

# Australian Shareholders' Association

## HealthCare

Presentation Feb 21, 2018 to Australian Shareholders Association by  
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# HealthCare Trends

## A/- People:

- ▶ Aging population
- ▶ Lifestyle changes (Diet, exercise, lifestyle, living arrangements; life expectancy)
- ▶ Consumer and corporate commoditisation
- ▶ Life cycle and generational wealth transfer

## B/- Government Challenges:

- ▶ Health resource allocation: Health Care Access (different models) and integration
- ▶ Mission Statement
- ▶ Public Hospitals; Private insurers
- ▶ Cost of care and Cost of medicines
- ▶ Prevention
- ▶ Who pays?
- ▶ Affordability; code of conduct



# HealthCare Trends continued

## **C/-Other Providers:**

- ▶ **Private sector vs public**
- ▶ **Commoditization: Pathology; Radiology; Electronic interface; advice; service delivery model**

## **D/- The Science:**

- ▶ **Pharmaceuticals; genomic studies; technology to demand manage consumers and costs**

## **E/- International Influences:**



# Stocks in the Health Care Sector

## Service Companies:

- ▶ PRY, Primary \$1,841M;
- ▶ SHL ,Sonic; \$9,919M;
- ▶ FPH, Fisher & Paykel ; \$6,843M;
- ▶ PSG Pacific Smiles \$271M;

## Medical Devices:

- ▶ RMD; ResMed ;\$15,663M,
- ▶ SOM, Somnomed; \$189M;
- ▶ COH ,Cochlear \$9641M;

## Hospitals

- ▶ HSO ,Healthscope \$3,476M;
- ▶ RHC Ramsay \$13,853M



# Stocks in the Health Care Sector continued

## Consumables:

- ▶ ANN Ansell \$3,447M
- ▶ EBO ,EBOS \$2,568M

## Biotechnology & Pharmaceuticals:

- ▶ CSL \$64,295M;
- ▶ MSB, Mesoblast \$653M

## Others:

- ▶ AHZ \$68M; Sigma \$913M; Estia \$878M;
- ▶ Promedius \$835M; API \$709M; Nanosonics \$844M;

## Non Health Care sector:

- ▶ Invocare \$1,670M; Medibank \$9,088M

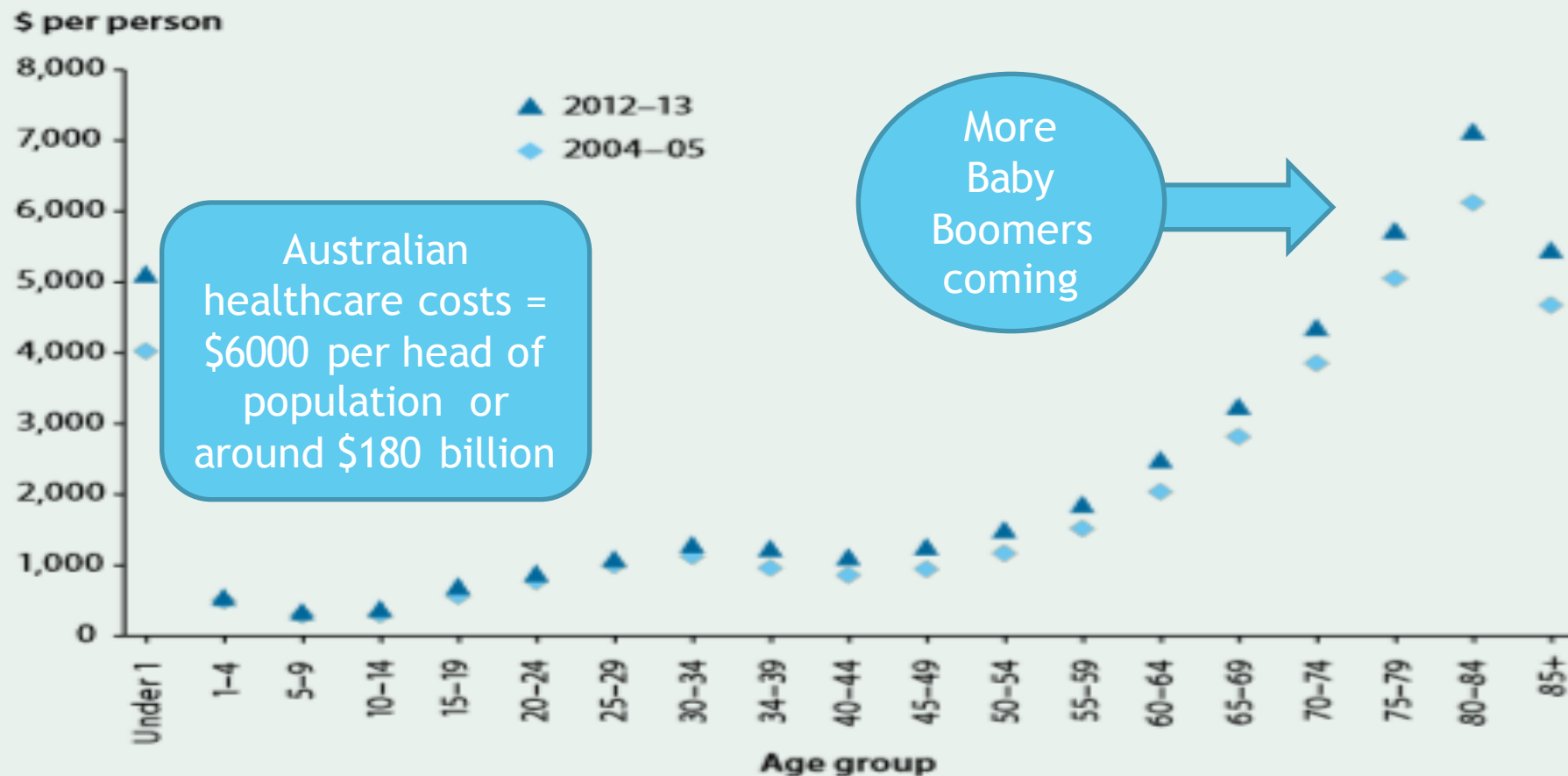


# International Competition for HealthCare Resources/Targets for growth

		2014	
	Country	HealthCare	
		Spend as %	
		of GDP	
	Australia	9.4%	
	UK	9.1%	
	Germany	11.3%	
	USA	17.1%	
	Brazil	8.3%	
	China	5.5%	
	India	4.7%	
	Russia	7.1%	
	Indonesia	2.8%	
	Israel	7.8%	
	Syria	3.3%	

# As we get older – medical costs rise

Figure 2.2.6: Admitted patient expenditure per person, by age group, 2004–05 and 2012–13, adjusted for inflation



## Notes

1. Inflation-adjusted prices expressed in terms of 2012–13 prices.
2. The 'Under 1' age group does not include healthy newborns, whose cost is included in the cost for the mother.

Source: AIHW disease expenditure database.

