

Emerging Therapeutic Company Investment and Deal-making 2010-2019

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Emerging Therapeutic Company Investment and Deal Trends
US Venture Capital and Public Offerings, 2009-2018
Global Licensing and Acquisitions, 2009-2018
Current Pipeline for Emerging Companies
by David Thomson, CFA and Chad Wessel
BIO INDUSTRY ANALYSIS

Acquisitions

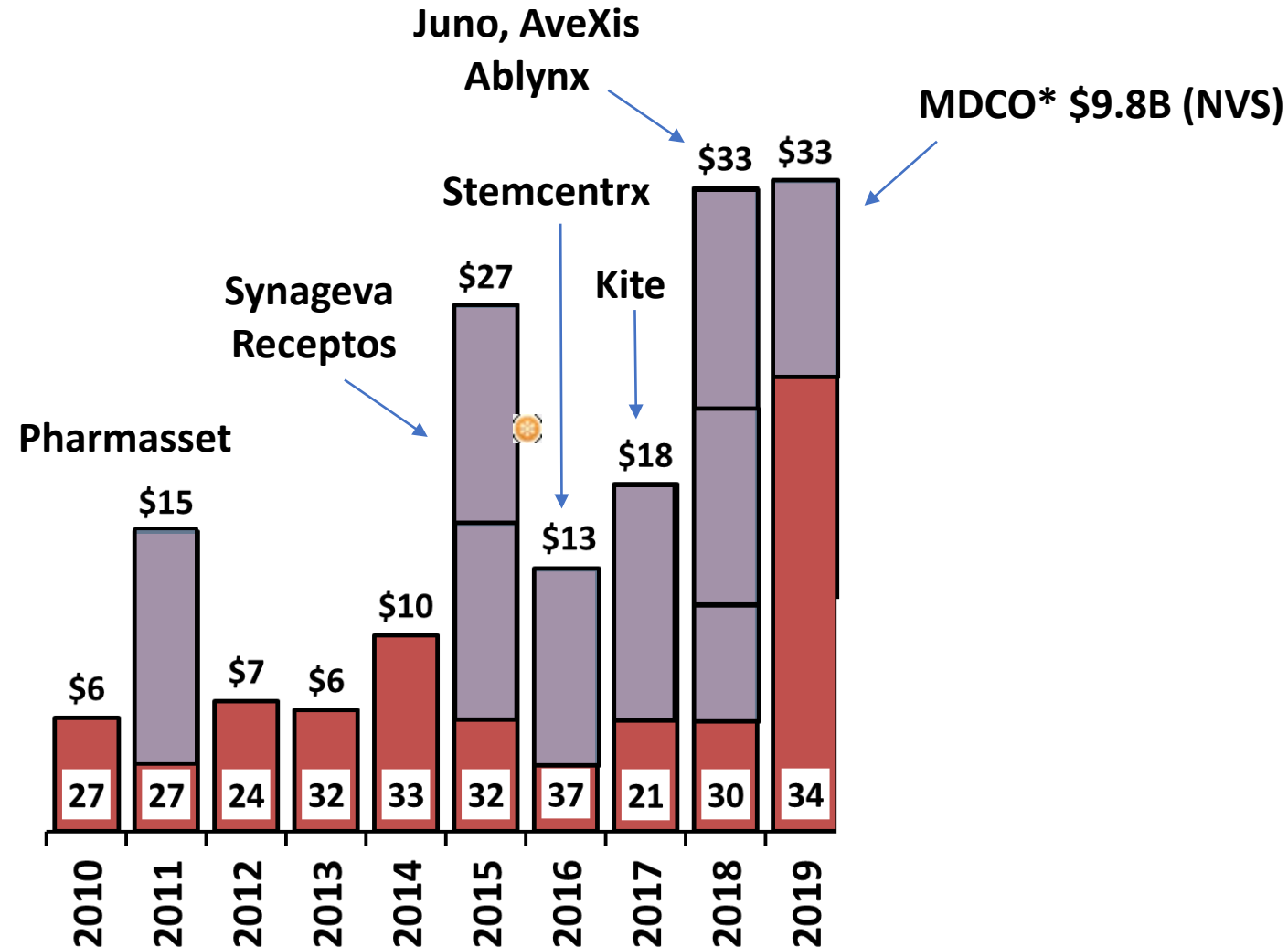
(emerging therapeutic companies only)

1. R&D-stage companies
2. Market-stage companies <\$1B sales

Emerging Company Acquisitions R&D-Stage Targets

 >\$5B upfront

Total Acquisition Value Ex-CVR
R&D-Stage Biotechs >\$10M (\$B)



*Therapeutic companies
acquired for minimum
\$10M deal value*



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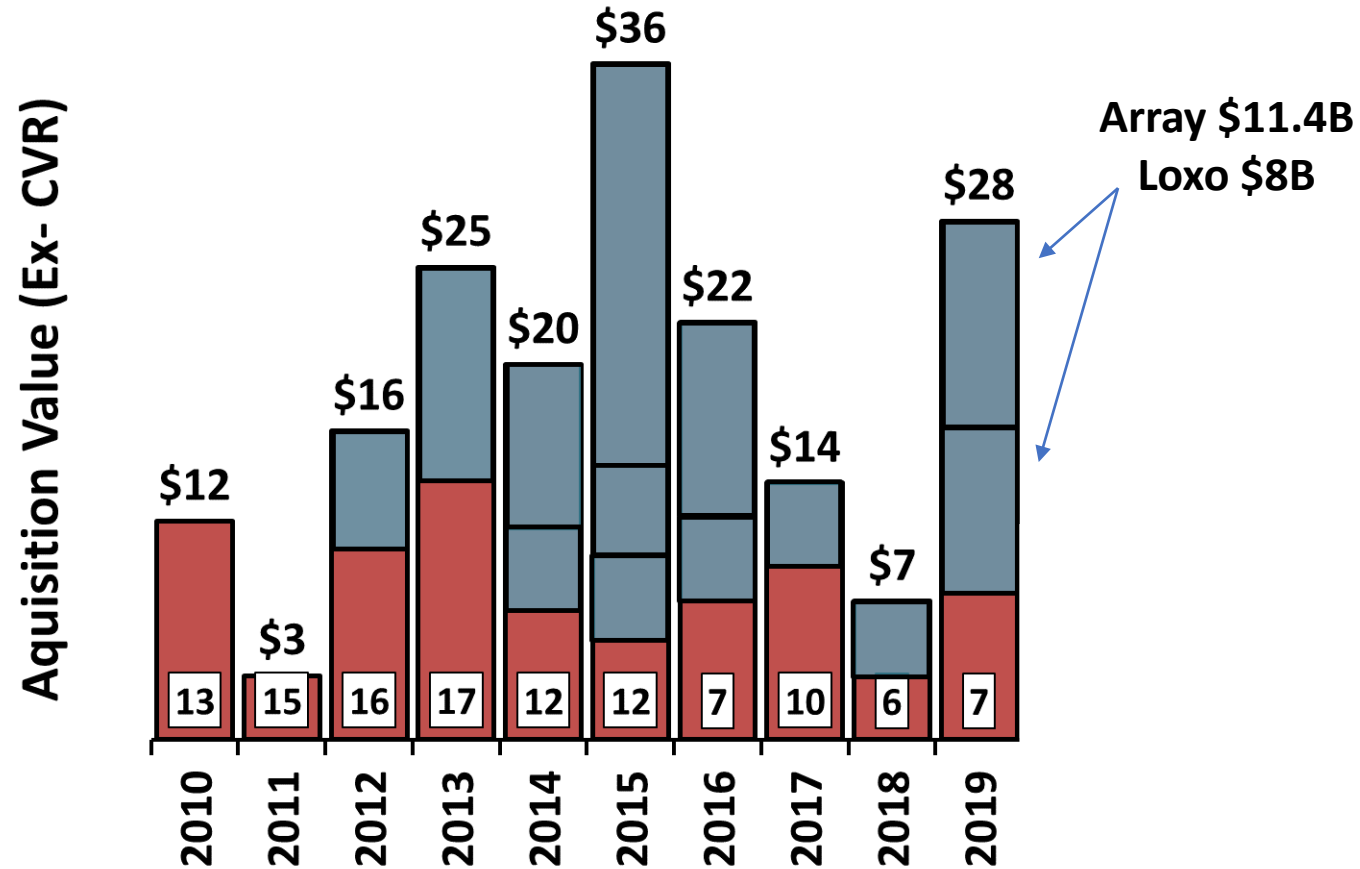
*MDCO had sold off Market franchise

