



UNIVERSITY of WASHINGTON

ENTRE 579 / 490: CREATIVE DESTRUCTION LAB 2021-2021
Draft syllabus as of September 14th 2021

Ben Hallen

Longbrake Endowed Professor in Innovation
Associate Professor of Strategy and Entrepreneurship
583 PACCAR
bhallen@uw.edu

Teddy Johnson

Institute of Translational Health Sciences
Director of Technology Development
850 Republican St., Seattle
proftj@uw.edu

Creative Destruction Lab (CDL) is a new experiential entrepreneurship course focused on helping build massively scalable, seed-stage, science-based companies. The class is open to 2nd-year MBAs, PhD students, select graduate students and advanced undergraduates. The year-long course follows 4 full-day CDL sessions where 20 high-potential startups are led through an objective-setting mentoring process by a [stellar group of mentors](#) from Seattle and beyond. Students will attend these sessions, and then work with a matched startup between sessions to complete the objectives set by mentors; this may include customer interviews, analyzing industry structure, and developing fundraising materials.

The course is a key component of the [Creative Destruction Lab-Seattle \(CDL-Seattle\)](#), an objectives-based accelerator being launched at the Foster School in Fall 2021 and with support from UW, Microsoft, the Allen Institute, and leading Seattle entrepreneurs and investors. The course should be of high interest to students interested in entrepreneurship, technology strategy, and consulting.

The focus of CDL-Seattle is computational health, building on the region's strengths in computing, medicine, and life sciences. The field exists at the interface of machine learning, health informatics, computational modeling, and biomedical signal processing. Our thesis is that computational health is at an inflection point, and Seattle and UW are poised to be leading hubs in building massive-scale, computational health companies. The course provides a novel opportunity to engage with this industry and these companies in their earliest years.

TEACHING TEAM

Ben Hallen (bhallen@uw.edu)

Ben is the Longbrake Endowed Professor in Innovation and an Associate Professor of Strategy and Entrepreneurship at the Foster School of Business at the University of Washington. His research focuses on how entrepreneurs grow high-potential startups, with a particular focus on entrepreneurial learning and the strategy of venture finance. He has won a number of research awards and his research has appeared in the leading journals in strategy and entrepreneurship, as well as having been featured by the New York Times, the Brookings Institute and Pitchbook. He is currently an associate editor at Strategic Management Journal. For his teaching, he has been named by Poets & Quants as one of “2017 Best 40 Under 40 Professors” and has received the “Dean’s Award for Excellence in Graduate Teaching” at Foster. At Foster, he has taught highly-rated entrepreneurship courses in the Executive and Technology Management MBA programs, the Global Innovation Exchange, and helped launch the Masters of Science in Entrepreneurship. A former entrepreneur, he holds a BS in Electrical Engineering and a Masters in Computer Science from the University of Virginia, and a PhD in Strategy, Organizations, and Entrepreneurship from Stanford University.

Teddy Johnson (proftj@uw.edu)

Teddy is the Director of Technology Development at the Institute of Translational Health Sciences in the School of Medicine, is on faculty at the Biomedical Regulatory Affairs Master of Science (BRAMS) program in the School of Pharmacy, and is a Mechanical Engineering lecturer in STEM. He joined the healthcare community over 25 years ago and has served start-up and Fortune 500 companies in research, design, clinical, marketing, and sales leadership roles; developing imaging, interventional, surgical, and digital health products. Along the way, Teddy has celebrated 2 IPO’s and 4 acquisitions, while earning numerous patents and commercializing dozens of new products worldwide. As a way of fostering innovation, advises startup CEOs in Seattle and the Silicon Valley on clinical and commercialization strategies. A licensed professional engineer, he holds a BS in Mechanical Engineering from Stanford University and an MBA from the University of Michigan.

KEY COURSE DETAILS

CDL is an experiential-based course and has an atypical schedule. Enrollment is via competitive applications, which will be evaluated holistically. The class is open to 2nd-year MBAs, PhD students, select graduate students in other disciplines, and advanced undergraduates. **Applications are due October 3rd at 11:59pm.** See the course website to apply: <https://courses.washington.edu/cdlcourse/>

Given the atypical nature of the course, students will officially enroll for 4 credits in Winter Quarter 2022 and 2 credits in Spring 2022 (with instructor permission, this may be alternatively structured as 2 credits in Winter and 4 in Spring). Course activities, however, will begin October 2021.