**Healthcare Index XHJ \$12,076 in 2013;  
\$25,431 today (= +20% pa) (versus XJO (ASX 200) +5.5%)**



# Top 10 Healthcare Stocks in Australia

		Market Cap	PE	Dividend	5 year
Company	Sector	\$ millions		Yield	TSR
CSL	biopharmaceutical blood products	64,394	31.6	1.6%	23.0%
RMD	sleep-disordered breathing products	15,537	29.0	1.1%	23.3%
RHC	global hospital group	13,741	23.8	2.0%	20.3%
SHL	medical diagnostics, pathology and radiology	9,831	20.6	3.3%	15.5%
COH	implantable devices for hearing	9,472	37.8	1.6%	18.6%
FPH	sleep apnea products	6,584	92.6	1.1%	48.3%
BKL	vitamins, herbal and mineral nutritional supplements.	2,637	33.9	1.8%	39.6%
PRY	medical centres and pathology centres	1,867	23.9	3.1%	-0.9%
MYX	pharmaceuticals	1,187	15.4	0.0%	17.2%
SIG	wholesale and distribution of pharmaceuticals	929	14.6	6.9%	11.0%

# Top 10 Healthcare Stocks in The World

Rank	Company	Product	Sales US\$ Billion	TSR 5 years
1	United Health Group	Health Insurer	200	65%
2	CVS Health	Prescription Drug retailer	140	9%
3	McKesson	Pharmaceutical distributor	138	9%
4	AmerisourceBergen	Pharmaceutical distributor	120	18%
5	Express Script	Pharmaceutical benefits manager	100	6%
6	MorphoSys	Biopharmaceuticals (Cancer and other)	100	47%
7	Foundation Medicine	Biopharmaceuticals (Cancer and other)	93	14%
8	Cardinal Health	Wholesaler & manufacturer (e.g. stents)	91	12%
9	Walgreen Boots Alliance	Retail Pharmacy	76	10%
10	Johnson & Johnson	Branded pharmaceuticals	75	25%

# International HealthCare Stocks

PLA 0005 AU

Platinum International HealthCare Fund

## Top 10 Positions<sup>a</sup>

Stock	COUNTRY	INDUSTRY	%
<a href="#"><u>AstraZeneca PLC</u></a>	UK	Health Equipment & Services	3.8
<a href="#"><u>Roche Holding AG</u></a>	Switzerland	Pharmaceuticals	3.6
<a href="#"><u>MorphoSys AG</u></a>	Germany	Biotechnology	3.4
<a href="#"><u>Sanofi SA</u></a>	France	Pharmaceuticals	3.1
<a href="#"><u>Johnson &amp; Johnson</u></a>	USA	Pharmaceuticals	3.1
<a href="#"><u>Gilead Sciences Inc</u></a>	USA	Biotechnology	2.9
<a href="#"><u>Quanterix Corp</u></a>	USA	Pharmaceuticals	2.5
<a href="#"><u>Foundation Medicine Inc</u></a>	USA	Health Care Providers	2.4
<a href="#"><u>BTG PLC</u></a>	UK	Pharmaceuticals	2.4
<a href="#"><u>Galapagos NV</u></a>	Netherlands	Biotechnology	2.3

29.6%

## Platinum Healthcare Fund

	1 mth	3 mth	6 mth	1 year	2 yrs p.a.	3 yrs p.a.	5 yrs p.a.	10 yrs p.a.	Since inception p.a.	Inception date	Portfolio value (A\$ mil)
Platinum International Health Care Fund (C Class)	-2.7%	0.2%	3.1%	13.6%	6.4%	11.7%	18.7%	11.4%	9.4%	10 Nov 2003	189.5
Platinum International Health Care Fund (P Class)	-2.7%	0.4%	-	-	-	-	-	-	2.5%	3 Jul 2017	1.0
MSCI AC World Health Care Net Index in A\$	-2.8%	1.6%	1.7%	11.2%	2.0%	7.6%	20.4%	10.3%	8.6%	10 Nov 2003	-

## Disposition of Assets

REGION	31 DEC 2017	30 SEP 2017	31 DEC 2016
Europe	38%	40%	41%
North America	36%	37%	34%
Australia	7%	6%	5%
Japan	5%	4%	3%
Asia and Other	<1%	0%	2%
Cash	14%	13%	15%

### C class price:

**Entry:** A\$2.0146 **Exit:** A\$2.0045

### P class price:

**Entry:** A\$1.0367 **Exit:** A\$1.0315

### Legal structure:

Unlisted, open-ended unit trust

### Distribution:

Annually at 30 June

### Management costs:

- C Class (standard fee option): 1.35% p.a. of NAV
- P Class (performance fee option): 1.10% p.a. of NAV plus 15% p.a. of outperformance over benchmark

### Minimum initial investment (per unit class):

- A\$10,000 or NZ\$10,000
- A\$5,000 or NZ\$5,000 under regular investment plan

### Buy/sell spread:

0.25% / 0.25% of NAV unit price

# iShares Global Healthcare ETF

Ticker	Name	Sector	Country	Currency	Market Value	Weight (%)
JNJ	JOHNSON & JOHNSON	Health Care	United States	U.S. Dollar	USD 138,837,161.02	8.10
UNH	UNITEDHEALTH GROUP INC	Health Care	United States	U.S. Dollar	USD 81,433,620.63	4.75
NOVN	NOVARTIS AG	Health Care	Switzerland	U.S. Dollar	USD 80,172,114.15	4.68
PFE	PFIZER INC	Health Care	United States	U.S. Dollar	USD 77,499,925.36	4.52
ROG	ROCHE HOLDING PAR AG	Health Care	Switzerland	U.S. Dollar	USD 60,176,784.20	3.51
MRK	MERCK & CO INC	Health Care	United States	U.S. Dollar	USD 59,346,892.35	3.46
ABBV	ABBVIE INC	Health Care	United States	U.S. Dollar	USD 59,020,380.56	3.44
AMGN	AMGEN INC	Health Care	United States	U.S. Dollar	USD 48,290,744.52	2.82
MDT	MEDTRONIC PLC	Health Care	United States	U.S. Dollar	USD 40,619,723.09	2.37
GILD	GILEAD SCIENCES INC	Health Care	United States	U.S. Dollar	USD 37,651,732.57	2.20

