

Startup 101

Winter 2018

Syllabus

Course Director:

Stephanie Marrus, MA MBA, Director, Entrepreneurship Center and Senior Lecturer, UCSF

Advisory Committee:

Tania Fernandez, PhD, Founder and CEO, Dreamcatcher Ventures

Howard Edelman, CEO, Advanced Resin Therapeutics

Philippe Nore, MSc, MBA, CEO and Co-Founder, MiNDERA

Chris Meda, MS, Chief Business Officer, IncellDx

Faz Bashi, MD, Chair Digital Health and Sciences Screening Committee, Life Science Angels

Location: UCSF Mission Bay Campus, check schedule; rooms can vary

Dates: January 25 to April 12. Thursday evenings 5-8:00pm plus three Mondays

Dropbox for class slides will be established

Office Hours

Weekly Office Hours are mandatory for the first 3 weeks and then by request.

Course Objective

This course is about starting and growing new life science/healthcare (LS/HC) ventures that have the potential to scale to a significant enterprise that can impact human healthcare. Our audience is anyone at UCSF including students, post docs, residents, faculty and staff; graduate students at Berkeley and Stanford; alums from those institutions and the general life science/healthcare business community. We welcome people with diverse backgrounds including MBAs, engineers and computer scientists to augment our scientific/clinical skillset at UCSF. The class is leveled for science/technical/clinical participants with no formal business background.

Startup 101 focuses on the specific characteristics and challenges of a LS/HC venture as distinguished from Tech. We include all types of LS/HC products and services -- therapeutics, medical devices, diagnostics, research tools and digital health.

You will learn how to assess a concept or product in the framework of a business opportunity. This includes assessing whether an idea has market appeal (product/market fit), figuring out a business model, determining the market potential and understanding the key elements of a successful venture. You will learn who your prospective customers are and how to interview them for feedback on your idea. You will understand what is required to access capital and how to source investors who may invest in an early stage company. You will experience the entrepreneurial mindset, solve problems, change plans as you gain more information and develop a network of connections.

Ideas can come from anywhere – from the work you perform, your reading, your knowledge of a field or experience in engaging with the healthcare system as a professional or a patient. You will develop a business plan that includes the key elements required to create a commercial business.

This course will give you the knowledge to create a high-potential, for profit science-based commercial enterprise. Our emphasis is on ventures that are scalable and can solve important healthcare problems. (This is not the right course for you to learn how to establish a pharmacy or a dental practice.) You may use the skillset you learn here to start a company, join a startup team, innovate within a large company or become an investor.

Entrepreneurship research shows that ventures with a team are more successful than solo entrepreneurs. To mirror real life, you will work in a team of 3-5 people on an idea –yours or a classmate's. If you're the idea person, you become team lead and must find another 2 people to join you. If you don't have the idea, you need to find a team lead who invites you. Everyone must be on a team by Week 2.

You will be exposed to entrepreneurs and business professionals. The Advisory Committee, mentors and guest lecturers include serial entrepreneurs, angel investors, venture capitalists, consultants and domain experts who can help you navigate the commercial mindset. LS/HC investors will judge the final presentations.

Objectives and Teaching Methods

The course will help you understand the elements of successful LS/HC ventures, what is involved in doing a startup and the entrepreneurial process. You will hear from entrepreneurs and other members of the business community who share their experiences and knowledge. Students are expected to be highly participative and prepared. The course is experiential, not academic, meaning your team will develop a business plan and pitch deck rather than reading research papers.

The class requires that you complete a minimum of 20 interviews for Customer Discovery – testing your value proposition with the marketplace. This is perhaps the

most important learning experience you will have and your business plan will suffer without the input.

Guest Speakers

Startup 101 has many invited guest speakers from the Silicon Valley life science business community including entrepreneurs, investors, attorneys and consultants who provide real world experiences and a network for students. These top professionals in their fields provide invaluable perspectives on developing a viable venture.

Deliverables: Business Plan Executive Summary and Pitch Deck

During the course, you will develop a business plan for the idea you are working on. The team will research the commercial potential of an idea, test the value proposition, seek product/ market fit and create other elements of the plan. Deliverables are a 2-3 page Executive Summary plus a Pitch Deck in the format investors require. The best teams will have the opportunity to make a formal pitch to a group of investors for feedback on the final night of class.

