

SACHS ASSOCIATES, 19TH ANNUAL BIOTECH IN EUROPE FORUM
SESSION ON ONCOLOGY BUSINESS DEVELOPMENT

Trends in Oncology Business Development



September 26, 2019

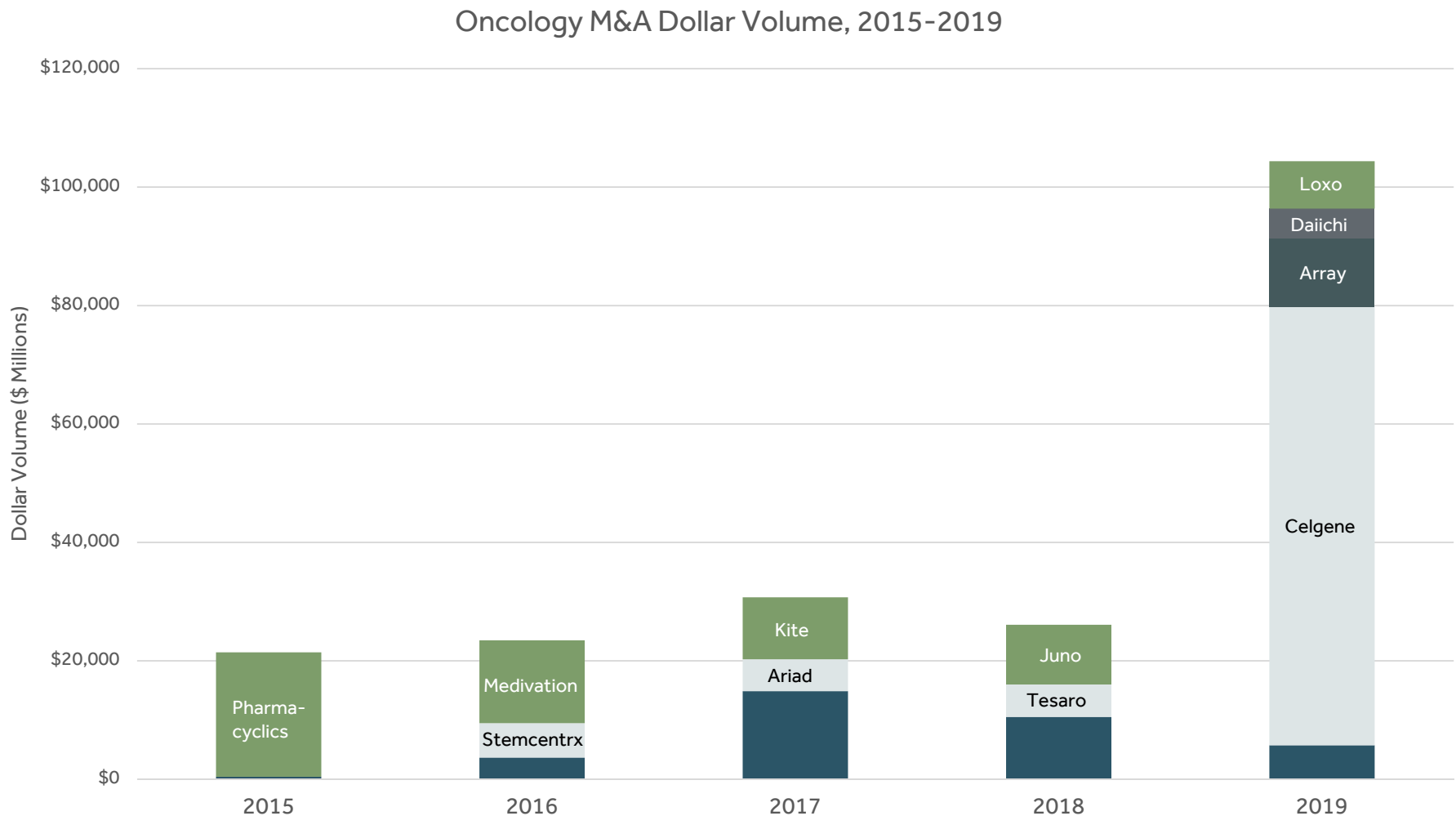
Presentation by

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In Europe such services are offered through Torreya Partners (Europe) LLP, which is authorized and regulated by the UK Financial Conduct Authority.

Oncology M&A Transaction Volume by Year

2019 has been by far the most active year in oncology M&A (through mid-September)



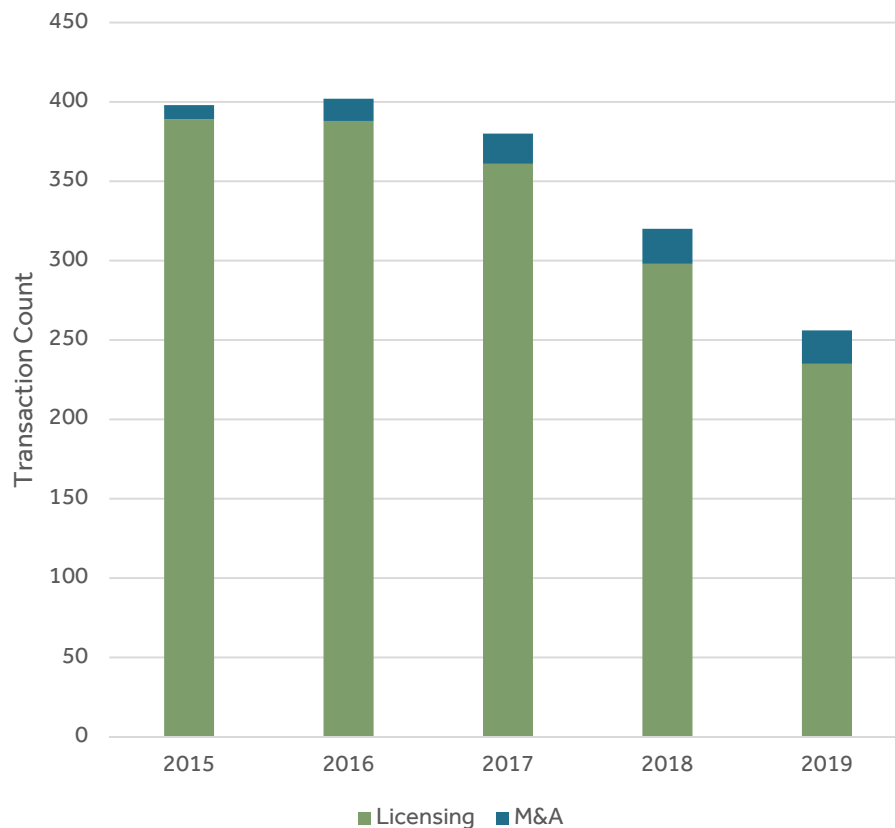
Note: Included upfront and near-term milestones only when calculating dollar value of a deal.

Source: Torreya M&A database.

