

COMPANY PROFILE

# Eli Lilly and Company

## **TABLE OF CONTENTS**

<b>Company Overview .....</b>	<b>3</b>
<b>Key Facts .....</b>	<b>3</b>
<b>Business Description .....</b>	<b>4</b>
<b>History .....</b>	<b>7</b>
<b>Key Employees .....</b>	<b>14</b>
<b>Key Employee Biographies .....</b>	<b>16</b>
<b>Major Products &amp; Services .....</b>	<b>26</b>
<b>SWOT Analysis .....</b>	<b>28</b>
<b>Top Competitors .....</b>	<b>33</b>
<b>Company View .....</b>	<b>34</b>
<b>Locations And Subsidiaries .....</b>	<b>38</b>

## COMPANY OVERVIEW

Eli Lilly and Company (Eli Lilly or 'the company') is engaged in developing, manufacturing, and marketing pharmaceutical products and animal health products. The company classifies its business into two business segments: Human Pharmaceutical Products and Animal Health Products. Through these businesses, the company offers human pharmaceutical products in the therapeutic areas of neuroscience, endocrinology, oncology, cardiovascular, and immunology. It also develops, manufactures, and markets products for both food animals and companion animals. The company operates in the US, Japan, Europe and other countries. It is headquartered in Indianapolis, Indiana.

The company reported revenues of (US Dollars) US\$21,222.1 million for the fiscal year ended December 2016 (FY2016), an increase of 6.3% over FY2015. In FY2016, the company's operating margin was 16.3%, compared to an operating margin of 12.6% in FY2015. In FY2016, the company recorded a net margin of 12.9%, compared to a net margin of 12.1% in FY2015.

## KEY FACTS

<b>Head Office</b>	Eli Lilly and Company Lilly Corporate Center INDIANAPOLIS Indiana INDIANAPOLIS Indiana USA
<b>Phone</b>	1 317 2762000
<b>Fax</b>	
<b>Web Address</b>	<a href="http://www.lilly.com">www.lilly.com</a>
<b>Revenue / turnover (USD Mn)</b>	21,222.1
<b>Financial Year End</b>	December
<b>Employees</b>	41,975
<b>New York Stock Exchange Ticker</b>	LLY

## **BUSINESS DESCRIPTION**

Eli Lilly and Company (Eli Lilly or 'the company') is primarily engaged in the discovery, development, manufacture and sales of pharmaceutical products. It also manufactures animal health products. The company operates in the US, Japan, Europe and other countries.

The company operates through two business segments: Human Pharmaceutical Products and Animal Health Products.

The company's Human Pharmaceutical Products business segment is engaged in the discovery, development, manufacturing, marketing, and sales of human pharmaceutical products worldwide in the following therapeutic areas: neuroscience, endocrinology, oncology, cardiovascular, and immunology.

In the endocrinology therapeutic area, the company offers Humalog, Humulin and Basaglar for the treatment of diabetes; Trajenta, Jentaducto, Jardiance, Trulicity, and Glyxambi for the treatment of type 2 diabetes; and Forteo for the treatment of osteoporosis in postmenopausal women and men at high risk for fracture and for glucocorticoid-induced osteoporosis in men and postmenopausal women. In this therapeutic area, the company also offers Evista for the prevention and treatment of osteoporosis in postmenopausal women and for the reduction of the risk of invasive breast cancer in postmenopausal women with osteoporosis and postmenopausal women at high risk for invasive breast cancer; Humatrope, indicated for the treatment of human growth hormone deficiency and certain pediatric growth conditions; and Axiron, a topical solution of testosterone for replacement therapy in men for certain conditions associated with a deficiency or absence of testosterone.

The company's products in the neuroscience area include Cymbalta, indicated for the treatment of major depressive disorder, diabetic peripheral neuropathic pain, generalized anxiety disorder, fibromyalgia and chronic musculoskeletal pain due to chronic low back pain or chronic pain due to osteoarthritis. Zyprexa is indicated for the treatment of schizophrenia, acute mixed or manic episodes associated with bipolar I disorder, and bipolar maintenance; and Strattera is being marketed as the treatment for attention-deficit hyperactivity disorder (ADHD). Other products in the neuroscience area include Prozac, indicated for the treatment of major depressive disorder, obsessive-compulsive disorder, bulimia nervosa, and panic disorder.

The company, under its neuroscience area, also manufactures Amyvid, a radioactive diagnostic agent for positron emission tomography (PET) imaging of beta-amyloid neurotic plaques in the brains of adult patients with cognitive impairment who are being evaluated for Alzheimer's disease and other causes of cognitive decline.

Eli Lilly's oncology products include Alimta, indicated for the first-line treatment, in combination with another agent, of advanced non-small cell lung cancer (NSCLC) for patients with non-squamous cell histology; for the second-line treatment of advanced non-squamous NSCLC; as monotherapy for the maintenance treatment of advanced non-squamous NSCLC in patients whose disease has not progressed immediately following chemotherapy treatment; and in combination with another agent, for the treatment of malignant pleural mesothelioma. The company offers Gemzar for the treatment of pancreatic cancer; and in combination with other agents, for the treatment of metastatic breast cancer, NSCLC, and

advanced or recurrent ovarian cancer; and in the European Union (EU) for the treatment of bladder cancer. Other products of the company in this therapeutic area include Erbitux, indicated both as a single agent and with another chemotherapy agent for the treatment of certain types of colorectal cancers; and as a single agent or in combination with radiation therapy for the treatment of certain types of head and neck cancers; and Cyramza, approved in 2014 in the US and the EU, and in Japan in 2015, both as a single agent and in combination with another agent for advanced or metastatic gastric cancer. Cyramza has been approved in 2014 in the US and in the EU in 2016, in combination with another agent as a second-line treatment of metastatic NSCLC. Cyramza has also been approved in 2015 in the US, and in the EU in 2016, as a second-line treatment of metastatic colorectal cancer. The company also offers Portrazza, which was approved in 2015 in the US for use in combination with other agents as a first-line treatment of metastatic squamous NSCLC, and was approved in 2016 in the EU for use in combination with other agents as a first-line treatment for epidermal growth factor receptor expressing squamous NSCLC; and Lartruvo, which was approved in the US, and conditionally approved in the EU, in 2016 for use in combination with another agent for the treatment of soft tissue carcinoma.

In the cardiovascular therapeutic area, Eli Lilly's products include Cialis, indicated for the treatment of erectile dysfunction and benign prostatic hyperplasia; and Effient for the reduction of thrombotic cardiovascular events (including stent thrombosis) in patients with acute coronary syndrome who are managed with an artery-opening procedure known as percutaneous coronary intervention (PCI), including patients undergoing angioplasty, atherectomy, or stent placement.

In the immunology therapeutic area, Eli Lilly's products include Olumiant, approved in the EU in 2017 for the treatment of adults with moderately-to-severely active rheumatoid arthritis; and Taltz for the treatment of moderate-to-severe plaque psoriasis (approved the US and EU in 2016) and psoriatic arthritis (approved in Japan in 2016).

In FY2016, the Human Pharmaceutical Products segment reported revenues of \$18,063.9 million, which accounted for 85.1% of the company's total revenue.

In its animal health segment, the company operates through Elanco division. Elanco develops, manufactures, and markets products for both food animals and companion animals. Eli Lilly's animal health products include Rumensin, a cattle feed additive that improves feed efficiency and growth, and also controls and prevents coccidiosis; Tylan, an antibiotic used to control certain diseases in cattle, swine and poultry; Posilac, a protein supplement to improve milk productivity in dairy cows; and Paylean and Optaflexx, leanness and performance enhancers for swine and cattle, respectively. Elanco animal health division offers anticoccidial agents such as Coban, Monteban and Maxiban for use in poultry; and Denagard, an antibiotic for the control and treatment of respiratory and enteric diseases in swine and poultry.

Elanco also manufactures products for companion animals, including Trifexis, chewable tablet for dogs that kills fleas, prevents flea infestations, prevents heartworm disease, and controls intestinal parasite infections; and Comfortis, a chewable tablet that kill fleas and prevents flea infestations on dogs.

In FY2016, the Animal Health Products segment reported revenues of \$3,158.2 million, which accounted for 14.9% of the company's total revenue.

Geographically, the company classifies its operations into four segments, namely the US, Japan, Europe, and Other Foreign Countries. In FY2016, the US segment accounted for 54.2% of the company's total revenues, followed by Japan with 11%; Europe with 17.8%; and Other Foreign Countries with 17%.

## **HISTORY**

Eli Lilly announced the completion of a \$90 million expansion of its Biotechnology Center in San Diego, California.

Eli Lilly acquired Boehringer Ingelheim Vetmedica's (BIVI) US feline, canine and rabies vaccines portfolio as well as a fully integrated manufacturing and R&D site for \$882.1 million.

The company acquired CoLucid Pharmaceuticals, a company which is developing lasmiditan oral tablets for the acute treatment of migraine headaches in adults and intravenous lasmiditan for the acute treatment of headache pain associated with migraine in adults in emergency room and other urgent care settings.

Two subsidiaries of Eli Lilly signed an agreement with 3Sbio to promote and distribute insulin products.