Source: Informa, Cortellis, BCIQ, BIO Industry Analysis, 2020

Emerging Company Acquisitions

Market-Stage Targets with <\$1B Sales

 >\$5B upfront



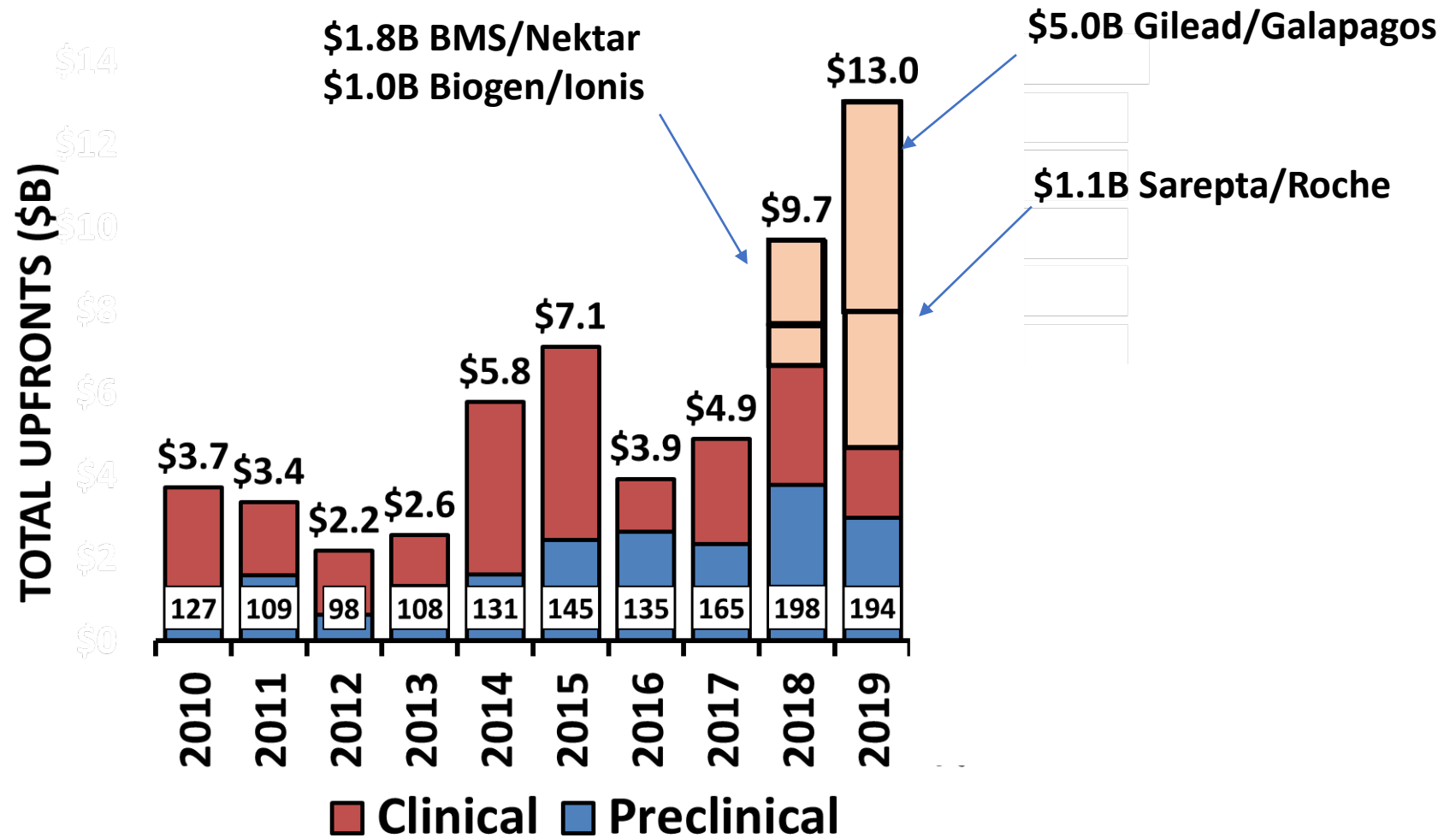
Therapeutic companies
acquired for minimum
\$10M deal value

R&D-Stage Drug Asset Out-Licensing

(Small therapeutic companies only)

R&D-stage Out-Licensing (Upfront Payments)

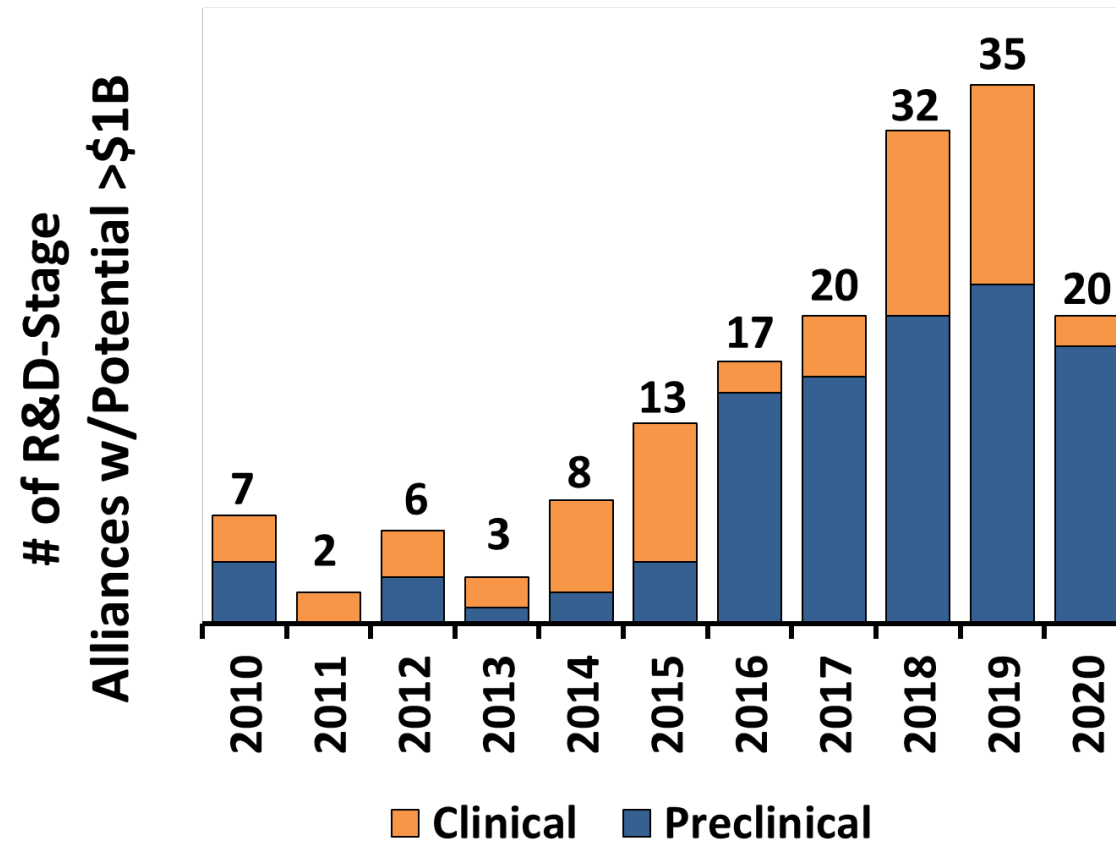
 >\$1B upfront



Global therapeutic companies
acquired for minimum \$10M
deal value

R&D-stage Out-Licensing from Global Emerging Companies

Deals >\$1 Billion in *potential* value



Public Markets and Public Financings

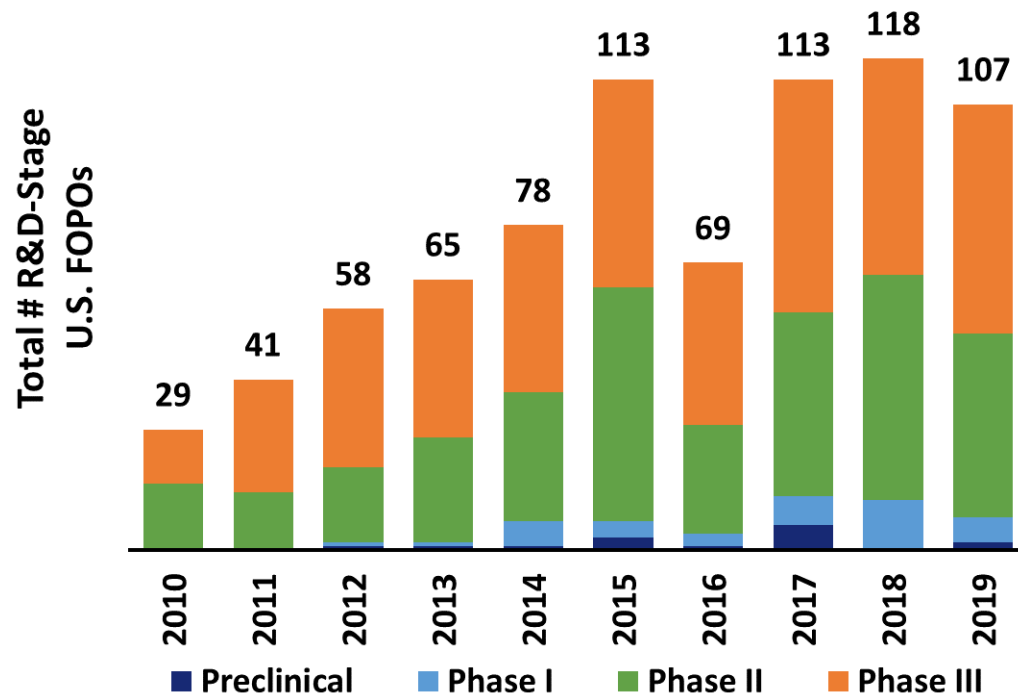
NASDAQ[®]