Teams

This is a team-based class and you will need to be on a team by the date of the first class, January 25. If you form a team around your idea, you are the Team Lead.

Some of you are working on a venture and have formed a team outside of class. While you can continue to work with your outside team, they do not qualify as your class team and cannot attend class. You must have a Startup 101 team -- people who have applied, been accepted and enrolled. There must be at least one UCSF member on every team. Teams are 3 to 5 people.

Class team members are NOT founders unless invited to join at the end of class by the Team Lead.

Mentors

Mentorship is an important element for success of a venture. Each team will be assigned an experienced business mentor who is interested in the idea, has relevant expertise and has committed to spend 1-2 hours a week talking with you. Our mentors come from the Silicon Valley business ecosystem and work with or have led startup ventures, lending their expertise in the “pay it forward” culture we are fortunate to have in the Bay Area. They will guide students through business issues that emerge while exploring the idea, support teams in preparing an investor pitch and cheer the team on at the final pitch presentation. You have the opportunity to request a mentor if you believe someone is an especially good fit.

Time Requirement: IMPORTANT, PLEASE READ

This course is intensive and requires considerable time to be devoted to it. In addition to 2.5 hours of class time weekly, you will need to work with your team on various aspects of the business plan, perform interviews and connect with your mentor. Your total weekly time commitment per person is estimated to be 10-20 hours per week. First year grad/medical students probably do not have the time to take this course.

This is a class for people who are motivated to learn by doing. Class is very demanding and requires participation, learning the material and working in a team. By accepting a place in the class, you establish obligations to your team members. You must be serious about the commitment and not become a liability to your team. Do not sign up for this class unless you are ready to make the commitment and fully engage. Auditing is not permitted.

Admission: APPLICATION DUE DECEMBER 15

Course application forms are available here: <https://goo.gl/forms/77AqZlWI8Ckl9Ly23> . You may apply as an individual or as a team. We have established an online marketplace to facilitate your matching with team leads or members:

Input Form: <https://goo.gl/forms/Hl3aocADTnyZ7TmH3>

Marketplace: <https://docs.google.com/spreadsheets/d/1h48pinAKrU5UW-XRHVt-plyzLIYCPQUn3-zYXeJUUM/edit?usp=sharing>

Acceptances will be limited based on course capacity. You must come to the first course session to be formally admitted and are expected to attend every session. If you anticipate missing more than one class, you must discuss your situation with Leslie Martinez, Program Manager, Entrepreneurship Center.

UCSF Credit

UCSF students can receive credit by registering for Biochem 241.

Fees

This course is open to graduate students, post docs, researchers, residents, faculty, alumni and staff at UCSF; graduate students, post docs, researchers and faculty at UC Berkeley and Stanford; and the general business community.

Fee schedule:

Current UCSF/UCB students/post docs 0

UCSF/UCB/Stanford staff or researcher	\$400
Stanford student	\$200
Pre-funding startup	\$475
Funded startup, revenues 0-\$5MM	\$800
Corporate, revenues over \$5MM	\$1100

Alumni do not qualify for fee reductions.

Assigned Book

Marc H. Meyer and Frederick G. Crane, New Venture Creation: An Innovator's Guide to Entrepreneurship, Sage Publications, 2nd Edition. You can buy or rent this text.

Optional Books

For those of you who are eager for more resources, here are some books that you can refer to but are not required:

Technology Ventures: From Idea to Enterprise - Byers, Dorf, Nelson

Venture Deals: Be Smarter Than Your Lawyer and Venture Capitalist - Feld, Mendelson, Costolo

The Founder's Dilemma, Wasserman

Breakthrough Entrepreneurship, Burgstone and Murphy

The Startup Owner's Manual: The Step-By-Step Guide for Building a Great Company - Blank and Dorf

Business Model Generation, Alexander Osterwalder

Do More Faster - Cohen and Feld

Biodesign, Zenios, Makower, Yock

Photo and Video Release

By participating in this class, you are giving your consent for photography, filming, videotaping and/or audio recording or other means of capturing my image or voice and/or being quoted in the media or printed materials (including social media websites) at UCSF and hereby authorize release. You are waiving any right to compensation for such uses by reason of the foregoing authorization. Your successors or assigns hereby hold UCSF and its

personnel and affiliated programs harmless from any and all liability which may or could arise from activities authorized by this agreement. This authorization expires 12 months after the start of class. Upon expiration of this Authorization, UCSF will not permit further release of any photography or information, but will not be able to call back any photography or information already released.