The company announced that it met positive results for its three Phase III EVOLVE-1, EVOLVE-2 and REGAIN clinical trials to treat migraine.

Eli Lilly and KeyBioscience formed a strategic collaboration focused on the development of Dual Amylin Calcitonin Receptor Agonists (DACRAs), a potential new class of treatments for metabolic disorders such as type 2 diabetes.

Pfizer and Eli Lilly announced that the FDA had granted Fast Track designation for tanezumab for the treatment of chronic pain in patients with osteoarthritis and chronic low back pain.

The FDA approved Eli Lilly's Humalog Junior KwikPen for the treatment of diabetes.

Eli Lilly and Incyte announced that Japan's Ministry of Health, Labor and Welfare (MHLW) had granted marketing approval for Olumiant (baricitinib) 2-mg and 4-mg tablets for the treatment of rheumatoid arthritis (including the prevention of structural injury of joints) in patients with inadequate response to standard-of-care therapies.

The company announced its plan to expand its New York City Research and Development Site.

Eli Lilly announced that the FDA had granted Breakthrough Therapy Designation to abemaciclib, a cyclin-dependent kinase (CDK) 4 and 6 inhibitor, for patients with refractory hormone-receptor-positive (HR+) advanced or metastatic breast cancer.

The company entered into a settlement agreement to resolve patent litigation with Sanofi regarding its insulin glargine product, Basaglar.

Eli Lilly announced the availability of Humalog 200 units/mL KwikPen (insulin lispro 200 units/mL; U-200), the first and only concentrated mealtime insulin analog in the US.

The company announced to expand its presence at the Eli Lilly Biotechnology Center in San Diego,

California.

Eli Lilly entered into a strategic partnership with Sarah Cannon Research Institute to co-develop an investigational oncology compound, LY3023414, a PI3K/mTOR dual inhibitor.

Eli Lilly and Dana-Farber Cancer Institute announced a multi-year collaboration to research new medicines under development to fight cancer. The company and Immunocore entered into an immunotherapy-based clinical trial collaboration to explore the utility of Immunocore's lead T cell receptor-based investigational therapeutic, IMCgp100, in combination with the company's galunisertib (LY2157299) and merestinib (LY2801653) for the treatment of melanoma.

The company entered into collaboration with Sanford-Burnham Medical Research Institute to discover and develop immunological therapies. Eli Lilly and BioNTech, an immunotherapy company, entered into a research collaboration to discover novel cancer immunotherapies.

Eli Lilly announced its plans to establish a new drug delivery and device innovation center in Cambridge, Massachusetts.

Eli Lilly and Bristol-Myers Squibb agreed to transfer rights to Erbitux (cetuximab) in North America, including the US, Canada, and Puerto Rico, from Bristol-Myers Squibb to Eli Lilly.

Eli Lilly and Hanmi Pharmaceutical, a South Korea-based global pharmaceutical company entered into an agreement for the development and commercialization of Hanmi's oral Bruton's tyrosine kinase (BTK) inhibitor, HM71224, for the treatment of autoimmune and other diseases. Eli Lilly and Innovent Biologics, a China-based biopharmaceutical company, entered into a strategic alliance to bring potential oncology therapies to patients in China and around the world.

Merck and Eli Lilly entered into a clinical trial collaboration to evaluate the safety, tolerability and efficacy of KEYTRUDA (pembrolizumab), Merck's anti-PD-1 therapy, in combination with Eli Lilly compounds in multiple clinical trials for various types of cancer. Bristol-Myers Squibb and Eli Lilly formed a clinical trial collaboration to evaluate the safety, tolerability and preliminary efficacy of BMS's immunotherapy Opdivo in combination with Eli Lilly's galunisertib.

Eli Lilly acquired Novartis Animal Health for approximately \$5.4 billion.

The FDA approved Glyxambi (empagliflozin/linagliptin) tablets, from Boehringer Ingelheim Pharmaceuticals and Eli Lilly, as an adjunct to diet and exercise to improve glycemic control in adults with type 2 diabetes (T2D) when both empagliflozin and linagliptin are appropriate treatments.

Eli Lilly and Adocia, a France-based clinical-stage biotechnology company, entered into a worldwide licensing agreement focused on developing an ultra-rapid insulin, known as BioChaperone Lispro, for treatment in people with type 1 and type 2 diabetes.

The FDA granted the US marketing approval for Trulicity (dulaglutide) which is a treatment option for adults with type 2 diabetes. The FDA accepted Eli Lilly's filing of an NDA for empagliflozin plus immediate-release metformin hydrochloride fixed-dose combination, an investigational compound being



studied for the treatment of adults with type 2 diabetes.

Boehringer Ingelheim and Eli Lilly revised operational structure of diabetes alliance in certain countries.

Eli Lilly and AstraZeneca entered into an agreement to co-develop and commercialize AZD3293, an oral beta secretase cleaving enzyme (BACE) inhibitor which is currently in development as a potential treatment for Alzheimer's disease.

Eli Lilly received approval from the European Commission to market the new insulin glargine product, indicated to treat diabetes in adults, adolescents and children aged two years and above, in Europe.

The FDA granted the US marketing approval for Jardiance (empagliflozin) tablets for adults with type 2 diabetes. The FDA granted the tentative approval for Basaglar (insulin glargine injection), which is indicated to improve glycemic control in adults with type 2 diabetes and in combination with mealtime insulin in adults and pediatric patients with type 1 diabetes.

Eli Lilly and Immunocore Limited entered into a co-discovery and co-development collaboration to research and potentially develop novel T cell-based cancer therapies.

The Committee for Medicinal Products for Human Use (CHMP) of the European Medicines Agency issued a positive opinion recommending approval of a new insulin glargine product, for the treatment of type 1 and type 2 diabetes.

Eli Lilly entered into an agreement with Sanofi to pursue regulatory approval of non-prescription Cialis.

The company received approval from the European Commission to market Jardiance (empagliflozin) tablets in Europe.

The FDA granted US marketing approval for Eli Lilly's Cyramza (ramucirumab) as a single-agent treatment for patients with advanced or metastatic gastric cancer or gastroesophageal junction (GEJ) adenocarcinoma with disease progression on or after prior fluoropyrimidine- or platinum-containing chemotherapy. With this approval, Cyramza became the first FDA-approved treatment for patients in this setting. Jardiance (empagliflozin) tablets, a sodium glucose co-transporter 2 (SGLT2) inhibitor, received European marketing authorization for the treatment of type 2 diabetes mellitus (T2D) to improve glycemic control in adults.

Elanco, the company's animal health business division, acquired Lohmann SE (Lohmann Animal Health), a Germany-based privately held company.

The FDA issued a complete response letter for the NDA of empagliflozin. The complete response letter referenced previously observed deficiencies at a Boehringer Ingelheim facility where empagliflozin would be manufactured. However, the Committee for Medicinal Products for Human Use (CHMP) of the European Medicines Agency issued a positive opinion recommending approval of empagliflozin as an adjunct to diet and exercise to improve glycemic control, or blood glucose levels, in adults with type 2 diabetes.

From Arteaus Therapeutics, Eli Lilly acquired all the developmental rights of a Phase II calcitonin gene-related peptide (CGRP) antibody which was being studied as a potential treatment for the prevention of frequent, recurrent migraine headaches.

The FDA granted marketing approvals for generic versions of Eli Lilly's Cymbalta, following the product's loss of market exclusivity. Eli Lilly and Boehringer Ingelheim filed an NDA for LY2963016, an investigational basal (long-acting) insulin, to the FDA.

Humana, a health and well-being company, and Eli Lilly formed a joint research collaboration to improve the health care of their members and patients.

The FDA granted a priority review status for ramucirumab (IMC-1121B), a human receptor-targeted antibody, as a single-agent treatment for advanced gastric cancer following disease progression after initial chemotherapy.

The FDA approved a product label addition for Cialis to include in combination therapy with finasteride for treatment of benign prostatic hyperplasia.

The European Medicines Agency accepted the company's MAA for the investigational sodium glucose co-transporter-2 (SGLT2) inhibitor empagliflozin for the treatment of T2D in adults.

Eli Lilly acquired two investigational PET tracers intended to image tau (or neurofibrillary) tangles in the brain, one of two known hallmarks of Alzheimer's disease, from Siemens Medical Solutions USA.

Eli Lilly stopped clinical studies investigating pomaglumedad methionil, also known as mGlu2/3, for the treatment of patients suffering from schizophrenia, based on efficacy results.

The FDA granted approval for a supplemental new drug application (sNDA) for Tradjenta tablets for use as add-on therapy to insulin. The FDA approved a new use of Alimta in the continuation maintenance setting for advanced NSCLC. Meanwhile, the EC granted European marketing authorization for Cialis tablets for the treatment of the signs and symptoms of benign prostatic hyperplasia (BPH). Cialis became only medication approved in the EU for both ED and signs and symptoms of BPH.

Eli Lilly acquired ChemGen, a privately-held bioscience company specializing in the development of feed enzyme products that improve the efficiency of poultry, egg, and meat production.

Eli Lilly opened the Lilly China Research and Development Center (LCRDC) for the discovery of diabetes medicines that can be tailored specifically for the Chinese population.

