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EQUITY RESEARCH
Company Report

May 11, 2015

Emergent BioSolutions (EBS - $30.29)

Initiation of Coverage

Healthcare / Biotechnology

Ticker:	**EBS**
Rating:	**Buy**
Price Target:	**$40.00**

We are initiating coverage of Emergent BioSolutions (EBS) with a BUY rating and a $40 price target. EBS is a leading biodefense contractor supplying the US government (USG) with its BioThrax vaccine for the prevention of anthrax infection. BioThrax had sales of $246MM in 2014, and we believe that the product is poised to grow to almost $500MM by 2018, primarily through a new manufacturing facility (Building 55) tripling capacity in 2016. In 2013 EBS acquired Cangene, a Canadian company in the biodefense and US hospital space, which added ~$100MM to the top line. EBS looks to reach top-line sales of more than $500MM from at least three separate marketed specialty pharma products, which we project to happen in 2015.

- **BioThrax anchors outlook; growth potential comes from higher pricing and capacity expansion**. BioThrax, the company's lead product, has increased in sales each year since 2005, when the government began purchasing the product for military use and for stockpiling. The company is currently fulfilling a five-year, 44.75-million-dose contract worth $1.2B that started in 1Q12 and will continue through 2016.
- **Building 55 coming online in 1H16 triples production and provides upside**. EBS is currently undergoing validation testing of Building 55, a 25-million-dose/year facility that is expected to triple BioThrax production in 2016 from the current eight- to nine-million capacity. While the per dose price will likely come down from the current ~$27/dose should production scale up to 25 million doses/year; EBS should be able to at least double the sales of BioThrax, which drives top- and bottom-line growth in the outer years.
- **Most recent acquisitions immediately accretive**. The Cangene and Reactive Skin Decontamination Lotion (RSDL) acquisitions fit right in that mold, with Cangene bringing in ~$100MM in top-line sales and RSDL adding $15MM-$20MM. Cangene also brings in a hospital-based sales force that EBS should leverage with additional hospital-based product acquisitions.
- **Likely more acquisitions to come.** The company has a stated goal of >$500MM in revenues from three marketed products by 2015, which suggests that additional accretive acquisitions could be pending near term.
- **We value EBS at $40/share on a sum-of-the-parts basis.** This also represents a ~3.3x multiple of 2016 sales, below the 3.5x-4.5x/sales multiple in the specialty pharma group.

Trading Data:

Last Price (05/08/2015)	$30.29
52–Week High (05/04/2015)	$31.75
52–Week Low (10/15/2014)	$19.31
Market Cap. (MM)j	$1,160
Shares Out. (MM)	38.32

Earnings Estimates: (per share)

(Dec)	1Q	2Q	3Q	4Q	FY	P/E
FY16E	0.01	0.50	0.55	0.88	1.95	15.5x
FY15E	(0.50)A	0.48	0.61	0.78	1.55	19.5x
FY14A	(0.40)	0.25	0.54	0.75	1.19	25.5x
FY13A	NA	NA	NA	NA	0.99	30.6x

Source: Laidlaw & Company estimates

Analyst
Jim Molloy
Specialty Pharma & Biotechnology
(857) 317-5061
jmolloy@laidlawltd.com

Summary and Investment Thesis

We are initiating coverage of Emergent BioSolutions (EBS) with a BUY rating and a $40 price target. EBS is a leading biodefense contractor supplying the USG with its BioThrax vaccine for the prevention of anthrax infection. BioThrax had sales of $246MM in 2014, and we believe that the product is poised to grow to almost $500MM by 2018, primarily through a new manufacturing facility (Building 55) tripling capacity in 2016. In 2013 EBS acquired Cangene, a Canadian company in the biodefense and US hospital space, which added ~$100MM to the top line. EBS looks to reach top-line sales of more than $500MM from at least three separate marketed specialty pharma products, which we project to happen in 2015.

The USG currently buys everything EBS can make from its existing facility and may continue to do so after the 2016 expansion triples capacity; but if not, it would open the possibility for EBS to expand its customer base to other governments and institutions around the world. Our current revenue projections through 2015 are from government procurement and development agreements that are currently signed, suggesting a level of certainty that does not exist with many companies these days in the biotech and specialty pharmaceutical sectors. Our 2016 estimates are based on expectations for production tripling with Building 55 coming online. We believe the near-term financial prospects for EBS are relatively low risk, with potential upside to our estimates from new procurement and development contracts with the USG, if awarded. The USG continues to acknowledge, through the secretary of the Department of Health and Human Services (HHS), that it needs to continue to stockpile countermeasures against agents that can potentially be used for bioterror and/or biowarfare, and we don't believe the recent sequester controversy in Washington should have a significant impact on BioThrax procurement by the USG. We believe EBS represents somewhat of a defensive play in specialty pharma, given its base of signed procurement and development contracts with several USG agencies.

- **BioThrax anchors outlook; growth potential comes from higher pricing and capacity expansion**. BioThrax, the company's lead product, has increased in sales each year since 2005, when the government began purchasing the product for military use and for

Jim Molloy
jmolloy@laidlawltd.com

stockpiling. The company is currently fulfilling a five-year, 44.75-million-dose contract worth $1.2B that started in 1Q12 and will continue through 2016. The current contract solidifies expectations that the USG should continue to buy all of EBS' production capacity for the foreseeable future. The company is producing BioThrax at full capacity (eight to nine million doses a year), but supply is anticipated to increase in 2016 once EBS' new vaccine-manufacturing facility (Building 55) is fully validated and an expected bridging study is completed. Once operational, Building 55 will not only enable the company to deliver more product to the USG, it could also enable EBS to fulfill demand from foreign governments and institutions, which currently represent less than 5% of BioThrax sales.

