

---

**SUMMARY** **DUAL BUSINESS AND ENGINEERING LEADERSHIP BACKGROUND**

---

**BUSINESS:**

- Specialized in technology transfer from concept phase to commercialization.
- Assess commercial value of new inventions, and design market entry strategies.

**ENGINEERING**

- Turn around agent for start-ups:
  - Consistent track record of turning under-performing Engineering groups into top-notch execution teams in 3 months.
  - Accelerate and compress development cycle by at least 3X.
- Mentoring and caring management style works well with mixed background of cultures and experience levels.
- Multiple awards for Excellence in Management of small and large teams.

**PROFESSIONAL ACCOMPLISHMENTS***more details on page 2...*

---

**Product Valuation and Commercialization**

- Defined valuation of 75 medical inventions based on intellectual property, market value, market adoption rate, regulatory path, competitive landscape, and business partnership needed for commercialization. Included business strategies and financial projections (ROI).

**Leadership**

- Aligned Engineering work with revenue objectives and corporate goals, with focus on immediate results:
  - Release of products by functionality for early market intro: 1st to market with 6 months headroom at Novera.
  - 2 field trials of oil well monitoring systems in 3 months after first concept at Sabeus (competition took 2 years).
  - Traveling samples and simple demo systems available within first 6 weeks for "show and tell" at Novera.

**Technical Development**

- Instrumentation systems for intelligent monitoring of oil wells: 9 months from concept to production.
- Optoelectronic subsystem: 6 months from research prototypes in Korea to production in USA.
- 10 Gbps 80 channel DWDM system for long haul transport: 18 months concept to production, \$500M+ sales
- Optical amplifier sub-system: 9 months from concept to production, 1Q ahead and below cost target. \$100M sales.

**People Management**

- Supervision of 12-50 engineer teams with varied backgrounds (PhD, multi-ethnic, academic, very experienced).
- Management by objectives, empowerment, and mentoring with emphasis on short-term revenues.

**Project Management**

- Reduced development cycle by 65% through efficient use of skills and streamlining scope to essentials.
- Intensive risk management applied on a daily basis to achieve performance and quality objectives in shorter time window.
- Ran Program Management function at Alcatel for 16 programs involving 600 engineers (cradle to grave management).

**Budget**

- Planned, tracked, and reconciled R&D budget to \$70 M/year within 5% of target. Signing authority up to \$25,000.

## EMPLOYMENT HISTORY

---

Alfred Mann Institute	Business Development Head of Engineering	2005 - today 2003 - 2005	Medical Device Development
Sabeus, Chatsworth CA	VP of Engineering	2002 – 2003	Static borehole and acoustic sensing systems
Novera, San Jose CA	Dir. of Engineering	2000 – 2002	Dynamic optic/electronic sub-systems
Chorum, Richardson, TX	Dir. of Project Mgmt	1999 – 2000	Passive optical components
Alcatel, Richardson, TX	Dir. of Program Mgmt	1992 – 1999	High speed electro-optical transport systems
ADC Telecommunications	Optical Engineer	1986 – 1992	Optical amplifier, Optical switch systems

## EDUCATION

---

- MBA University of St Thomas, St Paul, Minnesota 3.85 GPA 1990
- MS in Telecommunications University of Colorado, Boulder, Colorado 3.75 GPA 1986
- BSEE (Telecom major) Paris Institute of Electronics, France 3.5 GPA 1985

**Alfred Mann Institute – Head of Engineering, then Head of Marketing/Business Dev. 9/2003 – present**

AMI is a non-profit incubation development center that develops medical devices with large humanitarian impact. Lead a team of engineers who support the inventors. Active in the product commercialization process by scoping market potential, defining product positioning for easiest transfer to the industry, sizing valuation of the inventions in the landscape of competition, and establishing relationships with business partners needed to facilitate the transfer of products designed to manufacturers.

**Sabeus Sensor Systems, Chatsworth, CA – VP of Engineering 2/2002 to 9/2003**

Was the 4<sup>th</sup> VP of Engineering hired (after three unsuccessful hires) to turn around an inefficient engineering team of 15 engineers. Within 3 months the company's technology strengths were sorted and positioned on the roadmap, and alliances with technology partners were engaged to expand the Telecom component product line into sub-systems offerings. Engineering staff was coached in the basics of project management, and strong professionals replaced individuals who were determined to be unsuitable for the new direction of the organization. Complex technical issues that affected yield were resolved within 5 months. When Sabeus changed industry in mid 2002 to become a supplier of sensor systems for oil and gas monitoring, accelerated development techniques were used to develop systems and run two field trials of temperature and pressure sensor systems within 10 weeks of program inception. Electronics, optics, and software designs were released and entered production within 9 months. Sabeus' speedy market entry in the oil and gas industry, with sensors that functioned up to 250°C, was noted as a remarkable performance by industry members.

**Novera Optics, San Jose, CA – Director of Optics and Systems Development 9/2000 to 2/2002**

The challenge was to take an acousto-optic dynamic filter prototype (from Korea) that only worked at room temperature and get it productized, qualified, and released for production within 4 months. Leading a team of 25 engineers, a new product design was completed within 2 months – this involved fixing a number of design problems in order to pass rigorous Telcordia qualification tests of high temperature and humidity. The product passed the qualification tests with flying colors and it was released to production on schedule. A parallel challenge was to build, staff, and validate a factory pilot line in less than six weeks. This included hiring and leading a team of 16 operators until a VP of Production was hired. Product entered the market 6 months ahead of the competition. I followed the product through its entire market introduction life from a systems perspective and with software algorithm enhancement and system characterization.