Eli Lilly expanded its partnership with Novast Laboratories (Novast) to enhance its manufacturing capabilities in China.

The FDA granted an additional six months of the US market exclusivity to Eli Lilly's Cymbalta.

Eli Lilly India (Lilly India) and Lupin entered into a collaboration agreement to promote and distribute Lilly India's Huminsulin range of products.

Boehringer Ingelheim and Eli Lilly received European marketing authorization from the EC for Tradjenta (linagliptin) in Europe for the treatment of adults with T2D.

Eli Lilly and Boehringer Ingelheim, a Germany-based pharma major, collaborated to develop a portfolio of diabetes compounds including Boehringer Ingelheim's two oral diabetes agents (linagliptin and BI10773) and Eli Lilly's two basal insulin analogues (LY2605541 and LY2963016).

Eli Lilly acquired the animal health business of Janssen Pharmaceutica, a Johnson & Johnson company.

Synthes and Lilly collaborated for the joint development of early stage compounds for use within orthopedic trauma, spine, craniomaxillofacial and reconstructive areas.

Eli Lilly collaborated with Acrux for the commercialization of Acrux's experimental underarm testosterone solution (proposed trade name Axiron), Wal-Mart for commercialization of insulin, and with Marcadia Biotech for the development of novel glucagon for treating severe hypoglycemia.

Eli Lilly acquired Alnara Pharmaceuticals, a private biotechnology company that developed protein therapeutics for the treatment of metabolic diseases; and Avid Radiopharmaceuticals, a private company that developed molecular imaging compounds intended for the detection and monitoring of chronic human diseases.

The company acquired the European rights to a portfolio of certain Pfizer's animal health products.

The company's Cymbalta received FDA approval for the management of chronic musculoskeletal pain, the fifth indication the FDA has approved for Cymbalta.

Alimta received marketing approvals from FDA and EC as a maintenance therapy for locally advanced or metastatic NSCLC. The FDA also granted the US marketing approvals for Effient tablets for the reduction of thrombotic cardiovascular events (including stent thrombosis) in patients with ACS; a new use for Forteo to treat osteoporosis associated with sustained, systemic glucocorticoid therapy in men and women at high risk of fracture; Cymbalta for the maintenance treatment of GAD in adults; Zyprexa in tablet form as an option for the treatment of schizophrenia and manic or mixed episodes associated with bipolar I disorder in adolescents aged 13-17 years old; and for Zyprexa Relprevv for the treatment of schizophrenia in adults.

The EC granted marketing authorization for Eli Lilly and Daiichi Sankyo's Effient (prasugrel) for the prevention of atherothrombotic events in patients with acute coronary syndrome (ACS) undergoing percutaneous coronary intervention (PCI). The FDA granted the US marketing approval for a new indication for Symbyax (olanzapine and fluoxetine HCl capsules), making it the first drug approved for the acute treatment of treatment-resistant depression.

Eli Lilly and Incyte signed a collaboration agreement for the development and commercialization of oral anti-inflammatory and autoimmune therapies.

Eli Lilly granted to United Therapeutics the US commercialization rights to tadalafil for PAH for \$150

million.

Eli Lilly strengthened its oncology portfolio through the acquisition of ImClone Systems; a biopharmaceutical company specialized in oncology and also SGX Pharmaceuticals, a San Diego-based biotechnology company.

Eli Lilly obtained approvals from the FDA and the EC for the following products: Cialis, a Viagra rival oral medication to treat ED; Alimta (pemetrexed for injection) Alimta in combination with Cisplatin, for use in the first-line treatment of advanced non-small-cell lung cancer (NSCLC); Strattera, for the treatment of ADHD in children and adolescents; Cymbalta, for the management of fibromyalgia and GAD; and Forsteo, for the treatment of osteoporosis associated with sustained, systemic glucocorticoid therapy.

The FDA approved the antidepressant Cymbalta for the treatment of generalized anxiety disorder (GAD), a condition that affects more than 6.5 million American adults in the given year. The EC granted approval to expand the indication of Forsteo (teriparatide [rDNA origin] injection) to include the treatment of osteoporosis in men who are at increased risk of fracture. The FDA approved Eli Lilly's osteoporosis drug Evista indicated to reduce the risk of invasive breast cancer in populations of postmenopausal women.

The company acquired Hypnion, a privately-held neuroscience drug discovery company focused on sleep disorders.

Eli Lilly launched pre-mixed insulin, Humalog Mix50/50 in the US for use in patients with diabetes to control high blood sugar.

The FDA approved Gemzar for the treatment of ovarian cancer and the EC granted marketing authorization for Byetta for the treatment of T2D.

Eli Lilly obtained marketing authorization for Cymbalta from the European Commission (EC), for the treatment of major depressive episodes and the FDA approval for Byetta (exenatide) injection as an adjunctive therapy to improve blood sugar control in patients with type 2 diabetes (T2D).

Eli Lilly launched Symbyax for bipolar depression, Alimta for mesothelioma and Cialis for ED in the US and Cymbalta for depression.

The company acquired Merck's 5-HT<sub>2a</sub> antagonist compound EMD 281014 for treatment of insomnia.

The FDA approved Zyprexa Intramuscular injection indicated for schizophrenia and bipolar mania and Cymbalta for the treatment of depression; and Cymbalta for the treatment of pain caused by diabetic peripheral neuropathy.

The FDA granted US marketing approval for Zyprexa for the treatment of bipolar mania; the Alimta-Cisplatin combination for treatment of asbestos-related cancer; the injectable form of Zyprexa; Gemzar in combination with Taxol (paclitaxel), as a first-line therapy for women battling metastatic breast cancer; Alimta as a second-line treatment for advanced lung cancer; and Cymbalta (duloxetine HCl) as a safe and effective treatment for depression.

Eli Lilly acquired Applied Molecular Evolution, a biotechnology research company, boosting its efforts to develop proteins into new drugs.

The company's drug, Strattera (atomoxetine HCl), became the first non-stimulant approved for the treatment of attention-deficit/hyperactivity disorder (ADHD). The company received the approval for ICOS's (a joint venture between ICOS and Eli Lilly) erectile dysfunction (ED) medication, Cialis (tadalafil), in Mexico. Cialis was also approved by the FDA for the treatment of ED.

The FDA granted US marketing approval for Eli Lilly's Forteo teriparatide (recombinant DNA origin) injection, the company's first product in a new class of drugs called bone formation agents, for the treatment of osteoporosis in postmenopausal women.

The company continued to introduce new products, such as Gemzar (gemcitabine HCl), for the treatment of cancer, and Reopro, for heart procedures. Other marketed drugs were Zyprexa (olanzapine) for schizophrenia; Humalog, a fast acting insulin; and Evista (Raloxifene HCl) for the prevention of osteoporosis in postmenopausal women.

A further milestone was achieved by the company when the human insulin product, Humulin was launched, becoming the world's first human pharmaceutical product produced through recombinant DNA technology. The company launched Prozac, which became the world's most widely prescribed antidepressant.

Ceclor was launched and ultimately became the world's top-selling oral antibiotic.

Eli Lilly launched Keflin, the first cephalosporin antibiotic.

Eli Lilly was among the first companies to develop a method to mass-produce penicillin.

Researchers at Eli Lilly worked to isolate and purify insulin for the treatment of diabetes. The company launched Iletin, the world's first commercially available insulin product.

Eli Lilly and Company (Eli Lilly or 'the company') was founded by Colonel Eli Lilly. The company was initially set up to manufacture existing medicines to a higher quality. The business subsequently expanded to include the discovery and development of new pharmaceuticals.

## KEY EMPLOYEES

<b>Name</b>	<b>Job Title</b>	<b>Board</b>	<b>Compensation</b>
David A. Ricks	Chairman-President and Chief Executive Officer	Executive Board	
Ralph Alvarez	Director	Non Executive Board	284250 USD
Katherine Baicker	Director	Non Executive Board	279000 USD
Michael L. Eskew	Director	Non Executive Board	300000 USD
J. Erik Fyrwald	Director	Non Executive Board	308434 USD
R. David Hoover	Director	Non Executive Board	318000 USD
Jamere Jackson	Director	Non Executive Board	69750 USD
William G. Kaelin Jr.	Director	Non Executive Board	314500 USD
Kathi P. Seifert	Director	Non Executive Board	289800 USD
Marschall S. Runge	Director	Non Executive Board	283500 USD
Jackson Tai	Director	Non Executive Board	283500 USD
Juan R. Luciano	Director	Non Executive Board	253000 USD
Carolyn R. Bertozzi	Director	Non Executive Board	
Ellen R. Marram	Lead Independent Director	Non Executive Board	348000 USD
Derica W. Rice	Executive Vice President-Global Services, and Chief Financial Officer	Senior Management	7920634 USD
Jan M. Lundberg	Executive Vice President-Science and Technology; President, Lilly Research Laboratories	Senior Management	6474897 USD
Maria Crowe	President-Manufacturing Operations	Senior Management	
Leigh Ann Pusey	Senior Vice President-Corporate Affairs and Communications	Senior Management	
Melissa Stapleton Barnes	Senior Vice President-Enterprise Risk Management; Chief Ethics and Compliance Officer	Senior Management	
Michael J. Harrington	Senior Vice President-General Counsel	Senior Management	5393444 USD
Johna L. Norton	Senior Vice President-Global Quality	Senior Management	
Stephen F. Fry	Senior Vice President-Human Resources and Diversity	Senior Management	
Jeffrey N. Simmons	Senior Vice President-President,	Senior Management	