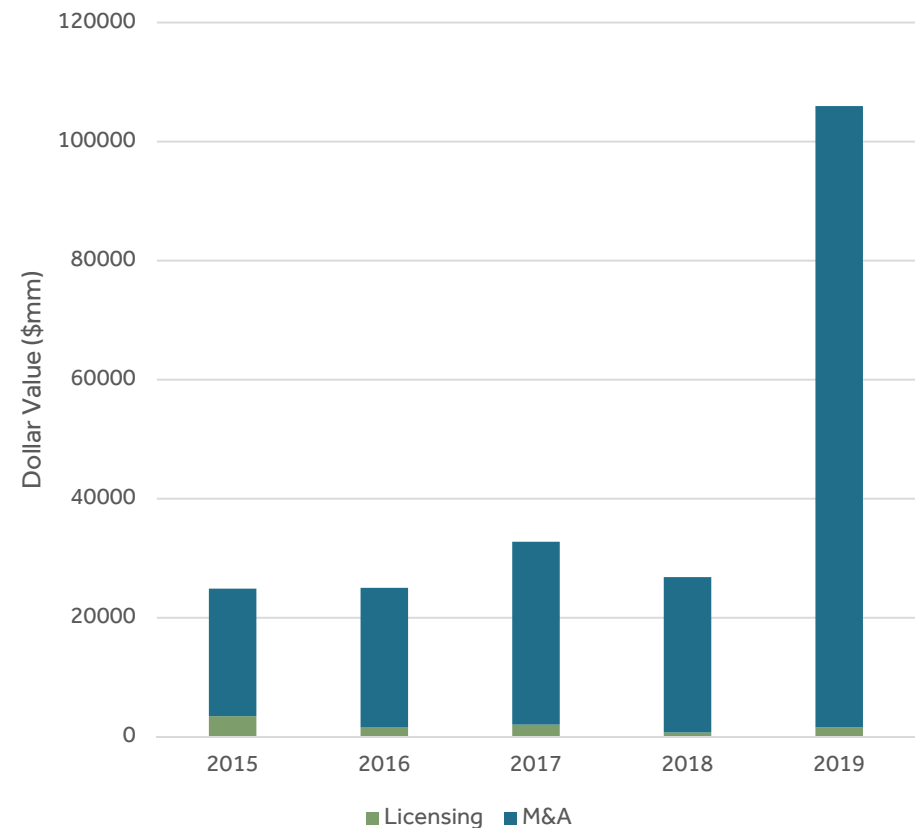
Licensing Deals More Common But Much Less Value

We count 1,756 transactions in the 2015-2019 period. Less than 5% of these deals were M&A.

Total Deal Activity by Transaction Count, 2015-2019 (2019 annualized)



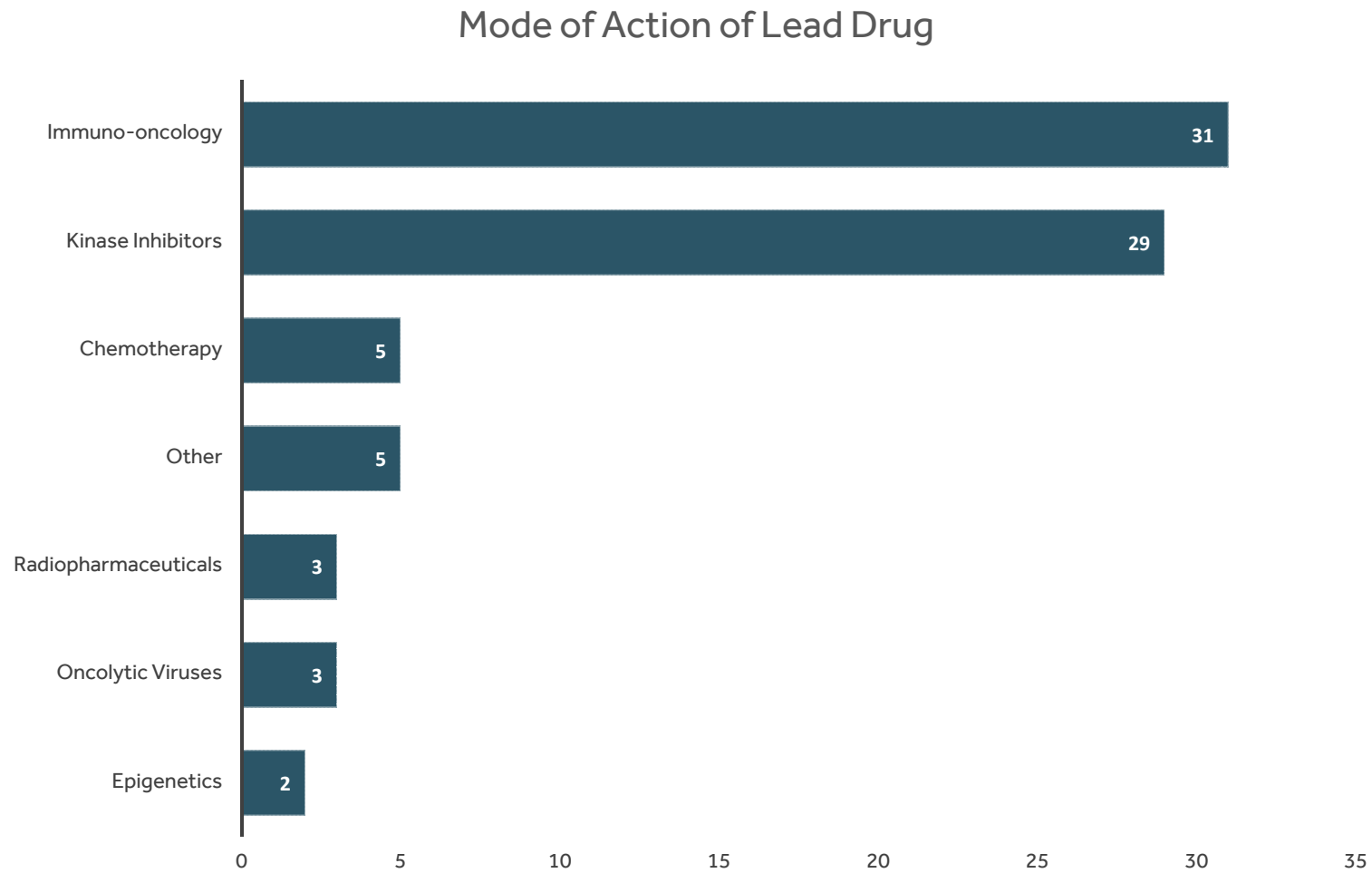
Total Deal Activity by Upfront Value 2015-2019



Source: Licensing Deal Activity Obtained from BioSci and Biopharm Insight Databases, M&A from Torrey database.