CDL Class Times and Dates

Fall 2021

- **Sunday October 3rd at 11:59pm** – Application deadline for course
- **Tuesday October 19th 6-9pm - Class** – *Science-Based Entrepreneurship, Go-to-Market Strategies, and Competitive Positioning*
- **Tuesday October 26th 6-9pm - Class** – *Market Size, Value Creation, and Value Capture in Health Industries*
- **Tuesday November 2nd 6-9pm - Class** – *Customer Discovery in Enterprise and Multi-Stakeholder Industries*
- **Friday November 5th All day – CDL-Seattle Day 1** – CDL-Seattle startups meet with mentors to set and debate initial objectives. CDL class students are required to attend *both* morning and afternoon sessions to learn about full cohort of students. *Note: CDL Day 1 in 2021 will be occurring remotely via Zoom.*
- **Tuesday November 9th 6-9pm – Class** – Debrief discussion of startup and mentor interactions from CDL Day 1
- *Tuesday November 16th - No class*
- *Tuesday November 23rd - No class*
- **Tuesday November 30th 6-9pm - Class** – *Business Model Economics for Science-Based Ventures: Revenue Models, Unit Economics, and Cash Flows*
- **Tuesday December 7th 6-9pm - Class** – *Venture Finance for Science-Based Startups*

Winter 2022

- **Friday January 28th CDL-Seattle Day 2** - CDL-Seattle startups meet with mentors to review progress on objectives set at last CDL day, and to debate and set next objectives. These discussions are likely to draw on the research conducted by CDL class students. Based on the startup they are matched to after CDL-Seattle Day 1, CDL class students will attend the morning *or* the afternoon session.
- **Tuesday February 1st 6-9pm – Class** – Debrief discussion of startup and mentor interactions from CDL-Seattle Day 2 (*Note: Time and date of class are tentative and may move*)

Spring 2022

- March 28th - First day of instruction in quarter

- **Friday April 1st – CDL-Seattle Day 3** – CDL-Seattle startups meet with mentors to review progress on objectives set at last CDL day, and to debate and set next objectives. These discussions are likely to draw on the research conducted by CDL class students. Based on the startup they are matched to after CDL-Seattle Day 1, CDL class students will attend the morning *or* the afternoon session.
- **Tuesday April 5th 6-9pm – Class** – Debrief discussion of startup and mentor interactions from CDL-Seattle Day 3 (*Note: Time and date of class are tentative and may move*)
- **Friday May 20th – CDL Day 4** – CDL-Seattle startups meet with mentors to review progress on objectives set at last CDL day, and to debate and set next objectives. These discussions are likely to draw on the research conducted by CDL class students. Based on the startup they are matched to after CDL-Seattle Day 1, CDL class students will attend the morning *or* the afternoon session.
- **Tuesday May 24th 6-9pm – Class** – Debrief discussion of startup and mentor interactions from CDL-Seattle Day 4 (*Note: Time and date of class are tentative and my move*)

COURSE OVERVIEW AND LEARNING OBJECTIVES

The CDL course offers a unique learning opportunity to work with early-stage, science-based startups and help them develop go-to-market strategies. Many entrepreneurship courses encompass experiential learning by having students work on ideas generated by themselves or their classmates. The CDL course also involves substantial experiential learning; however, by shifting the focus to a screened-pool of science-based startups, you are able to work on very high-potential ideas and gain a better sense for excellence in entrepreneurship. Additionally, the focus on science-based startups provides a valuable opportunity to learn how to learn about cutting-edge technologies and to engage with the entrepreneurs, customers, scientists and investors in these industries.

CDL itself is based around 4 days where mentors come to campus to work with startups. At these days, startups receive feedback on both what they have accomplished since the last CDL day and to help set priorities for the next day. Often these priorities take the form of exploring particular market segments or talking with many potential customers. Students in the CDL course will help with these tasks and this will form the core of their experiential learning.

Complementing the 4 CDL days will be a set of 5 case-based class sessions to introduce core frameworks to use in aiding the CDL startups, debriefing sessions after each CDL day to “post-game” the interactions between entrepreneurs and their mentors, and check-ins between each CDL day to touch base about progress and current challenges as you advise your startup.