## Eli Lilly and Company

### Key Employees



	Elanco Animal Health		
Christi Shaw	Senior Vice President-President, Lilly Bio-Medicines	Senior Management	
Enrique A. Conterno	Senior Vice President-President, Lilly Diabetes; President, Lilly USA	Senior Management	4588417 USD
Alfonso G. Zulueta	Senior Vice President-President, Lilly International	Senior Management	
Susan Mahony	Senior Vice President-President, Lilly Oncology	Senior Management	

## **KEY EMPLOYEE BIOGRAPHIES**

### **David A. Ricks**

Board:Executive Board  
Job Title:Chairman-President and Chief Executive Officer  
Since:2017  
Age:49

David A. Ricks has been the Chairman, President and Chief Executive Officer at Eli Lilly and Company (Eli Lilly or 'the company') since 2017. He served as President of Lilly Bio-Medicines from 2012 to 2016. Previously, he was President of Lilly USA, the company's affiliate, from 2009 to 2012. He served as President and General Manager of Lilly China from 2008 to 2009. He was General Manager of Lilly Canada from 2005 to 2008, after roles as a Director of Pharmaceutical Marketing and National Sales Director in that country. He joined Lilly in 1996 as a Business Development Associate and held several management roles in US marketing and sales before moving to Lilly Canada.

He serves on the board of the Pharmaceutical Research and Manufacturers of America (PhRMA) and the Central Indiana Corporate Partnership. He chairs the Riley Children's Foundation Board of Governors.

### **Ralph Alvarez**

Board:Non Executive Board  
Job Title:Director  
Since:2009  
Age:61

Ralph Alvarez has been a Director at Eli Lilly since 2009. He is Chairman of the Board at Skylark. He retired as President and Chief Operating Officer of McDonald's Corporation in 2009. Prior to joining McDonald's in 1994, he held leadership positions at Burger King Corporation and Wendy's International. He held a variety of leadership roles throughout his career, including Chief Operations Officer and President of the central division, both with McDonald's USA. Before joining the US business, Mr. Alvarez was President of McDonald's Mexico. From 2004 to 2005, he was President of McDonald's USA. Mr. Alvarez served as President of McDonald's North America from 2005 to 2006.

Mr. Alvarez serves on the President's Council, the School of Business Administration Board of Overseers, and the International Advisory Board of the University of Miami. Mr. Alvarez is also a member of the Board of Directors at Skylark, Lowe's Companies, Dunkin' Brands Group, and Realogy Holdings Corp. He also previously served on the Board of McDonald's Corporation and KeyCorp.

### **Katherine Baicker**

Board:Non Executive Board



Job Title:Director  
Since:2011  
Age:45

Katherine Baicker has been a Director at Eli Lilly since 2011. She is the C. Boyden Gray Professor of Health Economics at the Harvard T.H. Chan School of Public Health. She is also a Research Associate at the National Bureau of Economic Research.

From 1998 to 2005, Ms. Baicker was Assistant Professor and Associate Professor of Economics at Dartmouth College. In 2003, she was a Visiting Assistant Professor at the University of Chicago Harris School of Public Policy. From 2005 to 2007, she served as a Senate-confirmed member of the Council of Economic Advisers in the Executive Office of the President. In 2007, she joined Harvard as Professor of Health Economics in the Department of Health Policy and Management, T.H. Chan School of Public Health.

Ms. Baicker has served as a Commissioner on the Medicare Payment Advisory Commission. She chairs the Group Insurance Commission of Massachusetts and serves on the Panel of Health Advisers to the Congressional Budget Office. She is a member of the editorial boards of Health Affairs and the Journal of Health Economics; past Chair of the Board of Directors of AcademyHealth; and past Chair of the Social Sciences and Population Study Section of the National Institutes of Health. She is an elected member of the National Academy of Medicine.

## **Michael L. Eskew**

Board:Non Executive Board  
Job Title:Director  
Since:2008  
Age:67

Michael L. Eskew has been a Director at Eli Lilly since 2008. He is the retired Chairman and Chief Executive Officer of United Parcel Service, a position he held from 2002 to 2007. Mr. Eskew serves as the Chairman of the Board of Trustees of The Annie E. Casey Foundation, a foundation dedicated to disadvantaged youth. He also serves on the Boards of Directors of the 3M Corporation, IBM Corporation and Allstate Corporation.

## **J. Erik Fyrwald**

Board:Non Executive Board  
Job Title:Director  
Since:2005  
Age:57

J. Erik Fyrwald has been a Director at Eli Lilly since 2005. He joined Syngenta in 2016 as Chief Executive Officer. He served as Chief Executive Officer of Univar from 2012 to 2016. In 2008, following a 27-year career at DuPont, he joined Nalco Company, serving as Chairman and Chief Executive Officer until 2011, when Nalco merged with Ecolab. Following the merger, he served as President of Ecolab.

From 2003 to 2008, Mr. Fyrwald served as Group Vice President of the agriculture and nutrition division at E.I. du Pont de Nemours and Company. From 2000 to 2003, he was Vice President and General Manager of DuPont's nutrition and health business. He serves on the Board of Directors of CropLife International and the Swiss-American Chamber of Commerce.

## **R. David Hoover**

Board:Non Executive Board

Job Title:Director

Since:2009

Age:71

R. David Hoover has been a Director at Eli Lilly since 2009. He retired from Ball Corporation as Chief Executive Officer in 2011 after 41 years of service. He retired as Chairman of the Board of Directors in 2013 and continues to serve as a Director.

Mr. Hoover was the Chairman, President and Chief Executive Officer of Ball Corporation from 2002 to 2010, having been elected as President and Chief Executive Officer in 2001. He was Chairman and Chief Executive Officer until 2011. Mr. Hoover joined Ball Corporation in 1970. During his career, he has served as Vice President, Finance and Administration, of both the company's agricultural systems division and the company's aerospace systems group. He was elected Vice President and Treasurer in 1988 and Senior Vice President and Chief Financial Officer in 1992. He was named as Executive Vice President and elected to the company's Board of Directors in 1996. In 1998, he was elected as Vice Chairman, in addition to the role of Chief Financial Officer. Mr. Hoover became President of Ball Corporation in 2000 and was named as Chief Operating Officer in 2000.

Mr. Hoover is a member of the boards of Ball Corporation and Edgewell Personal Care Company. He is a former member of the board of the National Association of Manufacturers and a former member and past Chair of the Board of Governors of the Can Manufacturers Institute (CMI). Mr. Hoover is a member and past Chair of the Board of Trustees of DePauw University and on the Indiana University Kelley School of Business Dean's Council. He is a Director of Children's Hospital Colorado and a member of the Colorado Forum. He also served on the boards of Irwin Financial Corporation, Qwest International, and Steelcase.

## **Jamere Jackson**

Board:Non Executive Board

Job Title:Director

Since:2016

Age:47

Jamere Jackson has been a Director at Lilly since 2016. He serves as the Chief Financial Officer at Nielsen Holdings. Prior to joining Nielsen Holdings, Mr. Jackson was the Vice President and Chief Financial Officer at GE Oil & Gas, drilling and surface division. He joined GE in 2004 and held a variety of leadership roles in GE Global Business Services, GE Corporate, and GE Aviation before joining GE Oil & Gas. Prior to joining GE, Mr. Jackson held several roles in finance, mergers and acquisitions, and

strategic planning at Procter & Gamble, Yum Brands (Pizza Hut), First Data Corporation, and Total System Services. He is a certified public accountant.

### **William G. Kaelin Jr.**

Board:Non Executive Board  
Job Title:Director  
Since:2012  
Age:59

William G. Kaelin Jr. has been a Director at Lilly since 2012. He is a Professor in the Department of Medicine at the Dana-Farber Cancer Institute and at the Brigham and Women's Hospital, Harvard Medical School, where Dr. Kaelin began his career as an independent investigator in 1992. He became Professor of Medicine at Harvard Medical School in 2002. He joined the Howard Hughes Medical Institute in 1998.

He is a member at American Society of Clinical Investigation (ASCI) and American College of Physicians. He recently served on the National Cancer Institute Board of Scientific Advisors, the American Association for Cancer Research (AACR) Board of Trustees, and the Institute of Medicine National Cancer Policy Board. In 2007, he was elected to the Institute of Medicine. In 2010, he was elected to the National Academy of Sciences.

### **Kathi P. Seifert**

Board:Non Executive Board  
Job Title:Director  
Since:1995  
Age:67

Kathi P. Seifert has been a Director at Eli Lilly since 1995. She retired as Executive Vice President at Kimberly-Clark Corporation in 2004. Prior to joining Kimberly-Clark in 1978, Ms. Seifert held management positions at Procter & Gamble, Beatrice Foods and Fort Howard Paper Company. She joined Kimberly-Clark as a Product Manager and held several marketing and leadership positions before being elected to Executive Vice President in 1999.

