



Capstone Partners

PHARMACEUTICAL OUTSOURCING

Q1 2017

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MERGER AND ACQUISITION ACTIVITY

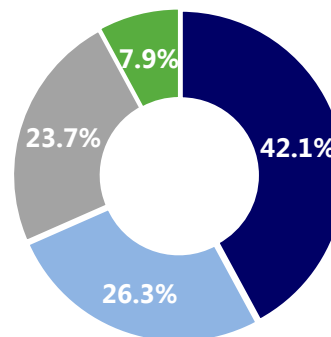
The Pharmaceutical Outsourcing industry experienced healthy M&A activity in 2016 with sellers benefiting from high valuations and favorable market fundamentals. Capstone identified 76 transactions that were announced or closed in 2016 compared to 85 transactions in 2015. The decline in the number of deals was largely reflective of the overall middle market M&A environment which was dampened by global economic uncertainty leading up to the US election and fallout from Brexit. Regardless of the change in total transaction volume, valuations remained at a premium with a median disclosed EBITDA multiple of 13.2x. Strategic suitors accounted for 72.4% of acquisitions while 27.6% of the targets were acquired by private equity firms.

A number of key market trends are expected to drive M&A activity and industry growth. The pharma pipeline continues to expand with increased emphasis on rare diseases, biologics and biosimilars. A record 13,718 drugs were in development in 2016, an increase of 11.5% over the level in 2015. Impending patent expirations on a number of blockbusters and intensifying political pressure on drug prices will continue to incentivize pharmaceutical companies to enhance research & development productivity and reduce the time and costs to commercialize therapeutic products. President Trump's vow to deregulate the FDA should benefit pharma by providing a more streamline drug approval process. However, he has also been very critical of the cost of prescriptions drugs.

A growing proportion of drugs under development are from emerging and midsize pharma companies that, out of necessity, rely more extensively on outsourced providers for formulation and development, testing, regulatory expertise, packaging, marketing, manufacturing and other specialized services. According to *EP Vantage*, this trend is expected to continue as venture capital investments targeting the pharma sector were robust throughout 2016 and are expected to remain so through 2017.

Pharma Outsourcing: 2016 Transactions by Service Category

- Consulting
- CROs
- CDMOs
- Lab & Testing



Source: Capital IQ and Capstone Partners LLC research

SEGMENT HIGHLIGHT: CRO

The global CRO market is expected to reach \$32.7 billion worldwide in 2017, growing at a healthy annual rate of 6.6% since 2014. This steady growth can be largely attributed to increased demand for services in clinical trials between phases II to IV, which account for approximately 60% of total revenues for this sub-segment. Outlook for the industry appears positive as life science pipelines have strengthened. With the proliferation of therapies for orphan drugs and precision-based medicines for oncology, clinical trials are becoming increasingly complex and are driving demand for sophisticated outsourcing partners with expertise in combination products, risk based monitoring, disease registries, real-world evidence and medical affairs. Expanding service offerings and capabilities remained a predominant strategy among CROs in 2016 and Capstone expects that trend to continue through 2017.

SEGMENT HIGHLIGHT: CDMO

The global CDMO market is expected to grow at an annual growth rate of 6.9% from 2016 to 2020, according to *Research and Markets*, as R&D and sponsors' outsourcing budgets have continued to increase. Outsourced providers are benefiting from the ongoing virtualization of the biopharmaceutical sector. Big pharma, albeit at a more modest pace, continues to outsource more services and functions. Small-to-midsize biopharma companies, which depend much more heavily on outsourced services, are increasing their R&D budgets at a faster clip than their bigger brethren and have a growing proportion of the overall drug pipeline. With more limited internal capabilities and expertise, mid-tier and emerging pharma seek providers with extensive development and manufacturing capabilities. This has clearly driven M&A activity as CMOs and CDMOs acquire firms to add or enhance competencies such as development, formulation and analytical testing to meet client's needs throughout the entire pharmaceutical development life cycle, from discovery to commercialization. Acquisitions of US CDMOs totaled 14 in 2016, with targets receiving a median EBITDA multiple of 12.5x.

