Founder's Equity

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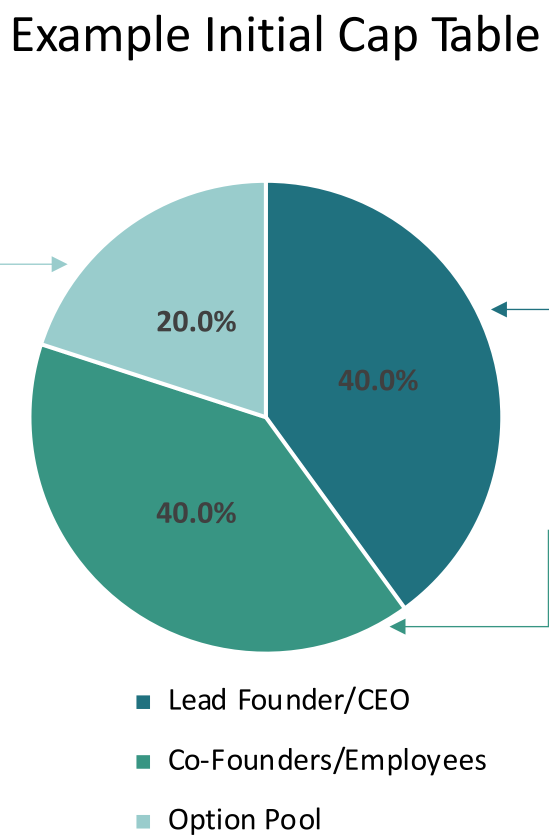
Founders’ Equity

Formation, Dilution, Industry averages

Why give equity?

- Reward past performance
- Incentivize future performance

Initial founder split



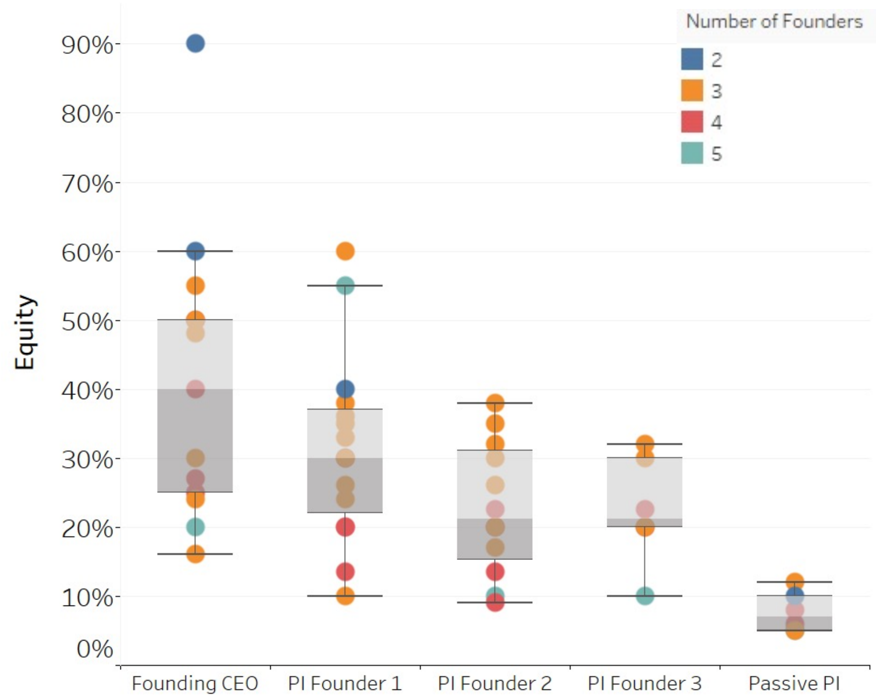
- Initial CEOs/Lead Founders typically get the largest chunk of ownership
- These Founders are full-time
- Initial Equity ranges from 30-60% of the company

- Co-Founders and key employees includes founding scientists, C-level execs, VP, and any initial employee
- Investors will typically like to see an initial team in place before investing in a company

- Initial option pool is to incentivize new hires with awards (Day 1 + ~annually)
- A company typically refreshes their option pool at every financing round and targets 15-25%

Putting bounds on Founders’ Equity

- Surveying ~20 OUP Portfolio companies
- Always advise sticking to the mantra:
    - Reward for past success
    - Incentivize future performance
- Graduate students need support in asymmetric relationship with Professor co-founders
- Every situation is different