Class Schedule Overview

Class	Date	Day	Topics	Guest Lecturers	Associated Activity
1	1/25/18	Thurs	Course Intro, Customer Discovery	Stephanie Marrus, MA MBA, Director, Entrepreneurship Center and Senior Lecturer, UCSF	SU 101 alums will mentor
			Opportunity Assessment	Ross A. Jaffe, MD, Managing Director, Versant	
2	2/1/18	Thurs	Business Models	David Charron, MBA, Lecturer, Haas School of Business. UC Berkeley	
			Entrepreneur talk	Donnie McCarthy, PhD, CEO, Empire Biotechnologies	
3	2/8/18	Thurs	Clinical/ Regulatory	Yarmela Pavlovic, JD, Partner, Hogan Lovells	Mentor Mixer
4	2/12/18	Mon	Sector Specific Group Briefing by Advisory Committee	Tania Fernandez, PhD, Founder and CEO, Dreamcatcher Ventures	
				Howard Edelman, CEO, Advanced Resin Therapeutics	
				Philippe Nore, MSc, MBA, CEO, MiNDERA	
				Chris Meda, MS, Chief Business Officer, IncelIDx	
				Faz Bashi, MD, Life Science	
5	2/15/18	Thurs	Corporate Legal and Intellectual Property	Brian Cuneo, JD, Partner, Life Sciences, Latham & Watkins, Corporate legal;	

				Todd Esker, Partner, Morgan Lewis, IP	
				Karin Immergluck, PhD, Director, UCSF Office of Technology Management	
6	2/22/18	Thurs			
7	2/26/18	Mon	Pitching	Stephanie Marrus, MA MBA, Director, Entrepreneurship Center and Senior Lecturer, UCSF	
8	3/1/18	Thurs	Payers and Reimbursement	Julia Cohen, MBA, former SVP Aetna, VP Commercial Clarify	Interview 3 payers
9	3/5/18	Mon	Pitch practice		3 min pitches
10	3/8/18	Thurs	Investors	Allan May, Founder and Chairman, Life Science Angels Cami Samuels, MBA, Partner, Venrock	
11	3/15/18	Thurs	Mistakes I Won't Repeat	Ryan Howard, MBA, Founder, CEO, iBeat; Founder Practice Fusion	
			Business Development and Exits	Andy Dickinson, JD, SVP Corporate Development, Gilead	
12	3/22/18	Thurs	Finance	Pete Garcia, MBA, VP/Chief Financial Officer, PDL	Build a Budget
			Budgeting	Sandeep Shroff, MS, MBA, CEO, myStartupCFO	
13	3/29/18	Thurs	Team Building	Gabrielle LaJoie, MBA, Co- Lead Global Healthcare Sector, Russell Reynolds Christine Matthews, Versant Ventures	
14	4/5/18	Thurs	Pitch Competition for Slot at Investor Night	Advisory Committee	
15	4/12/18	Thurs	Pitch Night	Investor judges	

Prereadings

You are expected to complete the pre-readings before the first class on January 25th. While some of the readings come from the tech world, they are generally applicable to life science/healthcare and you should focus on the broad learnings.

Reading List

-Meyer/Crane text: Page 8-15, Chapter 1, Are You Suited for Entrepreneurship?

