



To incubate unique, proprietary, and impactful medical device innovation in a cost and time efficient manner



Collaboration partners:

UCI, J&J +1 Strategic Partner

The Way the Medical Devices Industry Assesses Innovation and New Technology Has Changed



C-suite, Purchasing Managers, and MDs are all predicting similar shifts in influence and factors that represent a dramatically different world for device companies

In 10 Years, Device CEOs Think the Key Characteristic of Winners in the Industry Will Be:



Source: AdvaMed CEO Summit breakout sessions / McKinsey and Company

BIG COMPANIES SHOULD BE BEST AT INNOVATION

R&D infrastructure



Rich in tools and capabilities



Great talent in biomedical engineering and scientific/medical expertise



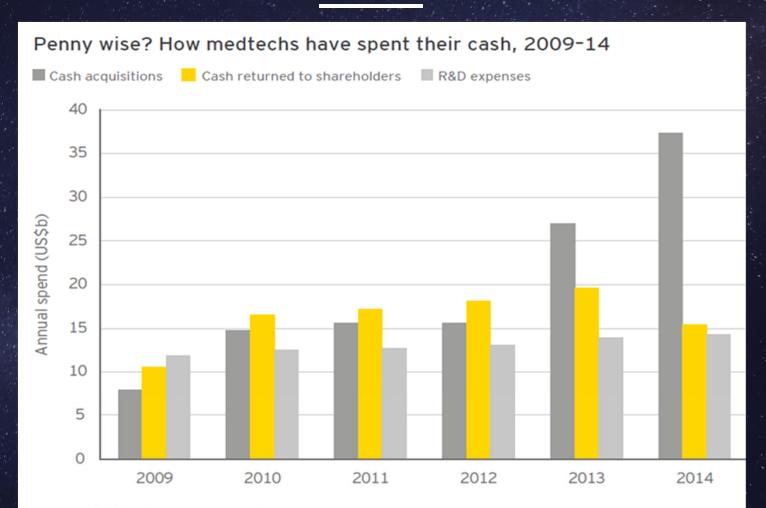
Know technology and the customer



Financial strength



Where the Cash is Spent



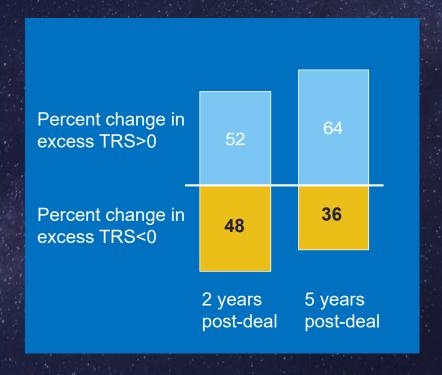
Source: EY, Capital IQ and Thomson ONE.

Data shown for US and European public pure-play companies for which data were publicly disclosed. Cash returned to shareholders includes total dividends paid and stock repurchased.

BIG M&A DEALS ADD VALUE, BUT ARE RISKY

Large acquirers by positive or negative change in excess Total Shareholder Return

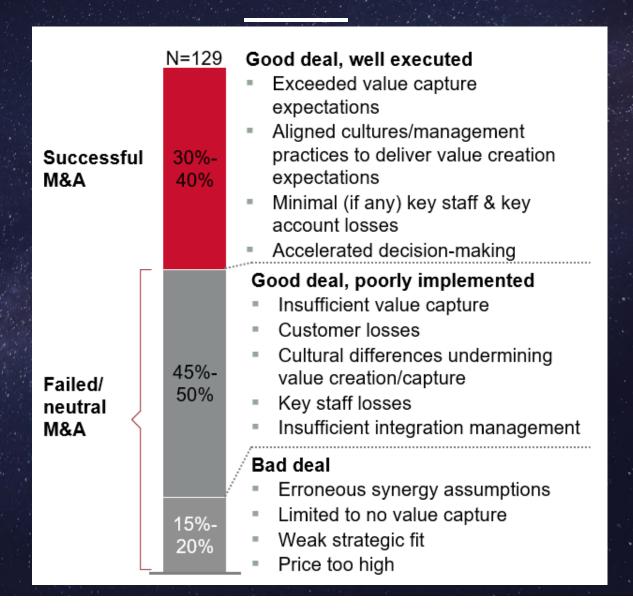
Number of companies, n=251



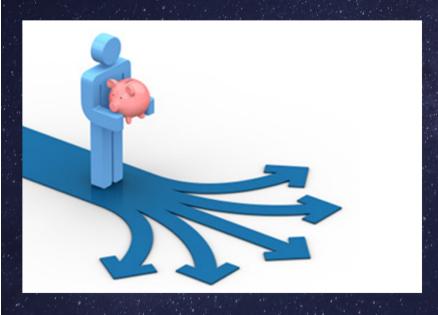
It's not whether M&A is good or bad – it's whether companies are good or bad at M&A and integrations