SEGMENT HIGHLIGHT: LABORATORY AND TESTING SERVICES

According to *MarketsandMarkets*, the biopharmaceutical analytical testing services industry is expected to grow by a robust 11.3% over the next five years to reach \$4.1 billion by 2021. A number of factors have contributed, and will continue to contribute, to the growth of the industry including increased number of drugs entering early development, added pressure to evaluate potential drug candidates in a timely and cost effective manner, pharmaceutical company initiatives to lower costs, increased regulatory scrutiny from the FDA and other governing bodies, proliferation of biologics and increasing complexity of testing, and an ever growing need for formulation and product development testing expertise in the pharmaceutical industry. Active acquirers in the space have included CDMOs; CROs; diversified Testing, Inspection & Certification companies and private equity.

NOTABLE TRANSACTIONS

Several notable transactions have been completed or announced in the Pharmaceutical Outsourcing industry in 2016. Select transactions are outlined below, followed by a more comprehensive list on the following tables.

- ▶ **Clinical Supplies Management partners with Great Point (October 2016)** – Clinical drugs packaging, labeling and logistics provider Clinical Supplies Management (CSM) has recapitalized with Great Point, a private equity firm that specializes in healthcare. Terms of the deal were not disclosed. Headquartered in North Dakota, CSM has additional operating facilities in Pennsylvania, Germany and Belgium. The recapitalization will enable CSM to invest in its infrastructure and management team and to scale quickly and strategically to meet the needs of CSM's global clients.

"We are very excited to partner with Great Point," said CSM Founder and CEO Gerald E. Finken. "Great Point has shown that they recognize CSM's potential and share in our vision to make CSM a leader in the industry. This relationship will provide a great opportunity to expand our innovative and patient-centric On-Demand and Direct-To-Patient services."

Great Point has invested more than \$1.0 billion in healthcare companies since 2003, with each investment ranging between \$7.0 and \$25.0 million. "Gerald has done a phenomenal job leading CSM through two decades of growth" commented Stephen Weaver, Vice President of Great Point Partners. "Great Point's knowledge in outsourced pharmaceutical services and ability to source and execute strategic tuck-in acquisitions will help transform the business into a worldwide leader in clinical trial packaging and labeling."

- ▶ **Cambrex acquires PharmaCore (September 2016)** – Cambrex, a life sciences company that provides products and services for the development and commercialization of new and generic therapeutics worldwide, has agreed to acquire PharmaCore for \$25.0 million at an EBITDA revenue multiple of 12.5x. PharmaCore specializes in developing, manufacturing and scaling up molecule APIs for clinical phase projects. Founded in 1999, PharmaCore occupies a 35,000 square foot facility in North Carolina. The acquisition will compliment Cambrex's existing manufacturing facilities that are located throughout the US and Europe, expanding its customer base and strengthening its molecule API services portfolio.

"We are excited to announce our acquisition of PharmaCore, which we believe underlines our commitment to continually enhancing our service offering to our global pharmaceutical and biotech customers," said Cambrex CEO Steven Klosk. "The acquisition will provide the capability and expertise to efficiently develop early clinical phase products and new technologies. We expect PharmaCore's substantial customer base and robust project pipeline to broaden our potential late stage clinical development and commercial manufacturing opportunities."