-Video: Noam Wasserman, Harvard Business School, Surprising facts from Founder's Dilemma: Anticipating and Avoiding the Pitfalls that can sink a startup, Stanford ETL Lecture Series, <http://ecorner.stanford.edu/authorMaterialInfo.html?mid=3024>

-Quora, What does it feel like to be CEO of a startup?
<http://www.quora.com/Startups/What-does-it-feel-like-to-be-the-CEO-of-a-start-up>

-Laurence McCahill, 10 Ways You'll Probably F**k up your Startup,
<https://medium.com/spook-studio/25b830afbd84>

-Knowledge @ Wharton, How Entrepreneurs Identify New Business Opportunities,
<http://knowledge.wharton.upenn.edu/article.cfm?articleid=2370>

Week by Week Schedule

Class is held on Thursday evenings and occasional Monday nights.

January 25. Course Intro; Opportunity Assessment; Customer Discovery.

Stephanie Marrus, MA MBA, Director, Entrepreneurship Center and Senior Lecturer, UCSF

Ross A. Jaffe, MD, Managing Director, Versant

Review of the syllabus and course expectations. How do you know if anyone wants the product/service you plan to provide? Testing your value proposition. Getting customer feedback. Market information expected by investors.

Part 2 2-minute idea pitches by class participants

After class mixer to complete team recruitment and mix with classmates.

Readings:

Meyer Text:

- 16-28: Chapter 1, Developing an Industry Focus, Conducting a Fast, Effective Industry Analysis and Define the Type of Business you Might Want to Start

- 33-50: Chapter 2, Defining the Target Customer- Users and Buyers

- 51-75: Chapter 3, Defining the Needs of Target Customers- Getting into their Hearts and Minds

Other sources:

-Steve Blank, Customer Development Process, Part 3,
http://www.youtube.com/watch?v=NXR_O_Hwuws

-Steve Blank, No Business Plan Survives its first contact with a customer,
<http://steveblank.com/2010/11/01/no-business>

Customer Discovery, <http://steveblank.com/category/customer-development-manifesto/>.
Scroll down for Tidepool.

January 26th. Teams finalized.

February 1st, Business planning and business models.

David Charron, MBA, Lecturer, Haas School of Business. UC Berkeley

Why you need a business plan and what goes into it. What is a business model? Business models that have succeeded and that have failed. Business model options in different sector of life sciences/healthcare. Transformative business models. Real life company examples.

Readings:

Meyer/Crane Text

95-115: Chapter 5, Defining the Business Model for a Venture

- 144-175: Chapter 7, Conduct a Reality Check on the Venture Concept and its Business Model

- Chapter 11, Writing the Business Plan

Morganthaler Ventures, How to Write a Business Plan vc's will Fund, http://innovation-archives.berkeley.edu/Lester/resources/BPS_Business_Plan_11_30_10.pdf?_hstc=51647990.d8c9741d5776480d660b15a744fdffb2.1446079164988.1446079164988.1446079164988.1&_hssc=51647990.2.1446079164989&_hsfp=2857160282

Business Models:

<http://techcrunch.com/2011/01/08/business-models-and-teenage-sex/>

<http://money.howstuffworks.com/5-influential-business-models.htm#page=10>

http://blogs.hbr.org/cs/2012/08/business_model_innovation_thro.html

<https://hbr.org/2016/10/the-transformative-business-model>

Executive summary:

<http://www.garage.com/resources/writingexecsum.shtml><http://www.garage.com/resources/writingexecsum.shtml>

February 8th. Clinical/ Regulatory

Yarmela Pavlovic, JD, Partner, Hogan Lovells

What preclinical data you need to get into Man. The phase 1 / 2 clinical pathway. How to design trials. Timelines. Need for an in house clinical person vs. outsourcing. What the FDA needs to see and when. Contacting the FDA for advice.

February 12th. Sector Specific Group Briefing

Therapeutics:

Tania Fernandez, PhD, Founder and CEO, DreamCatcher Ventures

Digital Health:

Faz Bashi, MD, Digital Health & Sciences, Life Science Angels

Medical Devices:

Howard Edelman, CEO, Advanced Resin Therapeutics

Diagnostics:

Philippe Nore, MSc, MBA, CEO, MiNDERA

Chris Meda, MS, Chief Business Officer, IncellDx

Class will break into these four segments and hear a talk by our expert Advisory Board in that sector. They will explain the dynamics of the sector that are different from others, for example, IP, clinical/regulatory, business models, investors.