BioCentury[®]

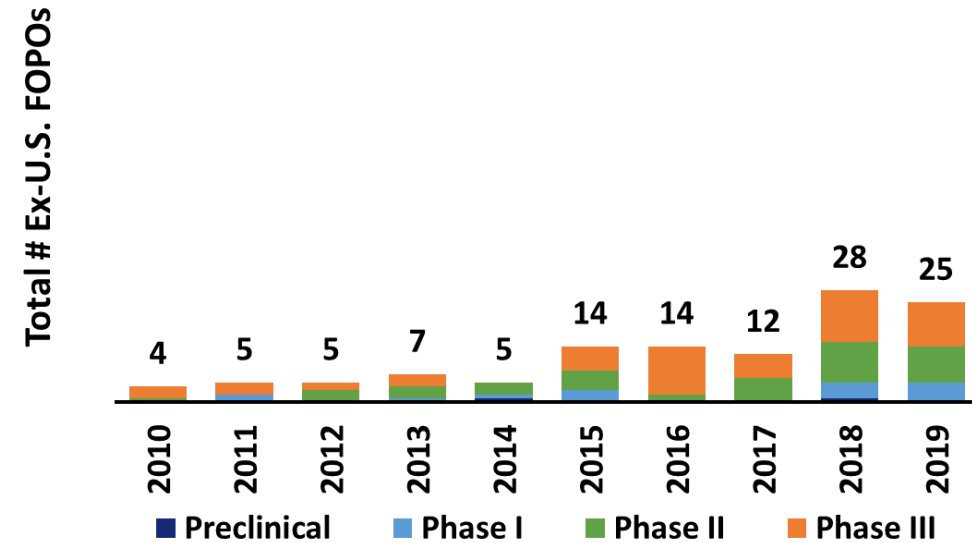
FACTSET[®]