¹ Includes companies in Global 1000 from 1999-2010 that did a deal worth over 30% of their market capitalization and had TRS for 5 years; excludes financials, energy and raw materials firms

INTEGRATIONS FAIL/UNDER-DELIVER DUE TO INSUFFICIENT VALUE CAPTURE



RISK-TAKING IN LARGER COMPANIES



- Choice of investment into incremental, innovative or disruptive technology
- Timelines and funding
- Predictability, expectations and persistence

CULTURE OF INNOVATION



THE PROBLEM

Medical Device Innovation is highly inefficient

Start-up companies speak with 20-40 investors before finding a lead investor

Venture Capitalists speak with 40-50 start-ups before deciding to invest in one

THE PROBLEM

Medical Device Innovation is highly inefficient

Start-up companies are distracted by fund raising, their development efforts are interrupted

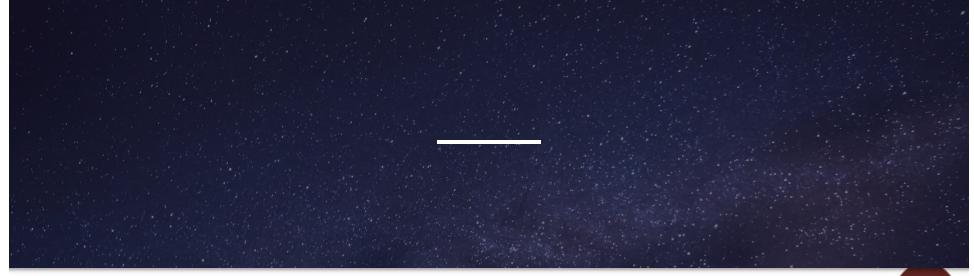
Venture Capital, to be efficient, must put larger sums to work to make return goals

How can this process be improved?

TOP CONCERNS OF MEDICAL DEVICE COMPANIES*

Number of Employees	Regulatory Changes	Product Development	Funding & Capital
1-9	45%	36%	56%
10-49	61%	42%	39%
50-249	64%	57 %	24%
250-999	77 %	54%	6 %
1000+	74%	49%	13%

^{*}EMERGO GLOBAL MEDICAL DEVICE INDUSTRY OUTLOOK 2017



Healthcare sector trends



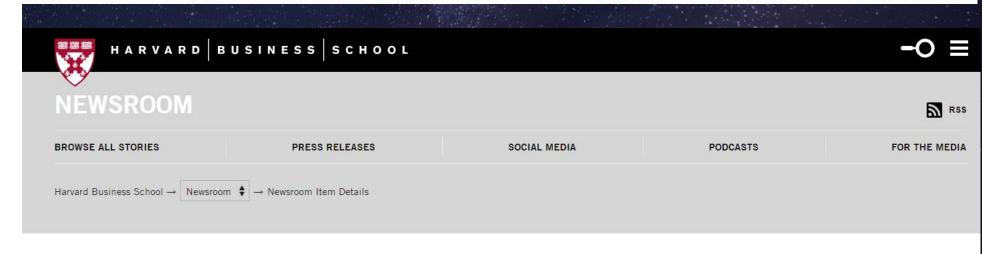
Biotechnology related industries raised more than \$4 billion for the fourth consecutive quarter

- A total of \$4.0B invested into Biotechnology related industries in Q3'18, which represents an 1% decrease from Q2'18, while deals remained constant quarter on quarter of 120 deals in Q3'18 and Q2'18.
- The Medical Devices & Equipment related industries decreased quarter over quarter to \$773M in funding and a 11% decrease in deals from Q2'18.



How many startups fail?

Nine out of ten startups will fail. This is a hard and bleak truth, but one that you'd do well to meditate on. Entrepreneurs may even want to write their failure post-mortem before they launch their business.