February 15th. Corporate Legal and Intellectual Property

Brian Cuneo, JD, Partner, Life Sciences, Latham & Watkins, Corporate legal;

Todd Esker, Partner, Morgan Lewis, IP

Karin Immergluck, PhD, Director, UCSF Office of Technology Management

What is the right legal structure for your venture. When you should incorporate. How founders stock works and how to divide it. How to use stock options as a vehicle to retain key hires. Investment term sheets. Protecting your IP and why it's important. When you should file. IP strategy, Freedom to Operate. Major types of IP. How the Office of Technology Management works at UCSF.

February 22nd. No class; school vacation

February 26th. Pitching

Stephanie Marrus, MA MBA, Director, Entrepreneurship Center and Senior Lecturer, UCSF

Elements of a pitch. What information belongs in an investor presentation and what doesn't? What investors want to hear first to get interested in the rest of your pitch. Slide by slide detail. How to focus their attention. Who should present on your team. Designing slides for optimal communication. How much material belongs on each slide? Storytelling, how to capture the audience. Use of videos to message. Length of the pitch. How to manage the meeting. What to expect during and after the meeting.

The Funded, www.thefunded.com. A website with inside information about vc's, fundraising

[Sequoia Pitch Deck Content](#)

[Detailed Slide Deck Breakdown](#)

[Mint.com Example](#)

What goes into an elevator pitch: <https://www.mindtools.com/pages/article/elevator-pitch.htm>

March 1st. Payers/Reimbursement

Julia Cohen, MBA, former SVP Aetna, VP Commercial Clarify

Why do payers matter for innovative products? How do payers think about new technology? What are their criteria for reimbursing? How does the formulary decision get made, who is involved? How important is the patient, the physician, the hospital in the reimbursement decision? Outcomes based research and how it's used in the decision. Comparative effectiveness. What value based means and how it's regarded?

Reading: PriceWaterhouseCoopers Health Research Institute, Unleashing value: The changing payment landscape for the US pharmaceutical industry.

<https://www.pwc.com/us/en/health-industries/health-research-institute/publications/pharma-reimbursement-value.html> (You need to register on the site to download this.)

March 5th. Pitch Practice

Pitch training.

Practice what you learned about pitching last week. Present the first three minutes of the pitch and get feedback.

Readings:

Meyer/Crane Text

2013 version pages:

- 313-327: Chapter 12, Making the Pitch

Garage Ventures, Perfecting the Pitch,

<http://www.garage.com/resources/perfectingpitch.shtml>

Ameet Ramadive, How to Pitch Your Idea for Investment, <https://medium.com/lessons-from-mckinsey/how-to-pitch-your-idea-for-investment-617f4b2f622#.5fjoa61m6>

March 8th. Investors

Allan May, Founder and Chairman, Life Science Angels

Cami Samuels, MBA, Partner, Venrock

Presentations by a leading angel investor and a venture capitalist. What angel investors require and how they invest. How angels are different than vc's. Structure of an investment. How angels/vc's make money. Criteria for investing. How private venture capital works. Which type of investor is appropriate at what stage. What is a venture portfolio? What type of returns does a typical portfolio earn? Timeframes in which angels/vc's expect return from their investment. How investors make money from their ventures. How investors will value your business. The process of raising capital.

Readings:

Small Business Innovation Research program,

NIH: <https://sbir.nih.gov/>. NSF: <https://www.nsf.gov/eng/iip/sbir/goodfit.jsp>

Christopher Mirabele, Angel Capital Association, Demystifying Angels,

<https://www.angelcapitalassociation.org/news-inc/>

Richard Harrock, Forbes, 20 Things All Entrepreneurs Should Know About Angel Investors,

<http://www.forbes.com/sites/allbusiness/2015/02/05/20-things-all-entrepreneurs-should-know-about-angel-investors/#7f4c16ce483a>

Genetic Engineering and Biotechnology News, Top 20 Grant Giving Disease Foundations,

May 2013, <http://www.genengnews.com/insight-and-intelligence/top-20-grant-giving-disease-foundations/77899817>

Startup Law Blog, What is a Valuation Cap? <http://www.startuplawblog.com/2014/02/21/what-is-a-valuation-cap/>

Sahil Khosla, So That's How Venture Capital Works, VC Demystified, <http://blog.startupinstitute.com/2015-8-14-how-venture-capital-works/>

Founders Institute, What is Bootstrapping? <https://fi.co/insight/forget-about-fundraising-bootstrap-your-startup-instead>

March 15th. Mistakes I Won't Repeat; Business Development and Exits

Ryan Howard, MBA, Founder, CEO, iBeat; Founder Practice Fusion

Mistakes not to make as a founder. Lessons Learned and how to do it right.