## Chorum Technologies, Richardson, Texas – Director of Project Management

8/1999 to 8/2000

Start-up with complex cultural challenges. I was brought in to improve Engineering's productivity and its communications to the Executive team. Development group was 95% Asian and business was conducted in Mandarin among engineers. Through intensive study and insights from advisers, I developed various approaches to build confidence and trust from the Asian workforce. Good working relationships with the development team led me to understand the technical challenges and personnel issues that were present. 100% transparency of engineering activities was achieved within three months. Development practices and new product life cycle process were introduced shortly after with periodic decision reviews to tie development activities to revenue goals. 6 months after my arrival, the Engineering group was functioning as a synergistic team.

## Alcatel, USA – Director of Program Management

6/1992 to 8/1999

Recognized early on for the development speed of two opto-electronic modules and the strategic thinking used to implement risk management in the design, I received *Outstanding Achiever* recognition from the president of Alcatel USA for being 1Q ahead of schedule and designing a product that brought \$100M in sales. I was placed in a special fast-track training program in leadership and management. Received 4 Quality Cups for introducing best project management practices, championing shorter time to market and reducing development cycles from 15 to 9 months. Was also the recipient of 3 Best Management and Leadership awards from the National Management Association for outstanding team leading efforts. As head of the Program Management Group responsible for \$70M budget, I led a team of ten project managers that planned and tracked the activities of 350 engineers involved in 2.5 Gbps, 10 Gbps, 40 Gbps optical transport systems, and 80-160 channel optical amplifier system development. (\$500M in Sales)

## ADC Telecommunications – Optical Engineer

9/1986 to 2/1992

Performed advanced studies of system and network performance analysis of optical amplifiers in multiple channel 10 Gbps transport system. This work was done about 10 years before the industry introduced this application. I developed the optical switch card and the power supply card of an optical switching system.

## AFFILIATIONS

---

IEEE Engineering in Medicine and Biology Section	North America representative for the Society (8,000 engineers). Created 50 chapters worldwide, with the mission to bring together medical doctors and engineers and stimulate creation of new medical solutions.
IEEE - Buenaventura Section	Chair of the Section (1400 Engineers), whose mission is to create events that stimulate exchange of ideas within engineering professionals. Past Chair 2003-2006 of the Buenaventura Biomedical Engineering Chapter.
Los Angeles Tissue Engineering Initiative	Board Member. LATEI's mission is to facilitate the exchange of information among research centers involved in tissue engineering in Los Angeles.
California Tissue Engineering Meeting	Board Member. CTEM's mission is to facilitate exchange of information among various research centers involved in tissue engineering in California.
Southern California Biomedical Council	Advisor and reviewer on the invention screening committee.
LARTA	Reviewer of NIH funded Life Sciences inventions.
Corridor 126 Initiative	Member of the Advisory Committee, whose mission is to create alliances in the area of biotech development between the universities and colleges located between Santa Barbara and Valencia. (2005)
Hospice of Conejo Valley	Director of Board with responsibilities for fundraising and grant writing.
National Management Association	Member of the Board of Directors. (1999)
Plano Symphony Orchestra (Texas)	Member of the Board of Directors. (1995-1999)

## AWARDS

---

- 2007: Career Service Award from the IEEE-EMB Society for creating 50 chapters worldwide to stimulate innovation between doctors and engineers.
- 2005: IEEE-RAB Leadership award for contributions to the biomedical community.
- 2005: Outstanding IEEE-EMBS Chapter Award, a global recognition.
- 1995/1996/1998/1999: Quality cups at Alcatel for best project management practices, championing shorter time to market and reducing development cycles from 15 to 9 months.
- 1997, 1998, 1999: Best Management and Leadership awards from the National Management Association for outstanding team leading efforts.

## PUBLICATIONS / SPEAKING

---

Guest Speaker	"What is a Hot Invention - Trends"	<i>USC, Bioengineering, 2007</i>
Keynote Speaker	"Hot Fields" for Biomedical Commercialization	<i>Pacific Health Care Conference, 2007</i>
Guest Speaker	"Biomedical Invention"	<i>Ventura Biotech Initiative, 2005</i>
Guest Speaker	"Biomedical Development and Process"	<i>USC 2005</i>
Guest Speaker	"Managing your Professional Life with a Vision"	<i>Outstanding Professional Network, 2004</i>
Guest Speaker	"Setting a Vision for Professional Growth"	<i>Ventura Highway Networking Group, 2004</i>
Guest Speaker	"Reliability of acoustic tunable filters"	<i>SPIE Photonics West 1/21/02</i>
Guest Speaker	"Value Proposition of Optical Switching"	<i>Monterey Conference, 5/22/00</i>
Article	"Bigger, Better, Faster, but How"	<i>Voice Magazine, Jan 98</i>
Article	"Stretching Span Distance"	<i>Lightwave Magazine, Nov 93</i>
Guest Speaker	"Optical Amplifiers and their Applications"	<i>IEEE Forum, Oct 92</i>
Article	"A video Equipment Vendor Perspective on Fiber Amplifiers in AM Video Transmission Systems"	<i>NCTA, Mar 92</i>
White Paper	"Fiber Amplifiers in 10 Gbps, 4 Wavelength Links"	<i>June 91</i>
Guest Speaker	"Applications of Optical Switches in Fiber Optic Communications Networks"	<i>SPIE Nov 90</i>