



economics & strategy for life sciences industries
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PILOT CHART Q2 2018

Quarterly compendium of biosciences industry perspectives, Q2 April 2018

Venture capitals in Biotechs

Last Healthcare Investments and Exits report ([SVB annual report, 2018](#)) analyzed activity of biosciences companies with venture capital investment. U.S. healthcare venture fundraising reached \$9.1 billion in 2017, it is the biggest capacity of investment in the life sciences sector in the world. IPOs and M&A activities in Oncology represent 36% of all exits in 2017. VCs represent 60% of most active investors.

Ranking of American VCs specialized in Biotechs ([Biotechbourse, HedgeMind, January 31st 2018](#))

#	Manager	Noms du Fonds	# de positions	Actifs sous gestion (Md \$)
1	Julian Baker	BAKER BROS ADVISORS LP	121	12,330918
2	Samuel Isaly	ORBIMED ADVISORS LLC	143	10,463804
3	Christopher James	PARTNER FUND MANAGEMENT LP	88	5,089073
4	Daniel Gold	QVT FINANCIAL LP	70	2,683983
5	Joseph Edelman	PERCEPTIVE ADVISORS LLC	139	2,617539
6	William Edwards	PALO ALTO INVESTORS LLC	40	2,374127
7	James Flynn	DEERFIELD MANAGEMENT CO	91	2,219958
8	Kris Jenner	ROCK SPRINGS CAPITAL MANAGEMENT LP	147	2,167567
9	Randal Kirk	THIRD SECURITY LLC	15	1,585167
10	Stephen DuBois	CAMBER CAPITAL MANAGEMENT LLC	24	1,57788
11	Hal Mintz	SABBY MANAGEMENT LLC	164	1,53029
12	Robert Adelman	VENBIO SELECT ADVISOR LLC	43	1,289268
13	Peter Kolchinsky	RA CAPITAL MANAGEMENT LLC	27	1,106912
14	Mark Lampert	BVF INC	37	0,786726
15	Oleg Nodelman	ECOR1 CAPITAL LLC	39	0,750316
16	Kevin Kotler	BROADFIN CAPITAL	45	0,676005
17	Larry Feinberg	ORACLE INVESTMENT MANAGEMENT INC	22	0,609651
18	Dennis Purcell	AISLING CAPITAL LLC	14	0,608709
19	Roderick Wong	RTW INVESTMENTS LLC	27	0,574197
20	Bihua Chen	CORMORANT ASSET MANAGEMENT LLC	51	0,566356
21	Richard Lin	LONGWOOD CAPITAL PARTNERS LLC	64	0,558011
22	Jeffrey Jay	GREAT POINT PARTNERS LLC	37	0,51403
23	David Kim	GHOST TREE CAPITAL LLC	63	0,470905
24	Aaron Davis	BOXER CAPITAL LLC	30	0,439265
25	Eli Casdin	CASDIN CAPITAL LLC	26	0,354153
26	Kevin Tang	TANG CAPITAL MANAGEMENT LLC	5	0,327505
27	Alex Denner	SARISSA CAPITAL MANAGEMENT LP	9	0,323993
28	Michael Krensavage	KRENSAVAGE ASSET MANAGEMENT LLC	14	0,320803
29	James Silverman	OPALEYE MANAGEMENT INC	34	0,282772
30	Jim Tananbaum	FORESITE CAPITAL MANAGEMENT II LLC	12	0,246705
			TOTAL :	55,446588

