

Mentor Handbook*

CSU I-Corps Web Portal: <http://www.csuperb.org/csucorps>

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*This handbook is based on University of Michigan's Mentor Handbook developed by Norm Rapino. In fact, we copied word-for-word many of their best ideas with their permission. The University of Michigan's College of Engineering and Center For Entrepreneurship support the Michigan I-Corps (<http://www.michiganicorps.com/>) programming. We thank Norm and his colleagues for their generosity sharing their best practices and lessons learned with the National Innovation Network, of which CSU I-Corps is a member.



Mentoring as part of CSU I-Corps™

The CSU Biological Sciences I-Corps™ Site was established by partnering with a significant roster of industry associations and organizations. These partnerships, along with CSU alumni and friends, represent a deep pool of potential Mentors and/or Advisors for CSU I-Corps Teams. First let's define roles.

CSU I-Corps Teams: CSU I-Corps provides microgrants (\$1000 - 2500) to Teams interested in learning about biotechnology commercialization. During the course or sprint, teams identify problems worth solving by talking with mentors, experts and even customers. Teams may discover there is more work to do back in the laboratory before looking for follow-on funding or investment...or they may learn there is no problem-solution fit for their concept (yet). We hope that some of our Teams are encouraged to pursue further commercialization funding from I-Corps Teams, SBIR/STTR, VentureWell E-Teams programs or enter incubators to further refine and develop a more mature product-market fit. All outcomes are acceptable. Some of our teams will be student-led; some will be faculty-led teams. These two types of teams need different flavors of mentoring.

Industry Mentor: Someone who has biotechnology start-up, very early stage commercialization experience and/or is experienced in one or more bio-technical, regulatory and/or business area. Mentors should be willing to work with an I-Corps Team during the entire course (2-3 months) or sprint (1 week). They should be aware of the team composition (student-led or faculty-led) and commit on that basis. Mentors interact with the Team(s) by email, in-person meetings or teleconferences. We hope mentors can attend the kick-off meeting and the final evaluation day with their team. If needed, CSU I-Corps and its partners are committed to matching teams with industry mentors who have specific sector experience (therapeutics, devices, diagnostics, digital health, environmental monitoring, instrumentation/ bioinformatics/tools, biofuels, agricultural biotechnology).

Advisor: Just like a Mentor in terms of having specific and relevant expertise, but Advisors usually "drop-in" when asked to provide input on a technical, regulatory or business subject. Advisors are also called upon from time to time to help with making connections to people they may know, or companies with which they may be familiar. These "drop-ins" may be one or two short interactions with the Team, either in person or electronically via phone or a platform like Skype or Zoom. At the end of each course or sprint, we will recruit Advisors to serve as evaluators of product-market fit and lessons learned. Evaluators will consult with Teams on follow-on funding strategies and help them craft efficient product development milestone plans.

Video Resources:

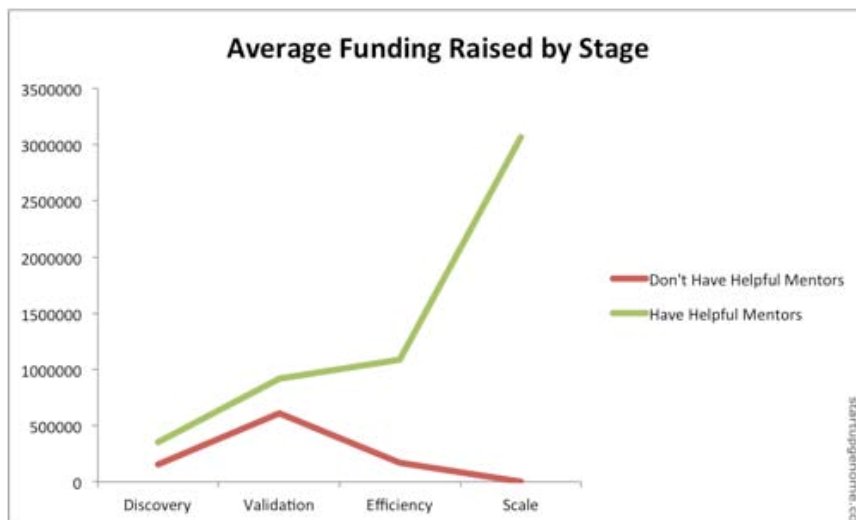
- (1) To learn about Lean LaunchPad, NSF and NIH goals for I-Corps, and how the experiential I-Corps curriculum works, spend ~30 minutes with Steve Blank: <http://mendelspod.com/podcast/nih-goes-lean-steve-blank>
- (2) Harvard Business Review and Others have reviewed I-Corps methods. See: <https://hbr.org/2017/03/this-program-uses-lean-startup-techniques-to-turn-scientists-into-entrepreneurs> and <https://www.forbes.com/sites/davidshaywitz/2017/03/28/commercializing-science-integral-to-translation-not-a-dirty-word/>
- (3) The National Innovation Network Video Library: <http://venturewell.org/i-corps/llpvideos/>

Details

Mentoring happens in many ways.

- It can be personal, conversational advice given by someone with more experience to Teams seeking guidance and insight about life choices and decision-making. It can help someone confronted with many potential paths or outcomes to better understand the pros and cons among them, facilitating decision-making.
- Next, and still on a personal level, mentoring can be providing advice and insight pertaining to a specific problem or opportunity faced by Teams.
- Finally, as we practice it in I-Corps, the focus is on facilitating entrepreneurial activity that will advance an idea, technology or product toward commercialization. All CSU I-Corps Teams should be considered “nascent academic entrepreneurs;” their ideas are at a very early stage of maturity by any definition.