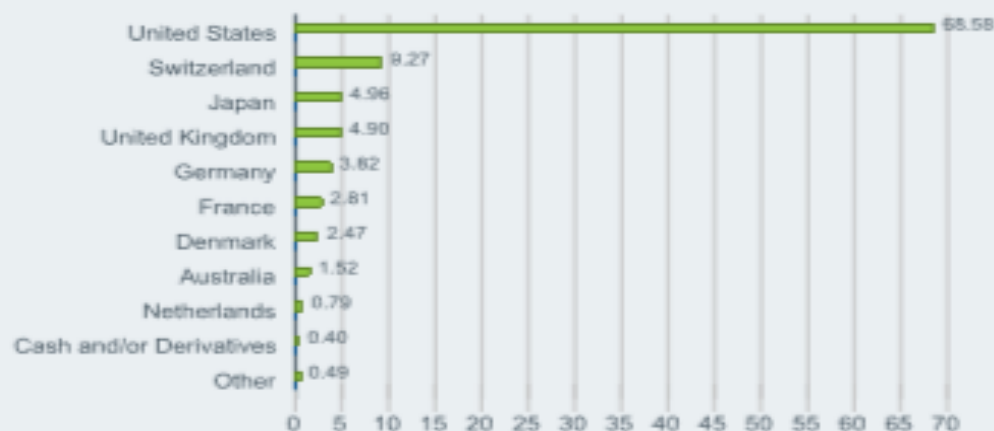
39.9%

# IXJ - ETF

## CUMULATIVE AND ANNUALISED PERFORMANCE

	Cumulative			Annualised			
	1 Month	3 Month	YTD	1 Year	3 Year	5 Year	Since Inception
Fund	3.32%	6.97%	15.01%	19.32%	9.45%	21.52%	4.45%
Benchmark	3.31%	7.05%	15.12%	19.45%	9.52%	21.63%	4.53%

## COUNTRY BREAKDOWN (%)



## FUND DETAILS

Ticker	IXJ
Listing Date	11/03/2009
Inception Date	13/11/2001
Benchmark Index	S&P Global 1200 Healthcare Sector Index (TM)
Distribution Frequency	Semi-Annual
Number of Holdings	101
Net Assets	2,099,834,392 AUD
Management Fee	0.48%
Units Outstanding	14,050,000

# BetaShares Global Healthcare ETF - Currency Hedged

Name	%
Johnson & Johnson	8.1 %
Novartis AG	6.4 %
Pfizer Inc	5.8 %
UnitedHealth Group Inc	5.4 %
Roche Holding AG	5.1 %
Merck & Co Inc	4.1 %
AbbVie Inc	3.7 %
Medtronic PLC	2.9 %
Amgen Inc	2.9 %
Novo Nordisk A/S	2.8 %

As of close of trading 31/12/2017

47.2%

## Fund Returns After Fees (%)

### DRUG ETF

	Fund	Index
1 month	-0.20%	-0.06%
3 months	0.65%	0.84%
6 months	3.81%	4.12%
1 year	17.56%	18.16%
3 year p.a	-	-
5 year p.a	-	-
Since inception (p.a)	7.14%	7.63%
Inception date	4-Aug-16	-

## Country Allocation

United States	66.4%
Switzerland	12.0%
Britain	5.0%
Japan	4.4%
France	3.5%
Denmark	3.1%
Ireland	3.0%
Germany	1.5%
Netherlands	1.0%
Other	0.2%

## Profile

Net Assets* (\$A)	\$25,173,262
Units Outstanding* (#)	4,400,450
Mgmt Costs** (% p.a.)	0.57%
Distribution Frequency	Semi-annual
Distribution Reinvestment Plan (DRP)	Full or partial participation available
Issuer	BetaShares Capital Ltd
Fund Administrator	RBC Investor Services
Custodian	RBC Investor Services
Registry	Link Market Services
Auditor	KPMG

# Comparison of ETFs & Platinum

		IXJ	DRUG	Platinum
	Size	\$2.1 billion	\$25 million	\$190 million
	Stocks Held	101	60	56
	Top 10	40%	47%	30%
	US investment	60%	66%	30%
	Price	\$147.04	\$5.75	\$2.01
	1 year return	19.30%	17.56%	13.60%
	5 year return	21.50%	na	18.70%
	Yield	1.50%	0.29%	1.60%
	Fees	0.48%	0.57%	1.35%

# Top 10 analysis & comparison of share prices

	12 month High	12 month Low	Now	Drawdown	Drawdown	Price to top
Company	\$	\$	\$	\$	%	%
CSL	149.3	98.94	144.15	50.36	40.6%	96.6%
RMD	11.49	8.26	11.12	3.23	32.7%	96.8%
RHC	76.18	61.06	67.89	15.12	22.0%	89.1%
SHL	24.58	20.6	23.41	3.98	17.6%	95.2%
COH	187.60	123.76	164.54	63.84	41.0%	87.7%
FPH	13.10	8.12	12.10	4.98	46.9%	92.4%
BKL	178.00	86.27	154.37	91.73	69.4%	86.7%
PRY	3.98	3.00	3.55	0.98	28.1%	89.2%
MYX	1.59	0.59	0.74	1.00	91.7%	46.5%
SIG	1.33	0.72	0.87	0.61	59.5%	65.4%

# Examples of Good, Bad, Ugly & Emerging

## Good

- ▶ RHC
- ▶ SHL

## Bad

- ▶ SRX
- ▶ MSB

## Ugly

- ▶ THC
- ▶ NEU

## Emerging

- ▶ PBP
- ▶ SPL



# RHC – Snap Shot

▶ Ramsay Health Care Limited engages in the ownership and operation of private hospitals in Australia, the United Kingdom, and Indonesia.



# SHL – Snap Shot

► Sonic Healthcare Limited, together with its subsidiaries, operates as a medical diagnostics company. It offers laboratory and radiology services to medical practitioners, hospitals, community health services, and their collective patients.



# Falling Star - SRX

► Sirtex Medical Limited, a biotechnology and medical device company, engages in the R & D and commercialization of drugs for the treatment of liver cancer using novel small particle technology. Its principal product includes SIR-Spheres, which are selective internal radiation with yttrium 90 radioactive micro spheres that deliver targeted, internal irradiation therapy directly to the tumour.