These are the learning objectives of the course:

- What scientific, market, and competitive factors can give rise to massive-scale businesses?
- The unique challenges of entrepreneurial opportunities based around scientific and technical innovations
- Premature satisficing and the importance of considering multiple target markets and go-to-market strategies
- Selecting go-to-market strategies based on the current industry architecture and the competitive advantages of the startup relative to incumbent parties
- Designing business models for value creation, value capture, and staged risk
- How to engage potential customers and understanding the organizational complexities of selling enterprise products
- Business model economics, including revenue models, unit economics, and cash flows
- Foundations of venture finance for science-based startups, with a particular focus on the criticality of proofpoints for raising equity investments

COURSE STRUCTURE

Course learnings will occur through a complementary set of activities. Participation in each aspect of the course is required.

Each student will be paired with a startup whom they will assist throughout the program. See the next session of the document for further details. Note that it is expected that some fraction of participating startups will exit the CDL program throughout the year, with this often occurring as research calls into question the viability of the startup's market potential. In such cases, students will be assigned to another startup. Throughout the program it is the responsibility of the student to coordinate interactions with their matched startup, to agree to goals between CDL days, and to own responsibility for completing agreed upon projects.

See pp. 3-4 of this syllabus for specific dates and times for class sessions and CDL days.

- ***Five Class Sessions*** – These five course sessions will cover core frameworks and toolkits focused on building massive-scale science- and technology-based businesses. These sessions will occur in October-December of 2021. Class sessions will be case-based, with cases selected both for their illustration of core frameworks and relevant industries (e.g., genetics, computational health, and machine learning).
- ***Creative Destruction Lab Days*** - CDL itself is based around 4 days where mentors come to campus to work with startups. At these days, startups receive feedback from experienced entrepreneurs and scientists on both what they have accomplished since the last CDL day and to help set priorities for the next day. Often these priorities take the form of exploring particular market segments or talking with many potential customers. Students in the CDL course will help with these tasks between CDL days (see next item). Attendance at the CDL session will provide a key opportunity to learn from the interaction of the startups and the mentors.
- ***Debriefing Sessions*** – The week after each CDL day we will meet to debrief on the interactions between the startups and their mentors. The goal here is to unpack why the mentors gave the feedback that they did, looking for both similarities and differences across startups.
- ***Mid-point Check-ins*** – Between each CDL day you will have a half-hour check-in. Here you will be responsible for reporting on progress to date and identifying any blockers that need to be addressed for the work for the startup to be ready for the next CDL day.

Additional office hours and meetings may be scheduled on an as needed basis.

WORKING WITH YOUR STARTUP

(Adapted from CDL Toronto)

While the needs of your startup, your skill set, and the relationship that you have with your startup will be unique, there are some best practices that students in the CDL course should follow in order to maximize the value of the student-startup match for both the students and the startup. These include setting clear expectations on the number of hours you will be dedicating to the startup per week and the nature and scope of projects you will complete, establishing regular and frequent touchpoints and understanding the startup objectives to provide support for your startup as they prepare for each CDL session.

Your work with your startup is not an internship. Rather, you are expected to show initiative in learning about your matched startup. You should always be thinking about how your skills are most complementary to what they are doing. Strong contributions are not just about “putting in the hours”, but about using your unique knowledge and the skills you have learned in class to advance the venture forward. Many of the startups in the CDL program have little to no business expertise on their founding teams.

Students and startups will be matched in the Fall of 2021 after the first CDL day. For startups that exit the CDL program prior to its completion, students will be rematched to join other startups and student teams.

COURSE DELIVERABLES

Class and Debrief-Session Participation (20%)

Every member of the class is expected to make a substantive contribution to the discussion in both class and debrief sessions. Notes will be made after each session about each class member's engagement in class discussion and preparedness of the case, readings, and the activities of the relevant CDL day. To be clear for class participation, the emphasis is on the caliber of insights or questions, and not on the frequency of participation. We expect you to be prepared to be "cold called" during the case discussions. Note that any submissions to Canvas in advance of each class session will also be counted toward class discussion participation.

Startup Deliverable 1 (20%; Deadline TBD)

After the first CDL day and having been matched to your startup, the first deliverable focuses on getting to know your startup and the CDL process. In the November CDL session, your startup will both propose "3 objectives" and then be assigned 3 potentially-different objectives by the CDL mentors. Your task is to analyze the assigned objectives and why they were assigned. The write-up should be 3-4 pages single-spaced and have the following sections:

- Overview of the startup and its core technology
- Proposed activities for next CDL day - three activities that you propose will allow the company to complete their assigned objectives. One or more of these will likely be what you work on with the CDL startup for the next session.
- Analysis of mentors' feedback – Analyze the Slack comments about your startup from the session day. If the mentors changed any of the objectives that the startup proposed, why did they do so? If not, why not?
- Analysis of proposed objectives – Are any of the objectives proposed by the mentors "experiments" in the way discussed in class? What are these "experiments" designed to learn?