She is the Chairman at Katapult. Ms. Seifert is a member of the Board of Directors at Appvion; Investors Community Bank, Fox Cities Chamber of Commerce, Fox Cities Building for the Arts; Greater Fox Cities Habitat for Humanity; and the Community Foundation for the Fox Valley Region.

### **Marschall S. Runge**

Board:Non Executive Board  
Job Title:Director  
Since:2013  
Age:62

Marschall S. Runge has been a Director at Eli Lilly since 2013. He is Executive Vice President for Medical Affairs at the University of Michigan, Dean of the Medical School, and Chief Executive Officer of Michigan Medicine. Prior to joining the University of Michigan in 2015, he was Executive Dean and Chair of the Department of Medicine at the UNC School of Medicine. He was also Principal Investigator and Director of the North Carolina Translational and Clinical Sciences (NC TraCS) Institute at UNC-Chapel Hill.

Before joining the UNC faculty in 2000, he held the John Sealy Distinguished Chair in Internal Medicine and was a Director of the Division of Cardiology and the Sealy Center for Molecular Cardiology at the University of Texas Medical Branch at Galveston. He was a Cardiology Fellow and Faculty Member at Harvard's Massachusetts General Hospital before joining Emory University as an Associate Professor of Medicine in 1989.

## **Jackson Tai**

Board:Non Executive Board  
Job Title:Director  
Since:2013

Jackson Tai has been a Director at Eli Lilly since 2013. He is the former Vice Chairman and Chief Executive Officer at DBS Group Holdings Ltd and DBS Bank Ltd. In 1999, Mr. Tai joined DBS Group and DBS Bank (formerly the Development Bank of Singapore), a financial services group in Asia, as its Chief Financial Officer. From 1974 to 1999, he was an investment banker at J.P. Morgan & Co. Incorporated.

He serves as a Non-Executive Director of MasterCard Incorporated, Royal Philips NV, HSBC Holdings, and for privately held Russell Reynolds Associates. He is also a member of the Canada Pension Plan Investment Board. In the not-for-profit sector, Tai is a Director of the Metropolitan Opera, a Trustee of Rensselaer Polytechnic Institute, and a member of the Harvard Business School Asia Pacific Advisory Board and the Harvard China Advisory Group.

## **Juan R. Luciano**

Board:Non Executive Board  
Job Title:Director  
Since:2016  
Age:55

Juan R. Luciano has been a Director at Lilly since 2016. He is the Chairman and Chief Executive Officer at Archer Daniels Midland Company (ADM). Mr. Luciano joined ADM in 2011 as an Executive Vice President and Chief Operating Officer. Before joining ADM, he had a 25-year tenure at The Dow Chemical Company, where Mr. Luciano last served as the Executive Vice President and President of the Performance Division. He is a Governor of the Boys and Girls Clubs of America and serves on the Board of Directors for Wilmar International.

## **Carolyn R. Bertozzi**

Board:Non Executive Board

Job Title:Director  
Since:2017  
Age:50

Carolyn R. Bertozzi has been a Director at Eli Lilly since 2017. She is the Anne T. and Robert M. Bass Professor of Chemistry and Professor of Chemical & Systems Biology and Radiology at Stanford University, and an Investigator of the Howard Hughes Medical Institute. After completing postdoctoral work at the University of California, San Francisco in the field of cellular immunology, she joined the UC Berkeley faculty in 1996. In 2015, she joined the faculty at Stanford University. She is an elected member of the Institute of Medicine, National Academy of Sciences, and American Academy of Arts and Sciences.

### **Ellen R. Marram**

Board:Non Executive Board  
Job Title:Lead Independent Director  
Since:2012  
Age:70

Ellen R. Marram has been a Lead Independent Director at Eli Lilly since 2012. She is President of The Barnegat Group, a firm that provides business advisory services. She was a Managing Director at North Castle Partners from 2000 to 2005 and an Advisor to the firm from 2006 to 2010.

From 1993 to 1998, Ms. Marram was President and Chief Executive Officer of Tropicana and the Tropicana Beverage Group. From 1988 to 1993, she was President and Chief Executive Officer of the Nabisco Biscuit Company, an operating unit of Nabisco. From 1987 to 1988, she was President of Nabisco's grocery division. From 1970 to 1986, she held a series of marketing positions at Nabisco/Standard Brands, Johnson & Johnson and Lever Brothers.

Ms. Marram is a member of the Board of Directors of Ford Motor Company and The New York Times Company, as well as several private companies. She also serves on the boards of Wellesley College, New York-Presbyterian Hospital, Lincoln Center Theater and Newman's Own Foundation. She is a past member of the Board of Associates of Harvard Business School and a past Trustee of the Conference Board.

### **Derica W. Rice**

Board:Senior Management  
Job Title:Executive Vice President-Global Services, and Chief Financial Officer  
Since:2010  
Age:52

Derica W. Rice has been Executive Vice President, Global Services at Eli Lilly since 2010. He has been Chief Financial Officer at the company since 2006. After joining Eli Lilly in 1990 as an International Treasury Associate, he served in a variety of roles. He became Finance Director and Chief Financial Officer for Lilly Canada, after which he was named as Vice President and Chief Financial Officer for European operations based in London. After that, he served as General Manager of Eli Lilly's UK affiliate

and then as Eli Lilly's Vice President and Controller until he was promoted as Chief Financial Officer of the company.

He serves as a member of the Board of Directors for Target Corporation and the Center for Leadership Development. Mr. Rice was formerly on the Indiana University Board of Trustees, Indiana University Health North Hospital Board and the Indianapolis Museum of Art's Board of Governors.

## **Jan M. Lundberg**

Board:Senior Management

Job Title:Executive Vice President-Science and Technology; President, Lilly Research Laboratories

Since:2010

Age:63

Jan M. Lundberg has been Executive Vice President for Science and Technology at Eli Lilly and President at Lilly Research Laboratories (LRL) since 2010. Before joining the company in 2010, he acted as the Global Head of Discovery Research at AstraZeneca for 10 years. Dr. Lundberg was the Professor at the Department of Pharmacology in Karolinska Institute (Stockholm, Sweden). He is a co-founder of Aerocrine, a biotech diagnostic company with exhaled nitric oxide as allergic asthma breath test.

He has served as Chairman of the Ph.D. and post-doctoral program at the Karolinska Institute; on the Evaluation Committee for the Swedish Medical Research Council; on the Executive Advisory Board of the Swedish Medical Products Agency Registration of New Drugs (affiliated with the European Medicines Agency); and as part of lead that generated the Innovative Medicines Initiative, a major public-private partnership in the European Union and recently the Accelerating Medicines Partnership with the NIH in the US. He serves on the boards of TransCelerate Biopharma, Pharma Foundation, and the Indiana life-sciences initiative, BioCrossroads.

## **Maria Crowe**

Board:Senior Management

Job Title:President-Manufacturing Operations

Since:2012

Age:57

Maria Crowe has been the President of Manufacturing Operations at Eli Lilly since 2012. She was the Senior Vice President for Global Drug Product Manufacturing at the company in 2009. Ms. Crowe was the Vice President for Drug Product Manufacturing in the US and Latin America in 2007. She previously served as the General Manager at the company's plant in Kinsale, Ireland, and as the General Manager at Lilly del Caribe in Puerto Rico. Ms. Crowe also served as the Plant Manager at the company's Elanco plant in Lafayette, Indiana. In addition to serving as President of Purdue University's Krannet Dean's Advisory Council, she is also a member of the Board of Directors for The Timken Company.

## **Melissa Stapleton Barnes**

Board:Senior Management

Job Title:Senior Vice President-Enterprise Risk Management; Chief Ethics and Compliance Officer  
Since:2013  
Age:48

Melissa Stapleton Barnes has been the Senior Vice President of Enterprise Risk Management and Chief Ethics and Compliance Officer at Eli Lilly since 2013. She joined the company in 1994 and has held a variety of business and legal roles, including General Counsel for Lilly Diabetes and Lilly Oncology. Prior to taking her current role, she was Vice President and Deputy General Counsel, Global Litigation and Specialty Legal. Before joining the company, she was a litigator for the law firm of Baker & Daniels in Indianapolis.

In 2016, she was elected as a member of the Board of Directors for Algonquin Power and Utilities Corporation, headquartered in Toronto. She also currently serves as Vice Chair of the Board for The Center for Performing Arts and is a board member of the Great American Songbook Foundation, Visit Indy and The Children's Museum of Indianapolis.

### **Michael J. Harrington**

Board:Senior Management  
Job Title:Senior Vice President-General Counsel  
Since:2013  
Age:54

Michael J. Harrington has been the Senior Vice President and General Counsel at Eli Lilly since 2013. Since joining the company in 1991 as an Attorney in Product Liability Litigation, he has served in a number of other business and legal positions. Most recently, he held the role of Vice President and Deputy General Counsel of Global Pharmaceutical Operations. Before joining Eli Lilly, he was a Litigator at the law firm of Baker & Daniels in Indianapolis.

Currently, he serves as the Board Chair for the Indiana Repertory Theatre and the Co-Chair of the Civil Justice Reform Group (CJRG). He is also a member of the Board of Trustees and Executive Committee of Albion College.