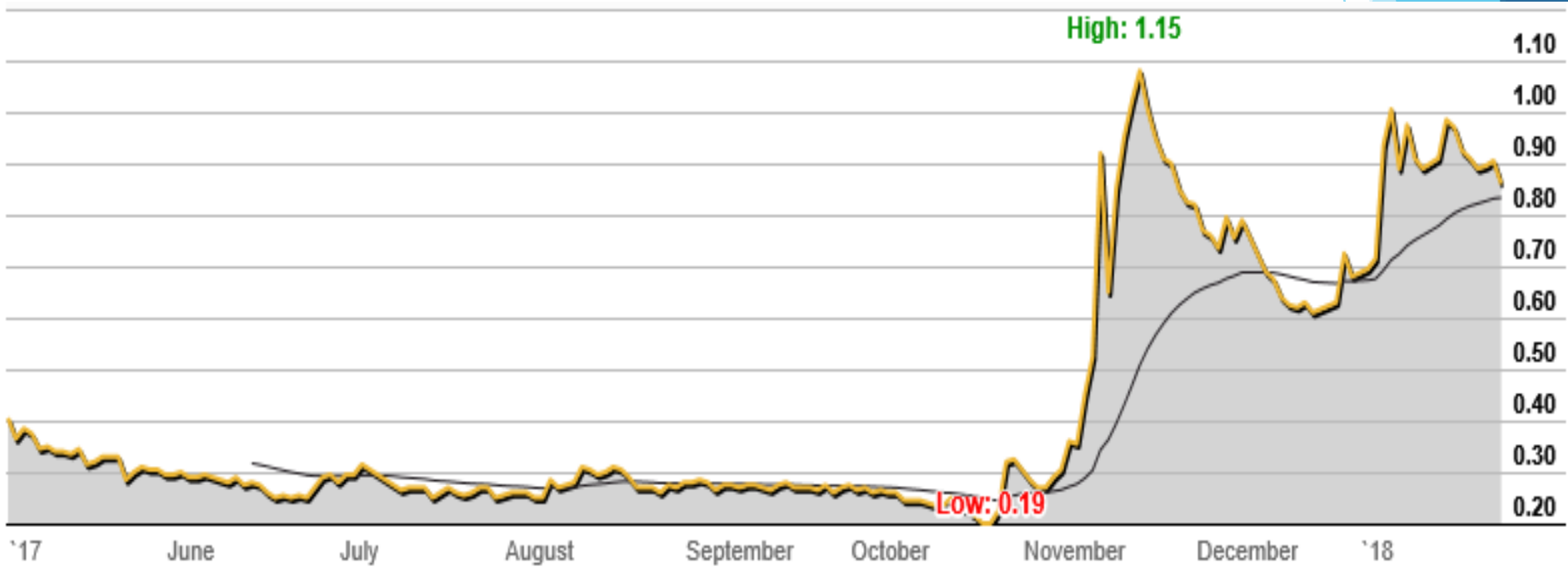
# Fallen Star - MSB

▶ Mesoblast Limited (Mesoblast) is engaged in the commercialization of intellectual property associated with the isolation, culture and scale-up of adult stem cells referred to as mesenchymal precursor cells (MPCs). Mesoblast operates in one segment, which includes the R & D of MPCs.



# Rising Star or ugly? - THC

▶ The Hydroponics Company Limited is an Australia-based company, which is engaged in the business of cannabis. The Company is engaged in the development and delivery of medicinal cannabis.



# Rising Star or ugly ? - NEU

▶ Neuren Pharmaceuticals Limited (Neuren) is a biopharmaceutical company engaged in developing drugs for neurological disorders. The Company develops therapies for brain injury, neurodevelopmental and neurodegenerative disorders.



# Rising Star? - PBP

▶ Probiotec Limited manufactures, markets, and distributes various prescription and over-the-counter pharmaceuticals, nutraceuticals, complementary medicines, and specialty ingredients. The company offers natural health supplements and vitamins, weight management and skin care products, and animal nutrition products; milk replacer products for calves, blue calves, lambs, kids, boost whole milk fortifier, molasses powder, and horse treats under the Palastart and Palabind brands.



# Rising Star? SPL

▶ Starpharma Holdings Limited, together with its subsidiaries, develops and commercializes dendrimer products for pharmaceutical, life science, and other applications in the United States and Australia. Its products include VivaGel, a Phase IIa trial product, is a condom coating and vaginal microbicide gel to prevent the spread of sexually transmitted infections, such as genital herpes and HIV.



# Healthcare Risks

- ▶ Long development cycle
- ▶ Capital hungry
- ▶ Failure rate significant
- ▶ Tough competition
- ▶ Huge upside/low probability
- ▶ Clinical trials/regulatory approval
- ▶ Complex technology



# HealthCare

## Appendix



# HealthCare Companies -

1. **Pharmaceutical** (Mostly overseas; MYX; MVP)
2. **Bio technology** (CSL; SRX; IMM)
3. **Hospitals** (RHC; HSO)
4. **Medical devices** (FPH; COH; RMD)
5. **Healthcare Insurers** (MPL; NHF)
6. **Medical centers & Diagnostics** (PRY; SHL)
7. **Fertility clinics** (VRT; MVF)
8. **Software providers**
9. **Healthcare REITs (including retirement homes)** (INA; LIC)
10. **Distribution of healthcare products** (API; SIG)



# HealthCare Trends

## ► Positive trends include:

1. the aging population and the baby boomers
2. people living longer with chronic disease (cancers & Alzheimer's)
3. obesity and diabetes epidemics
4. technological advances (especially gene therapy)
5. the global reach of disease
6. personalized medicine (T-cell therapy)

## ► Negative trends include:

1. a single-payer system (Medicare/U.S. government)
2. expenditure as an increasing share of (GDP)
3. the uninsured
4. cost controls
5. Consumerism, price sensitivity & politics



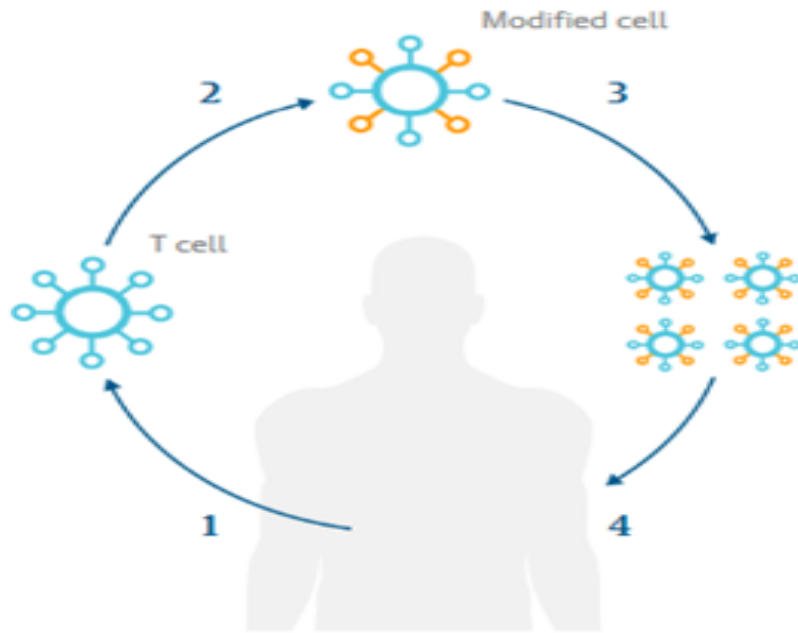
# Other Trends

1. Off patent drugs & Generics (prices falling)
2. Bio Similers
3. M & A activity
4. Trump Healthcare policy & US Company tax changes
5. Huge success/high cost of Immunology and combination therapy.
6. The Internet of things & Healthcare
  1. Remote monitoring & wearable tracking devices
  2. Telemedicine
  3. Behaviour modification (life coach on your smart phone)
7. Enterprise data warehousing (EDW)
8. Access to data & privacy



# Example of Innovation – CAR-T

## Stage 1 Cell modification



**1**  
A sample of the patient's T-cells (a type of white blood cell involved in fighting infection) is taken from their blood

**2**  
In the lab these cells have genetically modified sensor cells (antigen receptors) added to them that can seek out certain cancers

## Stage 2 Targeting cancer cells



**3**  
Modified cells are allowed to multiply

**4**  
Engineered T-cells are infused back into patient where the new antigen receptors allow them to target and destroy the cancer cells

# CSL Snap Shot (revenue \$7 B)

▶ CSL Limited engages in the R & D, manufacture, marketing, and distribution of biopharmaceutical and allied products. It offers pharmaceuticals used to treat human medical conditions; vaccines that are used to induce immunity to protect people against a range of viral and bacterial diseases; plasma-derived therapeutics for the treatment of bleeding disorders, infections, and autoimmune diseases, as well as for patients in critical care settings; antivenoms to treat victims of venomous snake and spider bites; and diagnostics products that are used to determine compatibility of donor-recipient blood in transfusion settings.