M&A Deal Count by Mode of Action of Lead Drug

Immuno-oncology and kinase inhibitors/targeted therapies have dominated oncology M&A in the last five years

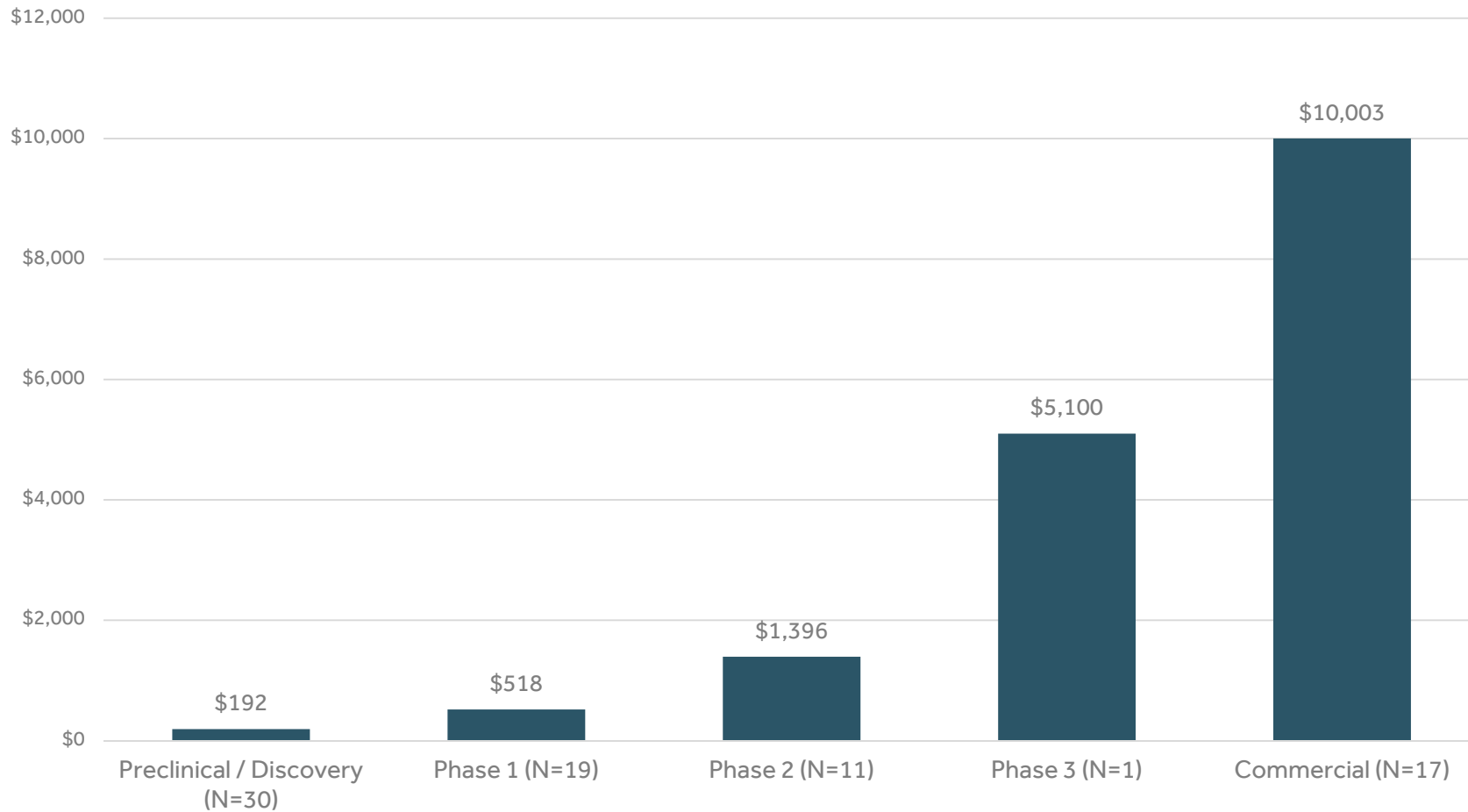


Source: M&A from Torreya database

M&A Payment by Last Completed Stage of Development

The average payment rises exponentially as drug candidates approach commercialization

Average Payment by Last Completed Phase of Development

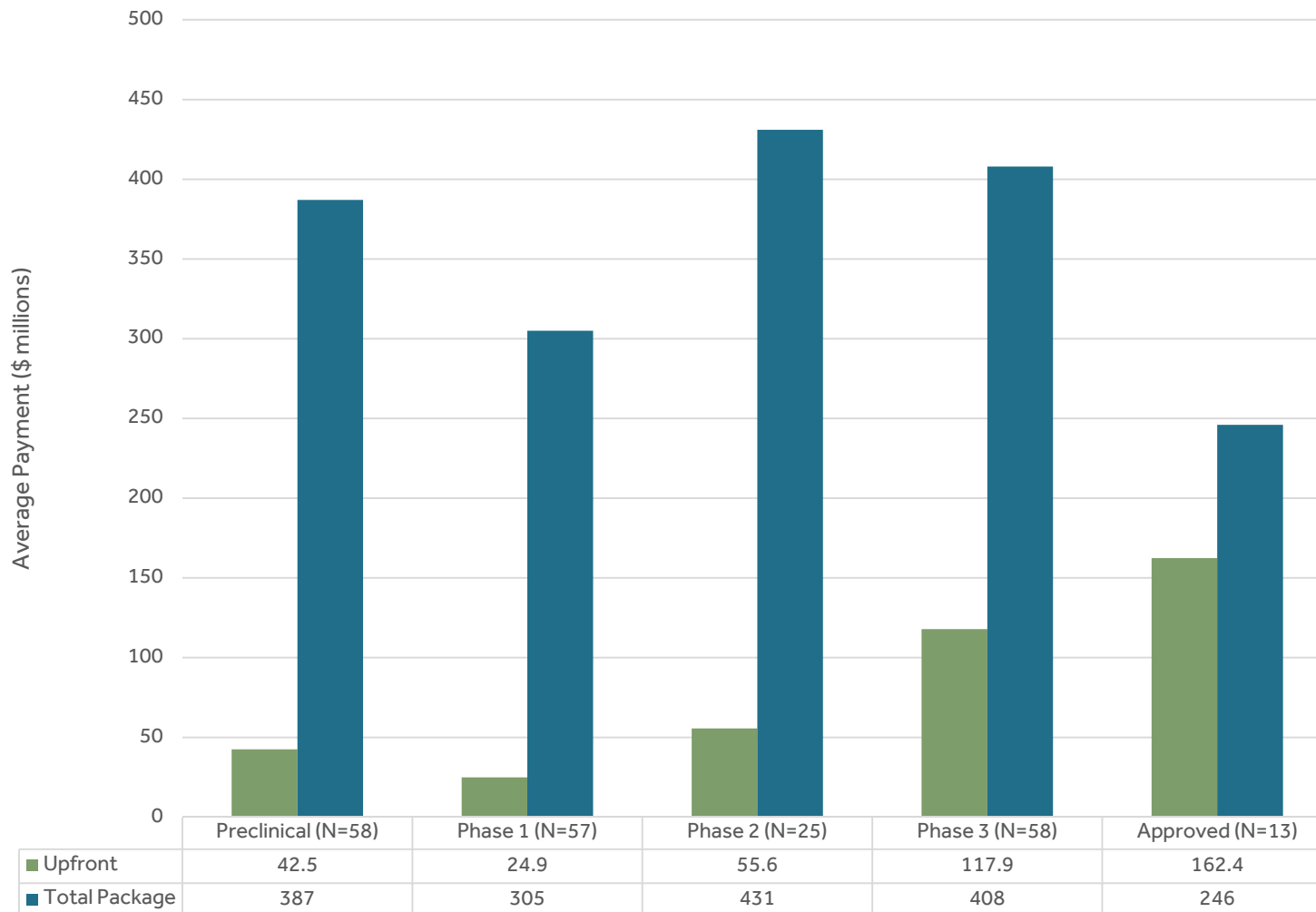


Source: Torrey M&A database.