CRO: SELECT M&A TRANSACTIONS

Ann. Date	Target	Acquirer	Target Business Description	Enterprise	EV / LTM	
				Value (mm)	Revenue	EBITDA
01/27/17	J-STAR Research	Porton USA	Provides contract research services for pharmaceutical and biotechnology companies.	\$26.0	-	-
01/10/17	AMS Sciences	Pharmaron	Offers clinical research services for pharmaceutical and biotechnology companies.	-	-	-
10/26/16	Cyprotex	Evotec	A specialist preclinical contract research organization.	\$54.9	2.6x	10.2x
09/28/16	Agilux Laboratories	Charles River Labs	Offers services supporting discovery, pre-clinical and clinical services.	\$64.0	-	-
09/26/16	ExecuPharm	PAREXEL	A provider of clinical research support services for the pharmaceutical industry.	-	-	-
08/16/16	Clinical Research Solutions	Brixey & Meyer Capital	Provides clinical research services for pharmaceutical, nutritional and medical device industries.	-	-	-
08/04/16	inVentiv Health	Advent International	Offers outsourced clinical and commercial services.	\$5,898.9	2.7x	19.3x
08/03/16	InClinica	Velocity Fund Management	Provides clinical development research services.	-	-	-
08/01/16	Stemgent and Biopta	BioServe Biotechnologies	Offers contract research services and products to pharmaceuticals manufacturers.	-	-	-
08/01/16	Novex Clinical Research	BTC Network	A provider of clinical trial services.	-	-	-
06/30/16	ClinicalRM	ICON	Provides research, regulatory and sponsor services for preclinical, and Phase I to Phase IV clinical research.	-	-	-
06/27/16	Blue Stream Laboratories	Charles River Labs	Offers contract analytical, formulations and development-support laboratory services.	\$11.7	-	-
06/23/16	Adesis	Universal Display	A provider of contract research services specializing in organic synthesis.	\$36.0	-	-
05/31/16	Medelis	WCCT Global	Provides oncology contract research and drug development services.	-	-	-
05/25/16	SyneractHCR	Amulet Capital	Operates as a contract research organization.	-	-	-
05/10/16	Kuecept	Aptuit	Provides preclinical formulation services.	-	-	-
03/22/16	Blue Sky Biotech	LakePharma	Provides molecular biology, protein expression, scale-up bioprocess and assay services.	-	-	-
03/22/16	ACT Oncology	Precision for Medicine	Offers drug development support for oncology organizations.	-	-	-
03/01/16	Research Across America	Synexus	Provides clinical research trial services.	-	-	-
02/26/16	PreClinOmics	Crown Bioscience	Operates as an in vivo drug discovery contract research organization.	\$6.5	-	-
02/25/16	Molecular NeuroImaging	inviCRO	Specializes in designing and conducting brain-imaging research.	-	-	-

CDMO: SELECT M&A TRANSACTIONS

Ann. Date	Target	Acquirer	Target Business Description	Enterprise Value (mm)	EV / LTM Revenue	LTM EBITDA
11/03/16	Reliable Bioph. and BioArra	VWR	Develops and manufactures active pharmaceutical and high purity ingredients.	-	-	-
10/11/16	Irvine Pharmaceutical	Nitto Denko Avecia	Provides pharmaceutical development and manufacturing services.	-	-	-
09/26/16	PharmaCore	Cambrex	Develops, manufactures and scales small molecule APIs for clinical phase projects.	\$25.0	1.5x	12.5x
09/13/16	Pharmatek Laboratories	Catalent Pharma	Provides contract pharmaceutical chemistry product development and manufacturing services.	-	-	-
08/16/16	Ash Stevens	Piramal Pharma	Develops and manufactures drug substances and APIs.	\$53.0	2.9x	-
06/28/16	Transferra Nanosciences	Evonik Industries	Offers chemistry manufacturing and controls services and manufactures complex drug delivery systems.	-	-	-
06/01/16	PCI Pharma	Partners Group	Provides integrated pharmaceutical development services.	-	-	-
05/16/16	Shasun Pharma	Management Buyout	Provides contract process research, development services and commercial scale contract manufacturing.	\$35.9	0.8x	6.3x
05/05/16	Euticals	Albany Molecular Research	Manufactures and sells APIs, customs synthesis and fine chemical products.	\$353.1	1.5x	13.2x
04/27/16	BioZone Laboratories	Flavor Producers	Formulates and develops health, beauty and OTC drug products for cosmetic and pharmaceutical industries.	\$9.8	1.1x	-
04/18/16	Kemwell and Cirrus	Recipharm	Provides pharmaceutical contract manufacturing services.	-	-	-
03/14/16	PCT	Hitachi Chemical	Provides contract cell therapy development and manufacturing services.	\$97.5	-	-
02/23/16	MITIM	Recipharm	Develops and manufactures pharmaceutical products.	\$72.5	-	-