- **Building 55 coming online in 1H16 triples production and provides upside**. EBS is currently undergoing validation testing of Building 55, a 25-million-dose/year facility that is expected to triple BioThrax production in 2016 from the current eight- to nine-million capacity. While the per dose price will likely come down from the current ~$27/dose should production scale up to 25 million doses/year, EBS should be able to at least double the sales of BioThrax, which drives top- and bottom-line growth in the outer years. While we don't know if the USG will continue to buy all of EBS' capacity once Building 55 comes on-line, we do know the USG has committed to spend at least $100MM to get Building 55 operational, which seems promising.

- **Most recent acquisitions immediately accretive.** The Cangene and Reactive Skin Decontamination Lotion (RSDL) acquisitions fit right in that mold, with Cangene bringing in ~$100MM in top-line sales and RSDL adding $15MM-$20MM. Cangene also brings in a hospital-based sales force that EBS should leverage with additional hospital-based product acquisitions.

Jim Molloy
jmolloy@laidlawltd.com

Valuation

We value EBS at $40/share on a sum-of-the-parts basis, with a base business DCF value of $31/share, cash (net of debt) and accounts receivable at the end of 2016 of $5/share, and a pipeline/technology value of $4/share. Our $40/share price target also represents a ~3.3x multiple of 2016 sales, below the 3.5x-4.5x/sales multiple in the specialty pharma group.

Figure 1. Sum-of-the-Parts Valuation

Sum-of-the-parts valuation: EBS		
Segment	Valuation (000's)	Per share value
DCF of base business	$1,501,828	$31
Cash+AR (net debt), end '16E	$263,144	$5
Technology value	$200,000	$4
SUM	**$1,964,972**	**$40**
Shares out '16E (000)		48,524

Source: Company Reports: Laidlaw & Company estimates

Figure 2. Upcoming Catalysts

Event	Expected Timing
Additional product/company acquisitions	2015
Partner otlertuzimab with development partner	mid-2015
Complete bridging/validation studies for Bldg 55	2015
File sBLA for Building 55	mid-2015

Source: Company Reports: Laidlaw & Company estimates

Jim Molloy
jmolloy@laidlawltd.com

Company Description

EBS is a biopharmaceutical company that develops and manufactures vaccines and antibody therapeutics that are used to prevent and treat diseases. EBS has two operating divisions: biodefense and biosciences. The biodefense division is directed to government-sponsored development and procurement of countermeasures against potential agents of bioterror or biowarfare and targets the infectious disease anthrax. The main product in biodefense is BioThrax (anthrax vaccine adsorbed), the only vaccine approved by the FDA for the prevention of anthrax. Operations in this division include biologics manufacturing, regulatory and quality affairs, marketing and sales in support of BioThrax, and a product development infrastructure in support of investigational product candidates.

We expect EBS will continue to derive the most substantial portion of all product revenues from the sales of BioThrax to the USG. Product revenues were, $450MM in 2014, $313MM in 2013 and $282MM in 2012, with BioThrax representing 55%, 79%, and 77% of sales in those years respectively. EBS focuses on increasing sales of BioThrax to the USG, expanding the market for BioThrax to other international and domestic customers, and pursuing label expansions and stability improvements for BioThrax.

The biosciences division is comprised primarily of the products acquired in the 2010 Trubion acquisition including WinRho, HepaGam, Ixinity, Varizig, and Episil. WinRho is a Rho(D) Immune Globulin Intravenous (Human) used in clinical situations requiring an increase in platelet count to prevent excessive hemorrhage in the treatment of non-splenectomized, Rho(D)-positive children with chronic or acute immune thrombocytopenia (ITP); adults with chronic ITP; and children and adults with ITP secondary to HIV infection. HepaGam is a Hepatitis B Immune Globulin Intravenous (Human) for the prevention of Hepatitis B recurrence following liver transplantation in HBsAg-positive liver transplant patients. Ixinity is a coagulant factor IX - recombinant. Varizig is a purified polyclonal human immune globulins for post-exposure prophylaxis of varicella – chickenpox. Episil is used for local management of pain associated with oral mucositis. EBS funds product development through internally generated cash flow from BioThrax sales. EBS also has contracts and grant revenue from funds paid to EBS through funding arrangements with the USG, specifically from HHS, including the Biomedical Advanced Research and Development Authority (BARDA) and the National Institute of Allergy and Infectious Diseases (NIAID). EBS also expects to advance the development of certain product candidates through payments made by third-party collaborators due to success-based milestones.

Jim Molloy
jmolloy@laidlawltd.com

Biodefense Countermeasures

The market for biodefense countermeasures, including vaccines and therapeutics, has grown dramatically over the past 12 years since the attacks of September 11, 2001 and the October 2001 anthrax letter attacks. The USG is the principal source of worldwide biodefense spending, sparked by the enactment of the Project BioShield Act of 2004. Most USG spending on biodefense programs results from product development funding awarded by the BARDA, NIAID, and the US Department of Defense (DoD), as well as the procurement of countermeasures by HHS and the Centers for Disease Control (CDC). In general, HHS overseas the procurement of countermeasures for these agencies.

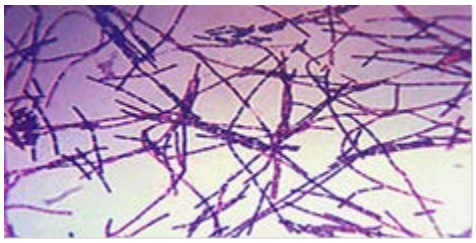
Project BioShield authorizes the procurement of countermeasures for biological, chemical, radiological, and nuclear attacks for the Strategic National Stockpile (SNS), which is a national repository of medical assets and countermeasures designed to provide federal, state, and local public health agencies with medical supplies needed to treat those affected by terrorist attacks, natural disasters, industrial accidents, and other public health emergencies. Project BioShield received appropriations of $5.6B to be expended over 10 years, with roughly $2B allocated for the development and procurement of anthrax vaccines and treatments. In addition to Project BioShield, other government agencies such as NIAID and BARDA may also purchase countermeasures for biodefense, indicating that the market is even larger.