Licensing Payments by Stage of Development

The average licensing payment rises less sharply as drugs approach commercialization

Average Oncology Licensing Deal Economics, 2012-2019



Source: Torrey Analysis of BioSci and Biopharm Insight data.

Most Active Dealmakers in Oncology, 2015-2019

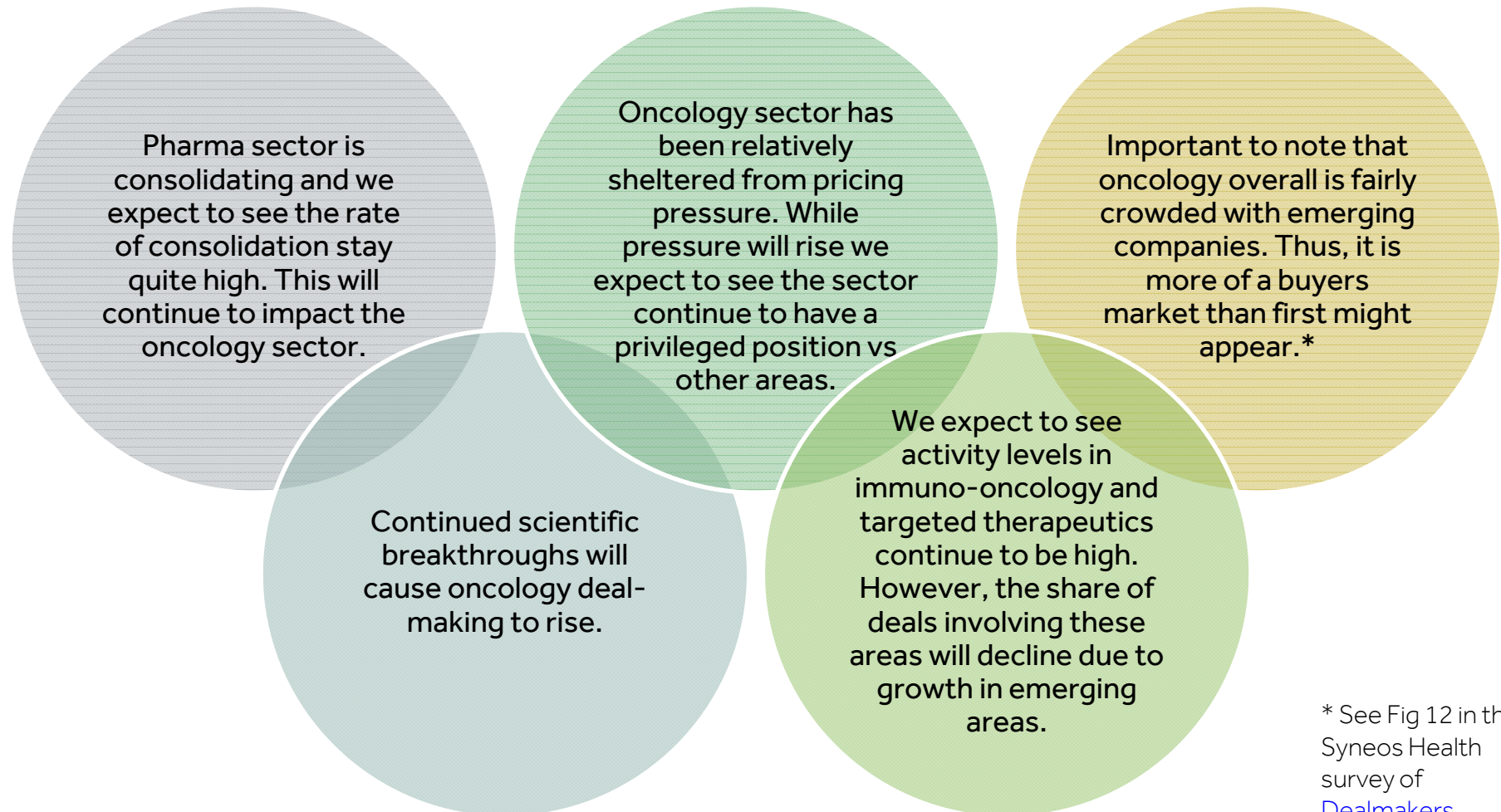
Merck has been the most frequent acquiror while Bristol, AbbVie and Pfizer have been the highest spenders. Including Licensing, the leaders have been Merck, Roche and BMS.

Company	M&A Deal Count	M&A Average Size (\$mm)	M&A Total Spend (\$mm)	Licensing Deal Count	Total Deal Count
Merck	6	\$716	\$4,297	65	71
Celgene	4	\$2,997	\$11,986	35	39
Novartis	4	\$1,864	\$7,455	20	24
AbbVie	3	\$8,960	\$26,880	19	22
Bristol-Myers Squibb	3	\$25,135	\$75,405	40	43
Eli Lilly	3	\$3,350	\$10,051	15	18
Roche	3	\$900	\$2,700	41	44
Astellas	2	\$433	\$866	8	10
AstraZeneca	2	\$4,800	\$9,600	29	31
Betta Pharma	2	\$48	\$95	2	4
Boehringer Ingelheim	2	\$344	\$688	18	20
Gilead	2	\$5,255	\$10,509	12	14
Ipsen	2	\$528	\$1,055	8	10
Jazz Pharma	2	\$755	\$1,510	3	5
Pfizer	2	\$12,750	\$25,499	15	17

Source: Licensing Deal Activity Obtained from BioSci and Biopharm Insight Databases, M&A from Torreya database.