Typical pre-financing equity

Position	Range %
Founding CEO	30-60%
Active Founding Scientist	**20-25%**
Passive Founding Scientist	**1-5%**
University Founding Equity	2-30%
Professional CEO (Series ~A/B)	5-10%
C-Level	2-5%
Lead Engineer / Scientist	1-2%
Engineer (5+ years)	0.66-1.25%
Engineer (Junior)	0.2-0.66%
Ind. Board Member/Advisor	1%

- Titles range from CTOs, CEOs, and Chief Scientist
- Many are part time, but spend at least 30% of time at startup
- Get 20% median and 25% mean initial equity
- The most highly compensated are founding scientist CEOs, which is rare
- Active founding scientist are more typical in tech companies

- Titles range from nothing, Advisor, Scientific Advisory Board to Chief Scientist
- Spending very little time at startup and some are not in touch with their companies at all
- Get less than 5% initial equity

Consequences of poor equity allocation

Parasitic Founders

- Once equity is granted, it cannot be taken back
- This can result in founders that are no longer incentivized to offer value to a startup and sit along for the ride on the cap table

Lack of Equity for Compensation

- Once options have been issued out, the company must expand their option pool to compensate future employees
- Each subsequent expansion of an option pool dilutes existing shareholders

(Un)Incentivized Employees

- Where there is not enough equity options to compensate existing and new employees, it can lead to low morale or employee exodus

Recapitalization

- To remove a shareholder, sometimes companies go through a recapitalization
- These are highly challenging for investors, who will typically pass on a deal rather than deal with cleaning up a capitalization table

Same consequences apply for bad investors

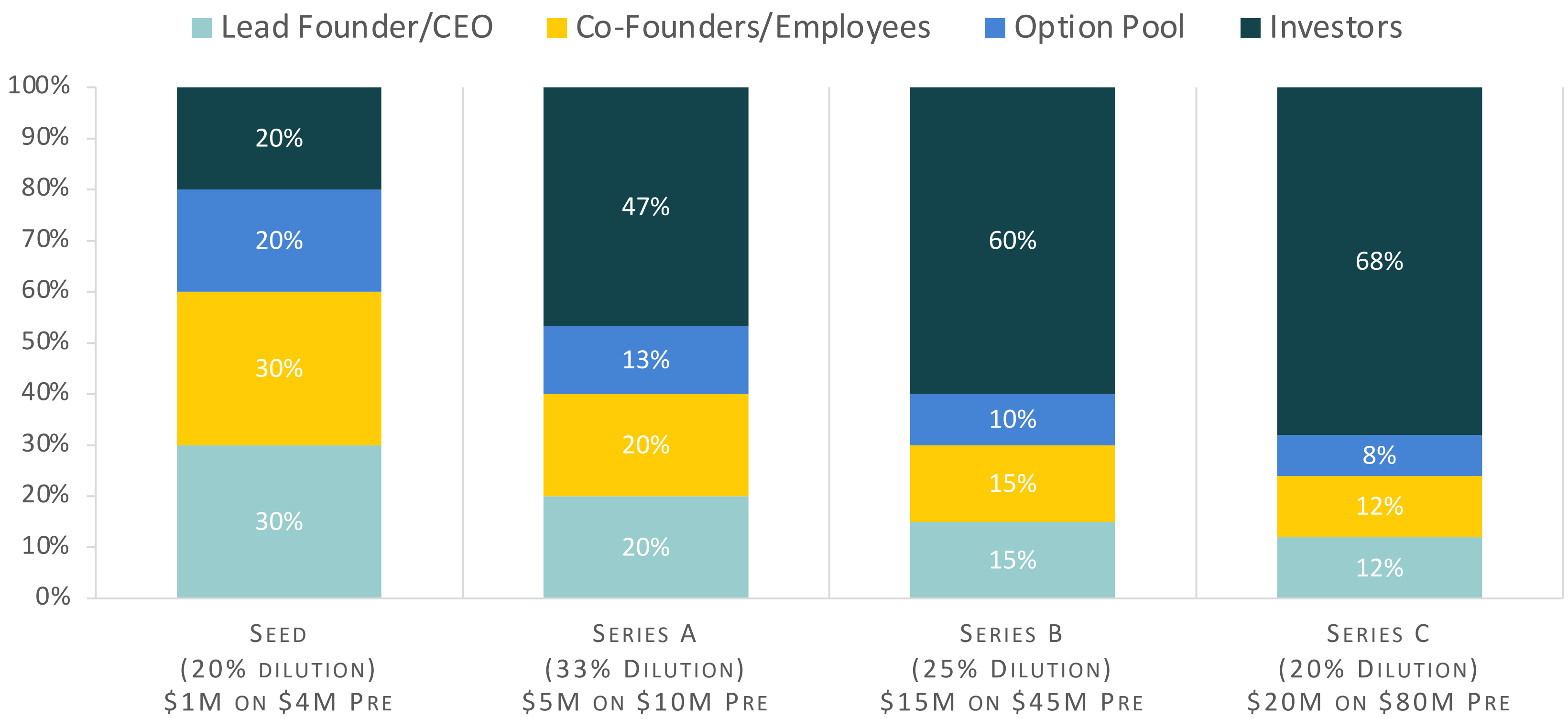
Bad Venture Investors can sometimes mean:

- Investors that don’t add value or follow-on
- Lower equity for new investors
- Recapitalization
- Poor culture around board meetings
- Obstructive behavior

Lookout for:

- Liquidation preferences
- Misaligned exit horizons
- Rights of first refusal
- Voting thresholds

Scenario: typical ownership through rounds



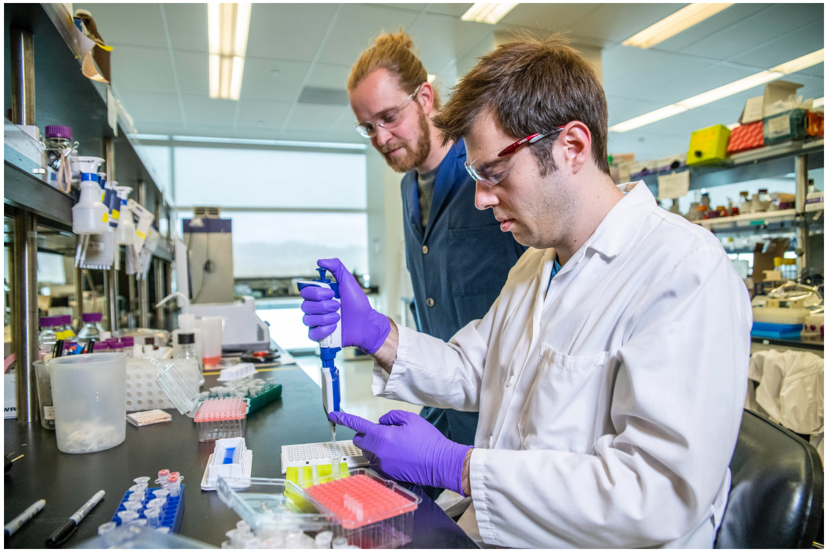
The average successful startup raises $41M across 4 rounds of financing, exiting around $240M

Most lead founders exit with around 12% ownership of their companies

Substantial dilution every round from refreshing the option pool and new capital for salaries

Value of scientific founders

- In Tech, some professors spend 1-2 years of leave at founding, but will often return to the university
- Once returning to the university it's very challenging to stay up-to-date with a fast-moving startup, therefore, their contribution inevitably diminishes
- In Life Science, professors typically stay at the university, but often participate on or chair the scientific advisory board



REASONS FOR ISSUING OPTIONS TO A SCIENTIFIC FOUNDER

- Continued thought leadership on the science
- New research contributions from lab – pipeline of innovation
- Pipeline for hiring students
- High level research connections with major companies – research collaborations and acquisitions
- Raising profile of company
- Cutting-edge outside view

Initial grants and Option Pool

Annual Equity Grant Chart by Position

New Hires
Grants are issued to new employees at market levels according to annual equity grant chart

Promotion
Promotion grants are given additional options to bring employee to the level as if you were to hire her/him today

Outstanding Performance
Once a year grants for 10 to 20% of employees, which are 50% of what you would hire that person for today

Evergreen
Starting at 2.5 year anniversary for every year, provide employee ¼ of what person would be hired for today

* Wealthfront, "https://blog.wealthfront.com/the-right-way-to-grant-equity-to-your-employees/"

Keeping a piece of the big pie

Ownership

Cap Tables, Waterfalls, Exits

Terms & Definitions

Pre-money	Share Price x (Common shares outstanding + Preferred shares)
Post-money	Pre-money + Amount raised
Fully diluted	“Common Shares Outstanding” = Common shares issued + Any convertible securities like warrants and options
Preferred Stock	Mainly issued to investors, who pay a higher price per share of ownership. In return, these shareholders have a greater claim to a company’s assets and are paid out first in a liquidity event.
Common Stock	The most basic form of stock, and is mainly issued to founders and employees. Equity compensation for startup employees is usually issued from a pool of Common Stock.