R&D-stage Follow-On Offerings

U.S. Companies

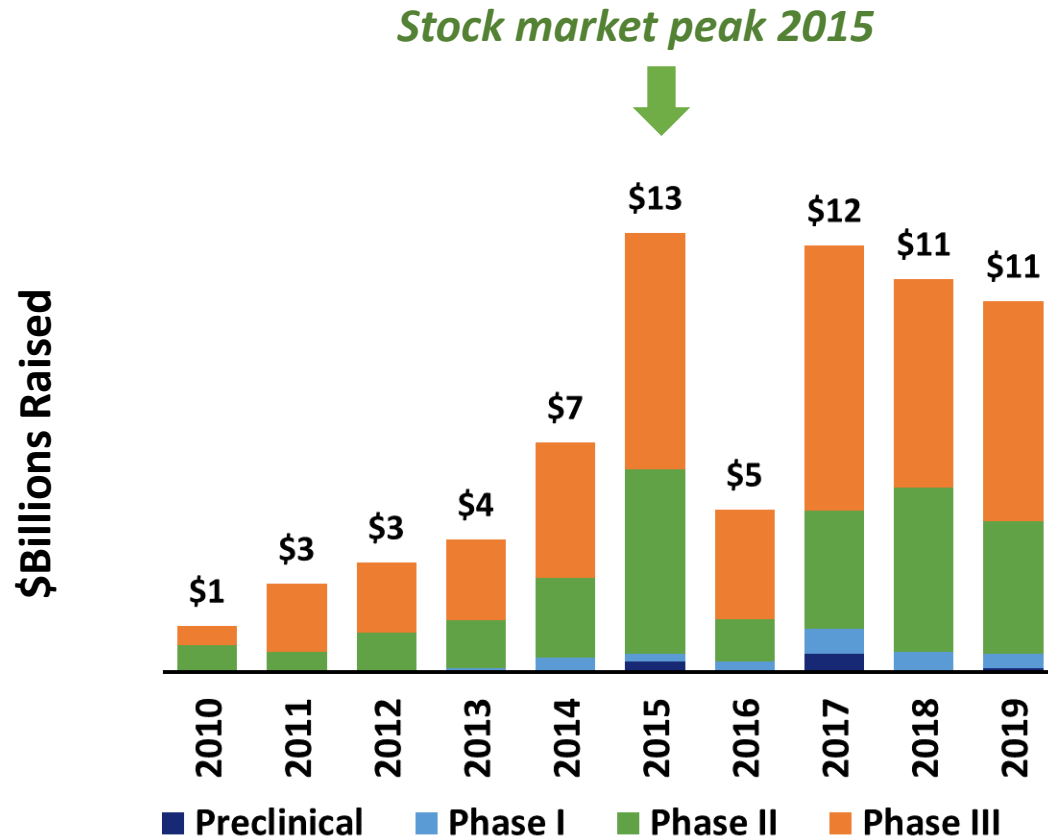


Ex-U.S. Companies

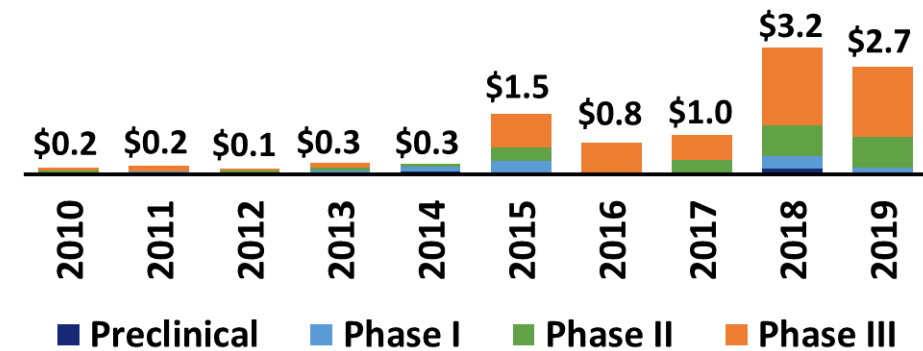


R&D-stage Follow-On Offerings

U.S. Companies

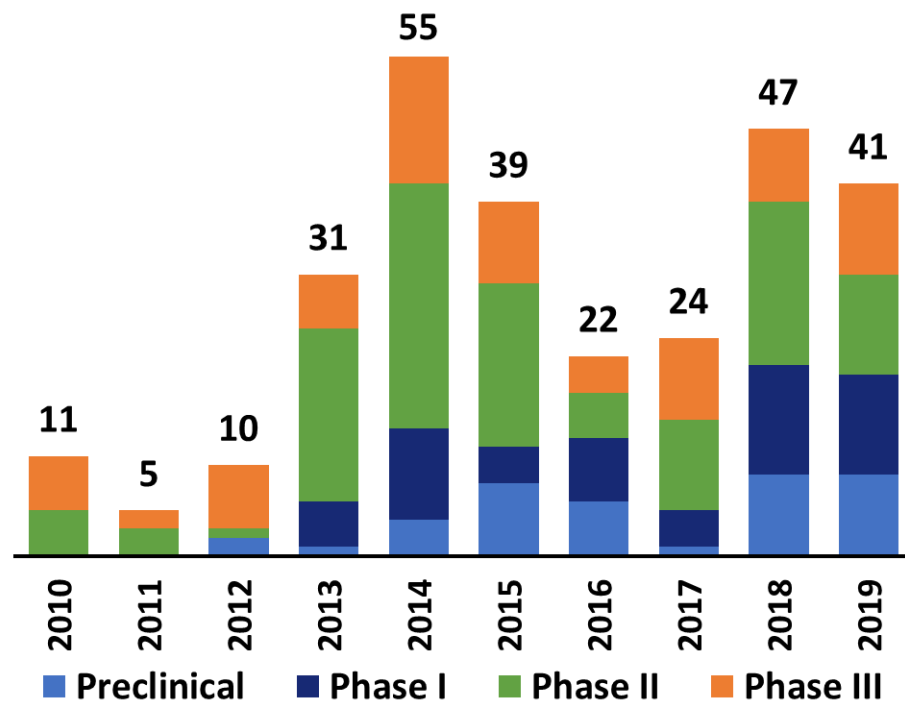


Ex-U.S. Companies

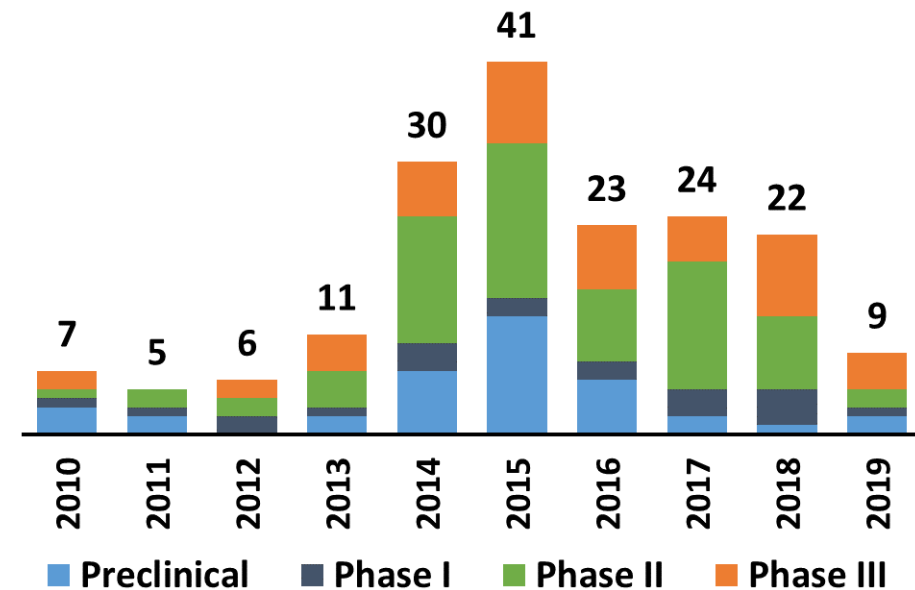


R&D-Stage IPOs

U.S. Companies

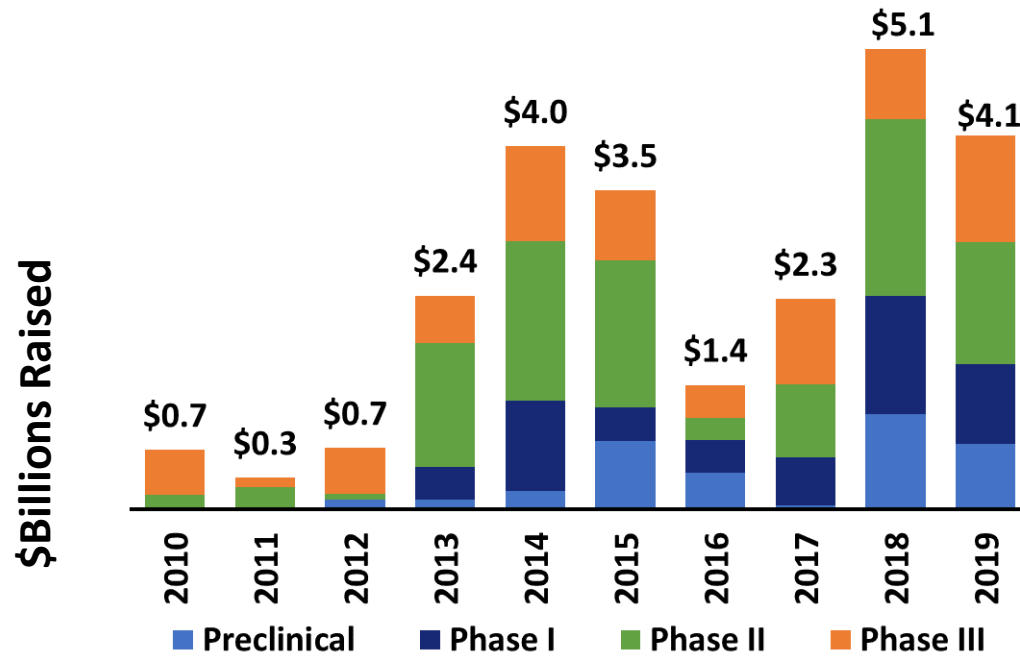


Ex-U.S. Companies



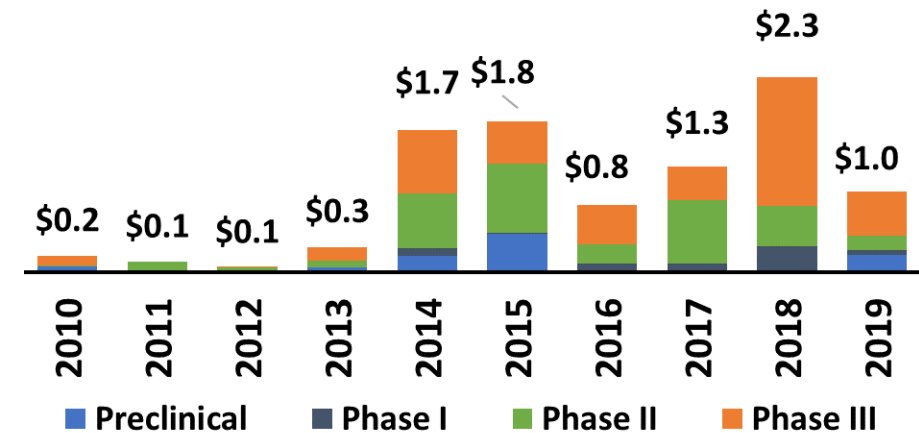
R&D-Stage IPOs

U.S. Companies



Raised
Average 2019: **\$100M**
Average 10yrs: **\$80M**

Ex-U.S. Companies



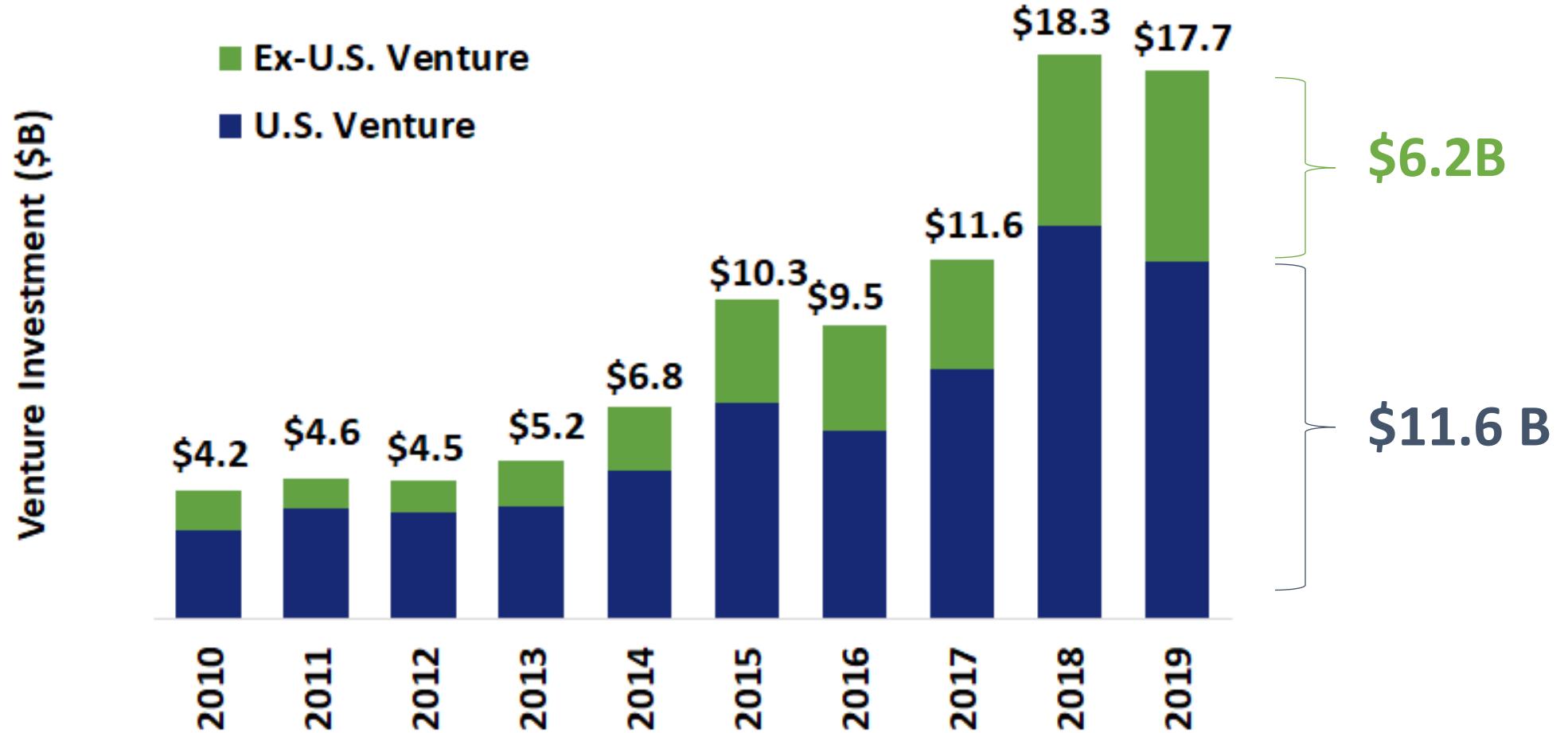
Raised
Average 2019: **\$108M**
Average 10yrs: **\$49M**