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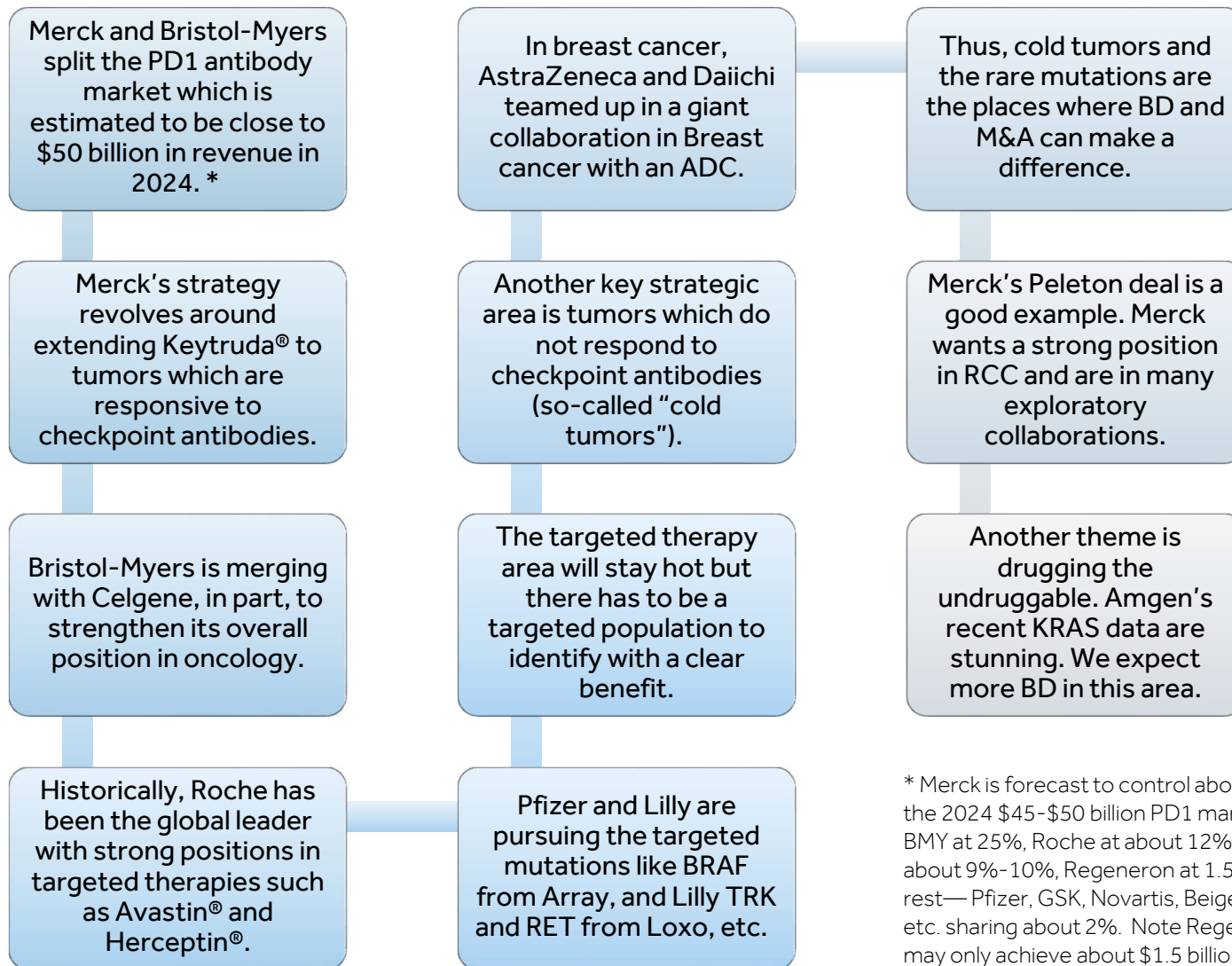
Deal Outlook for Next Five Years: Activity Level



* See Fig 12 in the Syneos Health survey of [Dealmakers Intentions 2019](#).

Strategic Drivers of Oncology Business Development

Oncology BD and M&A revolves around ownership of key “real estate” in various cancers.



* Merck is forecast to control about 50% of the 2024 \$45-\$50 billion PD1 market with BMJ at 25%, Roche at about 12%, AZ at about 9%-10%, Regeneron at 1.5% and the rest— Pfizer, GSK, Novartis, Beigene, Lilly, etc. sharing about 2%. Note Regeneron may only achieve about \$1.5 billion in sales.

Growth Areas in Oncology Deal-Making

IO: Cell Therapy for Solid Tumors	IO: Local Therapies	IO: Tumor-specific Cell Therapy
<p>A key priority has been reaching a broader set of tumors with CAR-t and related therapeutics. There are dozens of companies working to design cell therapies that will be effective in combating solid tumors. As these emerging programs show efficacy we expect to see deal activity in this area take off, particularly for companies that are considering an allogeneic approach.</p>	<p>Recent oncology scientific meetings have increasingly featured direct delivery of therapeutics to tumors through intratumoral delivery or other methods of local delivery. Efficacy from these emerging approaches has been outstanding and safety is often much improved. We expect deal activity to be high in these areas.</p>	<p>The promise of the pipelines of companies like Juno, Kite and emerging players such as Crescendo biologics is the design of tumor specific cell therapy solutions involving CAR-t, TCRs and TIL's. By observing the root mutation deterring an immune response, it is increasingly possible to design cell therapies for specific tumors. This area will be highly active.</p>
Inflammasome	Patient-Specific Targeted Therapies	Radiopharmaceuticals
<p>Novartis' CANTOS data showed that treatment of chronic inflammation with an anti-IL1b drug reduced death from lung cancer by over 75% in a sample of more than 10,000 subjects. There has been a surge of interest in this area by companies such as Cantargia and Inflazome. Deal-making has been brisk in this new area of the inflammasome and oncology in 2019.</p>	<p>Recent deals for Array and Loxo highlight the success of therapies that are targeted to specific tumor mutations. This success story has been more than two decades coming and has fed off the availability of inexpensive sequencing. Whether small molecule or antibody we see no let up in the pace of deal-making for targeted therapies, especially for hard to drug areas.</p>	<p>Novartis' march into radiopharma has been bold and well-considered. Companies such as AAA and Endocyte are bringing highly efficacious therapies to challenging disease states. The next step will involve marrying increasingly sophisticated radioligands with additional targets. We expect a long-term surge in radiopharma deals as new targets and cancer types are addressed.</p>