# RMD – Snap Shot

▶ ResMed, Inc. engages in the design, manufacture, and marketing of equipment for the diagnosis and treatment of -disordered breathing, including obstructive sleep apnoea, and other respiratory disorders that occur during sleep. It offers airflow generators, diagnostic products, mask systems, headgear, and other accessories, including humidifiers, cold passover humidifiers, carry bags, and breathing circuits.



# PRY – Snap Shot

▶ Primary Health Care Limited, through its subsidiaries, provides a range of healthcare services and facilities to general practitioners, specialists, and other health care providers in Australia. It operates licensed and accredited day surgery facilities, specialist eye clinics, and pathology laboratories.



# COH – Snap Shot

▶ Cochlear Limited engages in the R & D, manufacture, and marketing of implantable hearing solutions. Its products include Nucleus Freedom, that restores the ability to perceive and understand sound,; and Cochlear Hybrid, an electro-acoustic stimulation solution for people who have useful low frequency residual hearing but require electrical stimulation for the higher frequencies.



# FPH – Snap Shot

▶ Fisher & Paykel Healthcare Corporation Limited engages in the design, manufacture, and marketing of products and systems for use in respiratory care, acute care, and the treatment of obstructive sleep apnoea worldwide. It offers interfaces, continuous positive airway pressure units, and humidifiers for the treatment obstructive sleep apnoea.



# BKL – Snap Shot

▶ Blackmores Limited engages in the development and marketing of health products, including vitamins, and herbal and mineral nutritional supplements in Australia. It offers approximately 150 products for various health conditions; and weight management.



# MYX – Snap Shot

▶ Mayne Pharma Group engages in the development and licensing of generic formulations known as ‘SuperGenerics’ in Australia. The company’s product portfolio comprises two potential SuperGenerics, SUBA-Itraconazole and Minocycline.



# SIG – Snap Shot

▶ Sigma Pharmaceuticals Limited is engaged in pharmacy wholesale and distribution business. The Company operates over 1,200 branded and independent stores, including pharmacy retail brands, such as Amcal, Guardian, PharmaSave, Chemist King and Discount Drug Stores.



# Falling Star - VLA

▶ Viralytics Limited, a biotechnology company, develops therapies and drugs for the treatment of cancer in Australia. It primarily focuses on virotherapy treatment for a range of cancers, including melanoma, breast, and prostate.



# Falling Star - API

▶ Australian Pharmaceutical Industries Limited engages in the wholesale distribution of pharmaceutical and allied products. It operates in three segments: Pharmacy Distribution, Retailing, and Manufacturing.



# Rising Stars? - CUV

▶ Clinuvel Pharmaceuticals Limited operates as a biopharmaceutical company primarily in Australia. The company is developing its photo-protective drug CUV1647, as a preventative treatment for a range of UV-related skin disorders, as well as in cancer related treatments.



# Rising Star? ITD

▶ ITL Health Group Ltd, formerly ITL Limited, is engaged in manufacturing and supplying of products into the healthcare markets. The Company's principal activities are development, manufacture, distribution and sale of medical devices, and manufacture, distribution and sale of medical procedure packs.



# Rising Star? - NAN

▶ Nanosonics Limited engages in the research, development, and commercialization of infection control and decontamination products, and related technologies in Australasia and Europe. It owns an intellectual property relating to a unique disinfection and sterilization technology for the reprocessing of reusable medical instruments.



# AstraZeneca (Revenue US\$23 B)

An Anglo-Swedish multinational pharmaceutical and biopharmaceutical company and has a portfolio of products for major disease areas including cancer, cardiovascular, gastrointestinal, infection, neuroscience, respiratory and inflammation.

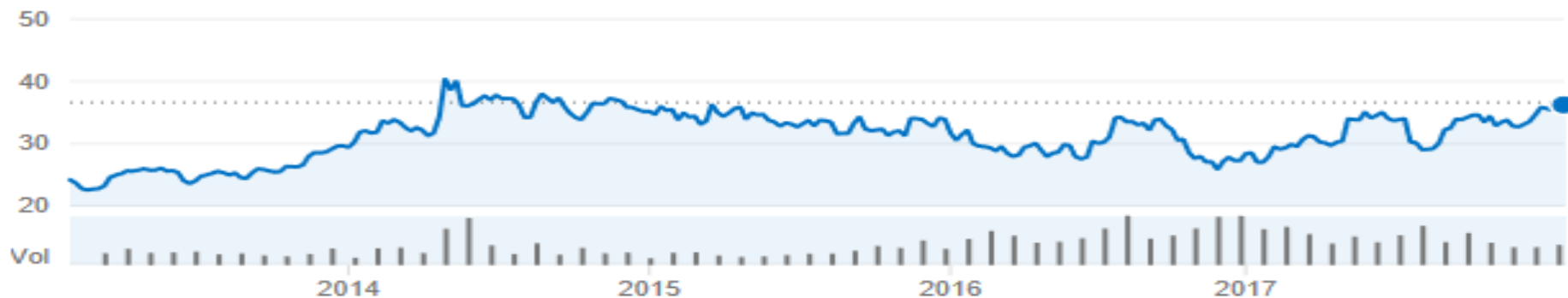
AstraZeneca PLC

NYSE: AZN - 29 January, 4:48 PM EST

36.22 ▼ 0.41 (1.12%)

After Hours 36.22 0.00 (0.00%)

TSR - 11%pa



# Roche (Revenue US\$50 B)

**F. Hoffmann-La Roche AG** is a Swiss multinational healthcare company that operates worldwide under two divisions: Pharmaceuticals and Diagnostics. The company headquarters are located in Basel.

The company controls the American biotechnology company Genentech, which is a wholly owned affiliate, and the Japanese biotechnology company Chugai Pharmaceuticals, as well as the United States-based Ventana. Roche is the third-largest pharma company worldwide.

Roche Holding AG

Swiss: RO - 29 January, 10:36 PM CEST

234.20 ▼ 0.80 (0.34%)

After Hours 235.20 ▲ 1.00 (0.43%)

TSR - 4% pa



# MorphoSys (Revenue US\$100 B)

► MorphoSys AG, together with its subsidiaries, engages in the R & D and optimization of therapeutic antibody drug candidates. The company, together with its pharmaceutical partners, develops a therapeutic pipeline of approximately 100 human antibody drug candidates for the treatment of cancer, rheumatoid arthritis, Alzheimer's disease, infectious diseases, cardiovascular dysfunction, and inflammation.