Faculty News | Wall Street Journal | 19 SEP 2012

The Venture Capital Secret: 3 Out of 4 Start-Ups Fail

Re: Shikhar Ghosh

It looks so easy from the outside. An entrepreneur with a hot technology and venture-capital funding becomes a billionaire in his 20s. But now there is evidence that venture-backed start-ups fail at far higher numbers than the rate the industry usually cites. About three-quarters of venture-backed firms in the U.S. don't return investors' capital, according to recent research by Shikhar Ghosh, a senior lecturer at Harvard Business School.

BIG IDEAS FROM SMALL COMPANIES

- Despite differences in definitions, researchers understand that radical innovation within an organization is very different from incremental innovation [13,17,21] and that it is critical to the long-term success of firms.
- Unfortunately, research has also shown that it is often difficult to get support for radical projects in large firms [14], where internal cultures and pressures often push efforts toward more low risk, immediate reward, incremental projects.
- BIG companies must acquire radical innovation from startups





Looking ahead: The future of device developers in precision medicine



MASSDEVICE TODAY

WALL STREET BEAT

MORE MEDTEC

BLOG

DEVICETALKS PODCAST

RESOURCES

DEVICETALKS

HOME » MEDTECH PIONEER ROWE, DEERFIELD LAUNCH \$275M MEDICAL DEVICE INCUBATOR

Medtech pioneer Rowe, Deerfield launch \$275m medical device incubator

SEPTEMBER 20, 2018 BY BRAD PERRIELLO

DEERFIELD

A medtech pioneer, Stanton Rowe, and investment firm Deerfield Management said today that they're going in on a medical device incubator backed by \$275 million from the investment firm, with Rowe as CEO.

The Irvine, Calif.-based NXT Biomedical incubator plans to spend \$25 million over the next five years on "cutting-edge technologies" designed to address unmet needs, with another \$250 million pledged for creation of five to eight startups to be spun out of the incubator. And it's "exploring potential collaborations with unnamed strategic partners," according to Deerfield partner Steve Hochberg.

J&J Innovation gets in on NXT Biomedical incubator

JANUARY 8, 2019 BY FINK DENSFORD — LEAVE A COMMENT









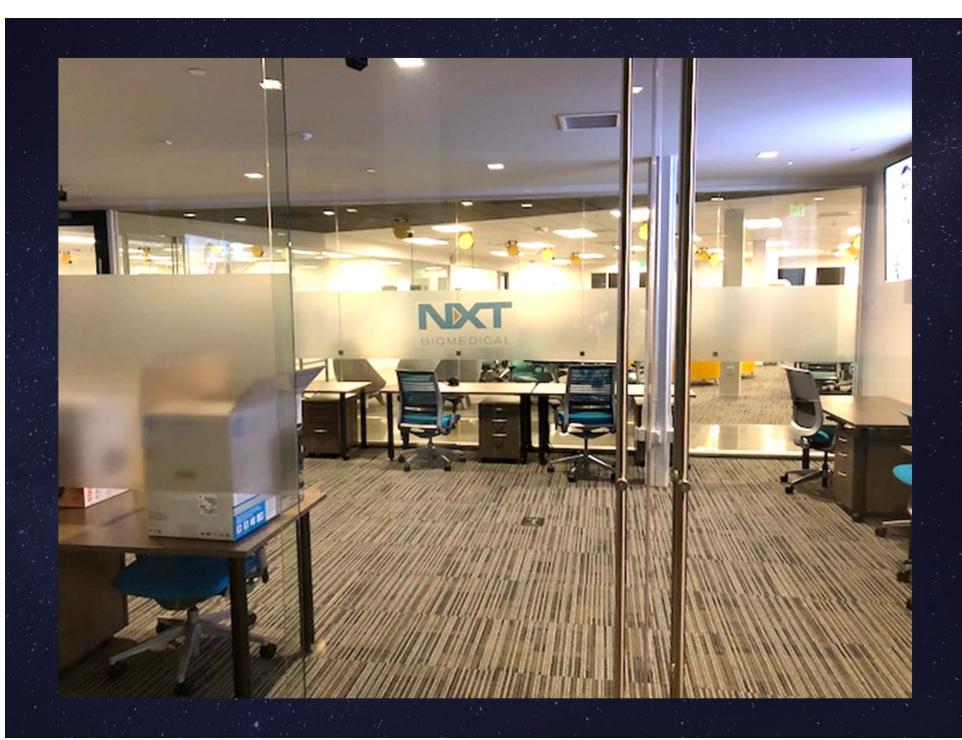


Johnson & Johnson (NYSE:JNJ) said today that it inked a deal to join the NXT Biomedical therapeutic device incubator, gaining the right to migrate select projects from the incubator to its J&J medical devices companies.