Venture Capital



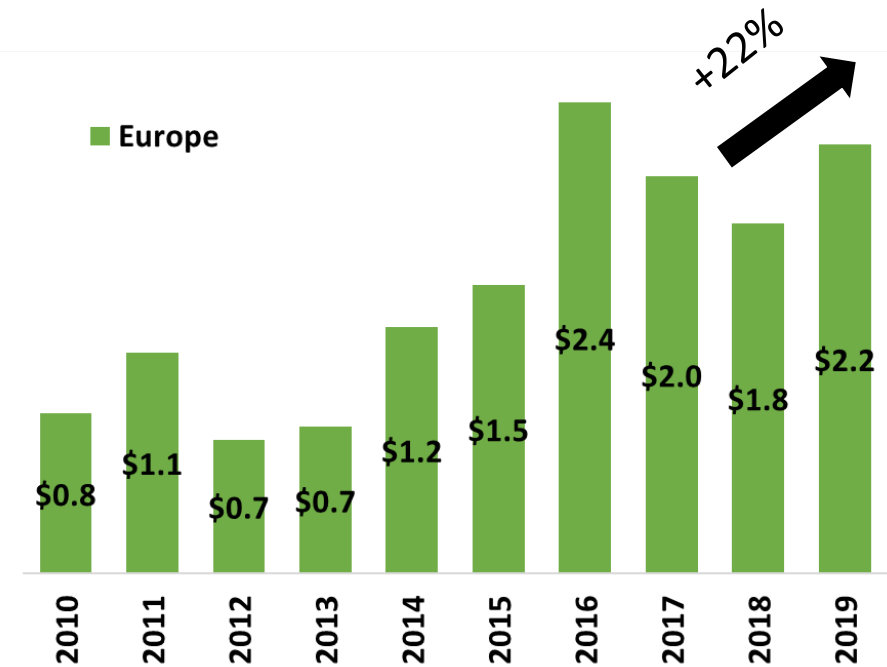
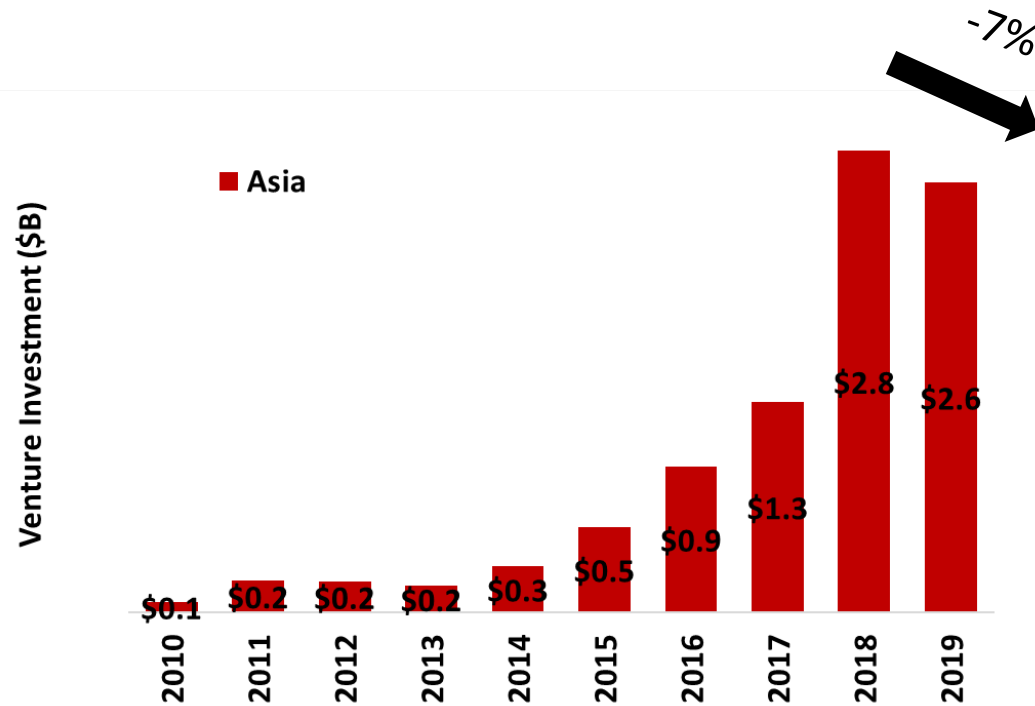
Venture Capital – Worldwide