Liquidation Preferences

- **1x Participating preferred**

Preferred shareholders payout at liquidation =

1X Initial investment amount
+
[% ownership as converted to common shares
X
(Exit value – Initial investment amount)]

- **Capped**

Preferred shareholders payout capped at the pre-determined multiple of their initial investment stock price

- **Non-participating preferred**

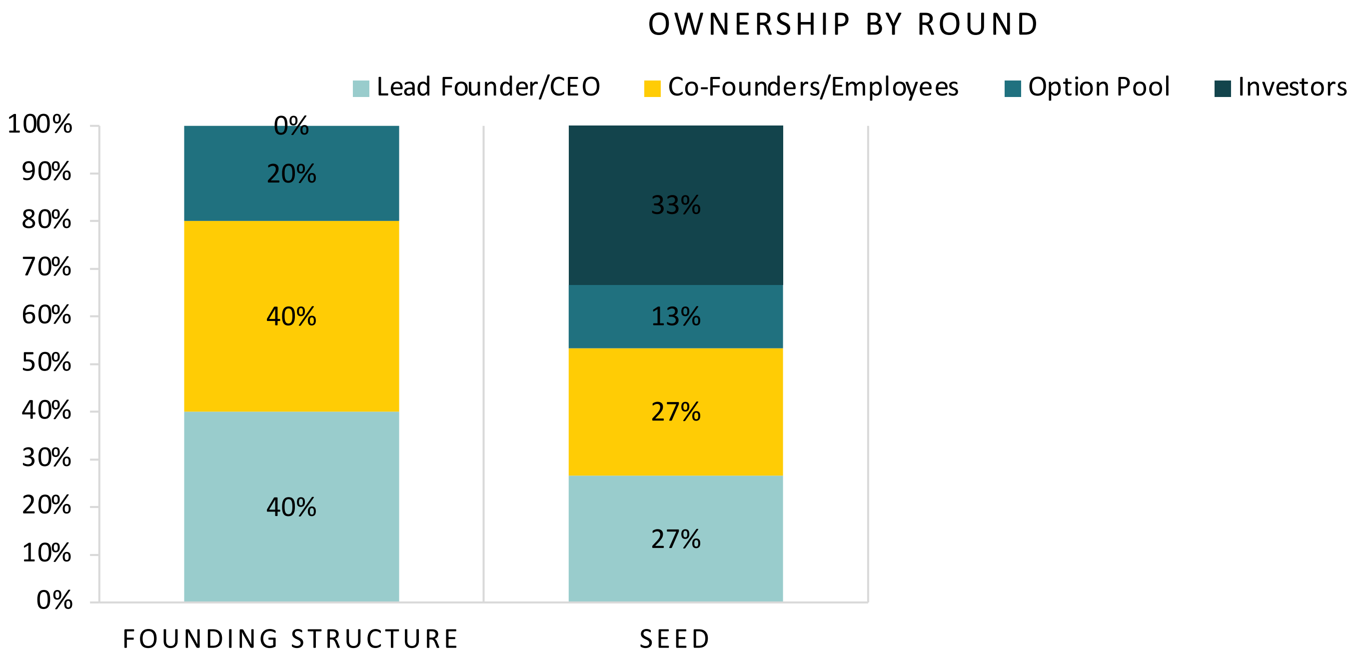
Preferred shareholders payout at liquidation =

% ownership as converted to common shares
X
Exit value

Planning for dilution: seed investment

Startup Z raises a $5M round at a $10M pre-money valuation

	Founding Structure	Seed	Series A	Exit
Raise [$M]		**$5 M**		
Pre-Money [$M]		**$10 M**		
Post-Money [$M]		**$15 M**		
Dilution to Previous		**33%**		
Terms				

