# orbimed

Worldwide Healthcare Trust
Mid-Year Update
12 October 2023

#### Portfolio Managers: Sven Borho & Trevor Polischuk

#### Sven Borho, CFA

Managing Partner



Sven H. Borho, CFA, is a founding Partner of OrbiMed. Mr. Borho heads the public equity team and he is the portfolio manager for OrbiMed's public equity and hedge funds.

Mr. Borho has played an integral role in the growth of OrbiMed's asset management activities. Mr. Borho started his career in 1991 when he joined OrbiMed's predecessor firm as a Senior Analyst covering European pharmaceutical firms and biotechnology companies worldwide. He has been a portfolio manager since 1993.

Mr. Borho studied business administration at Bayreuth University in Germany and received a M.Sc. (Econs.), Accounting and Finance, from The London School of Economics.

#### **Trevor Polischuk, PhD**

Partner



Trevor M. Polischuk, Ph.D., is a Partner on the public equity team, focused on the global pharmaceutical industry.

Previously, Dr. Polischuk worked at Lehman Brothers as a Senior Research Analyst covering the U.S. pharmaceutical industry. Dr. Polischuk began his career at Warner Lambert as a member of the Pharmaceutical Global Marketing Planning team, focused on commercial forecasts for the global pipeline.

Dr. Polischuk holds a Doctorate in Neuropharmacology & Gross Human Anatomy from Queen's University and an M.B.A. from Queen's University in Kingston, Ontario, Canada.



## Agenda

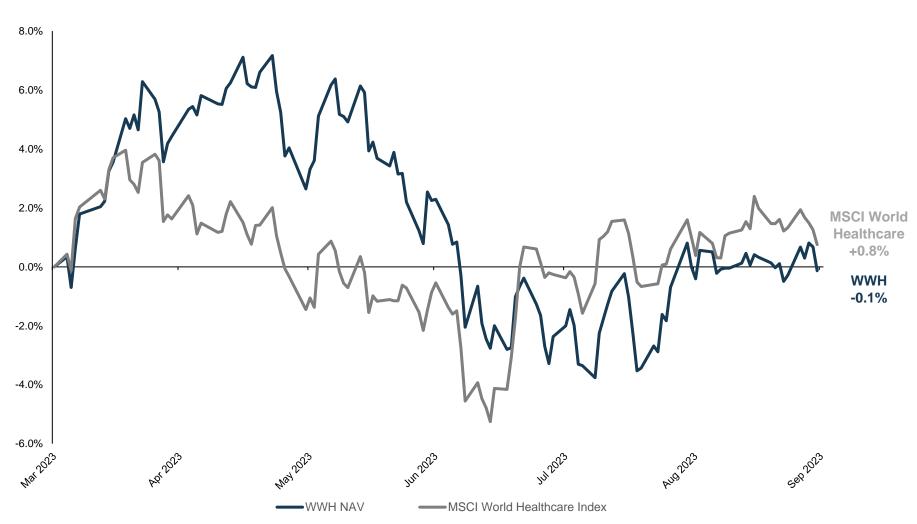
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## Performance

## **FYTD Performance**



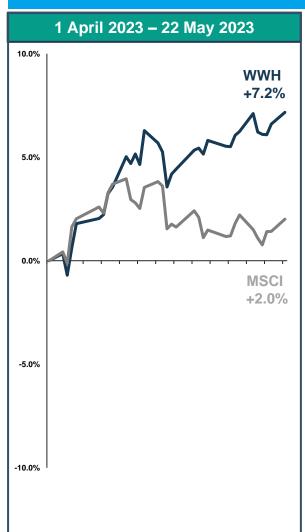


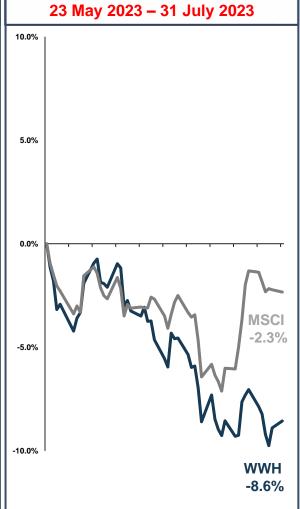
Source: Bloomberg, OrbiMed; Data updated through 29 September 2023 Note: WWH performance figures are net of fees

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## FYTD Performance

#### 6 months (to 29 September 2023)







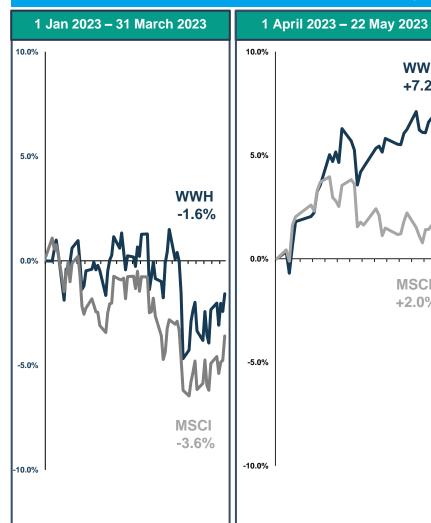
## CYTD Performance

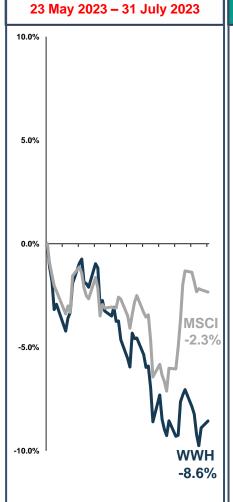
#### 9 months (to 29 September 2023)