MorphoSys AG

Xetra: MOR - 29 January, 6:45 PM CEST

82.40 ▼ 0.60 (0.72%)

TSR 47% pa



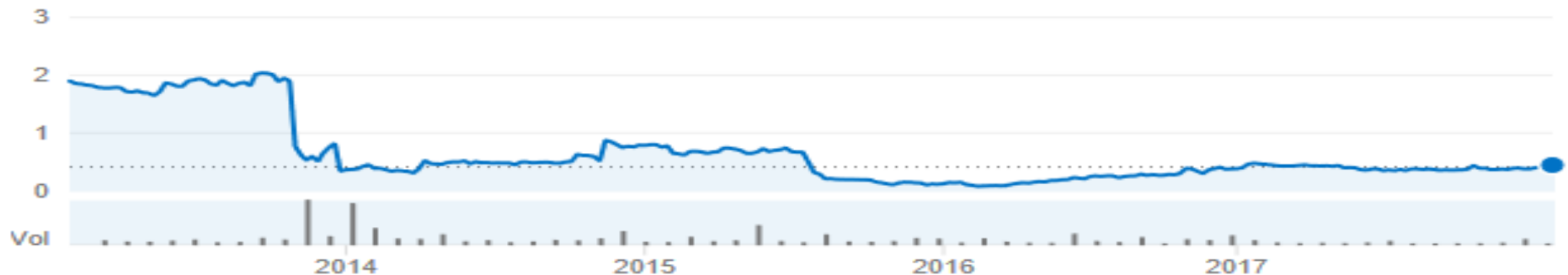
# Sanofi (Revenue US\$40 B)

► Sanofi S.A. is a French multinational pharmaceutical company headquartered in Gentilly, France, the world's fifth-largest by prescription sales. Sanofi engages in the R & D, manufacturing and marketing of pharmaceutical drugs principally in the prescription market, but the firm also develops over-the-counter medication. The company covers seven major therapeutic areas: cardiovascular, central nervous system, diabetes, internal medicine, oncology, thrombosis and vaccines (it is the world's largest producer)

Sanofi SA  
NASDAQ: GCVRZ - 29 January, 3:57 PM EST

0.44 ▲ 0.028 (6.86%)

TSR neg 15% pa



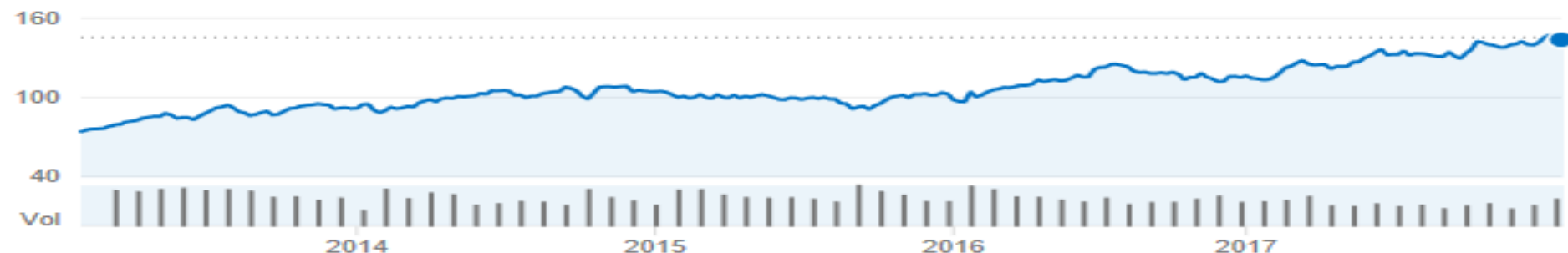
# Johnson & Johnson (Revenue US\$76 B)

Johnson & Johnson is an American multinational medical devices, pharmaceutical and consumer packaged goods manufacturing company founded in 1886. Johnson & Johnson's brands include numerous household names of medications and first aid supplies. Among its well-known consumer products are the Band-Aid Brand line of bandages, Tylenol medications, Johnson's baby products, Neutrogena skin and beauty products, Clean & Clear facial wash and Acuvue contact lenses.

Johnson & Johnson  
NYSE: JNJ - 29 January, 7:26 PM EST

143.68 ▼ 1.65 (1.14%)  
After Hours 143.70 ▲ 0.02 (0.01%)

TSR 25% pa



# Gilead Sciences (Revenue US\$30 B)

► Gilead Sciences, is an American biopharmaceutical company that discovers, develops and commercializes drugs. For many years since the company was founded, the company concentrated primarily on antiviral drugs used in the treatment of HIV, hepatitis B, hepatitis C, and influenza.

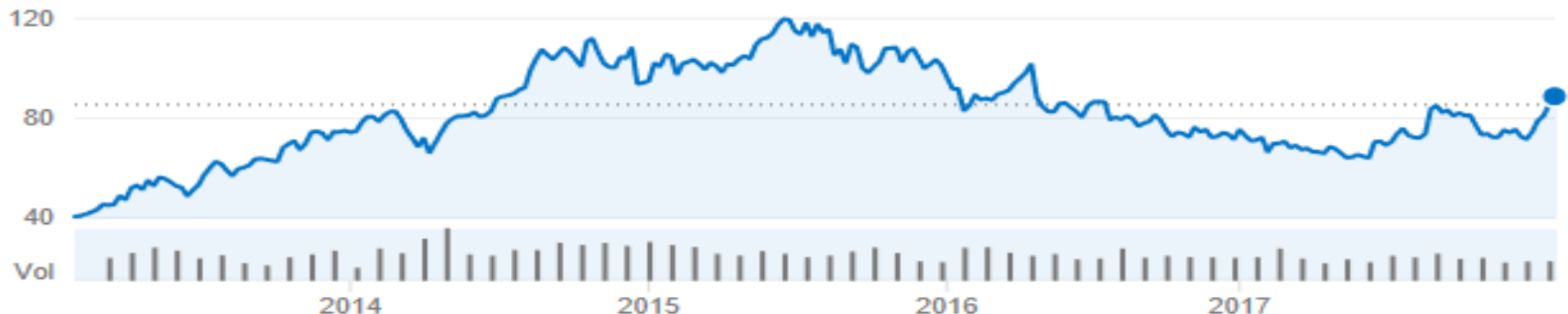
Gilead Sciences Inc

NASDAQ: GILD - 29 January, 7:59 PM EST

88.80 ▲ 3.34 (3.91%)

After Hours 88.91 ▲ 0.11 (0.12%)

TSR 15% pa



# Quanterix new IPO

NEW YORK – Fresh off a \$74 million initial public offering, Quanterix is looking to make immediate inroads in the biotech and pharma research space with longer-term plans to move into diagnostics and health monitoring.

The company believes its ultrasensitive immunoassay technology is well-suited to pharma research where it can allow scientists to measure biomarkers undetectable by current methods and improve upon the data quality of existing assays.