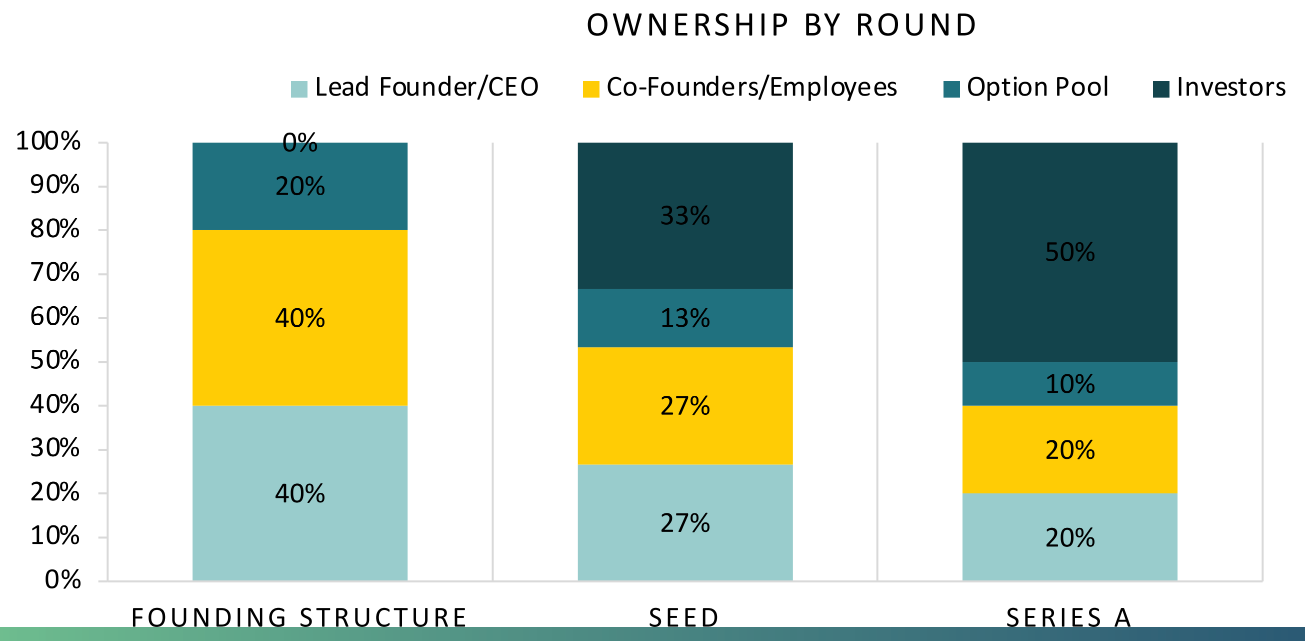


Planning for dilution: Venture investment

Series A rewards Startup Z for value creation with a $45M valuation on $15M raised