Startup Deliverables 2 through 4 (20%; Deliverables TBD)

Throughout the year you will work with your startup to help them analyze key strategic choices. These tasks may include: evaluating potential market size, doing customer interviews (discovery), analyzing a competitive landscape, planning details of a fundraising round, and exploring potential pivots. These tasks, to be completed before CDL days 2 through 4, will form the basis of your deliverables 2 through 4.

In addition to what you deliver to your startup, you will send us a 3-5 page writeup of what you have done and why. We want to know the problem that you identified, how you applied your existing and course-related knowledge to the problem, and what work you undertook for the startup (e.g., customer interviews, preparing an investment deck, etc).

TEXT, READINGS, AND CASES

The course will also use materials from a variety of sources, including an electronic course packet, a textbook, and various internet blog posts and podcasts. You are expected to have completed the assigned reading before each class session.

Digital course packet - may be purchased here: [\[Link will be added prior to the start of the class\]](#)

Text book:

Bill Aulet, *Disciplined Entrepreneurship*. Wiley Publishing, 2013. (*This text will help guide you as you prepare your business plan*)

Other readings will be posted directly to Canvas or are online.

OPTIONAL BUT RECOMMENDED READINGS AND PODCASTS

Books

For those interested in understanding biotechnology and commercializing “deep-tech”:
Isaacson, Walter. The Code Breaker (<https://www.amazon.com/Code-Breaker-Jennifer-Doudna-Editing-ebook/dp/B08G1XNG7J/>)

For those interested in understanding AI and machine learning; based on CDL Toronto:
Agarwal, Ajay, Joshua Gans, and Avi Goldfarb. Prediction Machines: The Simple Economics of Artificial Intelligence
(https://www.amazon.com/s?k=prediction+machiens&ref=nb_sb_noss_2)

For those seeking to prepare pitch decks:
Baehr, Evan and Evan Loomis. Get Backed: Craft Your Story, Build the Perfect Pitch Deck and Launch the Venture of Your Dreams. Harvard Business School Press, 2015.

Blogs and Other Resources around Computation Health

Rock Health (A digital health accelerator and investment fund):
<https://rockhealth.com/research/>

Andreesen Horowitz resources around the intersection of biology and computing
<https://a16z.com/bio/> (See especially their Investment Thesis)

Y Combinator blog posts

- How Biotech Startup Funding Will Change in the Next 10 Years
(<https://www.ycombinator.com/library/4L-how-biotech-startup-funding-will-change-in-the-next-10-years>)
- Spinning Scientific Research out of a University
(<https://www.ycombinator.com/library/4L-how-biotech-startup-funding-will-change-in-the-next-10-years>)

General Entrepreneurship Podcasts

NPR's How I Built This: <https://www.npr.org/podcasts/510313/how-i-built-this> - Interviews with the founders of many famous companies built through a variety of means. See especially Melissa and Doug and TRX episodes.

Acquired: acquired.fm – Great case studies of massive-scale startup histories from a deal perspective.

ACADEMIC MISCONDUCT

Admission to the University carries with it the presumption that students conduct themselves as responsible members of the academic community and observe standards of conduct that are appropriate to the pursuit of academic goals. The standards include, but are not limited to, cheating, plagiarism and stealing. Breaches of this standard of conduct make students subject to disciplinary action, including expulsion from the program.

CLASSROOM AND PRESENTATION ETIQUETTE

In consideration of others in the class, we request you to adhere to common courtesies. Please refrain from email, social media, and other applications during class.

If you have any questions don't hesitate to contact us. Please don't wait until the last moment and then try to reach me. You can submit your assignments on Canvas and if there is a problem, just email to us.

ACCESS, ACCOMMODATIONS, AND PRIVACY

Your experience in this class is important to us. If you have already established accommodations with Disability Resources for Students (DRS), please communicate your approved accommodations to us at your earliest convenience so we can discuss your needs in this course.

If you have not yet established services through DRS, but have a temporary health condition or permanent disability that requires accommodations (conditions include but not limited to; mental health, attention-related, learning, vision, hearing, physical or health impacts), you are welcome to contact DRS at 206-543-8924 or uwdrs@uw.edu or <http://disability.uw.edu>. DRS offers resources and coordinates reasonable accommodations for students with disabilities and/or temporary health conditions. Reasonable accommodations are established through an interactive process between you, your instructor(s) and DRS. It is the policy and practice of the University of Washington to create inclusive and accessible learning environments consistent with federal and state law.