The Pandemic and All-Hazards Preparedness Act, passed in 2006, established BARDA as the agency responsible for awarding procurement contracts for biomedical countermeasures and providing development funding for advanced research and development in the biodefense arena. BARDA supplements the funding available under Project BioShield for radiological, nuclear, chemical, and biological countermeasures and provides funding for infectious disease pandemics. Funding for BARDA is created by annual appropriations by Congress. Congress also appropriates annual funding for the CDC for the procurement of medical assets and countermeasures for the SNS, as well as for NIAID to conduct biodefense research. This congressional-sponsored funding also supplements amounts available under Project BioShield. The DoD procures biodefense countermeasures that it administers primarily through the Military Vaccine Agency (MilVax), which are administered to various vaccination programs for military personnel, including vaccines for common infectious diseases, such as influenza, and vaccines to protect against specific bioterrorism threats, such as anthrax and smallpox. The level of spending by the DoD for

Jim Molloy
jmolloy@laidlawltd.com

MilVax is a function of the size of the US military and the DoD's protocols with respect to vaccine stockpile management and active immunization. The DoD also provides development funding for biodefense vaccines through its Joint Vaccine Acquisition Program (JVAP).

Figure 3. Bacillus Anthracis



Source: Centers for Disease Control

In addition to the USG, other potential markets for the sale of biodefense countermeasures include state and local governments; foreign governments (both defense and public health agencies); multinational companies including transportation and security companies; and health care providers, including hospitals and clinics. Although there have been modest sales to these markets to date, they may comprise an important growth opportunity for the overall biodefense industry in the future.

BIOTHRAX (ANTHRAX VACCINE ADSORBED)

Currently, the only FDA approved product for the prevention (pre-exposure prophylaxis) of anthrax infection is EBS' BioThrax. In July 2004 Project BioShield was signed into law with $5.6B authorized over 10 years for the USG to purchase and stockpile vaccines and drugs to fight anthrax, smallpox, and other potential agents of bioterror. The day the law was signed, the Bush administration noted that HHS had already taken steps to purchase 75 million doses of a "next generation" anthrax vaccine for the SNS. The anthrax vaccine HHS was seeking to purchase is called rPA (recombinant protective antigen), and VaxGen was awarded a procurement contract by the USG for all 75 million doses, or $877MM in total contract value. This award was in addition to several hundred million dollars of USG-sponsored development funding, which was distributed to both VaxGen and Avecia Biologics (a UK-based biotechnology company) to develop rPA vaccines against anthrax. VaxGen could not produce its rPA product to government specifications, and to date no rPA has been delivered to the SNS.

EBS has been delivering BioThrax on or ahead of schedule and has improved capacity such that it can now ship eight to nine million doses annually. The company produces BioThrax at full capacity, with three shifts per day, seven days per week (not including an annual shutdown and semi-annual slow-down periods). In 2011 the company announced it had signed a five-year, fixed-price contract with HHS to continue supplying BioThrax for the SNS. The agreement requires 44.75 million doses of the vaccine for a total contract value of $1.2B. Deliveries under the new contract began in 1H12, upon completion of the company's prior three million dose "extension" contract with HHS. We anticipate that the new agreement will run through the initiation of production at the expanded Building 55 production facility in 2016, at which point we anticipate EBS and the USG will likely negotiate a new contract for BioThrax production from the new facility.

BioThrax is currently approved for the pre-exposure prevention of anthrax infection by all routes of exposure, including cutaneous (through the skin) and inhalation exposure. The FDA approved its use as a prophylaxis for adults who are at high risk of exposure to anthrax spores. BioThrax is manufactured from a sterile culture filtrate, made from a non-virulent strain of Bacillus anthracis, and contains no dead or live bacteria. Based on its current product labeling, BioThrax is administered by intramuscular injection in three doses over a six-month period, with booster doses recommended thereafter. After the initial dose, two additional doses are given at one and six months, with booster doses following at 12 and 18 months and then annually thereafter. Adverse reactions

Jim Molloy
jmolloy@laidlawltd.com

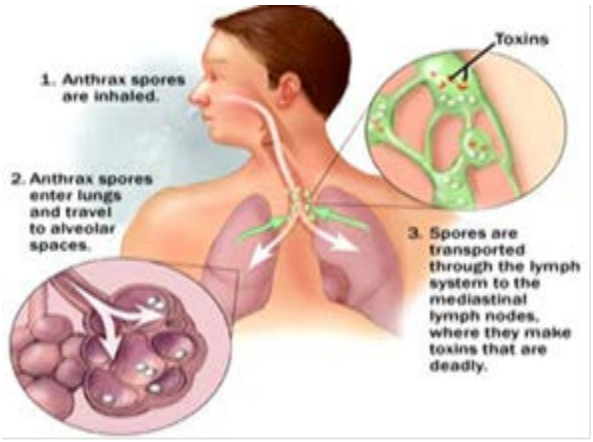
associated with administration of BioThrax are similar to those observed following administration of other adult vaccines, including local reactions, such as redness, swelling, and limitation of motion in the inoculated arm, and systemic reactions, such as headache, fever, chills, nausea, and general body aches. In addition, some serious adverse events have been reported, including diabetes, heart attacks, autoimmune diseases, lupus, and multiple sclerosis, lymphoma, and death, though they have not been causally linked to the administration of BioThrax. As with all vaccines, an adverse event reporting system database is maintained by the CDC and the FDA with respect to BioThrax.

Background on anthrax infection

Anthrax is a potentially fatal disease caused by the spore-forming bacterium, Bacillus anthracis. Anthrax bacteria are naturally occurring, and spores are found in soil throughout the world. Anthrax spores can withstand extreme heat, cold, and drought for long periods, and can survive without nutrients or air for extended periods. Anthrax infections occur if the spores enter the body through a cut, abrasion, or open sore, or by ingestion or inhalation of the spores. Once inside the body, anthrax spores germinate into bacteria that then multiply. Anthrax bacteria secrete three proteins: protective antigen, lethal factor, and edema factor, which are non-toxic individually but can become highly toxic if allowed to interact on the surface of human or animal cells.