### **Stephen F. Fry**

Board:Senior Management  
Job Title:Senior Vice President-Human Resources and Diversity  
Since:2011  
Age:51

Stephen F. Fry has been the Senior Vice President of Human Resources and Diversity at Eli Lilly since 2011. Since joining the company in 1987 as a Scientific Systems Analyst in Lilly Research Laboratories, he has held a range of roles in information technology and human resources. Following a series of managerial assignments, he served as Human Resources Director for Eli Lilly's UK affiliate and then as Executive Director of Human Resources for the US affiliate. In 2004, he was named as Managing Director of the Australian affiliate, returning to the US in 2007 to provide HR leadership for the global sales and

marketing organization before taking the role of Vice President supporting the Lilly Bio-Medicines and Emerging Markets business units. He serves on the Board of Trustees at the University of Indianapolis and the Governance Board for Make-A-Wish in Ohio, Kentucky, and Indiana.

### **Jeffrey N. Simmons**

Board:Senior Management  
Job Title:Senior Vice President-President, Elanco Animal Health  
Since:2008  
Age:49

Jeffrey N. Simmons has been the Senior Vice President at Eli Lilly and President of its Elanco Animal Health division since 2008. Since joining Eli Lilly in 1989, he has held a number of sales, marketing, and management positions in Elanco. He serves on the Board of Directors of Chiquita, and as Chairman of the International Federation of Animal Health.

### **Enrique A. Conterno**

Board:Senior Management  
Job Title:Senior Vice President-President, Lilly Diabetes; President, Lilly USA  
Since:2009  
Age:50

Enrique A. Conterno has been Senior Vice President at Eli Lilly, and President of Lilly Diabetes since 2009. He has also been the President of Lilly USA since 2017. He joined Eli Lilly in 1992 and has held a range of roles in sales, finance, marketing, business development, and general management.

He is a member of the Board of Governors at the American Red Cross and of the Board of Visitors at Duke University's Fuqua School of Business. He is on the Board of Directors of the Indianapolis Chamber of Commerce, having served as Board Chair in 2016. He is also on the board of the National Association of Manufacturers.

### **Alfonso G. Zulueta**

Board:Senior Management  
Job Title:Senior Vice President-President, Lilly International  
Since:2017  
Age:54

Alfonso Zulueta is currently Senior Vice President at Eli Lilly and has been President of its Lilly International division since 2017. He joined Eli Lilly in 1988 and has held key senior business positions in the US, Japan and the emerging markets. After various sales and marketing roles, he served as President of Global Oncology and Critical Care Products; Vice President of Global Marketing; Vice President for the US Diabetes/Family Health/Neuroscience business; President of Asian Operations; President of Lilly Japan; and President of Emerging Markets business.



He has held many board positions throughout his career, including Chairman of the Japan-based Pharmaceutical Research and Manufacturers of America (PhRMA) from 2012 to 2013.

## **Susan Mahony**

Board:Senior Management

Job Title:Senior Vice President-President, Lilly Oncology

Since:2011

Age:52

Susan Mahony has been Senior Vice President at Eli Lilly, and President of Lilly Oncology since 2011. She joined the company in 2000 after more than 10 years in sales and marketing roles in the UK and Europe in oncology, hematology, and cardiovascular medicine for Schering-Plough, Amgen, and Bristol-Myers Squibb. Dr. Mahony serves on the Board of the United Way of Central Indiana.

## **MAJOR PRODUCTS & SERVICES**

Eli Lilly and Company (Lilly or 'the company') is engaged in developing, manufacturing, and marketing pharmaceutical products and animal health products. The company's major products and brands include the following:

Products:

Human Pharmaceutical Products in Therapeutic Areas of:

Cardiovascular Diseases  
Endocrinology  
Neuroscience  
Oncology  
Immunology

Animal Health Products (for Food Animals and Companion Animals)

Brands:

Amyvid  
Axiron  
Basaglar  
Cialis  
Coban  
Cymbalta  
Cynamza  
Denagard  
Effient  
Erbix  
Evista  
Forteo  
Gemzar  
Glyxambi  
Humalog  
Humatrope  
Humulin  
Jardiance  
Jentadueto  
Lartruvo  
Maxiban  
Monteban

Olumiant  
Optaflexx  
Paylean  
Portrazza  
Posilac  
Prozac  
Rumensin  
Strattera  
Trajenta  
Trulicity  
Tylan  
Zyprexa

## SWOT ANALYSIS

Eli Lilly and Company (Eli Lilly or 'the company') is engaged in developing, manufacturing, and marketing human pharmaceutical products and animal health products. The company has a leadership position in the global diabetes market, which provides it with a competitive edge. However, consolidation and integration among healthcare providers and increasing government price controls could affect the company's future consolidated results of operations.

<p><b>Strength</b></p> <p>Robust Late-Stage Pipeline Leadership Position in Global Diabetes Market</p>	<p><b>Weakness</b></p> <p>Loss of Patent Exclusivity Exposing Major Products' Sales to Generic Erosion</p>
<p><b>Opportunity</b></p> <p>Investments to Expand R&amp;D Presence in the US Acquisitions would help Eli Lilly in Further Strengthening its Presence in the US Strategic Collaboration with KeyBioscience to Develop a New Treatment Approach for People with Type 2 Diabetes</p>	<p><b>Threat</b></p> <p>Consolidation and Integration Among Healthcare Providers and Increasing Government Price Controls Regulatory Compliance Problems could have a Negative Impact on the Company Risks Associated with the Company's Animal Health Products</p>

### Strength

#### Robust Late-Stage Pipeline

Eli Lilly's long-term success depends to a great extent on its ability to continue to discover and develop innovative pharmaceutical products. The company currently has approximately 45 potential new drugs in human testing or under regulatory review, and a larger number of projects in preclinical research.

The company has witnessed a strong flow of new molecule entities (NMEs), which have been approved by regulatory authorities in the US, Europe, or Japan for use in various diseases. Some of these products include necitumumab, an anti-epidermal growth factor receptor monoclonal antibody for the treatment of squamous non-small cell lung cancer (NSCLC); and Ixekizumab, a neutralizing monoclonal antibody to interleukin-17A for the treatment of psoriasis and psoriatic arthritis. The pipeline also consists of Baricitinib, a Janus tyrosine kinase inhibitor for the treatment of moderately-to-severely active rheumatoid arthritis (in collaboration with Incyte Corporation).

These molecules exemplify the progress that Eli Lilly has made in building a robust mid- to late-stage pipeline, with an even mix of large and small molecules. The current pipeline of Eli Lilly includes many potential opportunities to treat diseases with large unmet need, as well as significant commercial opportunity, and provides the foundation for Eli Lilly to grow significantly in the future and also bridge the period of patent expiry.

### Leadership Position in Global Diabetes Market

Eli Lilly is one of the dominant players in the global diabetes market. In the early 20th century, Eli Lilly was one of the first players to start working on the insulin isolation and purification for the treatment of diabetes, which was then a fatal disease with no effective treatment options. In 1923, the company launched Iletin, the world's first commercially available insulin product. Since then, Eli Lilly has been a leading player in the global diabetes market. A further milestone was achieved in 1982 when the human insulin product, Humulin was launched, becoming the world's first human pharmaceutical product produced through recombinant DNA technology.

Diabetes has remained a key area of focus for the company. Eli Lilly's products command a high degree of physician loyalty in the diabetes therapy area, with individual patients often taking several different treatments daily. As such, the company is well placed to introduce new products and drive uptake by bundling with current high sellers. With a strong position in diabetes, Eli Lilly represents an attractive partner, helping to secure in-licensing deals. For instance, Eli Lilly and Boehringer Ingelheim have a global agreement to jointly develop and commercialize a portfolio of diabetes compounds. Both the companies jointly develop and commercialize Trajenta (linagliptin), Jardiance (empagliflozin), Jentadueto (a combination tablet of linagliptin and metformin hydrochloride), Glyxambi (a combination tablet of linagliptin and empagliflozin), Synjardy (a combination tablet of empagliflozin and metformin hydrochloride), and Basaglar (insulin glargine injection) in major markets.

Thus, the company is well positioned to capitalize its leadership position in the global diabetes market, which provides it with a competitive edge.

### **Weakness**

#### Loss of Patent Exclusivity Exposing Major Products' Sales to Generic Erosion

Eli Lilly identifies itself to exist in the present period of patent expiry where most of its significant products have lost or would lose the patent protection. For instance, Prozac lost its patent and has been facing generic competition since 2001. The loss of the US patent protection for Zyprexa in 2011 is known as Year Y. The company lost its data package protection for Cymbalta in major European countries in 2014 and lost patent exclusivity in the US for Evista in 2014, both of which resulted in the immediate entry of generic competitors and a rapid and severe decline in revenue. Eli Lilly also lost patent exclusivity for the schizophrenia and bipolar mania indications in December 2015 and April 2016, respectively, for Zyprexa in Japan. Generic versions of Zyprexa were launched in Japan in June 2016. The loss of exclusivity for Zyprexa in Japan has caused a rapid and severe decline in revenue for the product. Zyprexa revenue in Japan was \$332.3 million in FY2016, a decrease of 20.1% compared with FY2015. The company would lose its patent protection for Cialis in the US and in major European markets in November 2017. It would also lose exclusivity for Effient in the US in October 2017.