The Irvine, Calif.-based incubator was founded by medtech pioneer Stanton Rowe and investment firm Deerfield Management last September, and aimed to invest in "cutting-edge technologies" designed to address unmet needs.

As a key member of the incubator, J&J's Innovation arm will have the ability to move strategically aligned projects within the accelerator to J&J medical device companies for continued development at the Center for Device Innovation at the Texas Medical Center.

"The CDI @ TMC model was created to enhance early-stage internal and external medical device innovation. Our collaboration with NXT Biomedical has the potential to further strengthen the CDI @ TMC pipeline with validated science coming through the NXT incubator, and to ensure that jointly we deliver best-in-class medical device innovation to patients around the world," J&J Innovation global head Dr. William Hait said in a press release.



SOLVE IMPORTANT PROBLEMS #1

- Project 1- Medical Need/Market/Device
- Project 2- Medical Need/Market/Device
- Project 3- Medical Need/Market/Device
- Project 4- Medical Need/Market/Device
- Project 5- Medical Need/Market/Device
- Project 6- Medical Need/Market/Device
- Project 7- Medical Need/Market/Device
- Other Potential Projects

Key Trouble Shooting Process Steps

Determine responsibilities
Define the next steps
List Concerns
Determine priorities
Separate and clarify situation

Situation Analysis

Problem Analysis

Define problem
Specify problem
Identify differences
and changes
Formulate causes
Test causes against the facts
Prove true cause

Decision Analysis

State decision

Define and classify objectives

Weigh objectives

Generate alternatives

Evaluate alternatives

Assess risks

Make decision

Potential Problem Analysis

Identify potential problems
Identify causes
Take preventive action
Plan contingent action
Set triggers

(A) Decision to Evaluate Score (D) Options		Where should we travel for our mid-Winter get-away?				
		21 Florida	16 Texas	15 Bermuda	15 Australia	
						(B) Qualities of this Decision
a relaxing time	3	2	1	3	2	
warm weather	3	2	2	1	3	
not too expensive	2	3	2	1	О	
not too far away	1	3	3	1	o	
<important quality="" value=""></important>	0	0	0	o	0	

[Rank: 3 = very important | 2 = pretty important | 1 = important]

[Meets Need?: 3 = very true | 2 = true | 1 = fairly

HOW INNOVATION TEAMS BEHAVE

1. Innovation Emerges over Time

No single actor comes up with the big picture, the whole plot. The play emerges bit by bit. Each actor, in each line of dialogue, contributes a small idea.

2. Successful Collaborative Teams Practice Deep Listening.

Most people spend too much time planning their own actions and not enough time listening and observing others.

3. Team Members Build on Their Collaborators' Ideas

When teams practice deep listening, each new idea is an extension of the ideas that have come before.

4. Only Afterwards Does the Meaning of Each Idea Become Clear

Even a single idea can't be attributed to one person because ideas don't take on their full importance until they're taken up, reinterpreted, and applied by others. In a creative collaboration, each person acts without knowing what his or her action means.

5. Surprising Questions Emerge

Creativity researchers have discovered that the most creative groups are good at finding new problems rather than simply solving old ones.

6. Innovation Is Inefficient

Improvised innovation makes more mistakes, and has as many misses as hits. But the hits can be phenomenal; they'll make up for the inefficiency and the failures.

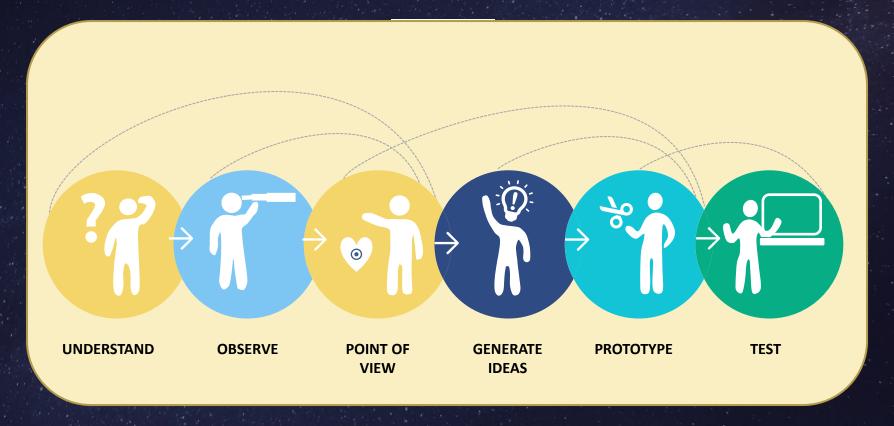
7. Innovation Emerges from the Bottom Up

The most innovative teams are those that can restructure themselves in response to unexpected shifts in the environment; they don't need a strong leader to tell them what to do.