Cutaneous anthrax, although rare in the US, is the most common type of naturally acquired anthrax. Cutaneous anthrax is typically acquired through the skin as a result of contact with contaminated animals and animal products. The fatality rate for untreated cases of cutaneous anthrax is estimated to be approximately 20%. Inhalational anthrax is the most lethal form of anthrax. Aerosolized anthrax spores are the most likely method to be used in a potential anthrax bioterrorism attack. Inhalational anthrax has been reported to occur from one to 43 days after exposure to aerosolized spores. Initial symptoms of inhalational anthrax are non-specific and may include sore throat, mild fever, cough, malaise, or weakness, lasting up to a few days. After a brief period of improvement, the release of anthrax toxins may cause an abrupt deterioration of the infected person, with the sudden onset of symptoms, including fever, shock, and respiratory failure as the lungs fill with fluids. Hemorrhagic meningitis is also common. Death often occurs within 24 hours of the onset of advanced respiratory complications, and the fatality rate for inhalational anthrax is estimated to be between 45% and 90%, depending on whether aggressive early treatment is provided.

Figure 4. Inhalational Anthrax



Source: Mayo Clinic

The immune system provides protection against pathogens, such as bacteria and viruses, through immune responses generated by lymphocytes, a type of white blood cell. Immune responses that depend on lymphocyte recognition of antigens have two important characteristics. First, they are specific, meaning that lymphocytes recognize particular antigens on pathogens. Second, they induce memory so that when the antigen is encountered again, the immune response to that antigen is enhanced. Generally, there are two types of specific immune responses: humoral immunity and cell-mediated immunity. Humoral immunity is provided by proteins, known as antibodies or immune globulins, which are produced by lymphocytes. Antibodies are effective in dealing with pathogens before the pathogens enter cells. Cell-mediated immunity is provided by lymphocytes that generally deal with threats from cells that are already infected with pathogens by directly killing infected cells or by interacting with other immune cells to initiate the production of antibodies or activating cells that kill and eliminate infected cells.

An immune globulin, also known as a polyclonal antibody, is a therapeutic that provides an immediate protective effect. Immune globulin is normally made by collecting plasma from individuals who have contracted a particular disease or who have been vaccinated against a particular disease and whose plasma contains protective antibodies, known as IgG, generated by a humoral immune response to pathogen exposure or vaccination. These antibodies are isolated by fractionation of the plasma, purified and then administered either intravenously or by intramuscular injection to patients. Because it normally takes several weeks to generate antibodies after vaccination, immune globulins are used in situations in which it is not possible to wait for active immunization to generate the protective immune response. EBS is developing both immune globulin (polyclonal antibody) and monoclonal antibody approaches for the treatment of post-exposure anthrax.

Biodefense Pipeline

PreviThrax: Second-generation anthrax vaccine (rPA)

EBS continues to advance PreviThrax, its second-generation anthrax vaccine, which is based on the recombinant protective antigen (rPA) of Bacillus anthracis and is designed to induce antibodies that neutralize anthrax toxins. The vaccine was acquired from VaxGen in May 2008 and is composed of a purified protein with an alum adjuvant. The rPA vaccine candidate is a reformulated, more stable, and potentially more potent form of the original version of the rPA vaccine. The USG continues to seek a recombinant anthrax vaccine, and on September 12, 2010, EBS was awarded a $187MM development contract by HHS for PreviThrax.

NuThrax: Anthrax vaccine adsorbed with CPG adjuvent

NuThrax is an anthrax vaccine product candidate based on BioThrax combined with CPG 7909, an adjuvant licensed from Pfizer with funding from the NIAID. NuThrax could potentially elicit a more rapid onset of immune response using fewer doses to provide protective immunity in patients than BioThrax. In October 2014 EBS completed a phase 2 safety, immunogenicity and dose ranging trial of NuThrax which indicated that NuThrax may require fewer vaccine doses and shorten the recommended antibiotic (60-day) regimen for anthrax post-exposure prophylaxis. NuThrax has completed phase 2 trials, and in March 2015 the company signed a $31MM, 30-month development contract with BARDA to get NuThrax phase 3 ready.

Jim Molloy
jmolloy@laidlawltd.com

Cangene Acquisition

On February 21 2014 EBS completed the acquisition of Cangene Corporation, which brought in $100MM+ in accretive revenues and gets the company most of the way toward its stated goal of $500MM in sales from three-plus marketed products. Adding Cangene's ~20 hospital and specialty sales reps is the first step to EBS adding additional products in 2015, While the ~$110MM in top-line revenues brings along a lower gross margin; following the expected rationalization of operations and manufacturing, we believe Cangene could add 20-25% in operating margin over 2015-2018.

What does Cangene sell, and what could they sell?

Cangene's three areas of operation are 1) commercial specialty pharmaceuticals, 2) biodefense therapies, and 3) contract manufacturing. Cangene's commercial products include WinRho for idiopathic thrombocytopenic purpura (low platelet levels); HepaGam B for post-exposure to the hepatitis B virus; Varizig for post-exposure to chickenpox for high-risk patients; and Episil for discomfort from oral mucositis, a common side effect to most chemotherapies. Cangene provides biodefense therapies for the USG, including post-exposure products for smallpox, botulism, and anthrax. EBS also acquires Cangene's fill/finish contract manufacturing business, which supports >20 licensed products.

Although EBS' asset acquisition focus remains in the biodefense space, the acquisition of Cangene and its ~20-person hospital and specialty sales force opens the US hospital-based products market as well.