LABORATORY AND TESTING SERVICES: SELECT M&A TRANSACTIONS

Ann. Date	Target	Acquirer	Target Business Description	Enterprise Value (mm)	EV / LTM Revenue	LTM EBITDA
11/15/16	Avomeen Analytical	High Street Capital	Offers deformulation analysis, material testing, chemical testing and pharmaceutical analysis.	-	-	-
10/17/16	B & C Instruments	J.A. King	Provides calibration laboratory services.	-	-	-
09/01/16	Accuratus Lab Services	Microbiology Research	Provides GMP and GLP testing services to medical device and biopharmaceutical industries.	-	-	-
06/03/16	Source BioScience	Harwood Capital and Continental	Provides laboratory services to the healthcare, clinical, life sciences and biopharma industries.	\$96.7	2.5x	13.0x
04/04/16	Nelson Laboratories	Sterigenics International	Provides life-cycle microbiology testing services.	-	-	-
01/13/16	Sinensis Life Sciences	Eurofins Scientific	Provides laboratory testing and manufacturing services for the life sciences industry.	-	-	-

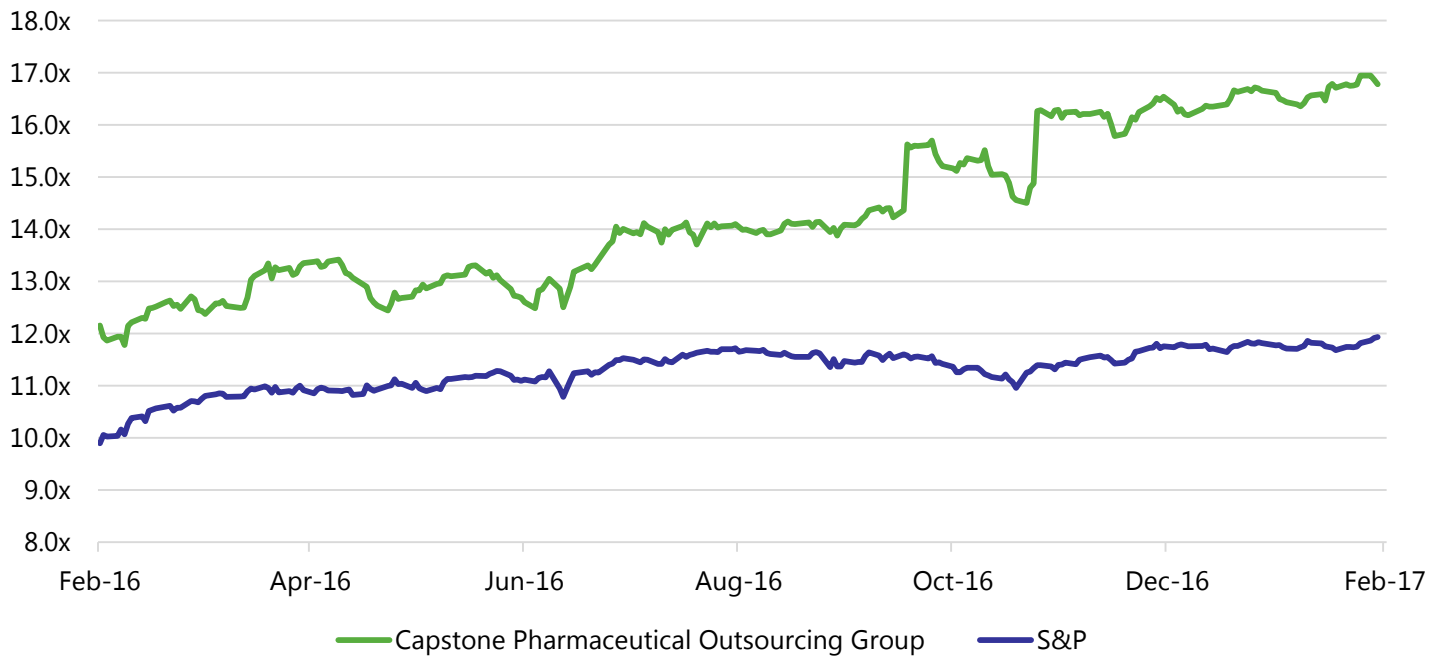
PHARMACEUTICAL OUTSOURCING: PUBLIC COMPANY TRADING & OPERATING DATA

Company	Price 3/2/17	% 52 Wk High	Market Cap	Enterprise Value	LTM			EV/LTM	
					Revenue	EBITDA	Margin	Revenue	EBITDA
Albany Molecular Research Inc.	\$15.75	76.3%	\$655.6	\$1,217.0	\$570.5	\$86.6	15.2%	2.1x	14.1x