Close, but not quite 2018



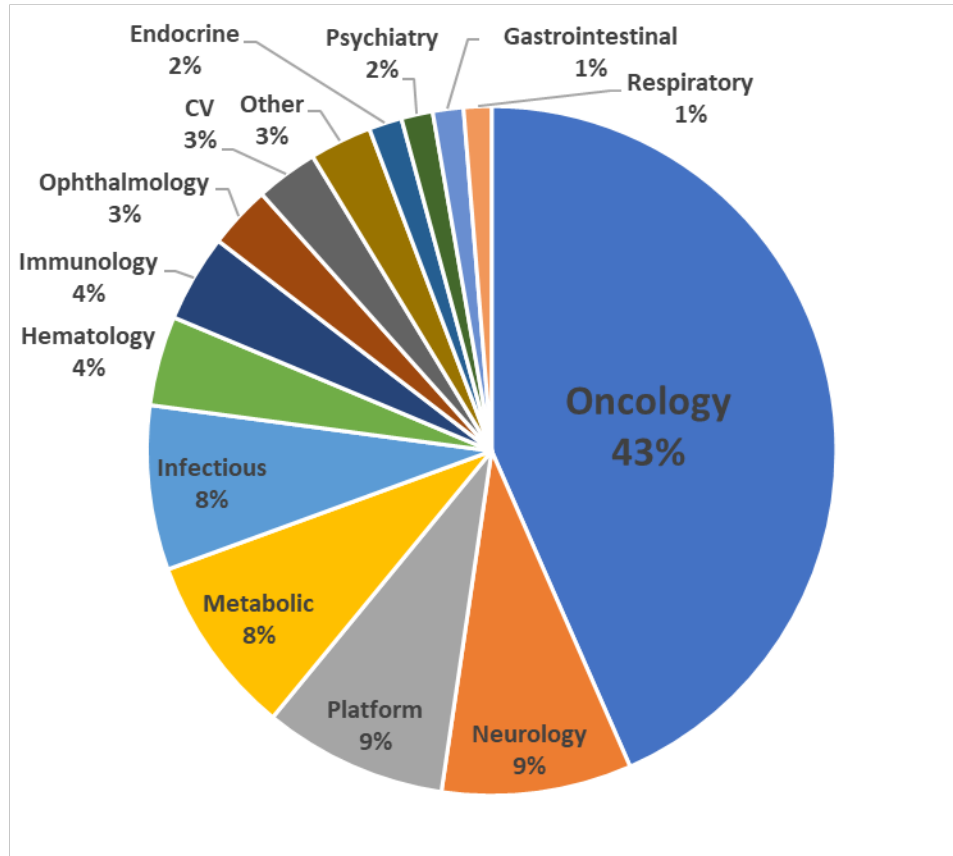
Venture Capital – Ex-US

Asia Down, Europe up in 2019

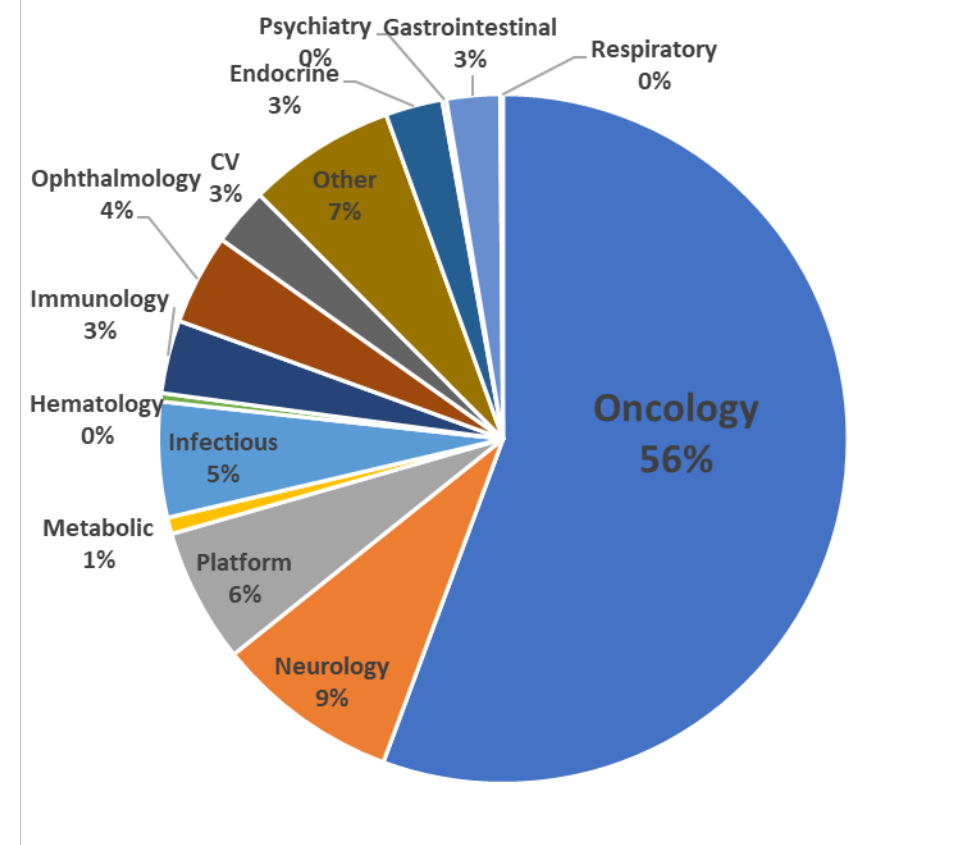


Venture Funding by Disease Area 2019

US

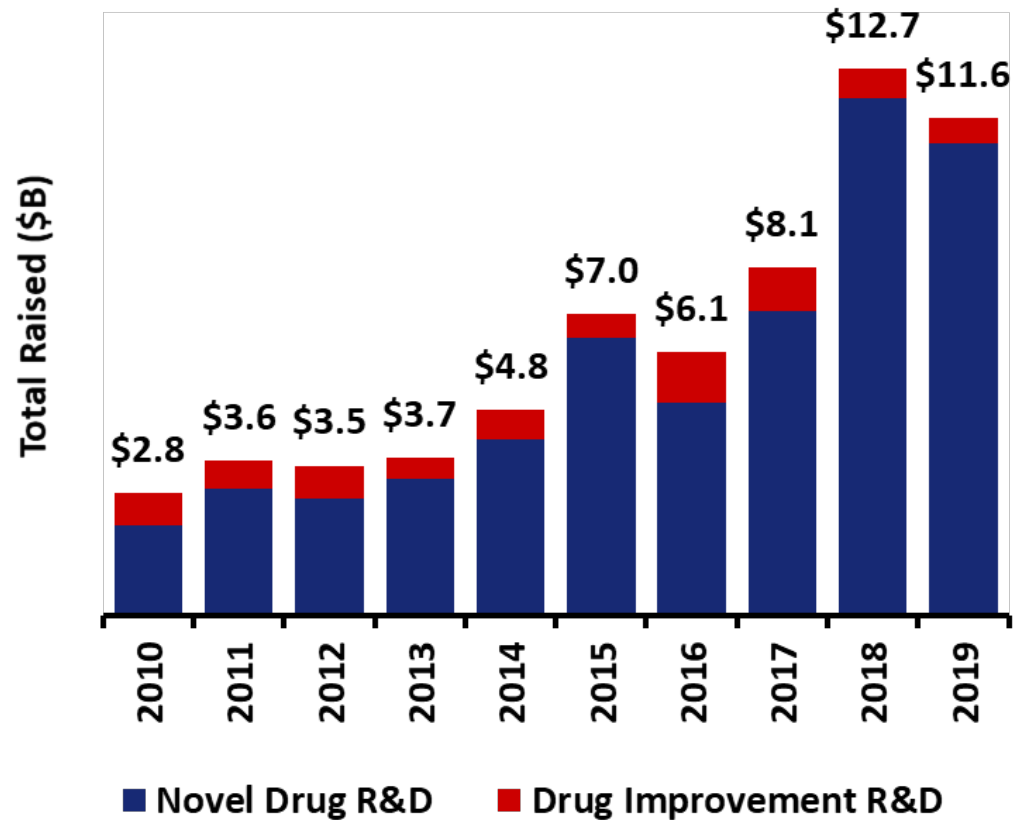


Ex-US

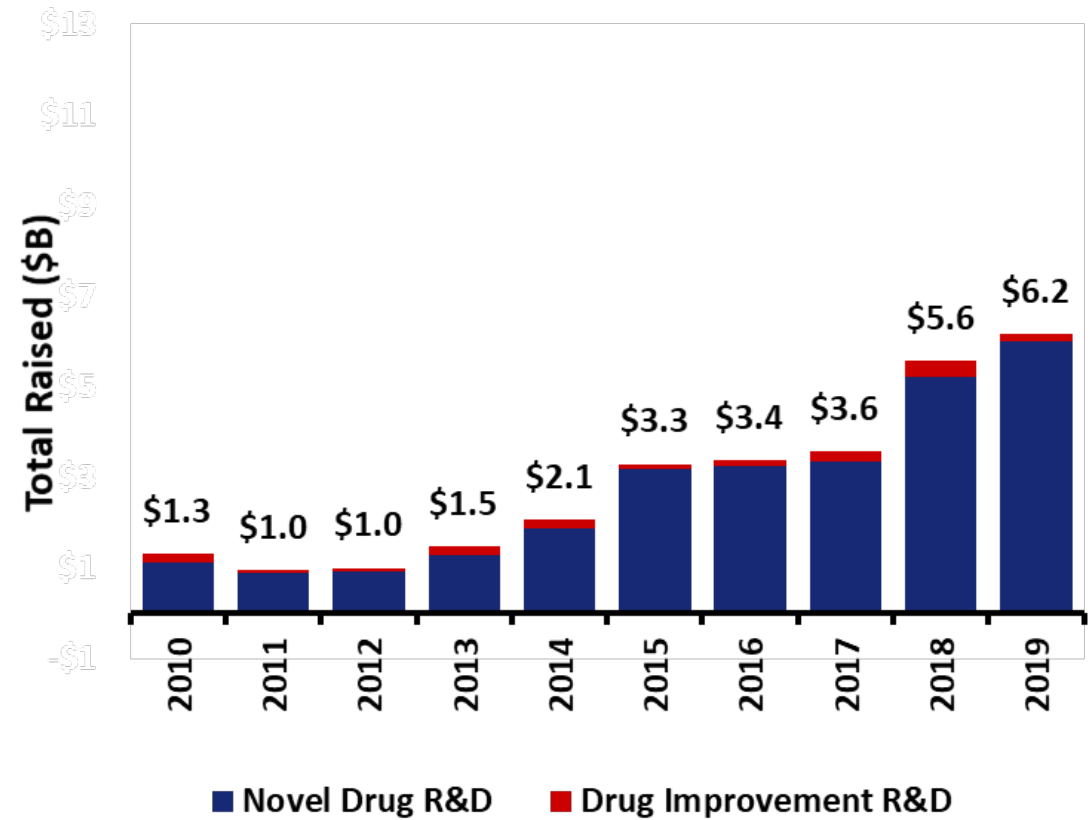


Venture Funding by Innovation Level

US

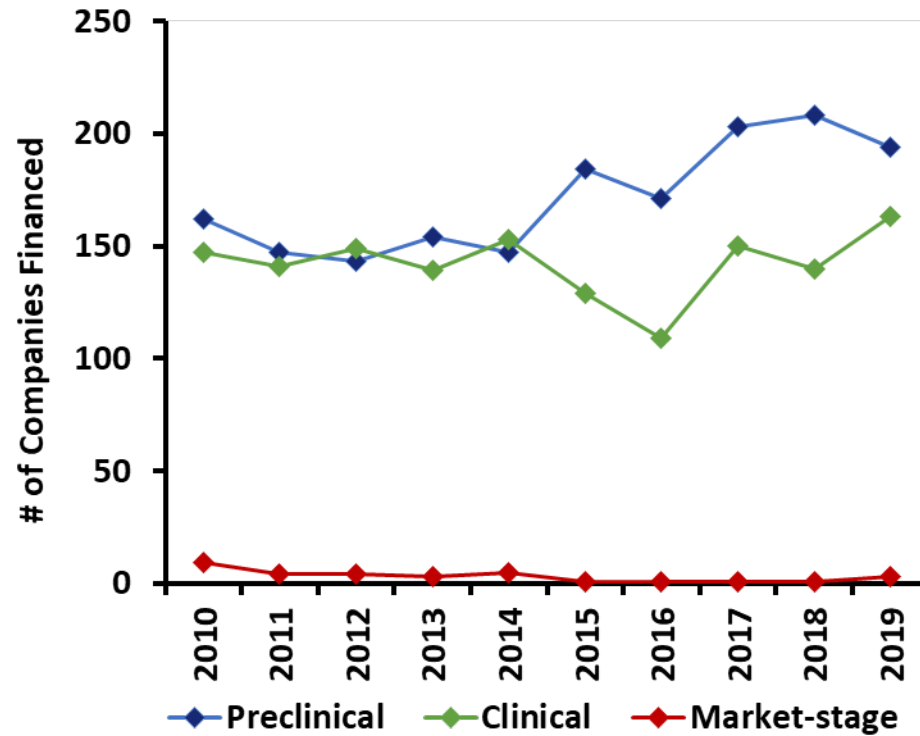


Ex-US

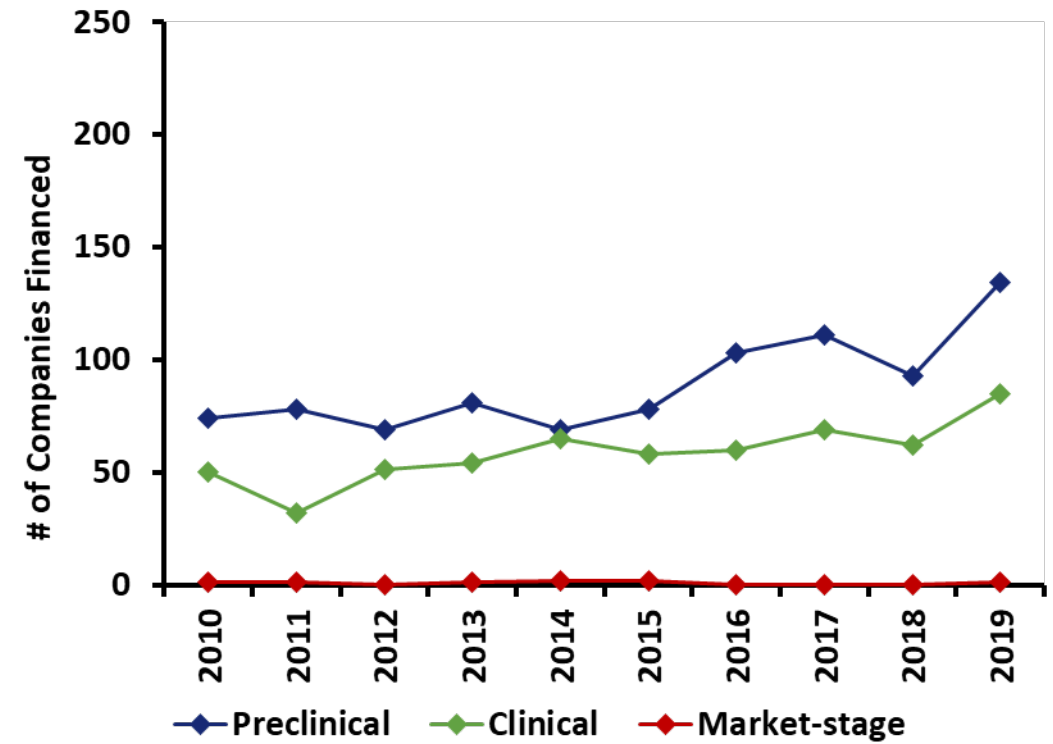


Venture Funding by Phase *by # companies*

US

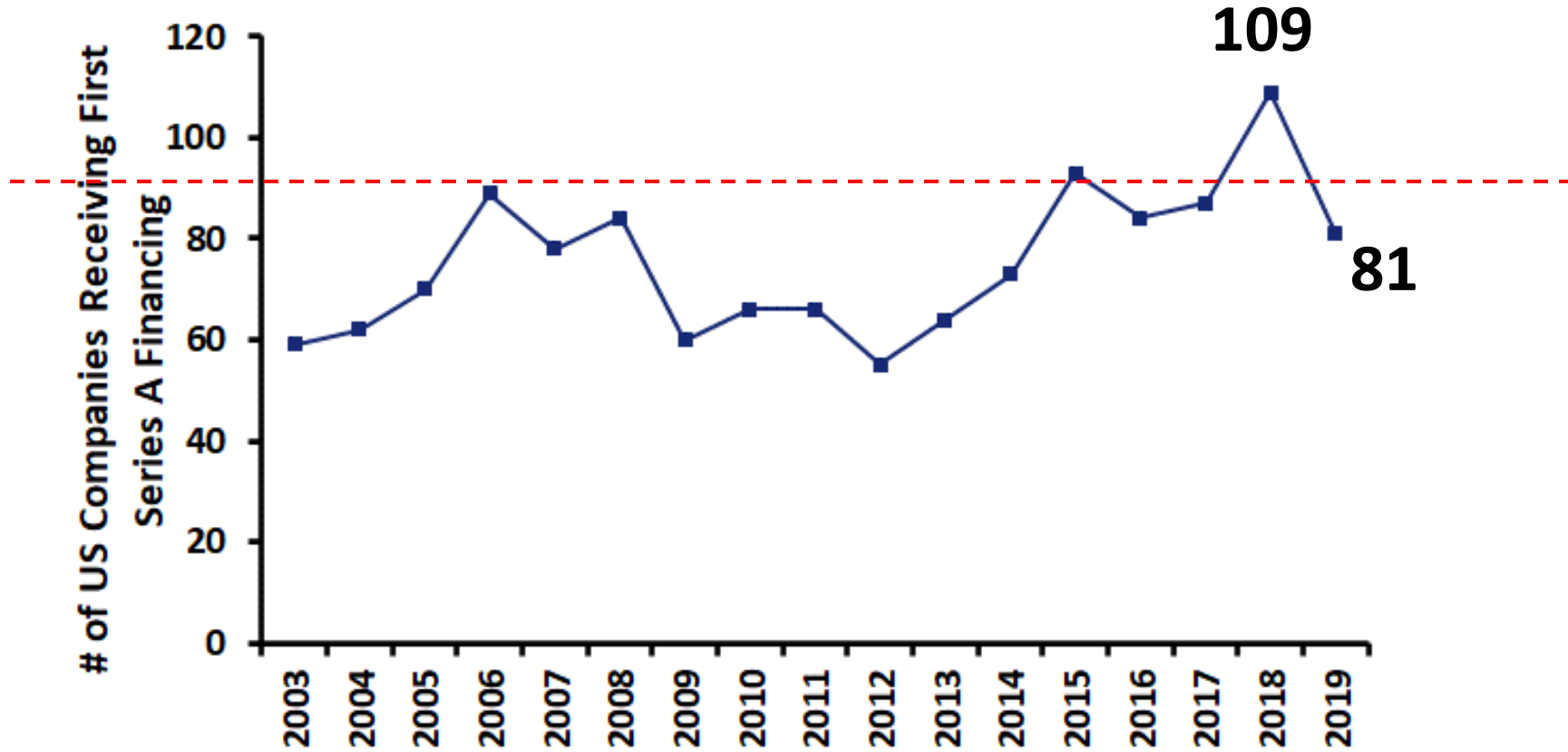


Ex-US



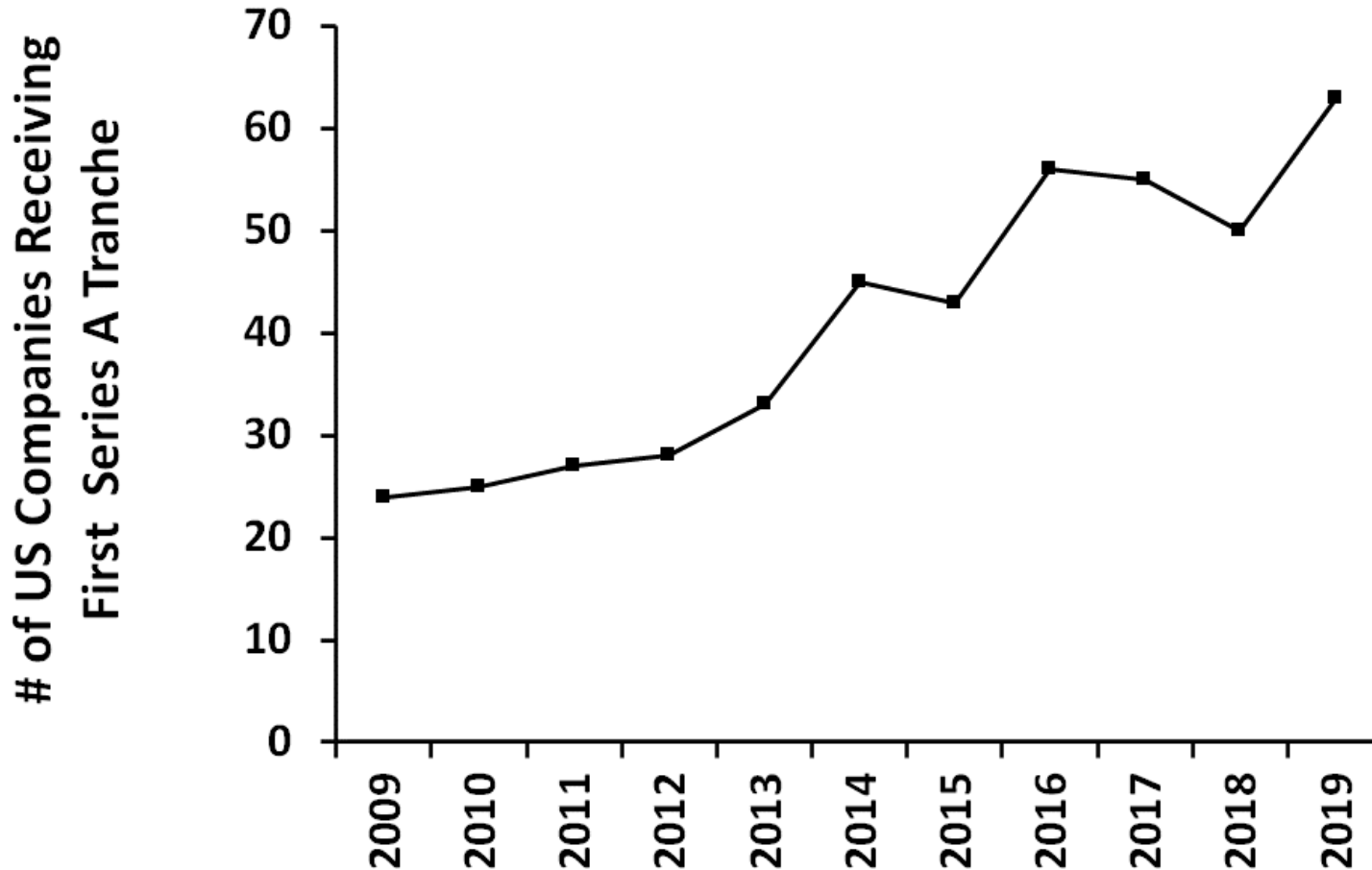
Series A-1 Rounds for U.S. companies

Was 2018 an Outlier?



Series A-1 for Ex-U.S. companies

All Time High in 2019!



Methodology

for Industry Analysis Investment and Deal Trends

Definitions

Emerging Therapeutic Company definition: All companies analyzed for this report are “Emerging Therapeutic” companies that are either developing therapeutics with a lead drug in R&D or have a drug on the market, but have less than \$1 billion in sales at the time of the transaction. Generics, distribution, and pharmacy companies are excluded.

Phase and Disease categories: Each transaction was tagged by the company’s lead program phase of development as of the date of investment or deal. For programs at the NDA/BLA stage, we grouped them as Phase III.

Novel vs. Improvement R&D: Company lead programs are assessed for two categories of innovation: novel R&D pursuing a new chemical entity, and R&D that expands the properties, availability, patient experience, etc. of an already-approved chemical entity. In the first category, novel R&D, we included in-licensed assets with prior data, such as spin-outs from big pharmaceutical companies. The lead drug for the novel category cannot have had a prior approval for any indication. The second category, drug improvement, included delivery technologies such as nanotechnology, lipids (micelles), new adjuvants for approved vaccines, extended release and prolonged half-life chemical modifications (conjugates and linkers, including pegylated variants), patches, topical creams, implanted delivery devices, needle-less injections, as well as reformulation of an approved drug, repurposing of an approved drug, and nutraceuticals.

Countries/Regions: For **Europe** the following countries were included: Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Italy, Ireland, Malta, Netherlands, Norway, Poland, Spain, Sweden, Switzerland, United Kingdom. For **Asia**, the Pacific region is included: Australia, China, India, Hong Kong, Japan, Malaysia, New Zealand, Singapore, South Korea, Taiwan. For **ROW**: Bermuda, Cayman Islands, Chile, Israel, Russia.

Definitions