Jim Molloy
jmolloy@laidlawltd.com

Major Risks

Exogenous events could impact our outlook. We believe pharmaceutical companies have the least control over competitive, political, and regulatory risks. Although we have incorporated competitive assumptions into our forecasts, there may be other risks beyond the scope of our analysis. Changes in the drug reimbursement system, as well as any political or regulatory amendments, may significantly influence the earnings power of these companies.

Actual clinical results and the FDA's conclusions may deviate from expectations. Many of our assumptions are based on a review of incomplete clinical trial data available in the public domain. Often, our conclusions are drawn from early stage data, which may not be reflected by pivotal studies. Furthermore, the FDA's conclusions may not coincide with our own, materially changing our revenue and earnings assumptions.

Compliance issues, product recalls, and other mandates by regulatory authorities could materially change our expectations. Regulatory compliance issues, ranging from accounting irregularities to defective manufacturing practices, could materially change our assumptions and earnings outlook. Unanticipated product recalls and labeling changes could also have adverse consequences on our earnings assumptions.

Legal risks could lead to additional liabilities and revenue loss. In addition to the expenses incurred by patent challenges, product liability and other legal suits could occur and lead to additional liabilities and revenue loss, which could substantially change our financial assumptions.

Jim Molloy
jmolloy@laidlawltd.com

MANAGEMENT

Daniel Abdun-Nabi, President and CEO. Mr. Abdun-Nabi has served as chief executive officer since April 2012, as president since March 2007, and as a board member since May 2009. He previously served as chief operating officer from May 2007 through March 2012. Mr. Abdun-Nabi served as senior vice president of corporate affairs and general counsel from December 2004 to April 2007, secretary from December 2004 to January 2008, and vice president and general counsel from May 2004 to December 2004. Prior to joining the company, Mr. Abdun-Nabi served as general counsel for IGEN International, Inc.

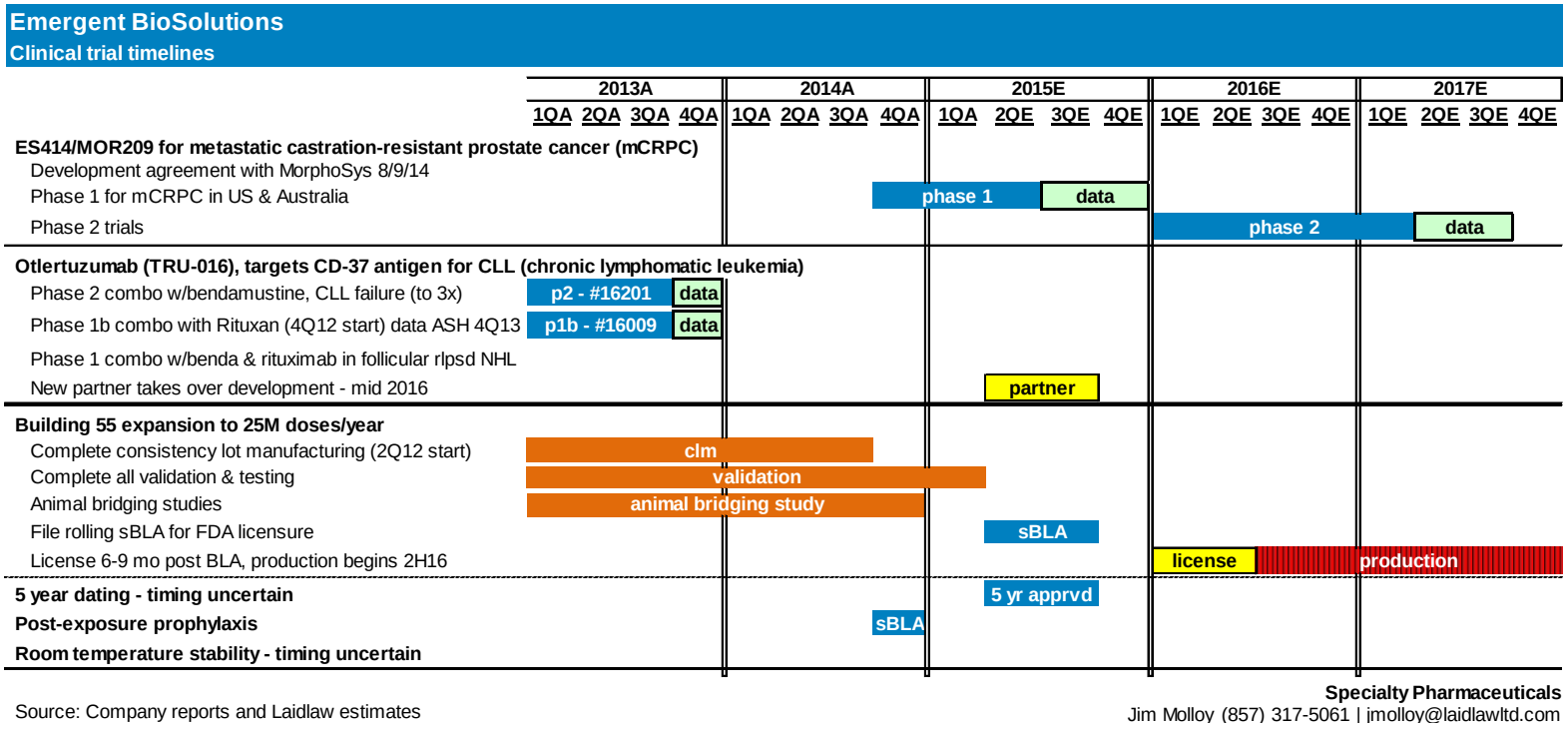
Robert Kramer, CFO. Mr. Kramer has served as CFO since December 2012 and as executive vice president, corporate services division, since September 2012. He is responsible for finance, legal affairs, strategic investments, human capital, management services, and sales and marketing. Mr. Kramer first joined Emergent in 1999 as CFO. From 1999 until his retirement in 2010, he held various executive positions, with the last being president of Emergent BioDefense Operations Lansing. Mr. Kramer returned in 2011 as the interim head of the biosciences division before taking his current position. Prior to joining EBS in 1999, Mr. Kramer held various financial management positions at Pharmacia Corporation.