Andy Dickinson, SVP Corp Development, Gilead

At what point should you start to talk to a partner? Who gets involved in the partner organization? What is the best entry point? Who are the major influencers? What expectations does the partner have? What does a typical deal structure look like? What is the process the partner follows? How long does it take to get a deal closed? What are the pitfalls to watch out for? When you should consider merger of acquisition instead of partnership? What about an IPO?

Readings:

Fortune, Mistakes Startup Founders Make, <http://fortune.com/2016/01/31/mistakes-startup-founders-make/>

SVB, Healthcare Investments and Exits Report, https://www.svb.com/uploadedFiles/Content/Trends_and_Insights/Reports/Healthcare_Investments_and_Exits_Report/healthcare-report-2018.pdf

PWC, Pharma Life Sciences Deals Insights, <https://www.pwc.com/us/en/health-industries/publications/pdf/pwc-pharma-life-sciences-deals-insights-q3-2017.pdf>, p 8-19

March 22nd. Finance

Pete Garcia, MBA, VP/Chief Financial Officer, PDL

Sandeep Shroff, MS MBA, Co-Founder and CEO, myStartupCFO

Financial metrics the management team needs to focus on. The key financial statements. What data goes into them? The importance of cash. The difference between corporate finance and entrepreneurial finance. How to know if you have enough cash and when you'll run out. Creating a budget. How to manage to a budget. Breakeven. Entrepreneurial finance. The financial metrics you need to focus on in a startup venture. Translating your business model into financial projections. Understanding cash flow. Projecting revenues and expenses. Estimating startup costs and capital expenditures.

Readings:

Meyer/Crane Text

2013 version pages:

- 305-310: Chapter 11, Financial Projection

Miller, pages 67-69, 81-91

Venture Hacks. <http://venturehacks.com/>. Another blog with good information about startups and trends. Bills itself as "Good advice for startups".

Finance and Budget templates:

<http://office.microsoft.com/en-us/templates/startup-budget-TC101877332.aspx>

Hadzima, How much does an employee cost? <http://web.mit.edu/e-club/hadzima/how-much-does-an-employee-cost.html>

Richards, How to do a breakeven analysis,

<http://entrepreneurs.about.com/od/businessplan/a/breakeven.htm>

The 10 Commandments of Obtaining Angel Funding,

<https://www.allbusiness.com/angel-funding-startup-21773-1.html>

Y Combinator, A Guide to See Fundraising,

<http://blog.ycombinator.com/how-to-raise-a-seed-round/>

March 29th.Team Building

Gabrielle LaJoie, MBA, Partner, Russell Reynolds

Invited: Christine Mathews, Versant

How do you find the right team to work with? Who should be founders? How do you divide equity among the founding team? Who should be on the initial team and when do you add people. Why you should strive for balance. How to create a shared vision. What if someone doesn't work out? When should you assemble a Board of Directors? An Advisory

Board? Who should be on them? Recruiting strategies for key hires. Compensation. Leveraging advisors and consultants. When to hire and when to get contract help.

Readings:

2013 version pages:

- 257-73, Chapter 10, Organizing the Venture Team

Miller, pages 16-21, 39-40, 96-103

Founders Workbench, <http://www.foundersworkbench.com/>. Look around the site for good nuts & bolts information.

Naval, How to Pick a Cofounder, VentureHacks, <http://venturehacks.com/articles/pick-cofounder>

Khosla Ventures, Art, Science Labor of Recruiting <http://www.khoslaventures.com/wp-content/uploads/art-science-labor-of-recruiting.pdf>

April 5th. Pitch Competition for Slot at Investor Night

There will be a limited number of slots for investor Pitch night. Depending on the number of teams in class, we will hold a competition to eliminate some teams from the final pitch event based on the quality of pitches. If there is an equal number of teams with slots, this class will be an opportunity to test your pitch and get feedback before Investor Night

April 12th. Investor Pitch Night

Investors and other interested parties will convene in Mission Bay to hear the results of Startup 101 teams.

