



The Medical Industry Leadership Institute (MILI)

Valuation Lab: Entrepreneurialism At Work

Author: Amy Gelhorn, PharmD
Carlson MBA 2015

Course Advisor: Stephen Parente, PhD, MPH, MS

MILI 6999 Independent Study
December 16, 2015



The Medical Industry Leadership Institute (MILI) was established in 2005 with a mission to shape the future of the medical industry and drive innovation through cutting-edge leadership education, research, and market development (excerpted from <http://carlsonschool.umn.edu/faculty-research/medical-industry-leadership-institute> December 8, 2015). The Valuation Lab was born out of an identified challenge to understand the evolving healthcare system and entrepreneurial influences on moving innovations to market. Engaging students from multiple university departments with varied skills sets, interests, and perspectives in early analysis and teasing out the details for the launch of innovative products (including intellectual property research, competitive market analysis, and the proposal of solutions) became the Lab's call to duty. Here you will find the evolution of the course and insights from faculty and participants around this unique course offering—and why the MILI Valuation Lab may be for you.

Associate Dean of MBA Programs, Minnesota Insurance Chair of Health Finance, and Director of MILI at Carlson School of Management, Stephen Parente, PhD, MPH, MS credits Randy Nelson with the initial “complaint” that led to the Valuation Lab. Nelson, the leader of a medical technology company, had engaged Parente in a discussion around the challenges facing companies attempting to bring innovations to market. With a shared passion for healthcare, innovation, and teaching, Nelson and Parente decided MILI could help and designed a course that would afford students the opportunity to get an insider's look at the entrepreneurial challenges of device development. Parente also credits Dr. Frank Cerra, former Director of the University of Minnesota Academic Health Center, as a key early supporter of the Valuation Lab concept and its vision to marry healthcare topics with entrepreneurialism in a rapidly evolving marketplace. With the support and involvement of Deans from three University of

Minnesota schools – Engineering, Information Technology, and the Carlson School of Management – a prototype was born.

The “beta-test” Valuation Lab took place in the summer of 2008. As an Independent Study course, it enrolled engineers and MILI MBA students (both part-time and full-time) with managed care market experience. The initial course identified the need for a project focus, while outlining the necessary components for a thorough evaluation including such topics as intellectual property, competitive marketplace dynamics, reimbursement, and existing and anticipated healthcare system challenges. The course was well received praised for coupling strategy with clinical aptitude to the benefit of innovators.

The first official MILI Valuation Lab course was Fall 2008, with Randy Nelson and Mike Finch among the instructors. Today, the Valuation Lab course is fine-tuned each year, but largely builds from this “2.0” conception. Each semester kicks off with a Boot Camp, allowing students to get up to speed on the relevant component topics through engaging expert guest speakers and MILI Faculty and Executives in Residence. As project work begins, student groups are challenged to keep up a quick, corporate pace, critique others’ work, work in tandem with an inventor (and question that inventor when needed) scope financials and intellectual property issues, anticipate market challenges, and finally present a set of recommendation to the inventor. The Valuation Labs take place locally at Carlson School of Management and through the Global Experiential Program in countries including China and Sweden.

Dr. Susan Alpert, Executive in Residence and member of the National Advisory Board for MILI, has worked with the center from its earliest days. Alpert lends her skills from a distinguished career with the FDA and Medtronic to her role with MILI. Initially, Carlson leadership sought her insights into the

business and technical skills necessary to make students attractive to medical technology companies like Medtronic. She suggested students needed a basic understanding of anatomy and physiology, medical terminology, and the healthcare environment—all quickly incorporated as core offerings in MILI.

Alpert also brought her passion for teaching to the Valuation Lab's Boot Camp Regulatory technical review component. In teaching students to think on their feet, she leverages her regulatory background and network, shares strategy, and helps lab students navigate the approval processes. "Valuation Lab students bring a different perspective in looking at problems as an un-invested party," Alpert says. "They have different knowledge, typically not company knowledge. Meshing backgrounds in the Lab projects allows students to come up with unique solutions or perspectives to a valuation."