Adam R. Havey, Executive VP & President, Biodefense Division. Mr. Havey has served as executive vice president and president, Biodefense Division since December 2011, and as executive VP Biodefense Division since March 2011. He previously served as president of Emergent Biodefense Operations Lansing from January 2009 to February 2011 and VP of business operations from November 2007 to December 2008. Mr. Havey previously served as senior director manufacturing development from June 2006 to November 2007, as director, facilities, resource planning and security operations from February 2005 to June 2006 and as project manager from July 2003 to February 2005. Prior to joining Emergent, Mr. Havey served in product development for Eli Lilly.

Barry Labinger, Executive VP & President, Biosciences Division. Mr. Labinger has served as executive vice president and president, Biosciences Division since August 2013. Prior to joining EBS Mr. Labinger served as executive vice president and chief commercial officer at Human Genome Sciences, Inc. from 2005 to 2012. He has held a number of executive positions, including global head of 3M Pharmaceuticals from 2002 to 2005, and senior vice president and general manager commercial operations, and vice president,

Enbrel marketing, at Immunex Corp. from 2000 to 2002. Mr. Labinger has held a number of leadership positions in pharmaceutical marketing at Bristol-Myers Squibb from 1997 to 2000, Abbott Laboratories from 1990 to 1997.

Figure 5. Potential Clinical Trial Timelines



Source: Company reports and Laidlaw estimates

Specialty Pharmaceuticals
Jim Molloy (857) 317-5061 | jmolloy@laidlawltd.com

Source: Bloomberg LP; Company reports; Laidlaw & Company estimates

Jim Molloy
jmolloy@laidlawltd.com

Quarterly Income Statement

Emergent BioSolutions
Quarterly income statement

	2014A				2014A	2015E				2015E
($000 except per share)	1QA	2QA	3QA	4QA	Year	1QA	2QE	3QE	4QE	Year
BioThrax	$24,544	$67,500	$66,000	$87,900	$245,944	$0	$85,000	$95,000	$100,000	$280,000
Other Biodefense	2,500	7,275	11,675	10,911	32,350	11,945	7,000	7,500	8,000	34,445
Total Biodefense	27,044	74,775	77,675	98,811	278,305	11,945	92,000	102,500	108,000	314,445
Total Biosciences	8,723	3,494	6,782	11,050	30,060	6,345	14,250	14,750	15,075	50,420
Contract manufacturing	2,726	9,187	9,433	9,589	30,935	12,243	9,500	9,500	9,500	40,743
Contracts & grants	15,391	22,869	44,064	28,525	110,849	33,099	33,000	33,000	33,000	132,099
Total revenues	**$53,884**	**$110,325**	**$137,954**	**$147,975**	**$450,138**	**63,633**	**148,750**	**159,750**	**165,575**	**$537,708**
Expenses										
COGS	16,997	31,607	30,423	29,185	108,212	16,048	40,063	39,638	33,030	128,778
Gross margin	**36,887**	**78,718**	**107,531**	**118,790**	**341,926**	**47,585**	**108,688**	**120,113**	**132,545**	**408,930**
% product sales	56%	64%	68%	76%	68%	47%	65%	69%	75%	68%
R&D	30,256	37,401	44,207	38,965	150,829	38,702	38,750	38,750	39,000	155,202
SG&A	24,089	27,155	27,692	28,705	107,641	33,393	38,675	41,535	41,725	155,328
Operating income	**(17,458)**	**14,162**	**35,632**	**51,120**	**83,456**	**(24,510)**	**31,263**	**39,828**	**51,820**	**98,400**
Interest expense	3,535	3,621	1,810	1,174	10,140	1,661	1,750	1,750	2,000	7,161
Interest income, net	40	31	59	190	320	82	150	150	175	557
Other income/(expense)	512	1,322	420	672	2,926	100	500	500	500	1,600
Pretax income (loss)	**(20,441)**	**11,894**	**34,301**	**50,808**	**76,562**	**(25,989)**	**30,163**	**38,728**	**50,495**	**93,396**
Tax exp/(benefit)	(5,805)	2,465	9,269	16,192	22,121	(7,169)	7,842	10,069	13,129	23,871
Loss to non-ctrl interest					-					
Adjusted Net Income	**(14,636)**	**9,429**	**25,032**	**34,616**	**54,441**	**(18,820)**	**22,320**	**28,658**	**37,366**	**69,525**
Non-cash charges	(5,600)	(4,400)	(3,200)	(4,500)	(17,700)	(2,700)				(2,700)
GAAP net income	**(20,236)**	**5,029**	**21,832**	**30,116**	**36,741**	**(21,520)**				**66,825**
EPS ex non-cash items	**($0.40)**	**$0.25**	**$0.54**	**$0.75**	**$1.19**	**($0.50)**	**$0.48**	**$0.61**	**$0.78**	**$1.55**
EPS as reported	**($0.55)**	**$0.13**	**$0.47**	**$0.65**	**$0.80**	**($0.57)**				**$1.49**
Fully diluted shares (000)	36,854	38,333	46,557	46,391	45,803	37,949	46,949	47,299	47,649	44,962
Margin & expense analysis										
Gross Margin (% prod. sales)	56%	64%	68%	76%	68%	47%	65%	69%	75%	68%
Op margin (% prod. sales)	-45%	16%	38%	43%	25%	-80%	27%	31%	39%	24%
Taxes	28%	21%	27%	32%	29%	28%	26%	26%	26%	26%
Net margin	-27%	9%	18%	23%	12%	-30%	15%	18%	23%	13%
Year-over-year change										
Net revenue	25%	34%	55%	51%	44%	18%	35%	16%	12%	19%
R&D	5%	27%	53%	30%	26%	28%	4%	-12%	0%	3%
SG&A	20%	36%	26%	19%	34%	39%	42%	50%	45%	44%
Operating income	54%	-12%	96%	133%	65%	40%	121%	12%	1%	18%
Net income	120%	-17%	86%	183%	50%	29%	137%	14%	8%	28%