- Watch out for: Investors inserting terms that manipulate valuation

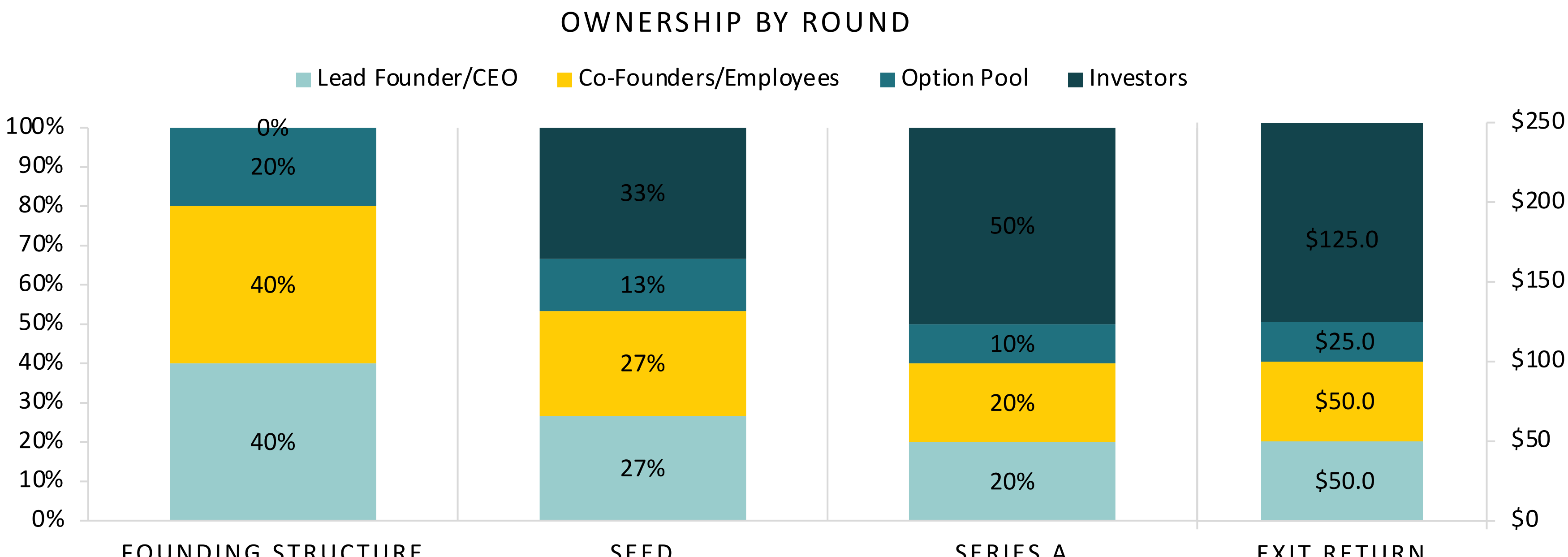
	Founding Structure	Seed	Series A	Exit
Raise [$M]		$5 M	**$15 M**	
Pre-Money [$M]		$10 M	**$45 M**	
Post-Money [$M]		$15 M	**$60 M**	
Dilution to Previous		33%	**25%**	
Terms		Preferred 1x	**Participating Preferred 1x**	



Exit – Up Case

Startup Z acquired early for $250M

	Founding Structure	Seed	Series A	Exit
Raise [$M]		$5 M	$15 M	
Pre-Money [$M]		$10 M	$45 M	
Post-Money [$M]		$15 M	$60 M	$250M Acquisition
Dilution to Previous		33%	25%	
		Preferred 1x	Participating Preferred 1x	