Disease Categorizing: Each year of funding, for each round, investment was labeled by one of 14 major categories (13 diseases plus platform technologies). Vaccines include both bacterial and viral vaccines. Thus, all other infectious disease categories are for small molecule or large molecule approaches ex-vaccine. Oncology vaccines are tagged as vaccines if a true antigen (often peptides) is being utilized and will have the modality tagged with vaccine instead of large molecule. Thus, oncology vaccines do not show up under vaccines within infectious disease. This allows us to sort vaccines across all disease areas. “Other” in Infectious Disease refers mainly to anti-parasitic medicines and head lice treatments.

Wound healing was placed under dermatology if directly related to skin injury, but if directly affecting the immune system it is labeled under immunology. Immunology is ex-GI diseases. This is significant as some databases will place IBD under inflammation, but we chose to place it under gastrointestinal.

Platform refers to molecular platforms only, not target- or hypothesis-driven platforms. For example, a company focused on the mTOR pathway would not be a platform company, but a company designing bispecific Fab fragments would count as platform. Strokes involving the brain are classified under neurology, but if designed for heart stroke in patients they are labeled as cardiovascular. Osteoporosis falls under endocrine, and Osteoarthritis was placed under “Other.” Also under “Other” are dermatology, allergy, musculoskeletal diseases, otology (ear diseases), periodontitis, urology/genitourinary, non-viral liver diseases, fertility drugs, and treatments for side effects of chemotherapy or radiation.

Venture Capital

Sources for Venture Capital transactions: For U.S. venture capital, the primary data source used was the Cortellis Competitive Intelligence database. This was supplemented with three others: EvaluatePharma, Informa's Strategic Transactions, and BioCentury's BCIQ database. Ex-U.S. venture capital was sourced primarily from EvaluatePharma and BioCentury's BCIQ database. Further investigation of company R&D and financings was complemented with Factset and SEC filings as well as Fierce Biotech, Xconomy, BiotechGate, and company press releases.

Investments included: Equity investments in this study are predominantly venture in nature, with some exceptions at the Seed stage where angel investors, family offices, and other non-venture capital investors have an impact and are included. Cases where private money was raised for the sole purpose of acquiring an existing company were excluded. Additionally, debt financing, bridge loans, government grants, and disease/patient foundation grants were excluded. Equity investments were aggregated, and duplicates and non-drug company financing events were removed.