NXT EARLY FEASIBILITY PROCESS

Testing through chronic animals or FIH



Output of NXT is New Companies

Deerfield and Strategics have reviewed concept, development and testing for alignment

- Concept 1
- Concept2

Feasibility

FIH

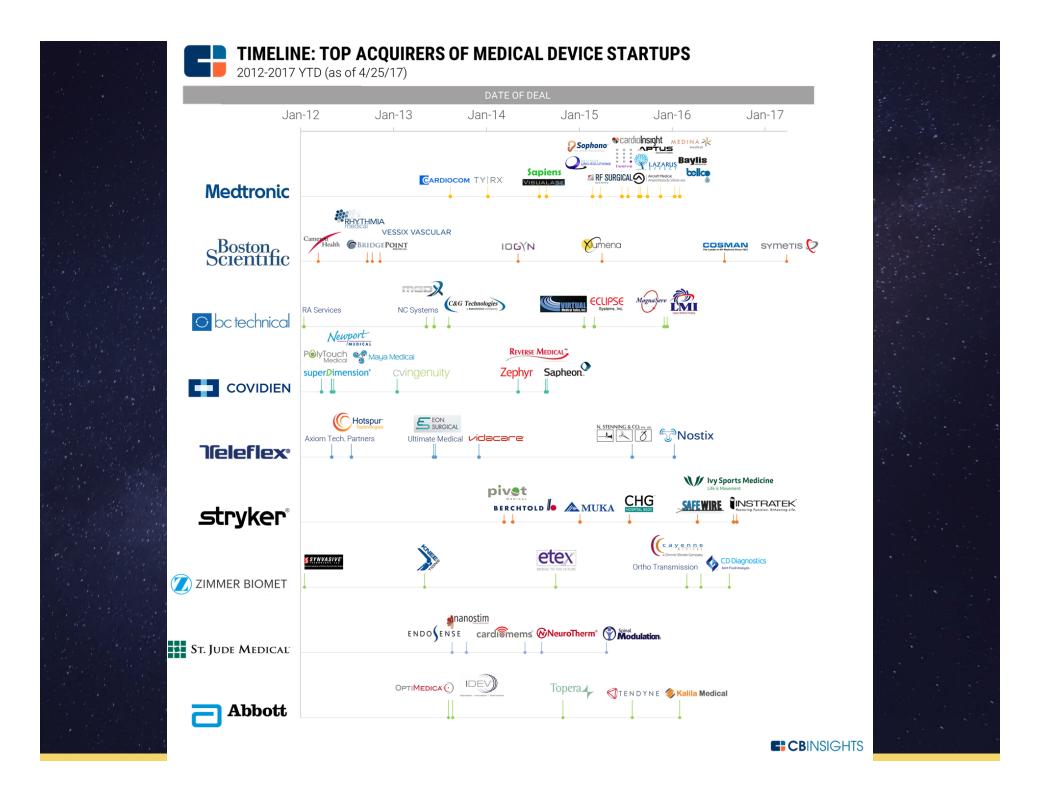
- Validation and Verification
- FIH Testing

Funding Gate 1

- Add management
- Add funding

NewCo Spinout

Funding Gate 2



SUMMARY

- Large Companies need startups to fuel their very modest innovation efforts; these fuel their growth
- Startups need large companies for funding, acquisition, pivotal trials and approvals, scale up, and distribution
- Venture capital funding remains robust, but growth in medical device investments has been meager
- Series A financings remain extremely challenging
- Startups spend inordinate time and effort in seeking funding
- New models are needed to improve funding and startup efficiency
- This innovation ecosystem provides meaningful benefits to patients

Steve Jobs, former CEO, Apple

"Innovation has nothing to do with how many R&D dollars you have.
When Apple came up with the Mac, IBM was spending at least 100 times more on R&D. It's not about money. It's about the people you have, how you're led, and how much you get it."

From a 1998 interview with Fortune