Catalent, Inc.	\$23.65	73.4%	\$2,950.3	\$4,755.5	\$1,896.1	\$357.9	18.9%	2.5x	13.3x
Charles River Laboratories	\$72.10	80.8%	\$3,412.4	\$4,578.0	\$1,681.4	\$402.2	23.9%	2.7x	11.4x
Dr. Reddy's Laboratories Ltd.	\$49.32	76.2%	\$8,169.7	\$8,351.4	\$2,103.1	\$27,119.0	19.0%	4.0x	0.3x
ICON Public Limited Company	\$77.97	90.9%	\$4,352.9	\$4,450.6	\$1,666.5	\$378.7	22.7%	2.7x	11.8x
Laboratory Corp. of America	\$126.06	89.2%	\$12,984.2	\$18,603.6	\$9,437.2	\$1,830.7	19.4%	2.0x	10.2x
PAREXEL International	\$57.96	81.5%	\$3,095.4	\$3,348.2	\$2,094.8	\$350.7	16.7%	1.6x	9.5x
Quest Diagnostics Inc.	\$83.52	96.2%	\$11,579.2	\$15,107.2	\$7,515.0	\$1,406.0	18.7%	2.0x	10.7x
Quintiles IMS Holdings, Inc.	\$75.94	93.2%	\$18,695.0	\$20,126.8	\$5,364.0	\$1,073.0	20.0%	3.8x	18.8x
Recipharm AB	\$14.58	84.1%	\$921.4	\$1,155.2	\$527.2	\$759.3	15.9%	2.2x	1.5x

EV = enterprise value; LTM = last twelve months
\$ in millions, except per share data
NM = Not Meaningful; NA = Not Available

Mean	19.0%	2.6x	10.2x
Median	18.9%	2.3x	11.1x
Harmonic Mean	18.7%	2.4x	2.1x

Pharmaceutical Outsourcing: Average Public Company EBITDA Multiples



Data represents the average of multiples for the following companies: NasdaqGS:AMRI, NYSE:CTLT, NYSE:CRL, BSE, NasdaqGS:ICLR, NSE:LH, NasdaqGS:PRXL, NYSE:Q, NYSE:OM, RECIB
Source: Capital IQ as of February 16, 2017