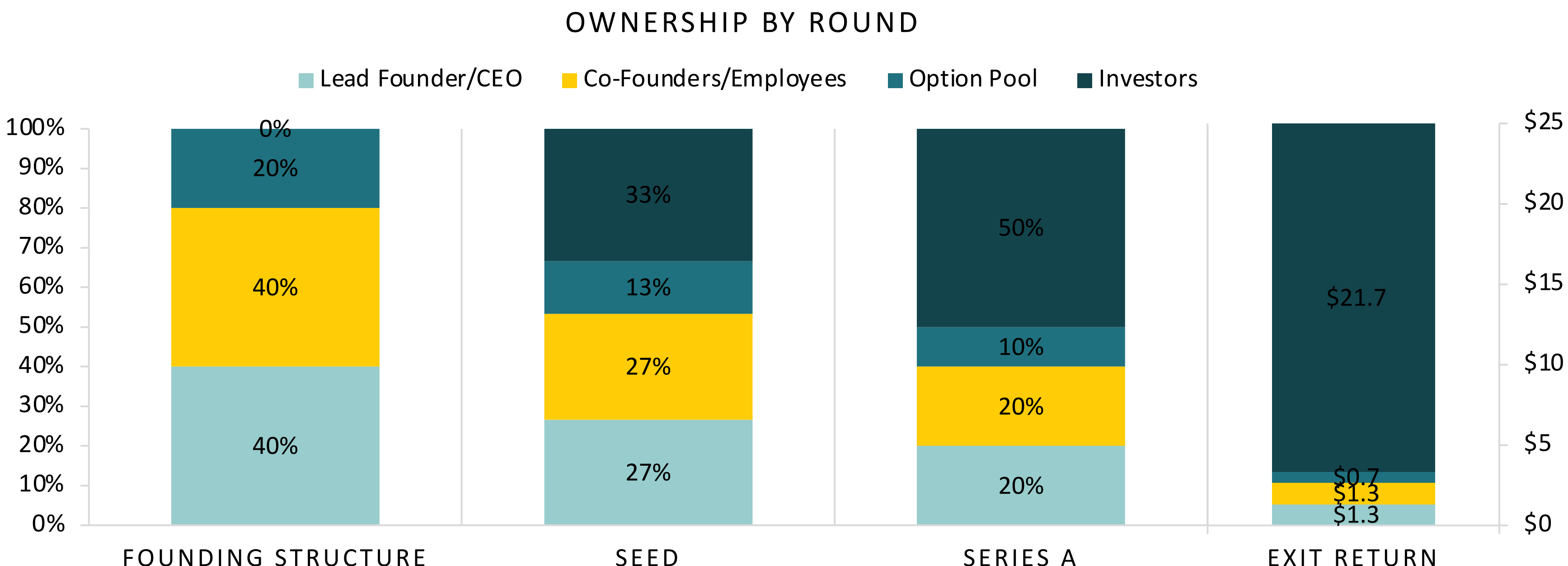


Exit – Down Case

Startup Z acquired early for $25M > total dollars invested, but…

- Watch out for: the waterfall and the zone of indifference

	Founding Structure	Seed	Series A	Exit
Raise [$M]		$5 M	$15 M	
Pre-Money [$M]		$10 M	$45 M	
Post-Money [$M]		$15 M	$60 M	$25M Acquisition
Dilution to Previous		33%	25%	
		Preferred 1x	Participating Preferred 1x	



Key Takeaways of Equity Ownership

- Dilution from equity is the necessary compromise of getting to a large exit
- Key terms that control a payout
    - Round by Round dilution ($ Raised / $ Valuation)
    - Liquidation preferences
    - Participating and Non-Participating Preferred
- Strange terms rarely disappear (“Stacking”), so pay attention when accepting
- Investors get paid out first
- Investors are doing the math every time they invest
    - So should Startups
        - Equity asks should forecast dilution

How to Assess a Potential CEO for Your Life Science Startup

A CEO Search!

RosyOption is a new oncology therapeutics company developing a small molecule against a novel biological target with potential use in treating pancreatic cancer. Key facts:

- The novel target was first discovered in a highly regarded lab; the biology around the mechanism of action has since been well-validated by outside parties
- Initial results in relevant animal models look promising
- Most advanced compound is now at lead optimization stage; the company expects to complete IND enabling studies and enter the clinic in 18 months
- Raising Series A of $30M; funds them through Phase 1 clinical development
- Current team consists of the Scientific Founder and a Medicinal Chemistry consultant; a post-doc in the Founder's lab is also planning to join the company

The Candidates: Who Would You Pick?

Candidate A: 10 years experience, first as a research scientist at AstraZeneca, left to become VP Product Development at a startup that Pfizer acquired for $300mm

Candidate B: 3-time successful entrepreneur in medical devices and diagnostics. 1 company went public, 1 acquired by Medtronic, 1 still private

Candidate C: former in Executive Director of Merck’s Immuno-oncology Research Division, prior to that CSO of a VC backed company developing a biologic

Candidate D: Founding PI of company. Spent two years as CSO of a previous university spinout that was developing a small molecule therapeutic

Digging Deeper – Candidate A

Candidate A: 10 years experience, first as a research scientist at AstraZeneca, left to become VP Product Development at a startup that Pfizer acquired for $300mm

Digging Deeper:

- **Track record of success?**
  - Interim promotions, in the right research group at AZ, was the work narrow or broad, etc.
  - Was the startup really a success? How much capital did it raise?
  - How critical was A's role at the startup? CEO report? How influential was A on the senior team?
- **Transitions? Why did A leave AZ?**
  - Domain expertise: How do we get comfortable with A's domain knowledge? How curious is A technically? What does A do to stay current?
  - Leadership: Given that A is a first-time CEO, can A be a leader?
- **Did A's colleagues follow from AZ to the startup?**
  - Innate talent: How much raw talent does A have? Intelligence, force of nature personality, passion, continuous learner

Digging Deeper – Candidate B

Candidate B: 3-time successful entrepreneur in medical devices and diagnostics. 1 company went public, 1 acquired by Medtronic, 1 still private

Digging Deeper:

- Understand deeply B's timing and role in each company, and the real success behind each company
- Founded first company 10 years ago, went public five years ago, trades at $1 billion today
- Medical device acquired by Medtronic for $80 million, raised $50 million
- Private company still private, funded by Orbimed and Canaan. CEO recruited his replacement after raising venture round because he thought company needed domain expertise

Digging even further…

- B was not at the first company at the time of the IPO, "left" three years earlier
- Medical device buyout was $30 million upfront, $50 million earn-out not yet paid
- With company that is still private, B was pushed out by the VC's because B executed poorly and recruited badly