Alumni of the Valuation Lab experience couldn't agree more. Bryana Mayer is a pharmaceutical company employee, Carlson PTMBA graduate, and the newest member of the MILI faculty. She will teach Business and Policy within the Pharmaceutical Industry in 2016. Mayer chose MILI coursework and the Valuation Lab experience to contribute skills to her own long-term career goals, and plans to help the next generation of leaders evolve the toolkit they'll need in their own careers.

With a global business practicum, Valuation Lab, and two Global Valuation Labs on her resume, Mayer shares that understanding the local healthcare system is the largest challenge students' face in any global experience. She credits the aggressive, two-week Global Valuation Lab curriculum for its immediate immersion into the local regulatory environment, policies, and funding mechanisms with teaching her to approach each project as a unique challenge. Matching Carlson students with global

students further bridges the process, creating new relationships and advancing MILI's networks around the world.

"Relationships and friendships with students and faculty along the way are a huge benefit of both MILI and the global experience," Mayer explains. The academic knowledge she through in the MILI coursework has given her the confidence to pursue her career with renewed passion and energy, and it has opened up options for a variety of professional tracks, including her new role as a MILI course faculty member.

Carrie McGrew also saw her path change after her MILI coursework. McGrew's professional background is in start-ups and small businesses, placing her in a smaller, non-traditional group at Carlson. Like Mayer, experienced a global business practicum and was instantly hooked on the healthcare environment. Now, as a 2015 part-time MBA graduate with two MILI Global Valuation Labs to her credit, McGrew shares, "The level of consumer awareness and the evolving [healthcare] marketplace is enticing, and even enters my space in technology. Thus it's a reasonable place to expand learning."

Expanding learning from coursework theory to practical application was a huge draw. McGrew sought the "entrepreneurial bent" of the Valuation Labs and was eager to work with real clients/entrepreneurs. Along with Boot Camp and the support network of course advisors, MILI faculty, fellows, and Executives-in-Residence, McGrew says students are also expected to dive in, putting in the hours and working on creative problem-solving. She is also quick to point out that the level of proficiency and confidence gained will translate to a huge benefit in the job market.



McGrew returned from one of her global experiential courses motivated to engage in international business; she subsequently lobbied her employer to expand and develop a new role with an international focus for her. That is, she leveraged her expanding network, new partners, and emerging skillset to broaden her employment opportunities locally: “Being a part-time MBA student, you may not make the same connections you do as a full-time MBA student. The Global Valuation Labs, though, create a special bond.” Presented with a new country, new regulations, and a new problem—with just two weeks to get from information gathering to recommendations—these teams come together quickly and remain close, even as their careers diverge over the years.

Connections are also what brought Bianca Frogner, PhD, Associate Professor, health economist, and Director of the Center for Health Workforce Studies at the University of Washington School of Medicine, to the MILI Global Valuation Lab experience as faculty for the Sweden course. Frogner was drawn to the MILI Valuation Lab for its potential to combine her background in health economics, knowledge of the healthcare system, and personal interest in entrepreneurialism in an international setting. She hoped that, from the Lab, she would gain access to students with a variety of professional backgrounds and entrepreneurs who would broaden her own network. “The MILI Valuation Lab is a unique program that combines business and healthcare with a focus on med tech with an entrepreneurial spin,” Frogner says.

Building that appreciation for entrepreneurship is, itself, challenging. Frogner is no stranger to entrepreneurship and credits her father for sparking her interest and passion for entrepreneurialism. Teaching with the MILI Global Valuation Lab afforded her the opportunity to expand her perspective, interface with students with work experience and similar interests in entrepreneurship, and take away new professional relationships. Sweden was also a draw as a country with a lot to offer those with

entrepreneurial spirit and drive. Site visits during the course exposed faculty and students to start-ups, local companies, and global companies doing business in Sweden—particularly in Stockholm.

One commonality among MILI's Valuation Lab faculty is their appreciation of how entrepreneurialism connects to healthcare. Frogner, for example, is keenly aware that entrepreneurs are constantly changing the landscape of healthcare. Academics translate these changes into coursework that helps students grasp its influence and applicability. Frogner reports that the Sweden experience specifically expanded her knowledge of emerging markets and local entrepreneurialism, and that will all go back into her classrooms.