Appendix: Background on Selected Oncology Deals



Top 25 M&A Deals in Oncology by Value, 2015-2019









Announcement Date	Buyer	Target	Modality of Lead Asset	Last Successful Phase of Development	Deal Size
01/03/2019	Bristol-Myers Squibb	Celgene Corporation	Small Molecule	Commercial	\$74,000
03/04/2015	AbbVie	Pharmacyclics	Small Molecule	Commercial	\$21,000
08/22/2016	Pfizer	Medivation	Small Molecule	Commercial	\$14,000
06/17/2019	Pfizer	Array BioPharma Inc.	Small Molecule	Commercial	\$11,499
08/28/2017	Gilead	Kite Pharma	Cell Therapy	Commercial	\$10,444
01/22/2018	Celgene	Juno Therapeutics	Cell Therapy	Commercial	\$10,086
01/07/2019	Eli Lilly	Loxo Oncology	Small Molecule	Commercial	\$8,013
04/28/2016	AbbVie	Stemcentrx	ADC	Phase 1	\$5,800
12/03/2018	GlaxoSmithKline	Tesaro	Small Molecule	Commercial	\$5,468
01/09/2017	Takeda	Ariad	Small Molecule	Commercial	\$5,400
03/28/2019	AstraZeneca	Daiichi Sankyo	ADC	Registration	\$5,100
12/15/2017	AstraZeneca	Acerta	Small Molecule	Phase 2	\$4,500
10/30/2017	Novartis	Advanced Accelerator Applications	Small Molecule	Commercial	\$3,637
04/16/2018	Servier	Oncology Business of Shire	Small Molecule	Commercial	\$2,400
05/21/2019	Merck	Peloton Therapeutics	Small Molecule	Phase 2	\$2,203
10/18/2018	Novartis	Endocyte	Small Molecule	Phase 2	\$2,102
12/22/2017	Roche	Ignyta	Small Molecule	Phase 2	\$1,824
05/31/2016	Jazz Pharma	Celator	Small Molecule	Commercial	\$1,500
05/10/2018	Eli Lilly	ARMO BioSciences	Biologic	Phase 2	\$1,463
08/03/2017	Bristol-Myers Squibb	IFM Therapeutics	Small Molecule	Preclinical	\$1,310
01/22/2018	Celgene	Impact Biomedicines	Small Molecule	Phase 2	\$1,100
01/09/2017	Ipsen	Merrimack Onyvide Acquisition	Small Molecule	Commercial	\$1,000
10/09/2017	Sanpower	Dendreon Pharmaceuticals	Cell Therapy	Commercial	\$906
12/21/2016	Dainippon Sumitomo	Tolero Pharmaceuticals	Small Molecule	Phase 2	\$780
06/10/2019	Merck	Tilos Therapeutics	Antibody	Preclinical	\$773

Source: Torreya research







Top 25 License Deals in Oncology by Upfront Amount (\$mm), 2015-2019

Announcement Date	Licensor	Licensee(s)	Key Asset	Phase of Development	Cash and Equity Upfront (\$mm)	Total Milestone Payments (\$mm)
07/28/2015	Regeneron	Sanofi	Multiple Programs	Discovery	640	Undisclosed
04/24/2015	Medimmune LLC	Celgene	Imfinzi	Phase 3	450	Undisclosed
08/24/2015	Biomarin	Medivation	Talzenna	Phase 3	410	160
11/14/2017	Loxo Oncology, Inc.	Bayer	Selitrectinib; Vitrakvi	Phase 1	400	650
04/24/2015	Innate Pharma SA	AstraZeneca	Three drugs	Phase 2	370	125
10/2015	Five Prime	Bristol-Myers Squibb	Cabiralizumab	Phase 1	350	1737.5
12/21/2017	Legend Biotech	Janssen	LCAR-B38M	Phase 1	350	Undisclosed
02/15/2019	Merck KGaA	GlaxoSmithKline	M7824	Phase 2	343	Undisclosed
03/07/2018	Eisai	Merck	Lenvima	Phase 3	300	4355
02/20/2017	AstraZeneca	TerSera	Zoladex N. America	Approved	250	70
01/11/2017	Vertex	Merck KGaA	Four Programs	Phase 2	230	Undisclosed
03/01/2016	Exelixis, Inc.	Ipsen	Cabometyx ex-US	Approved	210	655
12/22/2016	Novartis AG	Sun Pharma	Odomzo	Approved	175	Undisclosed
01/04/2016	Symphogen, A/S	Takeda	Sym021; IO Program	Discovery	175	1425
07/27/2015	AstraZeneca PLC	Sanofi	Caprelsa	Approved	165	135
10/06/2016	Celltrion	Teva	Biosimilars	Approved	160	Undisclosed
06/28/2016	Xencor, Inc.	Novartis	Three bispecifics	Pre-Clinical	150	Undisclosed
10/25/2017	MacroGenics	Incyte	MGA012	Phase 1	150	900
06/11/2019	Genmab A/S	Janssen	HexaBody-CD38	Pre-Clinical	150	Undisclosed
05/10/2016	Ariad Pharma	Incyte	Iclusig	Approved	140	135
03/30/2015	Merck KGaA	Intrexon Corporation	RheoSwitch Tech	Discovery	115	826
11/15/2016	Oncoethix SA	Merck	Three drugs	Phase 1	110	Undisclosed
01/13/2015	Moderna.	Merck	mRNA platform	Discovery	100	Undisclosed
02/11/2019	TeneoBio, Inc.	AbbVie	TNB-383B	Pre-Clinical	90	Undisclosed
04/06/2016	Janssen	Tesaro	Zejula ex-US	Phase 3	85	415









Select Recent M&A Transactions in Oncology

Target	Acquirer	Transaction Overview	Selected Commentary
 (NASDAQ: ARMO) HQ: Redwood City, CA	 (NYSE: LLY) HQ: Indianapolis, IN	<ul style="list-style-type: none"> Date announced: May 10, 2018 Enterprise Value: \$1.5 billion Price to Book ratio: 9.7x 	<ul style="list-style-type: none"> ARMO is a late-stage immuno-oncology company that develops a pipeline of proprietary products to activate the immune system of cancer patients to recognize and eradicate tumors Along with a phase 3 drug, pegilodecakin, the company has a phase-1 combination treatment with Merck's Keytruda to treat multiple cancer types Transaction provides Eli Lilly with entry point into cancer immunotherapy space, where Merck and Bristol have market leading positions
 (ASX: SRX) HQ: New South Wales, Australia	 HQ: Beijing, China	<ul style="list-style-type: none"> Date announced: May 4, 2018 Enterprise Value: \$1.3 billion EV / LTM EBITDA: 30.9x EV / NTM EBITDA: 22.1x EV / LTM Revenue: 7.8x Outbid Varian Medical Systems 	<ul style="list-style-type: none"> Sirtex Medical is a medical device company that provides a radioactive treatment for inoperable liver cancer called SIR-Spheres Over 86,000 doses of SIR-Spheres Y-90 microspheres have been supplied to treat liver cancer patients at over 1,160 medical centers in over 40 countries Chinese firms have spent \$5.5 billion acquiring Australian biotechnology companies since 2015 According to the World Health Organization, China accounts for half of the world's incidents of liver cancer
 (NASDAQ: CASC) HQ: Seattle, WA	 (NASDAQ: SGEN) HQ: Seattle, WA	<ul style="list-style-type: none"> Date announced: January 31, 2018 Enterprise value: \$530 million Price to Book ratio: 5.1x 	<ul style="list-style-type: none"> Cascadian Therapeutics is a clinical-stage biopharmaceutical company dedicated to developing product candidates for the treatment of cancer Its most advanced program is tucatinib, an investigational oral, small molecule tyrosine kinase inhibitor (TKI) that is highly selective for HER2, a growth factor receptor that is overexpressed in multiple cancers, including breast, colorectal, ovarian and gastric This product will provide a third late stage opportunity for Seattle Genetics for a commercial product in solid tumors
 (NASDAQ: JUNO) HQ: Seattle, WA	 (NASDAQ: CELG) HQ: Summit, NJ	<ul style="list-style-type: none"> Date announced: January 22, 2018 Enterprise Value: \$9.6 billion EV / LTM Revenue: 85.4x Price to Book ratio: 9.6x 	<ul style="list-style-type: none"> Juno Therapeutics is an integrated biopharmaceutical company focused on developing cellular immunotherapies for the treatment of cancer Acquisition will add novel scientific platform and manufacturing expertise to Celgene's research and operational capabilities Juno's JCAR017 expected to be a growth driver with potential global peak sales of \$3 billion