Course Director

Stephanie Marrus, MA, MBA, Director, Entrepreneurship Center and Senior Lecturer, UCSF

Stephanie is responsible for delivering programs and courses enabling scientists and clinicians to create entrepreneurial ventures based on UCSF technologies. She leverages her participation in the Silicon Valley ecosystem to attract resources and entrepreneurship thought leadership to Campus. During a 25-year plus career, she has been involved as a corporate executive, business consultant and mentor with hundreds of companies in science- and technology-based industries, many with their technological roots at MIT, Harvard, the University of California and Stanford. Her consulting clients have included venture capitalists, CEOs, National Science Foundation grantees and foreign government entities. In addition to her business career, she served as Deputy Secretary of Economic Affairs for a

Massachusetts governor where she took the lead on economic development and business policy. She has been President of a medical research foundation and serves on the Advisory Board of a social venture startup accelerator.

She has been a guest lecturer at Stanford University and UC Berkeley. Her academic titles have included Faculty at UC Berkeley Center for Entrepreneurship in Technology, Entrepreneur-in-Residence at the Haas School of Business, UC Berkeley; Adjunct Professor, St. Petersburg State University Graduate School of Management, Russia; and Entrepreneur-in-Residence, King Abdullah University of Science and Technology, Jeddah, Saudi Arabia.

She holds an MBA from the Wharton School, University of Pennsylvania, a MA from Columbia University and an AB from Cornell University.

Advisory Group

Tania Fernandez, PhD, Founder and CEO, DreamCatcher Ventures

Tania has more than 15 years of experience in the fields of oncology and molecular biology. She secured her doctorate at the Cancer Research Institute, India, having been awarded the Indo-U.S. scholarship from the National Institutes of Health (NIH). She won the Young Scientist Award and the most outstanding doctoral thesis award at Bombay University. She previously gained operational experience at Hoechst Pharmaceuticals, Mumbai, India. After completing her doctorate, Dr. Fernandez specialized in the fields of protein chemistry, protein delivery systems, and genetic engineering at the College of Medicine, Texas A&M University. In 1999, she joined the National Cancer Institute at the National Institutes of Health as a post-doctoral associate and was appointed staff scientist in 2000. She is actively involved with sourcing and evaluating United States-India cross-border and pureplay Indian life science investment opportunities in venture capital and merchant banking. Her areas of focus include healthcare and healthcare delivery.

Howard Edelman, CEO, Advanced Resin Therapeutics

As a Senior Operations and Product Development Executive, Howard Edelman has a record of success in generating multimillion dollar outcomes within medical device, medical equipment and orthopedic markets. He is known for his expertise in operations, product development, marketing and sales within startup organizations and global entities, having founded and led several organizations to profitability. Howard's experience includes multi-market, multi-disciplined technical environments focusing on innovation, product development, market strategy, all phases of execution, operations, global supply chain development and management, manufacturing lifecycle, marketing and sales development. Mr. Edelman has over 25 years of leadership in engineering and operations management, design, and development primarily in medical devices and scientific instrumentation and has

brought to market +25 medical and scientific instruments throughout the course of his career generating more than \$250M in revenue.

Mr. Edelman currently serves as CEO of Advanced Resin Therapeutics, formerly CEO of WIMM, Founder and CEO of VitalWear, Inc., and has served in management roles in firms such as Cothera LLC, Johnson & Johnson, Zeiss, CooperVision, and Bio-Rad Laboratories and various startup companies in the Bay Area. Mr. Edelman presently sits on the Research Committee for the Juvenile Diabetes Research Foundation and assists a number of early stage medical device companies. Mr. Edelman graduated from Boston University in 1983 with a B.S. in Biomedical Engineering.

