans to their own medical records.

One of the companies I co-founded in the late eighties was Advanced Interventional Systems or AIS. During the 1980's, the standard of care in interventional cardiology for treating blocked coronary arteries was to perform Coronary Artery Bypass Surgery, a medical procedure performed to relieve angina and reduce the risk of death from coronary artery disease. AIS was part of a new wave of companies that pioneered coronary angioplasty. Angioplasty, as you may know, is the technique of widening a narrowed or obstructed blood vessel, typically occurring as a result of atherosclerosis.

My co-founders and I launched AIS with just one \$3 million series A investment from VCs. This initial investment allowed us to hire a core team who developed a catheter prototype for animal studies. There was also sufficient funding from this initial infusion of funds for our first submission to the FDA requesting permission to initiate clinical trials in several hospitals. Once we accomplished this milestone, we attracted more funding to commercialize the product.

Today, angioplasty is the standard of care in interventional cardiology. What was initiated and developed by small start-up companies developed into a multi-billion dollar industry. The evolution of angioplasty has saved lives, lowered healthcare costs and created many thousands of jobs.

This success would not have been possible without the initial investment from a group of VCs who were willing come in at the startup stage with a long term view to success. Unfortunately, this would not happen today. VCs have drifted to a later stage, safe zone and shy away from the risk associated with early stage ventures. Because VCs have drifted to later stage funding, Congress needs to find alternative avenues to encourage funding in early stage companies and start-ups. The kind of ground-breaking innovation that my company

discovered over 20 years ago is still occurring today, but can't break into the market until new avenues for funding materialize.

Let's now fast forward to the present.

The company that we are trying to currently fund is eemRa, a consumer-centered, healthcare information and financial services portal. It is designed to operate as a key element of the Health Information Exchange or HIE. HIE's were created by the HITECH Act to serve as a community which will demonstrate the future meaningful use of electronic medical records exchanged among hospitals, clinics and labs.

eemRa's goal is to develop access for Americans to all their health-related information. As medical insurance premiums are increasing, an increasing number of Americans are choosing high deductible plans to lower their medical insurance cost. Our mission is to act as a single service provider for consumers that aggregates information from providers and insurers. Our portal will enable the consumer to compare the cost of healthcare services at different providers. For example, if a patient needs a battery of blood tests, he or she could go onto the portal and compare the cost of getting the bloods tests at one lab versus an alternative. This is valuable to those with a high deductible insurance plan and the average struggling American trying to make ends meet.

Yet despite our innovative technology that can increase patient control of their healthcare which will bend the cost curve down, eemRa faces funding difficulties in this economic climate. eemRa is a company that would directly impact the average American's ability to control their medical costs and takes advantage of the latest technology resulting from our financial investment in the HITECH act. eemRa would seem to be an ideal candidate for early stage funding in our current business climate. Yet, for the past year, we have found it difficult to raise an initial round of funding. If Congress were to pass some of the

bills being considered, we could start immediately hiring people with a \$3 million investment to start our operation.

emRa is not alone. The American Recovery and Reinvestment Act, ARRA, of 2009 has been producing large numbers of discoveries and inventions. This is great. However, in order for these discoveries to be developed into devices, drugs, and software, startup companies are needed to commercialize these discoveries and inventions. Large companies are unwilling or incapable of handling high risk/high gain endeavors. Their complex hierarchies are unable to move fast enough to provide the intense concentration of effort needed to execute early stage projects.

As you can see from my examples, the severe shortage of capital funding has slowed the formation of start-up companies to a trickle of what it has been. The result is that the American people are being hurt by the lack of creation of small companies which produce technologies that increase the quality of life while also producing high paying jobs. Additionally, until ARRA discoveries are moved into commercialization, the public is not benefiting from the ARRA.

In closing, I encourage this committee and Congress, to promptly act to advance legislation that will allow capital to flow to emerging companies and start-ups.

Thank you for your attention.

Committee on Oversight and Government Reform
Witness Disclosure Requirement - "Truth in Testimony"
Required by House Rule XI, Clause 2(g)(5)

Name:

Herbert T. Goldenberg

1. Please list any federal grants or contracts (including subgrants or subcontracts) you have received since October 1, 2008. Include the source and amount of each grant or contract.