Washington state law requires that UW develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The UW's policy, including more information about how to request an accommodation, is available at [Religious Accommodations Policy](https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/) (<https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/>). Accommodations must be requested within the first two weeks of this course using the [Religious Accommodations Request form](https://registrar.washington.edu/students/religious-accommodations-request/) (<https://registrar.washington.edu/students/religious-accommodations-request/>).

Class #1: Tuesday October 19th from 6-9pm
Science-Based Entrepreneurship, Go-to-Market Strategies, and Competitive Positioning

Entrepreneurial opportunities based around new scientific innovations are often particularly capable of creating disruption change. And in this process, creating substantial value for society, their investors, and themselves. But such startups, often referred to as “deep-tech” or “hard-tech” startups, also face substantial challenges in that they often face both technology and market risks and multiple go-to-market paths.

Today we explore the unique nature of massive-scale, science-based entrepreneurship, considering how it is similar and distinct from other forms of entrepreneurship. We will introduce a typology of four common go-to-market strategies. We will then explore how to select go-to-market strategies based on both a startup’s own competitive advantages and the current industry architecture, reviewing core competitive advantage frameworks from strategy (e.g., VRIN resources, economies of scale, network effects, etc).

Our case is Moderna, a pioneer in developing mRNA-based therapeutics. Our main focus will be on the creation of Moderna, its go-to-market strategy, and how this strategy differed from traditional biotech startups. In addition to exploring recent advances in pharmaceutical development, we will also explore Moderna’s substantial investments and the competitive implications of doing so. This will also provide a foundation for understand the market for computational health technologies that may be relevant for many of your CDL ventures.

Read: J. Gans, E. Scott, and S. Stern. **Strategy for Start-Ups**. Harvard Business Review, May-June 2018. (Course Packet)

Watch: Background on mRNA vaccines:
<https://www.youtube.com/watch?v=mvA9gs5gxNY>

AI as a prediction technology:
<https://www.youtube.com/watch?v=5G0PbwtiMJk>

Case: **Moderna (A)**. (Course Packet Case #HBSP 9-621-032)

Submit: Please submit 3-6 sentences (total) answering the following questions. This will be ungraded, beyond counting toward class participation. Submissions may be done individually or in groups of two to four (if submitting as a group, give all contributors names). *Submissions due to Canvas 60 minutes before start of class.*

- Of the 4 go-to-market strategies presented in “Strategy for Start-Ups”, which did Moderna follow?
- What are the customers, technology, identity/culture/capabilities, and competitors under this go-to-market strategy
- Was this the right choice? Why or why not?

Class #2: Tuesday October 26th from 6-9pm

Evaluating Market Size, Value Creation, and Value Capture in Healthcare Industries

Research in entrepreneurial strategy has increasingly shown that entrepreneurs do better when they consistently do better when they consider multiple market segments and entrepreneurial segments. Today we introduce tools for analyzing different markets. We use the DWI framework as a high-level approach for analyzing entrepreneurial opportunities along a number of dimensions. We then introduce a number of specific tools for digging further into prospective markets, including estimating the total addressable market size, identifying a beachhead market, customer personas, and how to address when end users are not the sole decision making unit.

Our case for examining these topics is “A Watershed Opportunity”, which focuses on an innovative healthcare business model that is being pitched to a local Seattle venture capitalist. The case will serve as a testbed for applying these frameworks. We will also consider the unique challenges of patient-facing healthcare innovations and navigating the complex and entrenched healthcare ecosystem.

Read: B. Hallen and S. Kotha. “**DWI Framework for Analyzing Entrepreneurial Ideas.**” UW Foster Teaching Note, 2017.

Disciplined Entrepreneurship (Textbook), Chapters 1- 5 (pp. 23-81) [Note – this material will be critical for your CDL projects, and you are likely to need to return to it throughout the year]

Case: **A Watershed Opportunity? Entrepreneurship in the Healthcare Sector (A).**
(UW Case Posted to Canvas)

Submit: Please submit 3-6 sentences (total) answering the following questions. This will be ungraded, beyond counting toward class participation. Submissions may be done individually or in groups of two to four (if submitting as a group, give all contributors names). *Submissions due to Canvas 60 minutes before start of class.*

- Should Ralph encourage Watershed to pursue the AtHomeDocs opportunity?
- Any changes you would encourage Dr. Fred Cross to make to the business model?