Digging Deeper – Candidate C

Candidate C: former in Executive Director of Merck's Immuno-oncology Research Division, prior to that was CSO of a VC-backed company developing a biologic

Digging deeper:

- C has very strong technical knowledge on the development of oncology therapeutics, including bringing them through clinical development
- C has been at Merck for 30 years
- Merck's immuno-oncology group had hundreds of people
- C expects $400k / year salary from the start-up post funding

Digging Deeper – Candidate D

Candidate D: Founding PI of company. Spent two years as CSO of a previous university spinout that was developing a small molecule therapeutic

Digging Deeper:

- D is highly regarded in their field and has done much of the original work around the novel target
- Several members of D's lab want to follow D into the company
- D feels disgruntled after being forced out of previous company when new CEO was brought in. D is determined to prove CEO skills

Picking again

- Candidate A: 10 years experience, first as a research scientist at AstraZeneca, left to become VP Product Development at a startup that Pfizer acquired for $300mm
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Key Insights from Candidate Review

- Lots of molds of successful entrepreneurs, not just one
- Many entrepreneurs seem strong at first, and it is **important to peel the onion**
- If they have experience, ensure that they have **a track record of some success**
- If they have failed in the past, make sure they acknowledge it (ethics question) and have learned from it
- If they have no experience, **ensure they recognize it and surround themselves with people** who do
- Also ensure their ego is such that they will **step aside later**
- Ideally candidate knows the domain from direct experience or is will to attract domain experts and learn from them

Important Entrepreneur Characteristics

- **Track record of success**, including learning through failure
- Thoughtful with **strong judgment**, both tactical and strategic
- **Continuous learner**: curious, accepts input from others, learns from mistakes
- **Domain expertise**, either directly or indirectly
- Great leader
- Ability to **attract and retain talent**
- Intensely **entrepreneurial** and passionate
- Hands on **driver and manager** of team
- Clear examples of **strong execution**
- Good **fundraiser** and company salesman
- Scrappy: can accomplish a lot with limited capital
- High transparency / **ethics**
- Have they **delivered on their promises**?

CEO Requirements Change Over Time

Pre-clinical	Clinical	Commercialization
Ability to collaborate with inventors	Clinical trial experience	Great at sales & marketing
Technically strong; capable of understanding the underlying science	Understanding of regulatory pathways and experience communicating with regulatory bodies	Strong manager
Hands-on	Strong salesman (i.e. for partnerships)	Capable of building a quality team
Capable of building a quality team	Capable of building a quality team	Ability to manage a large organization
Strong fundraiser	Strong fundraiser	Strong fundraiser; Potentially experienced in running public companies

How To Diligence Candidates?

- LinkedIn
- Find common acquaintances
- Look up former colleagues and direct reports
- Call previous investors
- Research past companies
- Use candidate’s references to get to other references
- Google searches
- Reference checks
- Be upfront about any concerns you have on the candidate, and get their reaction
- Understand strengths and weaknesses in specific functional areas
- When asking for negatives, pregnant pauses are your friend
- Go for relative answers: not “is the candidate great?”, but “what decile would you put the candidate in?”
- Avoid confirmation bias

Characteristics of a Great CEO

Vision

- Drive to be the leader in the space (2nd place isn't acceptable)
- Thinking high level, but taking care of the details

Realistic/Modest

- CEOs aren't expected to have every skill necessary to build out a company
- The best CEOs identify what they lack and will hire better people around them to make the company succeed

Communication

- Build and drive an internal team
- Sell the vision externally – communicate succinctly and be able to sell

Low and high ego

- The best CEOs have a high ego to be irreverent about the industry they're disrupting, firm in their beliefs, and have significant grit when faced with problems
- They also have low enough ego to know that when they're not the right person to run a company or solve a problem, they step aside

Adaptability

- See what's coming before everyone else and positions to take advantage of it
- The quicker CEOs admit they were wrong, the faster they can pivot

Thank You

OSAGE UNIVERSITY PARTNERS

Summary

Osage University Partners (OUP) invests in startups that have licensed technologies from universities and research institutions. OUP has partnered with over 100 institutions to invest in pioneering technologies and visionary entrepreneurs targeting large market opportunities. The Fund invests across a range of technology sectors and company stages, and typically co-invests with other leading venture funds.

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