—

2. Please list any entity you are testifying on behalf of and briefly describe your relationship with these entities.

Connect in San Diego asked me to testify.
I do not work for CONNECT, nor I am a consultant.

3. Please list any federal grants or contracts (including subgrants or subcontracts) received since October 1, 2008, by the entity(ies) you listed above. Include the source and amount of each grant or contract.

—

I certify that the above information is true and correct.

Signature:

H. T. Goldenberg

Date:

10-31-11

Herbert Tsvi Goldenberg, Ph.D.

goldenberg@eemra.com

EXPERIENCE

eemRa

CEO and Co-founder, 2009 – present

HealthIT company developing a consumer portal independent of any electronic medical record (EMR) system.

CONNECT

Member of Capital Access Task Force, 2009 - present

University of California San Diego (UCSD), San Diego, 2008 – present

Member of the Industry Advisory Committee to Dr. Mark Thiemens, Dean of the Division of Physical Sciences

Harvard Business School, Cambridge MA, 2007 - present

Presenter in Healthcare course as protagonist in a case-study of the biotech and big Pharma symbiotic relationship.

ItherX (Immusol), San Diego, CA

Board Member, 2008 - 2011

Chairman, 2007 - 2008

Provided strategic support and guidance to new CEO.

Chairman, CEO, and Co-founder, 1994 - 2007

- Negotiated and signed corporate alliances with Novartis, Pfizer, Roche, Medarex with potential value of over \$250 million.
- Provided strategic and operational leadership to raise more than \$100 million from multiple corporate collaborations, mezzanine and VC funds.
- Steered the company through several difficult shifts in the biotech industry. From gene therapy for HIV to drug target-discovery using genomics and then to drug discovery and development. Currently, Itherx is focused on developing innovative drugs for HCV and oncology applications.

BIOCOM,

Co-Founder, San Diego, CA, 1994

- Participated in assembling a few biotech companies to form a purchasing group to gain leverage to negotiate with suppliers. Currently the largest regional life science association in the world, representing more than 550 member companies in Southern California.

Advanced Interventional Systems (AIS), Irvine, CA, merged with *Spectranetics (SPNC)* in 1994, Colorado-Springs, CO.

Co-founder and Vice-President of Catheter R & D, 1986 - 1994

- Co-raised seed and VC funds to launch AIS.
- Invented and developed over-the-wire laser angioplasty catheter to ablate long lesions and total occlusions.
- Co-managed clinical trials for the Excimer Laser Coronary Angioplasty procedure (ELCA).

- Actively participated in the IPO process in which \$30 million was raised.
- Achieved FDA market approval for ELCA procedure.
- AIS merged with competitor, SPNC. SPNC is profitable with its current main product based on the original over-the-wire catheter design.

Cedars-Sinai Medical Center (CSMC), Los Angeles, CA.

- Staff Research Scientist, Cardiology Department, 1985 - 1994.
- Pioneered the use of excimer laser to ablate calcified lesions.
- Member of team who were the first to propose to treat patients with long coronary lesions rather sending them to bypass surgery.
- First to transmit high power excimer laser through small diameter flexible Silica optical fiber.

AT&T Bell Labs, Allentown, PA

Member of Technical Staff (MTS) 1983 – 1986

- Designed and built first ever image processing and computer vision unit for solid-state chip manufacturing.

AWARDS

- 1990 Leon Goldman Medical Excellence Award for work in developing an optimized excimer laser angioplasty system.
- Space Technology Hall of Fame at NASA in 1994 for the development of excimer laser angioplasty.

PUBLICATIONS, PRESENTATIONS and PATENTS

- 30+ publications, book chapters and several patents.
- Presented at scientific, financial and clinical investigators meetings.

EDUCATION

- Ohio State University, Columbus, Ohio, Ph.D., Material Science.
- Ohio State University, Columbus, Ohio, M.S., Materials Science.
- Technion, Israel Institute of Technology, Haifa, Israel, B.S., Mineral Engineering.

OTHER ACTIVITIES

- Talmud classes - discussions pertaining to Jewish law, ethics, customs, and history, 1997 to present.
- Mountain biking, Running, Fishing.