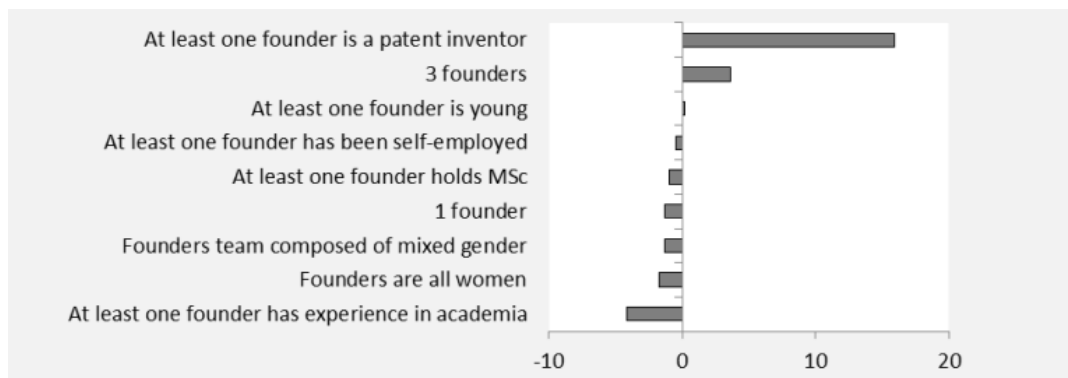
A portrait of innovative start-ups across countries: Success factors, OECD Science 2018

A recent report ([OECD iLibrary, February 2018](#)) presents new cross-country descriptive evidence on innovative start-ups and related VC investments. This report relies on the analysis of a micro-level [Crunchbase](#) database encompassing many countries & sectors.

Firms founded by a team of individuals are more likely to receive VC funding (higher number of funding rounds and a greater amount of VC funding). Previous experience in entrepreneurship and in academia increases the probability of getting VC funding and to be acquired.

Start-ups' patent applications are positively associated with the probability of getting VC, and negatively associated with the number of funding rounds and with the probability of IPO, and to a lesser extent with probability of acquisition. Companies where at least one founder is a patent inventor are more likely to experience a successful exit or file a patent application. Also, in general, VC funding is positively associated with successful exit.

LASSO regressions, across all sectors & countries, of amount of funding on set of firms and founders characteristics:



Extraterritorial US laws which impact global trade

Nowadays, industry has to be aware of the very broad scope of US laws in international trades.

Export Administration Regulation (EAR) controls export equipments and technologies including software and technology that are licensed to other countries. The same scheme exists for military technologies but it includes also non military technologies alike commercial information satellite, bioproduction equipment (USLM Category XIV) or turbine engine (USLM Category XIX) ([March 15, 2018, CRS report : Export Control System](#)). Liability for the disclosure of controlled technical data includes 20 years imprisonment and penalties up to \$1,000,000 per violation (IEEPA sanctions 50 U.S.C. 1705(b)).

This sword of Damocles is applicable likewise for misconduct in business practices with criminal penalties of several million and imprisonment of maximum 20 years. For example VimpelCom paid \$795 million global settlement for FCPA violations to win business in Uzbekistan. Or BNY Mellon paid \$14.8 million because it had provided student internships to middle East family members of government officials ([March 15, 2016, CRS report : FCPA](#)). Total sanctions in 2016 raised to 2,4 Billion ([Stanford FCPA observatory](#)) and denouncement is rewarded with whistleblower award of \$83 million to note in March 2018 ([March 19, 2018, FCPA blog](#)). In 2017, 3 non US countries are main information providers for FCPA violations: UK (84 #tips) , Canada (73) and Australia (48) ([SEC Annual Report 2017, page 33](#)).

Regarding investment, any buy of 10% in shares in a strategic US company needs approbation of the Committee on Foreign Investment in the United States (CFIUS). The CFIUS investigates the operation using all appropriate intelligence agencies and can block and postpone transaction. The most controversial feature of this arrangement (called the Byrd amendment) allows CFIUS to reopen a review of the deal and to overturn its approval at any time if CFIUS believed the companies “materially fail to comply ”with the terms of the arrangement ([March 13, 2018, CRS report : CFIUS](#)).

In conclusion now, non-US companies try more and more to rely on technologies that do not include US patents. And now companies need to build tactics to preclude FCPA damages alike TEVA which paid \$519 Million in December 2016 ([SEC Release, December 22, 2016](#)) and now which is collapsing and announcing a 14 000 layoff plan ([The New York Times, December 27, 2017](#)).

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