Select Recent M&A Transactions in Oncology (Continued)

Target	Acquirer	Transaction Overview	Selected Commentary
 (NASDAQ: RXDX) HQ: San Diego, CA	 (SIX: ROG) HQ: Basel, Switzerland	<ul style="list-style-type: none"> Date announced: December 22, 2017 Enterprise Value: \$1.8 billion Price to Book ratio: 20.8x 	<ul style="list-style-type: none"> Ignyta is an oncology-focused biopharmaceutical company with a strategy of combining precision medicines (Rx) and in-house molecular diagnostics (Dx) Ignyta's investigational medicine entrectinib, a selective CNS-active tyrosine-kinase inhibitor being developed for tumors that harbor ROS1 or NTRK fusions, expands Roche's portfolio of oncology medicines
 (NASDAQ: AAAP) HQ: Saint-Genis-Pouilly, France	 (NYSE: NVS) HQ: Basel, Switzerland	<ul style="list-style-type: none"> Date announced: October 30, 2017 Enterprise Value: \$3.7 billion 	<ul style="list-style-type: none"> Advanced Accelerator Applications is a radiopharmaceutical company developing, producing and commercializing molecular nuclear medicine theranostics The company is developing predictive tools and procedure by merging therapeutic and diagnostic approaches to advance early detection Transaction expands Novartis Oncology neuroendocrine tumor treatment portfolio and adds radiopharmaceutical technology platform
 (NASDAQ: KITE) HQ: Santa Monica, CA	 (NASDAQ: GILD) HQ: Foster City, CA	<ul style="list-style-type: none"> Date announced: August 28, 2017 Enterprise Value: \$10.4 billion Price to Book ratio: 14.7x 	<ul style="list-style-type: none"> Kite Pharma is a clinical stage biopharmaceutical company focusing on the development and commercialization of novel cancer immunotherapy products Currently developing pipeline of engineered autologous cell therapy-based product candidates for treatment of solid and hematological malignancies Lead product candidate KTE-C19, a chimeric antigen receptor-based therapy that is in Phase 2 clinical trials for patients with relapsed or refractory aggressive diffuse large B cell lymphoma, primary mediastinal B cell lymphoma and transformed follicular lymphoma

Select Recent M&A Transactions in Oncology (Continued)

Target	Acquirer	Transaction Overview	Selected Commentary
 (NASDAQ: ARIA) HQ: Cambridge, MA	 (TSE: 4502) HQ: Osaka, Japan	<ul style="list-style-type: none"> Date announced: January 9, 2018 Enterprise Value: \$5.1 billion EV / LTM Revenue: 27.6x 	<ul style="list-style-type: none"> Ariad Pharmaceuticals is an oncology company engaging in the discovery, development and commercialization of drugs for cancer patients Ariad offers Iclusig, a tyrosine kinase inhibitor for treatment of adult patients with chronic myeloid leukemia and Philadelphia chromosome-positive acute lymphoblastic leukemia The company also develops Brigatinib, an investigational inhibitor of anaplastic lymphoma kinase for the treatment of various patients with a form of non-small cell lung cancer; and AP32788, for treating non-small cell lung cancer and various other solid tumors
 (NASDAQ: MDVN) HQ: San Francisco, CA	 (NYSE: PFE) HQ: New York, NY	<ul style="list-style-type: none"> Date announced: August 22, 2016 Enterprise Value: \$14.0 billion EV / LTM Revenue: 13.6x EV / NTM Revenue: 13.1x EV / LTM EBITDA: 30.7x 	<ul style="list-style-type: none"> Medivation is a biopharmaceutical company focused on development of commercialization of small molecules for oncology Commercial drugs include XTANDI for prostate cancer and IBRANCE for breast cancer Medivation also has a late stage oncology pipeline potential combination possibilities with existing Pfizer products
 (NASDAQ: CPXX) HQ: Ewing, NJ	 Jazz Pharmaceuticals (NASDAQ: JAZZ) HQ: Dublin, Ireland	<ul style="list-style-type: none"> Date announced: May 31, 2016 Enterprise Value: \$1.5 billion Price to Book ratio: 24.7x 	<ul style="list-style-type: none"> Celator Pharmaceuticals is a clinical stage biopharmaceutical company which develops therapies to treat cancer CombiPlex, the company's proprietary drug ratio technology platform enables the rational design and evaluation of optimized combinations incorporating traditional chemotherapies and molecular target agents to deliver enhanced anti-cancer activity
 (NASDAQ: PCYC) HQ: Sunnyvale, CA	 (NYSE: ABBV) HQ: Chicago, IL	<ul style="list-style-type: none"> Date announced: March 4, 2015 Enterprise Value: \$20.2 billion EV / LTM Revenue: 24.7x EV / NTM Revenue: 16.7x EV / LTM EBITDA: 178.7x EV / NTM EBITDA: 118.1x 	<ul style="list-style-type: none"> Pharmacyclics is focused on development of cancer therapies Its hematological oncology treatment, Imbruvica, has 60 clinical trials underway, including 13 in Phase 3 development Imbruvica could reduce Abbvie's dependence on its own oncology treatment Humira, which is facing patent expiration

About Torrey



Torreya is a Global Investment Banking and Advisory Firm Serving Life Sciences Companies

Personal Relationships

We have strong personal relationships with key decision makers across the global pharmaceutical industry

Operating Perspective

Many of our senior advisors come from within the industry and bring decades of experience to their work with clients

Life Sciences Focus

We work exclusively on transactions in the life sciences industry and pride ourselves in providing discreet and independent advice

Torreya Is an Advisory Leader in Life Sciences Transactions

- Global Team**

Torreya's team has the ability to get significant life science deals done anywhere in the world. Our team sits on four continents and brings 4 MDs/PhDs, 18 professionals with operating experience and a world class team of transaction professionals.

- Focused on Value Creation**

Torreya takes pride in the knowledge that many of its transaction advisory roles are associated with substantial value creation for its client. It is very common for the share price of our client to jump dramatically after a deal where we have advised. We start every assignment by working with our client to design a strategy to maximize value.