Class #3: Tuesday November 2nd from 6-9pm
Customer Discovery in Enterprise and Multi-stakeholder Industries

Promising entrepreneurial opportunities often involve nascent markets around new technologies or new customer needs. Such markets are often attractive as they represent new competitive landscapes and the disruption of existing sources of competitive advantage. Accordingly, it may be easier for new entrants to establish sizeable positions, or market laggards to navigate into a dominant position.

Yet how do you know if customers are really likely to be interested in a new product or service? Today we talk about best practices for understanding customer needs through customer “discovery” interviews, common missteps, and how this process can also be used to generate early sales leads. We will frame our discussion through the lens of the different ways that startups can run “experiments” to reduce the market and technological risk that they face. A particular focus will be on engaging enterprise customers and stakeholders.

Our case for the day is AnswerDash, a Seattle software-as-a-service company spun out of UW based on research at the Information School. Beyond exploring how to use interviews to evaluate market interest, we will also use the case to discuss further the advantages and challenges of research spun out of university research.

Read: B. Hallen and A. Murray. “**Conducting Effective Customer Discovery Interviews.**” UW Foster Teaching Note, 2017.

Disciplined Entrepreneurship. Chapters 8 and 18.

Case: **AnswerDash** (Case Packet; Case #HBSP 9-516-106)

Submit: Please submit 3-6 sentences (total) answering the following questions. This will be ungraded, beyond counting toward class participation. Submissions may be done individually or in groups of two to four (if submitting as a group, give all contributors names). *Submissions due to Canvas 60 minutes before start of class.*

- Using the framework from Ch. 2 in Disciplined Entrepreneurship, what beachhead market has AnswerDash been targeting?
- What is your view on the three primary options AnswerDash is contemplating for going forward? Which would you recommend and why?

Class #4: Tuesday November 30th from 6-9pm
Business Model Economics: Revenue Models, Unit Economics, and Cash Flows

Beyond describing in what activities a startup will (and will not) engage, a business model encapsulates economic decisions and models around pricing, costs, and profit margins. Today we talk about the key elements of startup economics and how these differ between high-potential startups and established firms. We will also consider how revenue models often differ in their relative rewards and risks, and the interplay of this decision with fundraising.

The case for the day is GenepSys, which must decide how to take a DNA sequencer to market. This disruptive innovation has the potential to substantially reduce the time and costs of DNA sequencing. But there are multiple potential business and revenue models to consider. Beyond exploring business model economics, we will also use this case to further explore innovations in the hardware-side of computational health.

Read: **Disciplined Entrepreneurship**. Chapters 16, 17, and 19

Case: **GenapSys** (Case Packet; Case #9-814-050)

Submit: A spreadsheet has been uploaded to Canvas to help you analyze the prospective cash flows of the three considered revenue models. Working either alone or in teams of 2-4 (recommended), complete and upload the spreadsheet. *Submissions due to Canvas 60 minutes before start of class.*

Class #5: Tuesday December 7th from 6-9pm
Foundations of Venture Finance for Science-Based Startups

Science and technology-based entrepreneurship often requires substantial capital to turn lab-based innovations into market-ready products. In some ways, such innovations are often a good fit for such investments due to their disruptive potential and often strong intellectual property. On the other hand, such startups often involve both market and technology risks, which can compound to create higher aggregate risk than startups driven primarily by business model or product innovations.

Today we discuss the foundations of venture finance, with a particular focus on equity investments from venture capitalists and angels (though with some discussion also of SBIR and other forms of grant financing). Core frameworks will be introduced during our class discussion.

Case: **Spark Therapeutics** (Case Packet; Case #: 9-818-059)

Before Class: Create a Pitchbook account and lookup the funding rounds of Spark. See here for how to setup a Pitchbook account:

<https://guides.lib.uw.edu/research/business/pitchbook>

Submit: Please submit 3-6 sentences (total) answering the following questions. Use both the case and Pitchbook to answer the following questions. This will be ungraded, beyond counting toward class participation. Submissions may be done individually or in groups of two to four (if submitting as a group, give all contributors names). *Submissions due to Canvas 60 minutes before start of class.*

- Using Pitchbook, how many rounds of funding did Spark raise prior to its IPO?
- Using the Case and Pitchbook, what had Spark at the time of raising each of its rounds up through its Series B?