Philippe Nore, MSc, MBA, Co-Founder and CEO, MiNDERA Diagnostics

Philippe Nore is an experienced executive specialized in clinical diagnostics, genomics and life science tools. Before founding MiNDERA, Philippe Nore was Senior International Business Leader at Roche Diagnostics. He was responsible for the development and commercialization of the Ventana Digital Pathology products (hardware, software, algorithms to score assays) in the cancer diagnostics market, including global P&L responsibility. During his tenure at Roche he has successfully launched several FDA-approved products.

Prior to that, he was a Senior Engagement Manager at L.E.K. Consulting where he worked with CEOs of small and midsize biotech and life sciences companies. Earlier, he worked at Life Technologies where he headed Strategic Planning and Business Development for the DNA Sequencing business unit and led the Next-Generation Sequencing taskforce. He also spent 7 years at Bain & Company where he consulted for Fortune 500 companies. Philippe holds a MSc. in chemistry from ESPCI (Paris) and an MBA from the Wharton School where he graduated as a Palmer Scholar.

Chris Meda, MS, Chief Business Officer at IncelIDx, IncelIDx, Inc.

Currently, Ms. Meda is Chief Business Officer at IncelIDx, Inc. in Menlo Park CA, a cellular multiplex, Ñ molecular diagnostic company focused in the areas of infectious disease and oncology with a particular emphasis on companion diagnostics partnerships with pharmaceutical companies. Chris has 30 years of leadership in the diagnostic and pharmaceutical industries. Her management responsibilities have included the creation of strategic business direction and plans, operations and commercialization of more than 30 products for various disease areas at Hoffman-LaRoche, Bio-Rad Laboratories, Diagnostics Products Corporation (now Siemens), Meridian Diagnostics and Schering AG pharmaceuticals. Chris is also Chair, of Women in BIO- San Francisco Chapter, an organization of professionals committed to promoting careers, leadership, and entrepreneurship of women in the life sciences; and, a Board Director for Claremont BioSolutions, a company providing laboratories with diagnostics and devices for molecular diagnostics and bioscience research. Through June, 2012, Ms. Meda was President of Response Genetics (RGI), a personalized medicine company that has developed PCR-based genetics tests for lung, colon, gastric and melanoma cancers which help medical oncologists

with therapeutic treatment decisions for patients with these cancer types. Prior to RGI, she was CEO, President at Arcxis Biotechnologies a venture backed start-up with a focus on molecular diagnostic extraction devices and reagents. Arcxis was sold to Fluidigm in September, 2010. Prior to Arcxis, Chris was at Diamics, Inc a start-up with focus on a cervical cancer medical device. Diamics was sold to Inverness Medical Innovations (now Alere) in July, 2007. Prior to Diamics, Chris was Vice President at Hoffman-LaRoche, Roche Molecular Diagnostics Division for the Global Women's Health Portfolio and subsequently became Vice President of Business Development. Her leadership role and portfolio duties included strategic planning for the portfolio, oversight of research and development and the commercialization of PCR-based diagnostics for Human Papillomavirus, Chlamydia, Herpes Simplex Virus and Group B Streptococcus. Her business development role was focused on companion diagnostics where she completed agreements between Roche Molecular Diagnostics and four pharmaceutical companies.

Faz Bashi, MD, Chair, Digital Health, Life Science Angels

Faz has a research background in Immunology and Virology from UCSF. He is also Chair of the Angel Capital Association's Life Sciences Syndication group and Chair of the Life Science Angels (LSA) Device Screening Committee, active member of the LSA Biotechnology & Pharmaceuticals Screening Committee. He is a founding member of HealthTech Capital where he served on the Board of Directors for a 2 year term. He is a member of Berkeley Angel Network. He has been active as a mentor with Pacific Community Ventures, which creates jobs and economic opportunity by increasing investment in local businesses. He also volunteers with UCSF's CTSI external advisory board and Springboard Enterprises. Faz worked at San Mateo Medical Center to develop and implement special clinical projects to help the underserved, including TeleDermatology, Diabetic Retinopathy Screening, and advancements in electronic medical records. He works as a consultant to Patient Visit Redesign as a Deep Dive expert, and he coaches on workflow process improvement for public health clinics, community health centers, and safety net organizations across the US.