Treatment of tranches: As mentioned above, the tagging is based on the date of actual funding, not commitment to future tranches. For example, large Series A rounds can be spread out into payments stretching beyond a single year when press releases and major media outlets report a financing event. For example, a Series A round can have the sequence of A1, A2, A3 tranching rounds within the same year or in different years. These were accounted for by year such that the accounting is for companies financed per year, not payments/tranches per year. For example, a company with A1, A2, and A3 payments in 2012 would be treated as a single company financing in 2012, not three separate Series A round financings. If the A1, A2, and A3 rounds occurred in 2011, 2012, and 2013, then these would be counted as one Series A round investment per year. This enables an accurate accounting of breadth of funding on a yearly basis.

Venture Capital

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Public Funding, Alliances and Acquisitions

IPOs: BIO Industry Analysis uses IPO amounts reported on the Nasdaq.com website, S-1 filings with the SEC. IPOs are tracked from a variety of news feeds including EndPoints, Biocentury, BioWorld, FierceBiotech. Disease areas and phase were tagged according to lead product in R&D at the time of investment.

Follow-on offerings: Biocentury was the primary data source for follow-on offerings. Only new shares issued in a follow-on offering valued at more than \$10 million were included. Values exclude sales of shares by inside investors. Disease areas and phase were tagged according to lead product in R&D at the time of investment.

Licensing: Informa's Strategic Transactions database, the Cortellis Deals Intelligence database (formerly Recap), and Biocentury were the primary data sources for licensing. Disease areas and phase were tagged according to lead product in R&D at the time of the deal.

Acquisitions: The primary data source for acquisitions was the Informa Strategic Transactions database. This was supplemented with the Cortellis Deals Intelligence (formerly Recap), EvaluatePharma, and Biocentury. Disease areas and phase were tagged according to lead product in R&D at the time of the deal. For global acquisition data, we report upfront payments to more accurately reflect the actual money flow into small company investors. Although Contingent Value Rights (CVRs) structures are now being used extensively in emerging company acquisitions (66% of acquisitions in our dataset), the upfront dollars are an immediate, guaranteed commitment from the partner or acquirer. The data presented for acquisitions includes both R&D-stage emerging companies (with a lead product in Preclinical, Phase I, Phase II, or Phase III testing), and market-stage emerging companies (with an approved product but with under \$1 billion in product sales). By focusing only on emerging companies, this data may differ from other currently available reports that often include large company acquisitions.

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