From the classroom to real-world applicability, the MILI Fellows program was designed and built to support the Medical Device Center's Innovation Fellows at the University of Minnesota's College of Science and Engineering. MILI Fellows provide business support and overarching project goal support when called upon by their Innovation counterparts. Each year, a select number of outstanding Valuation Lab students are selected, and Chani (Becker) Maher is a current MILI Fellow. An alumna of the Valuation Lab, Maher agrees with both McGrew and Mayer that MILI offers lots of work and lots of reward.

Maher is pursuing her PhD in neuroscience program at the University of Minnesota while also earning a part-time MBA in the Carlson School. She is a scientist with a passion for business who believes the Valuation Lab's breadth of opportunity will help her understand the entire experience of getting a product to market. She praises the Valuation Lab for giving her a chance to dive in on intellectual property, financials, and competitive marketplaces, while also evaluating the science and clinical



components of a project. Now, this one-time “risk-averse” student intends to follow an entrepreneurial path after graduation. The Valuation Lab experience pushed her to see what was possible and to stretch her personal boundaries within an intense but rewarding environment.

The required workload can be spread out over a semester, as in the Valuation Lab, or condensed to a two-week course, as in the Global Valuation Labs. Personally, I chose the intensive, two-week global experiential. I am a full-time working wife and mother of two, a part-time MBA student, graduate of the U of M’s College of Pharmacy, and a 20-year veteran of the pharmaceutical and biotechnology industries. My first exposure to MILI was in the part-time MBA program through the Healthcare Marketplace course, taught at the time by Parente. I was drawn to his passion for the topic, the healthcare system regionally and nationally, and his challenge to all students to expand their knowledge and get involved in healthcare. I completed my MILI Specialization with the Sweden Global Valuation Lab experience as my capstone in the summer of 2015.

The Global Valuation Lab experience was everything the other graduates have described in this review. I found that early course meetings brought the participants together to share our diverse backgrounds and work experience, learn about our entrepreneurs and their projects, and meet our Stockholm counterparts. Our short time in Sweden brought lectures; site visits to start-ups, local companies, and global affiliates; interactions with entrepreneurs; and final presentations. In addition to our academic pursuits, collaboration, communication, and timeliness were blended with cultural experiences and opportunities. It was a whirlwind.



Experiencing entrepreneurialism first-hand, in a healthcare system very unlike our own, was an eye-opening opportunity for application and an invitation to dispense with preconception, focusing on the problems at hand. Dealing with the entrepreneur directly was particularly rewarding, as we were able to confidentially ask questions about the marketplace, reimbursement and approval processes, and the new landscape in which we would make recommendations. We found that research, solutions, and final recommendations may lead you down a path very different than the one the inventor had set out on—and that it's okay, so long as the data takes you there.

From Boot Camp to final presentation, the Global Valuation Lab was life-changing. I have maintained relationships and a network with my classmates from the course (both here and abroad), and I've been reading and pursuing understanding of entrepreneurship and its influence on the U.S. healthcare system since my return. It is uncomfortable to leap into a world of unknowns, but what *is* entrepreneurship but a leap into the unknown?

In sum, the MILI Valuation Labs put entrepreneurialism to work. Students, faculty, and innovators come together to stretch their skills and combine knowledge of product development and testing, regulatory environments, market dynamics, and intellectual property influences and processes. Moving from idea to market plan together, a collaborative team of diverse professionals is forged through pressure, professionalism, and boundless curiosity.



My personal thanks to the following individuals for their time and insights shared during personal interviews as I researched content for this paper.

1. Stephen Parente, PhD, MPH, MS, Associate Dean of MBA Programs, Minnesota Insurance Industry Professor of Health Finance and Insurance, MILI Director, Carlson School of Management, University of Minnesota
2. Bianca Frogner, PhD, Associate Professor and health economist, Director of Center for Health Workforce Studies, University of Washington School of Medicine
3. Susan Alpert, MD, PhD, MILI Executive in Residence & National Industry Council
4. Bryana Mayer, MILI Alumni, Carlson MBA 2015
5. Carrie McGrew, MILI Alumni, Carlson MBA 2015
6. Chani Becker, Neuroscience PhD student, MILI Fellow, Carlson PTMBA Candidate 2016, University of Minnesota