Loss of patent exclusivity may have a negative impact on the revenue growth of the company.

### **Opportunity**

#### Investments to Expand R&D Presence in the US

In June 2017, Eli Lilly announced the completion of a \$90 million expansion of its Biotechnology Center in San Diego, California. This expansion would help the company foster and accelerate the discovery of medicines within the company's core therapeutic areas of immunology, diabetes, oncology and neurodegeneration, as well as the emerging area of pain. In addition to the center's established presence in preclinical and clinical immunology research, the new space would allow the company for a closer partnership between its experts in biotechnology, discovery chemistry and research technologies while also fostering external collaborations. Expanding presence in San Diego would not only help Eli Lilly discover and deliver innovative medicines, but would also help it in achieving its goal of launching 20 new medicines in 10 years.

Nearly \$250 million of Lilly's \$850 million capital investments would be dedicated to supporting its research and development (R&D) centers around the US, including the center in San Diego, in 2017. In 2017, Eli Lilly plans to spend approximately \$5 billion on global R&D, nearly \$4 billion of which would be invested in US based programs, including projects with many of California's leading biomedical research institutions.

Hence, investments to expand R&D presence in the US would help Eli Lilly in launching new medicines faster.

#### Acquisitions would help Eli Lilly in Further Strengthening its Presence in the US

In March 2017, Eli Lilly acquired CoLucid Pharmaceuticals, a company which is developing lasmiditan oral tablets for the acute treatment of migraine headaches in adults and intravenous lasmiditan for the acute treatment of headache pain associated with migraine in adults in emergency room and other urgent care settings. This acquisition would enhance Eli Lilly's existing pain management portfolio and add a potential near-term launch to its late-stage pipeline. As reported by the company, more than 36 million people suffer from migraine in the US alone. Lasmiditan could help the company in meeting the medical needs of people suffering from migraine in the US.

Earlier in January 2017, Eli Lilly acquired Boehringer Ingelheim Vetmedica's (BIVI) US feline, canine and rabies vaccines portfolio as well as a fully integrated manufacturing and R&D site. The acquisition would diversify Elanco's (Eli Lilly's animal health business) US companion animal portfolio by adding vaccines for a range of common concerns such as bordetella, Lyme disease, feline leukemia, rabies, and parvovirus.

These acquisitions would help Eli Lilly in further strengthening its presence in the US.

#### Strategic Collaboration with KeyBioscience to Develop a New Treatment Approach for People with Type 2 Diabetes

In June 2017, Eli Lilly and KeyBioscience, a fully owned subsidiary of Nordic Bioscience, a Denmark-based biotechnology company, formed a strategic collaboration focused on the development of Dual

Amylin Calcitonin Receptor Agonists (DACRAs), a potential new class of treatments for metabolic disorders such as type 2 diabetes. The collaboration includes access to the DACRA platform with multiple molecules including KBP-042, KBP-089 and KBP-056. KeyBioscience has initiated Phase II development with KBP-042. Other assets included in the collaboration, engineered for differences in effect or potency, range from Phase I to pre-clinical.

Under terms of the agreement, Lilly would receive worldwide rights to develop and commercialize these molecules. In exchange for these rights, KeyBioscience would receive an initial payment of \$55 million and is eligible for additional potential development, regulatory, and commercialization milestones, as well as tiered royalty payments on future sales.

More than 400 million people around the world have diabetes, according to the International Diabetes Federation, and approximately 9 of 10 people with diabetes have type 2 diabetes. Eli Lilly's strategic collaboration with KeyBioscience would help it in developing a potentially innovative treatment approach for people with type 2 diabetes and possibly with other metabolic conditions.

## **Threat**

### **Consolidation and Integration Among Healthcare Providers and Increasing Government Price Controls**

In the US private sector, consolidation and integration among healthcare providers is a major factor in the competitive marketplace for human pharmaceuticals. Health plans and pharmaceutical benefit managers have been consolidating into fewer, larger entities, thus enhancing their purchasing strength and importance. Payers typically maintain formularies which specify coverage (the conditions under which drugs are included on a plan's formulary) and reimbursement (the associated out-of-pocket cost to the consumer). Formulary placement can lead to reduced usage of a drug for the relevant patient population due to coverage restrictions, such as prior authorizations and formulary exclusions, or due to reimbursement limitations which result in higher consumer out-of-pocket cost, such as non-preferred co-pay tiers, increased co-insurance levels and higher deductibles. Consequently, pharmaceutical companies compete for formulary placement not only on the basis of product attributes such as greater efficacy, fewer side effects, or greater patient ease of use, but also by providing rebates. Price is an increasingly important factor in formulary decisions, particularly in treatment areas in which the payer has taken the position that multiple branded products are therapeutically comparable. These downward pricing pressures could negatively affect the company's future consolidated results of operations.

International operations also are generally subject to extensive price and market regulations. Cost-containment measures exist in a number of countries, including additional price controls and mechanisms to limit reimbursement for the products. Such policies are expected to increase in impact and reach, given the pressures on national and regional health care budgets that come from a growing aging population and ongoing economic challenges. In addition, governments in many emerging markets are becoming increasingly active in expanding health care system offerings. Given the budget challenges of increasing health care coverage for citizens, policies may be proposed that promote generics only and reduce current and future access to human pharmaceutical products.

### **Regulatory Compliance Problems could have a Negative Impact on the Company**

The marketing, promotional, and pricing practices of human pharmaceutical manufacturers, as well as the manner in which manufacturers interact with purchasers, prescribers, and patients, are subject to extensive regulation. Many companies, including Eli Lilly, have been subject to claims related to these practices asserted by federal, state and foreign governmental authorities, private payers, and consumers. These claims have resulted in substantial expense and other significant consequences to the company. It is possible that Eli Lilly could become subject to such investigations and that the outcome could include criminal charges and fines, penalties, or other monetary or non-monetary remedies, including exclusion from US federal and other health care programs. In addition, regulatory issues concerning compliance with current Good Manufacturing Practices regulations (and comparable foreign regulations) for pharmaceutical products can lead to product recalls and seizures, interruption of production leading to product shortages, and delays in the approvals of new products pending resolution of the issues.

Therefore, regulatory compliance could have a negative impact on the company.

#### Risks Associated with the Company's Animal Health Products

The company's Animal Health Products business segment faces risks related to increased generic competition, food and animal safety concerns, factors affecting global agricultural markets, and other risks.

The Animal Health Products business segment may be impacted by increased sales of companion animal products by non-veterinarian retail outlets; emerging restrictions and bans on the use of antibacterials in food-producing animals; and perceived adverse effects on human health linked to the consumption of food derived from animals that utilize the company's products. The Animal Health Products business of the company may also be impacted by increased regulation or decreased governmental support relating to the raising, processing, or consumption of food-producing animals; and an outbreak of infectious disease carried by animals, among other things. The failure to manage these risks could have an adverse effect on Eli Lilly's revenues and income.



## **TOP COMPETITORS**

The following companies are the major competitors of Eli Lilly and Company

AstraZeneca PLC  
Bristol-Myers Squibb Company  
GlaxoSmithKline Plc  
Pfizer Inc.  
Sanofi SA

## **COMPANY VIEW**

A joint statement by John C. Lechleiter, former Chairman, and David A. Ricks, Chairman, President and Chief Executive Officer at Eli Lilly and Company, is given below. The statement has been taken from the company's annual report for the financial year ended December 31, 2016.

We've worked together closely over the past five years in developing and executing our company's strategy, and our CEO transition highlights continuity in Lilly's strategic direction. In this letter, we'll review our company's performance in 2016, our priorities for 2017, our expectations for the rest of the decade, and the challenges and commitments that shape our strategy and work.

### **REVIEW OF 2016 PERFORMANCE**

In 2016, Lilly's worldwide revenue was \$21.22 billion, up 6 percent from 2015 due to increased volume led by newly launched products—including Trulicity, Cyramza, Jardiance and Taltz. This growth was partially offset by the impact of the loss of exclusivity for Cymbalta in Europe and Canada, Zyprexa in Japan, and Alimta in several countries.

Total operating expenses, which include research and development, and marketing, selling and administrative expenses, increased 3 percent to \$11.70 billion. Research and development expenses increased 9 percent to \$5.24 billion, or 24.7 percent of revenue, and marketing, selling and administrative expenses decreased 1 percent to \$6.45 billion.

Net income and earnings per share increased 14 percent to \$2.74 billion, and \$2.58, respectively, compared with 2015. 2016 was also another productive year for our innovation strategy, highlighted by regulatory approvals for Taltz for psoriasis, Lartruvo for soft tissue sarcoma, and a new indication in the U.S. and label update in the EU for Jardiance to reflect the data from the EMPA-REG OUTCOME study on the reduction of risk of cardiovascular death in adults with type 2 diabetes and established cardiovascular disease.

We've continued to advance our pipeline with a number of positive data readouts, Phase 3 starts, and regulatory submissions through the past year. We also continued to complement our internal R&D efforts with external innovation—most recently our acquisition of CoLucid Pharmaceuticals, which adds lasmiditan, in development for the acute treatment of migraine, to our Phase 3 pipeline.