Representative Transaction Roles since 2014

 Sale to  \$2.3 billion March 2016	 Acquisition of generics business of  \$1.05 billion June 2017	 Sale to  \$658 million June 2014	 Sale of FXR program to  Up to \$470 million January 2015	 Acquisition of Donnatal® from  \$328 million May 2014	 Merger with  \$251 million December 2016
 Sale of stock and conditional sale to  \$215 million+CVRs February 2019	 Sale of Intrathecal business to  \$203 million March 2017	 Majority recap by  \$125 million April 2019	 Debt recapitalization for acquisition of NextWave Pharmaceuticals from  \$125 million September 2018	 Company sale to  \$100+ million December 2015	 Sale of majority stake to  \$100+ million July 2016
 Royalty-backed acquisition financing for undisclosed spec pharma \$100 million February 2016	 License of milk allergy product to  €100 million May 2016	 Research collaboration and license agreement for RIG-I pathway with  Up to \$505 million December 2018	 Licensing of ex European rights to LYS-SAF302 to  Up to \$125 million with committed payments of \$29m plus royalties October 2018	 Credit facility from  \$70 million January 2019	 JV partnership in China with  \$50 million December 2018

TorreyA: Global Presence With 35+ Persons Focused on the Pharma Sector



- Life Sciences advisory in North America, Europe and Asia
- Focused on strategic transaction work
 - M+A: Corporate & asset-level
 - Royalty monetizations
 - Licensing
 - Acquisition financing
 - Recapitalizations

- 28 people based in New York
- 8 people based in London
- 5 people based in Mumbai
- 1 person in Tokyo

- We cover Latin America, South Africa and parts of Asia through affiliate relationships
- 3 people cover Japan and China in partnership with local advisory firms

* Key affiliate partners are Kybora in Africa and MidEast; Novus Capital in Russia; Natixis in China and Korea; Panarea in Latin America; GEP in Australia; and GCA in Japan.

We Advise on Mergers & Acquisitions, Pharmaceutical Asset Sales, Capital Markets, and Licensing Deals

	Mergers & Acquisitions	Pharma Asset Sales & Acquisitions	Capital Markets	Licensing
Torrey Highlights	<ul style="list-style-type: none"> • Expertise in complex situations and structures • 50% of deal volume is cross-border 	<ul style="list-style-type: none"> • Most active global advisor in pharmaceutical asset-level transactions¹ 	<ul style="list-style-type: none"> • Over \$1.5 billion raised for clients since 2007 • Most active advisor on royalty monetizations in 2016¹ 	<ul style="list-style-type: none"> • Leading global licensing advisor¹
Specific Services	<ul style="list-style-type: none"> • Corporate sales • Acquisitions • Divestitures • Structured transactions • Takeover defense • Fairness opinions 	<ul style="list-style-type: none"> • Commercial-stage asset sales • Asset-level acquisitions 	<ul style="list-style-type: none"> • Debt financings • Royalty monetizations • IPOs • Private equity recaps 	<ul style="list-style-type: none"> • Pre-commercial • Commercial-stage • Proprietary economic valuation model

¹ Capital IQ and Torrey calculations

Torreyya is a Leader Among Advisors Serving Pharma

Torreyya has been the #1 financial advisor globally in pharmaceutical industry M&A / licensing by deal count in 2017 and 2018 YTD. Average deal size around \$130mm.

Top 25 Investment Banking Firms in Pharmaceutical Industry M&A and Licensing Transactions

Jan 1, 2017 to Dec 30, 2018 by Deal Count and Total Value

(Includes Announced and Closed Transactions)

Deals Rank	Bank	Deal Count	Total Value (\$mm)	Average Deal Size (\$mm)
1	Torreyya	33	\$4,261	\$129
2	Centerview	18	\$27,735	\$1,541
2	MTS Health Partners	18	\$3,311	\$184
4	JP Morgan	17	\$34,798	\$2,047
4	Jefferies	17	\$13,882	\$817
4	Rothschild	17	\$5,995	\$353
7	Lazard	12	\$39,158	\$3,263
8	Morgan Stanley	10	\$43,178	\$4,318
8	Credit Suisse	10	\$22,403	\$2,240
8	BAML	10	\$24,516	\$2,452
10	Citigroup	8	\$57,380	\$7,172
10	Goldman Sachs	8	\$39,322	\$4,915
10	Evercore	8	\$87,102	\$10,888
10	Stifel	8	\$390	\$49
14	Perella Weinberg	7	\$4,363	\$623
15	Piper Jaffray	6	\$1,450	\$242
15	Leerink Partners	6	\$862	\$144
15	RBC	6	\$1,065	\$177
18	PJT Partners	5	\$10,937	\$2,187
18	Moelis	5	\$3,725	\$745
18	Cowen	5	\$4,282	\$856
21	Deutsche Bank	4	\$4,223	\$1,056
24	Guggenheim	3	\$5,703	\$1,901
24	Barclays	3	\$4,622	\$1,541

Transactions are included in the pharmaceutical sector, the OTC sector and pharmaceutical manufacturing except that API companies excluded. Only transactions larger than \$10mm included. When multiple advisors are present the deal credit is divided by the number of groups present to apportion deal value.

Torreyya is Active in Oncology Transaction Work

Representative Transaction Work

 <p>License of preclinical RIG-I compound to</p>  <p>\$520mm + royalties (\$15mm upfront)</p> <p>December 2018</p>	 <p>Sale of U.S. oncology commercial business to</p>  <p>\$19mm (\$13mm upfront)</p> <p>November 2018</p>	 <p>Sale of Rights to Future Beleodaq® Royalties to</p>  <p>June 2018</p>	 <p>License of Gevokizumab to</p>  <p>\$44 million upfront (plus royalties & milestones)</p> <p>August 2017</p>	 <p>License of global rights for Anti-TGF-beta antibody program to</p>  <p>Up to \$517 million (\$37mm upfront)</p> <p>October 2015</p>
 <p>Sale to</p>  <p>Up to \$605 million (\$95 million upfront)</p> <p>July 2015</p>	 <p>Acquisition of</p>  <p>Up to €50 million</p> <p>May 2015</p>	 <p>License of Pidilizumab to</p>  <p>Up to \$335 million with royalty</p> <p>October 2014</p>	 <p>Sale to</p>  <p>\$50 million (\$10mm upfront)</p> <p>January 2014</p>	 <p>Advisor on oncology partnership with</p>  <p>\$550 million (\$10 million upfront)</p> <p>August 2013</p>

Oncology Financial Advisor League Table, 2015-2019

Inclusive of M&A and Licensing Lead Advisory Roles Over \$10mm Upfront

Financial Advisor	Number of Deals Advised, 2015-2019
Torreya	8
JP Morgan	5
Destum Partners	5
Centerview	4
Jefferies	3
Lazard	3
Geller Biopharm	2
Locust Walk Partners	2
Bank of America	2
Citigroup	2
Evolution Life Science	1
Back Bay Life Science Advisors	1
Deutsche Bank	1
Baird	1
Colpman Consulting	1
Credit Suisse	1
Goldman Sachs	1
Guggenheim	1
Moelis	1
MTS Health Partners	1
Perella Weinberg	1

Note: When multiple advisors appeared on a transaction, the lead sellside advisor role was included for the purpose of compiling this table.

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