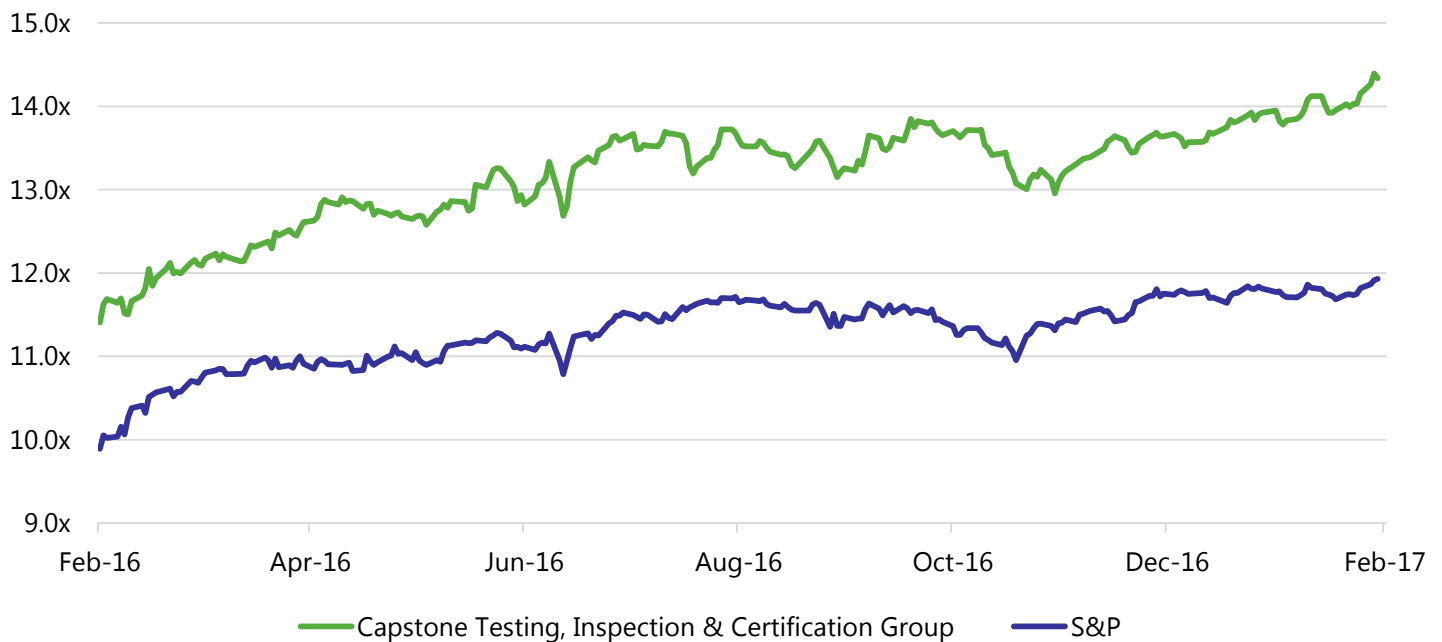
TESTING, INSPECTION & CERTIFICATION: PUBLIC COMPANY TRADING & OPERATING DATA

Company	Price 3/2/17	% 52 Wk High	Market Cap	Enterprise Value	LTM			EV/LTM	
					Revenue	EBITDA	Margin	Revenue	EBITDA
ALS Limited	\$4.67	93.4%	\$2,353.6	\$2,709.1	\$1,054.3	\$195.2	18.5%	2.6x	13.9x
Applus Services, S.A.	\$9.22	84.9%	\$1,196.5	\$1,956.3	\$1,794.7	\$199.2	11.1%	1.1x	9.8x
Bureau Veritas SA	\$19.08	82.1%	\$8,323.3	\$10,713.3	\$5,012.2	\$953.1	19.0%	2.1x	11.2x
Ecolab Inc.	\$113.60	91.2%	\$33,120.3	\$39,674.5	\$13,212.7	\$2,872.9	21.7%	3.0x	13.8x
Eurofins Scientific SE	\$445.71	93.5%	\$7,530.0	\$8,576.7	\$2,558.9	\$473.2	18.5%	3.4x	18.1x
Exova Group plc	\$2.38	89.3%	\$595.9	\$800.3	\$390.5	\$74.7	19.1%	2.0x	10.7x
Intertek Group plc	\$40.83	86.5%	\$6,568.9	\$7,716.5	\$2,863.5	\$523.5	18.3%	2.7x	14.7x
SGS SA	\$2,049.46	86.2%	\$15,587.1	\$16,176.9	\$6,012.0	\$1,233.0	20.5%	2.7x	13.1x

EV = enterprise value; LTM = last twelve months
\$ in millions, except per share data
NM = Not Meaningful; NA = Not Available

Mean	18.3%	2.4x	12.8x
Median	18.8%	2.6x	13.1x
Harmonic Mean	17.7%	2.2x	12.4x

Laboratory Services: Average Public Company EBITDA Multiples



Data represents the average of multiples for the following companies : ASX:ALQ, BME:APPS, ENXTPA:BVI, NYSE:ECL, ENXTPA:ERF, LSE:EXO, LSE:ITRK, ASX:SAI, SWX:SGSN
Source: Capital IQ as of February 16, 2017

CAPSTONE PARTNERS: COMPLETED HEALTH & MEDICAL TRANSACTIONS

Capstone Partners recently advised Avomeen Analytical Services (“Avomeen”) on its recapitalization with High Street Capital. Avomeen offers a broad array of solutions for chemical analysis, method development and validation, deformulation, product development, extractables and leachables analysis, stability and release testing and clinical trial manufacturing. Widely recognized as a leading expert in deformulation analysis, Avomeen has unique capabilities to separate, identify and quantitate ingredients in complex formulations.