We were disappointed that solanezumab did not meet the primary endpoint in a Phase 3 study of people with mild dementia due to Alzheimer's disease. Neurodegeneration remains one of our core therapeutic areas, and we are pursuing many other promising approaches. We remain well positioned to lead the next set of breakthroughs for Alzheimer's patients.

As we write this letter in early 2017, already this year the company has launched the new Jardiance indication in the U.S. and label update in the EU; Olumiant (baricitinib) has been approved in Europe for rheumatoid arthritis and we await final regulatory action in the U.S.; and we're looking forward to data on abemaciclib in breast cancer, galcanezumab in migraine, and other key readouts. We expect strong growth from new products, with important contributions from animal health and our established

pharmaceutical products.

## 2017 PRIORITIES: STICKING TO THE BASICS

We see tremendous opportunity ahead, and we believe that we will achieve our potential by sticking to the basics. Our priorities for 2017 represent continuity in our strategy and a clear focus on the fundamentals. Those priorities are as follows:

The first is to launch with excellence, introducing our newest set of medicines around the world, driving a new revenue line for the company against increased competition and marketplace complexity.

The second priority is to reload our pipeline. As we bring an exciting cohort of new medicines to patients, we see promising opportunities—internal and external—to take their place. But the bar is getting ever higher. We aim to build clear strategies for differentiation of our medicines and to take advantage of our leadership position in our core therapeutic areas—diabetes, oncology, immunology, and neurodegeneration.

We're also determined to accelerate pipeline progress through our Next Generation Development (NGD) model. Since we've launched NGD, we've cut about a year off the actual time from first human dose to a patient in the market, and we'll further reduce this time to compete and win in our therapeutic areas.

We will also complement our internal research with external innovation, as demonstrated by our acquisition of CoLucid. We're a better company if we can compare our internal opportunities with those outside and make the right decisions for our stakeholders—most importantly, patients—about what medicines we should advance.

Third, we'll be focused on increasing productivity. By driving volume-based revenue growth while also controlling costs in all areas of our business, we will expand our margins over the balance of this decade. This will provide capacity to make investments in our future and increase our return to shareholders.

Our final priority is talent development. This means having the right leadership team in place and attracting leading scientific talent to our company from around the world. Lilly's new and expanded R&D centers in key research hubs—San Diego, Boston, New York, London and Indianapolis—support the recruitment of world-class scientific talent, and with our growth, we can offer both current and prospective employees even more opportunities for exciting careers.

## EXPECTATIONS THROUGH 2020

Our management team is committed to achieving the goals we've laid out for the remainder of this decade.

Specifically, we expect to deliver revenue growth from 2015 to 2020 that averages at least 5 percent annually on a constant currency basis, driven by volume growth from our new products, and despite the headwind of patent expirations we are now experiencing outside the U.S. and will experience in 2017 and

2018 in the U.S. We also expect to expand margins, driven by improvements both in cost of sales and in operating expenses.

We've stated that these are our minimum expectations for the mid-term period, and they were not dependent upon solanezumab's success. We believe the combination of top-line growth and margin expansion over the balance of the decade provides a compelling thesis for investors.

That growth will be driven by a productive pipeline of new medicines. We've launched seven new products since 2014, with the prospect of launching a total of 20 between 2014 and 2023. Our near-term opportunities include Olumiant for rheumatoid arthritis, abemaciclib for breast cancer, and galcanezumab for migraine prevention.

We see Trulicity, Jardiance, Taltz, Olumiant, and abemaciclib as key growth drivers over this period, with the possible addition of Cyramza depending on data in additional indications. We'll maximize the potential of our new products—many of which could address unmet needs in large patient populations—by pursuing new indications and differentiating our products in the classes in which we compete. And we'll maintain a balanced investment across all phases of our pipeline to ensure a steady flow of innovation and avoid gaps as patents expire on older products.

#### RESPONDING TO THE REALITIES WE FACE

Even as we remain confident that we will achieve our goals, we must be clear about the realities we face, and the need to change and adapt to our emerging growth drivers and to external pressures and uncertainties around the world.

First, we have new opportunities—in immunology, for example—at the same time as some of our older products are sunsetting with the patent expiries that are a normal part of our business. So we will move our attention and resources to the new opportunities that will drive our growth.

Second, we face growing pressures on pricing and access around the world. Here in the United States, our largest market, prescription drug prices loom large in the debate over health care reform. Steps to repeal and replace provisions of the Affordable Care Act will be both complicated and hotly contested, and we will engage vigorously to advocate solutions that support pharmaceutical innovation and access to new medicines.

To help inform the debate on whether the prices paid for pharmaceuticals truly reflect their value and contribution to the health care system, Lilly is now including in this report data that provide greater transparency into the pricing of our medicines. These data highlight the dynamics that create a wide gap between list prices for our medications and the actual revenue realized by Lilly's U.S. operations. (For more information, please turn to page 15.) While we aim to do a better job of communicating the value of our medicines, we must also improve that value by developing better and better medicines and investing in new indications.

In order to increase our financial flexibility amid this uncertainty, we must stay on course to bring down our operating costs to 50 percent or less of revenue in 2018 and improve our gross margin.

## CONFIDENCE AND COMMITMENT

Guided by our mission to make life better, we will continue to demonstrate integrity and transparency, and a commitment to corporate responsibility, in all aspects of our business. This integrated summary report provides an update on our efforts to operate responsibly and transparently, strengthen communities, and improve global health.

As we look toward completing our leadership transition —when John retires from the board and Dave becomes chairman on June 1—we're highly confident in the future of this company. In the year ahead, Lilly will maintain the positive momentum we've built over the past few years and stay on course to achieve the expectations we've shared with investors.

We're grateful to the Board of Directors for their guidance and support through this transition. We also want to thank all of our Lilly colleagues for keeping their focus on the important work to be done amid continuing change inside and outside the company.

And we're all in agreement on one thing that won't change—Lilly's commitment to innovative medicines that make a difference for patients. We believe that better science does indeed mean better lives—for patients first and foremost, and for our shareholders, employees, and communities.

We are as excited as ever about the opportunity for this company to make life better for people around the world, and we appreciate your support.

## LOCATIONS AND SUBSIDIARIES

### Head Office

Eli Lilly and Company  
Lilly Corporate Center  
INDIANAPOLIS  
Indiana  
INDIANAPOLIS  
Indiana  
USA  
Phone:1 317 2762000  
[www.lilly.com](http://www.lilly.com)

### Other Locations and Subsidiaries

<p>CoLucid Pharmaceuticals Inc 222 3rd St CAMBRIDGE Massachusetts CAMBRIDGE Massachusetts USA Phone:1 781 3652596 Fax:1 302 6555049 <a href="http://www.colucid.com">www.colucid.com</a></p>	<p>Eli Lilly (Singapore) 1 Kim Seng Promenade 08-06 Great World City East Tower Singapore 237994 SGP Phone:65 6736 7400 Fax:65 6836 3612 <a href="http://www.lilly.com.sg">http://www.lilly.com.sg</a></p>
<p>Eli Lilly Australia Pty Ltd 112 Wharf Road West Ryde New South Wales West Ryde New South Wales AUS Phone:61 1800 454559 <a href="http://www.lilly.com.au">www.lilly.com.au</a></p>	<p>Eli Lilly Canada Inc 3650 Danforth Avenue Toronto Ontario Toronto Ontario CAN Phone:1 416 6943221 <a href="http://www.lilly.ca">www.lilly.ca</a></p>
<p>Eli Lilly Denmark Lyskaer 3E 2. tv DK-2730 Herlev DNK Phone:45 45 26 60 00 Fax:45 45 26 60 01 <a href="http://www.eli-lilly.dk">http://www.eli-lilly.dk</a></p>	<p>Eli Lilly Holdings Limited Erl Wood Manor Sunninghill Road Windlesham Surrey GU20 6PH GBR Phone:44 1276 483 000 Fax:44 1276 484 921</p>

<p>Eli Lilly Italia Spa. Via Gramsci, 731/733 Sesto Fiorentino Sesto Fiorentino ITA <a href="http://www.lilly.it">www.lilly.it</a></p>	<p>Eli Lilly Japan Sannomiya Plaza Building 7-1-5 Isogami-dori Chuo-ku Kobe 651-0086 JPN Phone:81 78 242 9000 Fax:81 78 242 9502</p>
<p>Eli Lilly Regional Operations Ges.m.b.H Koelblgasse 8-10 Vienna Vienna AUT Phone:43 1 711780 Fax:43 1 71178312</p>	<p>Lilly Deutschland Germany Werner-Reimers-Strasse 2-4 61352 Bad Homburg DEU Phone:49 61 72 27 30 Fax:49 61 72 2 73 22 83 <a href="http://www.lilly-pharma.de">http://www.lilly-pharma.de</a></p>
<p>Lilly Nederland BV Grootslag 1-5 3991 RA Houten 3990 GD Houten NLD Phone:31 30 602 5800 Fax:31 30 602 5888 <a href="http://www.lilly.nl">http://www.lilly.nl</a></p>	





Copyright of Eli Lilly & Company SWOT Analysis is the property of MarketLine, a Progressive Digital Media business and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.