Source: Bloomberg LP; Company reports; Laidlaw & Company estimates

Jim Molloy
jmolloy@laidlawltd.com

Annual Income Statement

Emergent BioSolutions
Annual income statement

($000 except per share)	2014A	2015E	2016E	2017E	2018E	Comments
BioThrax	$245,944	$280,000	$330,000	$440,000	$467,500	2015E guide: $270M-$285M - reinstated 4/22/15
Other Biodefense	32,350	34,445	34,000	36,750	43,500	RSDL, BAT, other Biodefense here
Total Biodefense	278,305	314,445	364,000	476,750	511,000	
Total biosciences	30,060	50,420	62,750	65,700	70,850	WinRHo; HepaGam, Ixinity, other Bioscience here
Contract manufacturing	30,935	40,743	39,000	40,000	41,000	Acquired with Cangene 3Q13
Contracts & grants	110,849	132,099	134,000	140,000	155,000	Offset in R&D
Total revenues	**$450,138**	**$537,708**	**$599,750**	**$722,450**	**$777,850**	**2015E guide: $510M-$540M - reintstated 4/22/15**
Expenses						
COGS	108,212	128,778	150,465	185,323	198,804	
Gross margin	**341,926**	**408,930**	**449,285**	**537,128**	**579,046**	
% product sales	68%	68%	68%	68%	68%	Cangene impacts margins
R&D	150,829	155,202	159,750	166,250	181,750	
SG&A	107,641	155,328	156,877	173,821	183,967	
Operating income	**83,456**	**98,400**	**132,659**	**197,056**	**213,330**	
Interest expense	10,140	7,161	7,250	7,250	7,250	
Interest income, net	320	557	775	1,000	1,275	
Other inc/(exp)	2,926	1,600	2,000	2,000	2,000	
Pretax income	**76,562**	**93,396**	**128,184**	**192,806**	**209,355**	
Tax expense	22,121	23,871	33,328	50,130	54,432	
Loss to non-cont. int	0	0	0	0	0	
Adj-Net income	**54,441**	**69,525**	**94,856**	**142,677**	**154,923**	**2015E guide: $60M-$70M - reinstated 4/22/15**
Non-cash charges	(17,700)	(2,700)				
GAAP net income	**36,741**	**66,825**				
EPS ex non-cash items	**$1.19**	**$1.55**	**$1.95**	**$2.85**	**$3.00**	**25% EPS CAGR through 2018E**
EPS as reported	**$0.80**	**$1.49**				
Fully diluted shares (000)	45,803	44,962	48,524	50,049	51,649	
Margin & expense analysis						
Gross Margin	68%	68%	68%	68%	68%	
Operating margin	25%	24%	28%	34%	34%	
Taxes	29%	26%	26%	26%	26%	Guide: high 20% range
Net margin	12%	13%	16%	20%	20%	
Year-over-year change						
Net revenue	44%	19%	12%	20%	8%	
R&D	26%	3%	3%	4%	9%	
SG&A	34%	44%	1%	11%	6%	
Operating income	65%	18%	35%	49%	8%	
Net income	50%	28%	36%	50%	9%	
EPS	21%	30%	26%	46%	5%	

Source: Company reports and Laidlaw estimates

Specialty Pharmaceuticals
Jim Molloy (857) 317-5061 | jmolloy@laidlawltd.com

Source: Bloomberg LP; Company reports; Laidlaw & Company estimates

Balance Sheet

Emergent BioSolutions
Balance sheet

(values in $000's)	2013A	1Q14A	2Q14A	3Q14A	2014A	1Q15A	2015E	2016E	2017E	2018E
Assets										
Cash and equiv	$179,338	$160,215	$168,130	$242,249	$280,499	$216,515	$345,788	$439,144	$614,821	$791,243
Total current assets	**273,115**	**327,203**	**345,449**	**383,632**	**432,175**	**405,811**	**571,038**	**699,894**	**937,321**	**1,123,744**
PP&E, net	264,240	303,468	302,455	304,211	313,979	315,489	300,000	325,000	325,001	325,002
Other assets	3,373	9,365	8,768	8,340	8,216	7,696				
Total assets	**626,630**	**823,251**	**837,249**	**869,291**	**945,262**	**917,845**	**1,230,840**	**1,397,196**	**1,644,876**	**1,851,052**
Total current liabilities	**56,651**	**72,324**	**76,427**	**81,417**	**92,936**	**80,297**	**121,000**	**137,500**	**175,000**	**205,000**
LT debt, net current	62,000	251,000	251,000	251,000	251,000	251,000	251,000	251,000	251,000	251,000
Total liabilities	**137,465**	**345,756**	**349,482**	**356,153**	**392,061**	**379,967**	**372,000**	**388,500**	**426,000**	**456,000**
Preferred stock										
Additional paid−in capital	247,637	255,675	260,778	264,877	274,222	280,653	504,016	559,016	626,519	647,773
Treasury shares	(6,119)	(6,119)	(6,119)	(6,119)	(6,320)	(6,320)				
Accum other loss	(3,465)	(3,391)	(3,251)	(3,810)	(3,008)	(3,242)	(3,008)	(3,008)	(3,008)	(3,008)
Retained earnings	251,528	231,292	236,321	258,152	288,269	266,749	357,794	452,650	595,327	750,249
Shareholder's equity	**489,618**	**477,495**	**487,767**	**513,138**	**553,201**	**537,878**	**858,840**	**1,008,696**	**1,218,876**	**1,395,052**
Noncontrolling int in sub	(453)	0	0	0	0	0	0	0	0	0
Total SE	**489,165**	**477,495**	**487,767**	**513,138**	**553,201**	**537,878**	**858,840**	**1,008,696**	**1,218,876**	**1,395,052**
Total Liability & SE	**626,630**	**823,251**	**837,249**	**869,291**	**945,262**	**917,845**	**1,230,840**	**1,397,196**	**1,644,876**	**1,851,052**