Chart 1. Mentoring Works



This graph is from the Startup Genome Report ([http://blog.startupcompass.co/tag/Startup Genome](http://blog.startupcompass.co/tag/Startup%20Genome)), a study based on data from 650+ startups. It shows the amount of funding startups have raised, based on whether they have helpful Mentors or not. And the result is, not surprisingly, that startups with no helpful mentors raise very little money. Further, the National Science Foundation has already discovered that I-Corps Teams (by definition, mentored) are much more likely to win SBIR funding compared applicants who have not participated in I-Corps programming.

Benefits for Mentors

- You will enjoy “giving back” to others.
- You will get to see a new technologies at a very early stage.
- You will increase your personal network by interacting with exceptional individuals who are also Mentors, and others who are investors, teachers, scientists and researchers.
- You can learn some relevant new methods and skills to complement your current knowledge base.
- You might continue working with the team once the initial project is done, to continue on as a consultant or partner.

What we expect from you

- Very simply, we expect you to be committed to the assignment, and come to understand our process and goals. You will be an extension of the teaching team and a part of CSU I-Corps. Meet regularly and establish guidelines, expectations and deliverables with your Team based on the curriculum they are learning.
- While the teaching team talks about what to do, you will bring real world “how to” experience and advice that helps move the project along.
- You should also be ready to challenge the team - do they really understand what they are hearing?

Guidelines for interacting with Teams

- Learn enough about their tech/product/service concept and its potential market to provide valuable input.
- Mentor meetings are best in person, but can also work by phone or video conference.
- In-person mentor meetings should be held in a public space (i.e. local coffee shop, library etc.), never at your home. We are encouraging the teams to “get out of the building and off campus,” so don’t volunteer to meet them on campus!
- While CSU I-Corps operating procedures do not require you to sign a formal Non-Disclosure Agreement, please keep all you learn from your mentee(s) in confidence.

Mentors and Their Role in Getting Teams “Out of the Building”

The CSU I-Corps Site curriculum starts with customer discovery and the Lean Startup venture creation processes, but we are especially focused on Value Proposition Design (<https://strategyzer.com/value-proposition-design>). We introduce the Business Model Canvas (<http://www.businessmodelgeneration.com/canvas/bmc>) and Customer Discovery Narratives as tools. We teach Teams that the nine building blocks of a Business Model are simply hypotheses until they are validated externally by experts, customers, potential partners and others they encounter along the way. Since there are “no facts inside the building,” they need to get outside and actually talk to customers, potential partners, suppliers, channel partners and domain experts, and gather real-world data and feedback for each part of their business model. This is not a business plan competition. It is an immersive, experiential learning opportunity in biotechnology commercialization. We hope teams will - at minimum - identify a problem worth solving.

This can be a daunting and formidable task. **We are throwing Teams out of the building with some formal teaching on how to identify prospective customers and interview techniques, but where possible, this is where you and your expertise can best come in.** To the best of your ability, help them network, teach them how to send email and make phone calls and do appropriate customer discovery. Open your LinkedIn Connections and professional contacts to whatever level you feel comfortable.

While part of your role is to help the *teams to test their hypotheses about their business model*, the goal is not to just to introduce them to people who you think will talk to them or buy from them. That’s nice, but

that's unlikely to smooth their commercialization path. They need to learn the process themselves, not just have conversations set up for them.

Instead of telling them what to do, lead them along the path to learning. Instead of giving them a solution, ask "have you considered x?", "why don't you look at company z and see what their business model is and compare it to yours," or "here are some names of domain experts in the field, you should talk to them." It may be hard sometimes, but try to avoid telling them what to do or how to evolve their specific problem-solution fit.

And most of all - confront them when they are sloppy in their thinking, or draw conclusions not based on properly gathered and evaluated real world market information.

More on the Mentor's Role

Mentors, as an extension of the teaching team, play an active role in the ongoing progress of their team. In a short time, your team has to:

1. Create an initial, slimmed-down Business Model Canvas filled with hypothesis and questions built around an idea, product, service or technology.
2. Get out of their laboratory/innovation center/campus and test their business model hypotheses to find a suitable and promising problem worth solving.
3. The goal is not a finished or polished business model canvas but a vehicle they can use to test their assumptions about a minimal viable product/service concept.
4. **Come to understand and create a "Marketplace Map" of the industry and market dynamics in which the team hopes to find a market and operate.**

You are working with CSU I-Corps to **offer your team guidance and wisdom:**

- Provide Business Model Canvas suggestions.
- Help the team learn how to do Customer Discovery and synthesize the feedback they get so that they identify a realistic problem-solution fit.
- Help them pivot when they have to.
- Identify and help the team *correct gaps* in their business knowledge. (There will be plenty!)
- Explain again and again, until they get it, what #4 above (the Marketplace Map) refers to. Help them to understand that their idea does not exist in a vacuum but is part of a dynamic and evolving marketplace, including regulatory and complicated, multi-sided markets.
- Help them understand that once the CSU I-Corps program is over, the work really begins. They will have to continue to build their team, create a real set of cost and revenue projections, and if they can, propose a plan to attract follow-on funding or investment to advance their concept.