“The expertise and capital that High Street brings to the table will enable us to expand and professionalize our business development efforts. We believe our deep scientific expertise and consultative approach will be well received as we secure new clients and enter new markets,” commented Avomeen Founder Shri Thanedar, Ph.D.

“Avomeen has developed an impressive and diverse client base and is well positioned to benefit from the increasing pipeline of drugs under development, the growing proportion of new drug candidates from mid-size and emerging pharma – which by necessity rely on outsourced providers more frequently than big pharma – and the increasing emphasis on quality and testing in life sciences and other sectors,” commented Capstone Managing Director Eric Williams. “The market is rewarding companies that can develop innovative and effective solutions to satisfy the increasing complexities of drug development, manufacturing and testing.”



THE PHARMACEUTICAL OUTSOURCING TEAM

**Eric Williams, Managing Director**

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Eric serves as Managing Director and Head of the Atlantic Region for Capstone, based out of Philadelphia. Prior to Capstone, Eric was responsible for managing the Eastern region for Morgan Stanley Smith Barney's Capital Strategies Group and its predecessor, Citi Capital Strategies. Eric has more than 20 years of experience managing strategic sale assignments and leveraged recapitalizations for owners of privately held companies. He is head of Capstone's Health and Medical practice and has successfully completed over 100 transactions in a wide range of industries including medical device, contract manufacturing, pharmaceutical outsourcing, health care services and education and training. In 2016, he received the "USA Deal of the Year" at the M&A Atlas Awards for his work on the acquisition of Progressus Therapy, LLC and in 2014 was awarded both "M&A North American Middle Market Deal of the Year" at the M&A Atlas Awards and "Cross Border Deal of the Year" from the M&A Advisor for his work on the sale of T-DOC Company LLC. Eric has executed complex cross-border transactions with foreign buyers based in London, Germany, Sweden and Switzerland and has structured deals with leading private equity groups and strategic corporate buyers. He graduated cum laude from the University of California and is a Series 7 and 63 Registered Securities Representative as well as a Series 24 Registered Securities Principal.

**Mark Surowiak, Director**

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Mark is a Director in the Philadelphia office, supporting the management of the Atlantic Region. Previously, Mark served over 10 years as a senior investment banking professional in Morgan Stanley Smith Barney's Capital Strategies Group. Over his career, Mark has focused on developing deep credentials and expertise in the sale and recapitalization of privately held businesses. Prior to investment banking, Mark enjoyed a career in the social services field. Mark is a graduate of Illinois State University with a BS in Business Administration. He is a Series 7 and 63 Registered Securities Representative.

**Matthew Szymanski, Associate**

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Matthew serves as an Associate with Capstone's Philadelphia investment banking team, where his focus includes providing advisory services, transaction execution and client engagements to multiple industries and sectors. Prior to joining Capstone, Matthew was pursuing a career in the NFL and was signed by the Kansas City Chiefs and Miami Dolphins. Matthew graduated from Southern Methodist University with a BA in Economics and earned a Masters in Finance from the University of Cincinnati. He is a Series 79 and 63 Registered Securities Representative.

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ABOUT CAPSTONE PARTNERS

Capstone Partners LLC is an award-winning investment banking firm dedicated to serving the corporate finance needs of middle market business owners, investors and creditors. Over the past 15 years, Capstone has earned a reputation as one of the most innovative firms in the industry, offering corporate sale & divestiture, merger & acquisition, private placement, corporate restructuring, valuation and financial advisory services. The firm maintains seven industry practices, including: Business Services, Consumer Products, Education & Training, Government Services, Health & Medical, Manufacturing & Industrial, and Technology & Telecom. Headquartered in Boston, Capstone has offices in Chicago, London, Los Angeles, New York, Orange County, Philadelphia, San Diego, Silicon Valley and Tampa with an international presence that spans 450+ professionals in 70 offices across 31 countries.

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