Source: Company reports and Laidlaw estimates

Source: Bloomberg LP; Company reports; Laidlaw & Company estimate

Jim Molloy
jmolloy@laidlawltd.com

Cash flow Statement

Emergent BioSolutions
Statement of cash flows

(values in $000's)	2013A	1Q14A	2Q14A	3Q14A	2014A	1Q15A	2015E	2016E	2017E	2018E
Cash from Operations										
Net income (loss)	$30,259	($20,236)	($15,207)	$6,625	$36,741	($21,520)	$69,525	$94,856	$142,677	$154,923
Stock−based comp	11,238	2,650	6,015	9,454	12,829	3,798	15,000	18,000	20,000	22,500
Depreciation and amort	18,958	6,835	15,294	24,286	32,453	8,532	30,000	30,000	35,000	35,000
Non−cash dev exp in JV	(347)									
Excess stock comp tax	(3,099)	(4,570)	(5,179)	(5,566)	(5,987)	(5,414)	(6,000)	(6,000)	(6,000)	(6,000)
Other	51	2,284	2,330	2,372	3,115	17	3,000	3,000	3,000	3,000
Change assets & liabilities	24,143	(8,568)	(18,110)	18,293	13,541	(45,584)	7,514	4,000	27,250	10,250
Cash from operations	**96,968**	**(29,245)**	**(18,426)**	**60,497**	**112,318**	**(65,873)**	**137,039**	**161,856**	**239,927**	**237,673**
Changes in PP&E, net	(42,021)	(4,590)	(9,400)	(14,621)	(30,673)	(9,082)	(30,000)	(30,000)	(30,000)	(30,000)
Cash from Investments	**(67,894)**	**(182,757)**	**(187,567)**	**(192,788)**	**(210,052)**	**(9,082)**	**(30,000)**	**(30,000)**	**(30,000)**	**(30,000)**
Cash from Financing	**8,612**	**192,874**	**194,783**	**195,185**	**198,874**	**10,996**	**(41,750)**	**(38,500)**	**(34,250)**	**(31,250)**
Effect of exchange rate	(14)	5	2	17	21	(25)				
Change in cash	**37,672**	**(19,123)**	**(11,208)**	**62,911**	**101,161**	**(63,984)**	**65,289**	**93,356**	**175,677**	**176,423**
Cash, start of period	141,666	179,338	179,338	179,338	179,338	280,499	280,499	345,788	439,144	614,821
Cash, end of period	**179,338**	**160,215**	**168,130**	**242,249**	**280,499**	**216,515**	**345,788**	**439,144**	**614,821**	**791,243**

Source: Company reports and Laidlaw estimates

Source: Bloomberg LP; Company reports; Laidlaw & Company estimates

Jim Molloy
jmolloy@laidlawltd.com

DISCLOSURES:

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The analyst responsible for the content of this report hereby certifies that the views expressed regarding the company or companies and their securities accurately represent his personal views and that no direct or indirect compensation is to be received by the analyst for any specific recommendation or views contained in this report. Neither the author of this report nor any member of his immediate family or household maintains a position in the securities mentioned in this report.

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Additional information available upon request.

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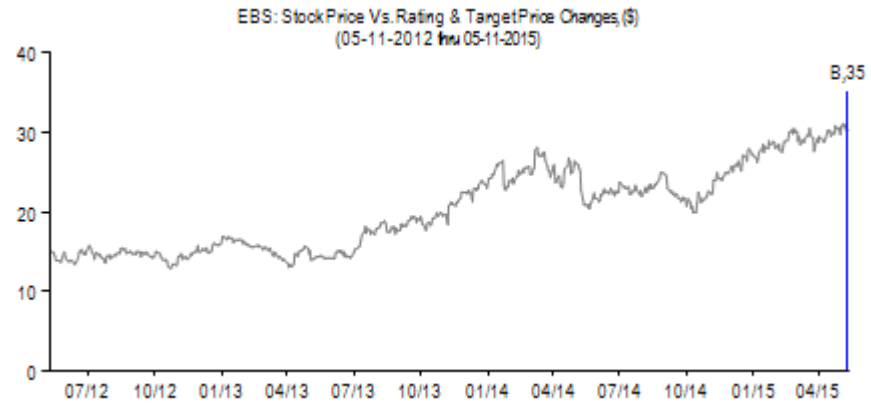
RATINGS INFORMATION

Rating and Price Target Change History



3 Year Rating Change History

Date	Rating	Closing Price ($)
05/11/2015	Buy (B)	30.29*

3 Year Price Change History

Date	Target Price ($)	Closing Price, ($)
05/11/2015	35.00	30.29*

** Previous Close5/8/2015*

Source: Laidlaw & Company

Created by: Blue-Compass.net

Laidlaw & Company Rating System*		% of Companies Under Coverage With This Rating	% of Companies for which Laidlaw & Company has performed services for in the last 12 months	
			Investment Banking	Brokerage
Strong Buy (SB)	Expected to significantly outperform the sector over 12 months.	0.00%	0.00%	0.00%
Buy (B)	Expected to outperform the sector average over 12 months.	73.08%	30.77%	7.69%
Hold (H)	Expected returns to be in line with the sector average over 12 months.	3.85%	0.00%	0.00%
Sell (S)	Returns expected to significantly underperform the sector average over 12 months.	0.00%	0.00%	0.00%

ADDITIONAL COMPANIES MENTIONED

VaxGen (VXGN – Not Rated)
Pfizer (PFE – Not Rated)

ADDITIONAL DISCLOSURES

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Jim Molloy
jmolloy@laidlawltd.com

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Jim Molloy
jmolloy@laidlawltd.com

NOTES:

Jim Molloy
jmolloy@laidlawltd.com