# Foundation Medicine (Revenue US\$93 B)

**Foundation Medicine, Inc.** is a public American company which develops, manufactures and sells genomic analysis diagnostics for solid and circulating cancers. The company's tests are based on next-generation sequencing technology

Foundation Medicine Inc  
NASDAQ: FMI - 29 January, 4:59 PM EST



72.85 ▼ 0.75 (1.02%)

After Hours 73.00 ▲ 0.15 (0.21%)

TSR 14% pa



# Galapagos (Revenue US\$23 B)

**Galapagos NV** (formerly known as **Galapagos Genomics**) is a Belgo-Dutch pharmaceutical research company which was founded in 1999. The company develops drugs against rheumatoid arthritis, crohn's disease, ulcerative colitis, psoriasis, systemic lupus erythematosus and cystic fibrosis.<sup>[1]</sup>

Galapagos NV  
NASDAQ: GLPG - 29 January, 4:00 PM EST

120.23 ▲ 2.81 (2.39%)

After Hours 120.22 ▼ 0.01 (0.01%)

TSR 78% pa



# UnitedHealth Group (Revenue US\$200 B)

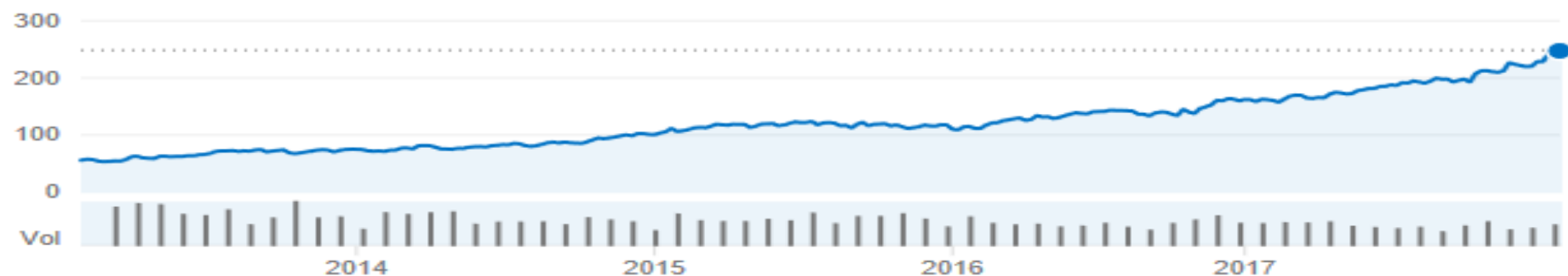
UnitedHealth Group Inc. is an American for-profit managed health care. It is sixth in the United States on the Fortune 500. UnitedHealth Group offers health care products and insurance services. UnitedHealth Group is the largest healthcare company in the world by revenue \$184 billion in 2016. UnitedHealth Group subsidiaries companies together serves approximately 115 million individuals in 2016.

UnitedHealth Group Inc  
NYSE: UNH - 29 January, 7:43 PM EST

247.41 ▼ 1.06 (0.43%)

After Hours 247.80 ▲ 0.39 (0.16%)

TSR 65% pa



# Novartis (Revenue US\$50 B)

- ▶ Novartis International AG is a Swiss multinational pharmaceutical company and is one of the largest pharmaceutical companies in the world by both market cap and sales.
- ▶ In 1996, Ciba-Geigy merged with Sandoz; the pharmaceutical and agrochemical divisions of both companies formed Novartis as an independent entity.

Novartis AG

NYSE: NVS - 29 January, 4:53 PM EST

92.98 ▼ 0.93 (0.99%)

After Hours 92.35 ▼ 0.63 (0.68%)

TSR 7% pa



# Pfizer (Revenue US\$53 B)

- ▶ Pfizer is considered one of the world's largest pharmaceutical companies. It develops and produces medicines and vaccines for a wide range of medical disciplines, including immunology, oncology, cardiology, diabetology /endocrinology, and neurology. Its products include the blockbuster drug Lipitor (atorvastatin), used to lower LDL blood cholesterol; Lyrica (pregabalin) for neuropathic pain/fibromyalgia; Diflucan (fluconazole), an oral antifungal medication; Zithromax (azithromycin), an antibiotic; Viagra (sildenafil) for erectile dysfunction; and Celebrex (celecoxib), an anti-inflammatory drug.

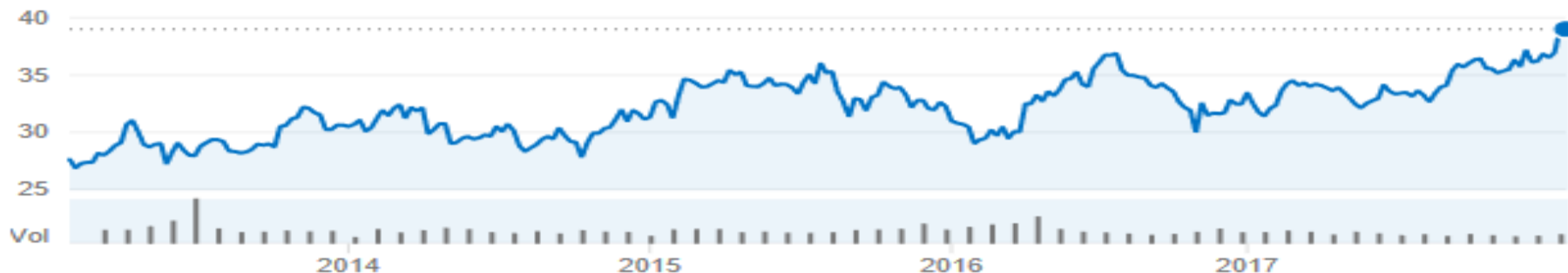
Pfizer Inc

NYSE: PFE - 29 January, 7:59 PM EST

39.02 ▲ 0.010 (0.026%)

After Hours 39.15 ▲ 0.13 (0.33%)

TSR 6% pa



# Merck (Revenue US\$10 B)

► The Merck Group, branded and commonly known as Merck, is a German multinational chemical, pharmaceutical and life sciences company headquartered in Darmstadt, with around 50,000 employees in around 70 countries. Merck was founded in 1668 and is the world's oldest operating chemical and pharmaceutical company, as well as one of the largest pharmaceutical companies in the world

5 Year

TSR 13% pa

01/29/18

\$28.00

26.00

24.00

23.00

22.00

21.00

20.00

19.00

18.00

17.00

16.00

15.00

14.00

13.00

Apr Jul Oct 14 Apr Jul Oct 15 Apr Jul Oct 16 Apr Jul Oct 17 Apr Jul Oct 18

# Merck Inc (Revenue US\$40 B)

- ▶ Merck & Co., Inc. is an American pharmaceutical company and one of the largest pharmaceutical companies in the world.
- ▶ The company was established in 1891 as the United States subsidiary of the German company Merck. Merck & Co. was nationalized by the US government during World War I and subsequently established as an independent American company in 1917. While it operates as Merck & Co. in North America, the original Merck holds the rights to the Merck name everywhere else. Merck & Co. is the world's seventh largest pharmaceutical company by market capitalization and revenue.

Merck & Co Inc

NYSE: MRK - 29 January, 7:08 PM EST

61.63 ▼ 0.41 (0.66%)

After Hours 61.63 0.00 (0.00%)

TSR 9% pa



# Abbvie (Revenue US\$25 B)

▶ AbbVie is a pharmaceutical company that discovers, develops and markets both biopharmaceuticals and small molecule drugs. It originated in 2013 as a spin-off of Abbott Laboratories.

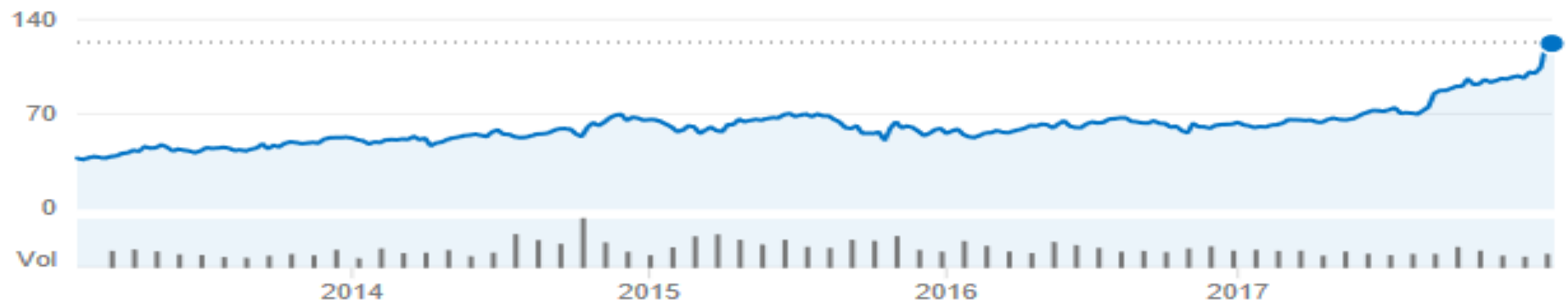
AbbVie Inc

NYSE: ABBV - 29 January, 7:57 PM EST

122.31 ▼ 0.90 (0.73%)

After Hours 120.51 ▼ 1.80 (1.47%)

TSR 40% pa



# Amgen Inc (Revenue US\$23 B)

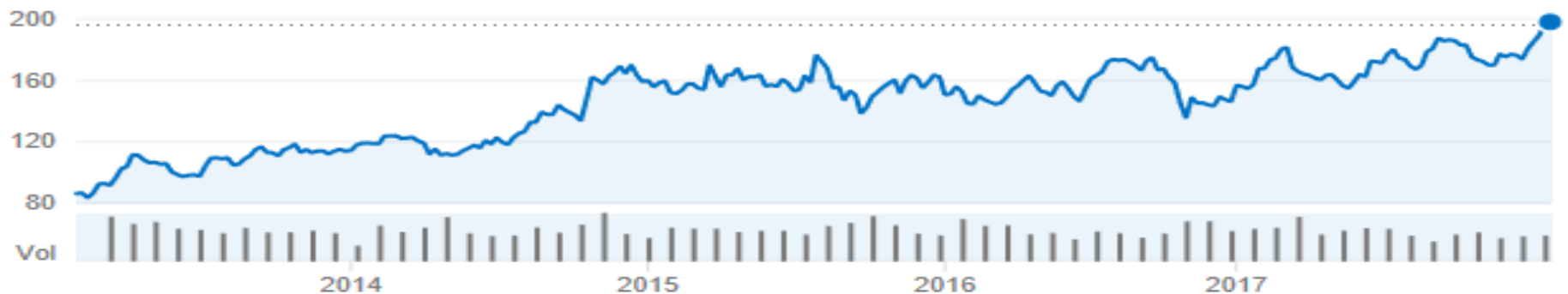
Amgen Inc. is an American multinational biopharmaceutical company headquartered in California and is the world's largest independent biotechnology firm. In 2013, the company's largest selling product lines were Neulasta / Neupogen, two closely related drugs used to prevent infections in patients undergoing cancer chemotherapy; and Enbrel, a tumour necrosis factor blocker used in the treatment of rheumatoid arthritis and other autoimmune diseases.

Amgen Inc  
NASDAQ: AMGN - 29 January, 7:59 PM EST

198.00 ▲ 1.99 (1.02%)

After Hours 196.95 ▼ 1.05 (0.53%)

TSR 20% pa



# Medtronic (Revenue US\$30 B)

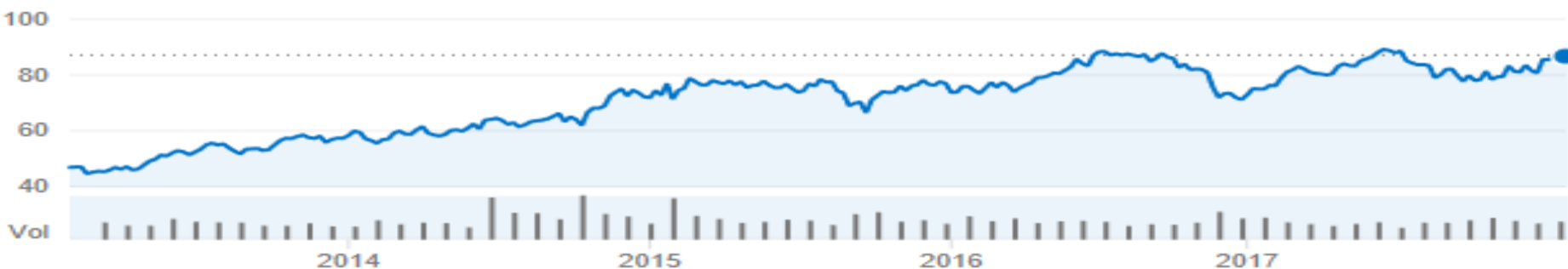
- ▶ Medtronic Public Limited Company is a medical device company. Its headquarters are in Dublin, Ireland. Its operational headquarters are in Fridley, Minnesota. Medtronic is among the world's largest medical equipment development companies.

Medtronic PLC  
NYSE: MDT - 29 January, 6:57 PM EST

86.72 ▼ 0.40 (0.46%)

After Hours 87.26 ▲ 0.54 (0.62%)

TSR 17% pa



# Novo Nordisk (Revenue US\$14 B)

- ▶ Novo Nordisk is a Danish multinational pharmaceutical company headquartered in Bagsværd, Denmark, with production facilities in eight countries, and affiliates or offices in 75 countries.

Novo Nordisk A/S

NYSE: NVO - 29 January, 6:26 PM EST

57.53 ▼ 0.61 (1.05%)

After Hours 57.31 ▼ 0.22 (0.38%)

TSR 12% pa