**WWH** +7.2%

**MSCI** 

+2.0%





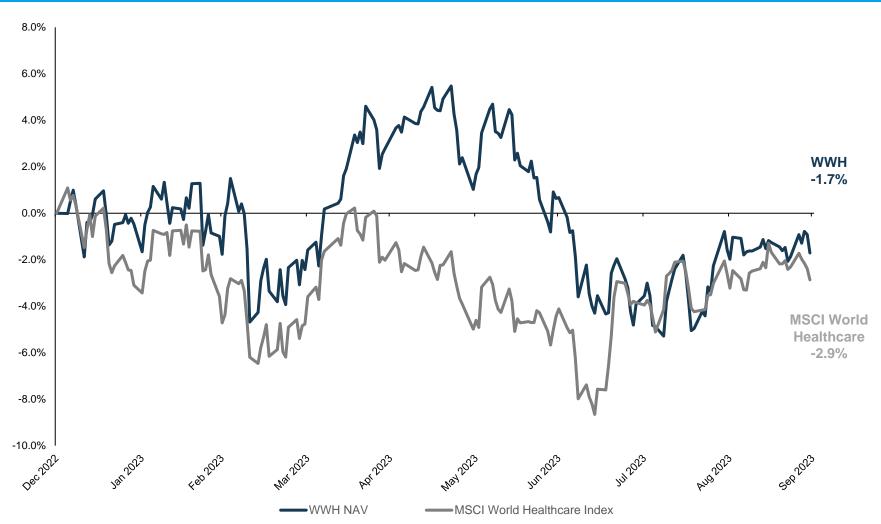


Source: Bloomberg, OrbiMed; Data updated through 29 September 2023

Note: WWH performance figures are net of fees

## **CYTD Performance**

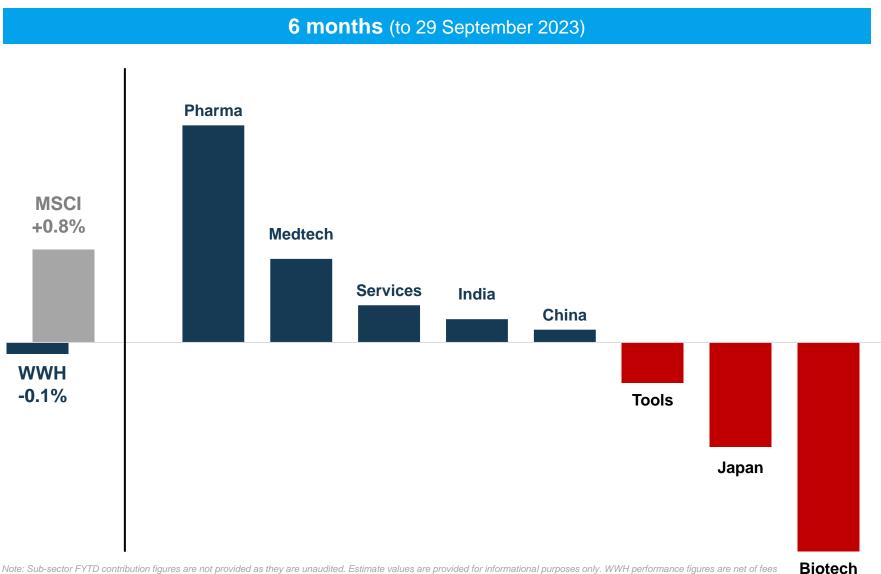
#### 9 months (to 29 September 2023)



Source: Bloomberg, OrbiMed; Data updated through 29 September 2023 Note: WWH performance figures are net of fees



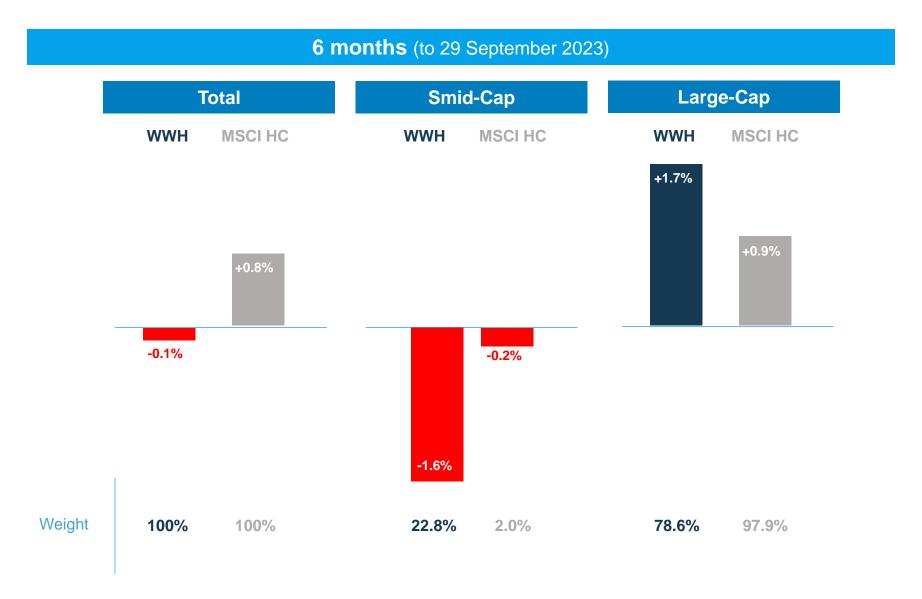
## Attribution (Absolute)



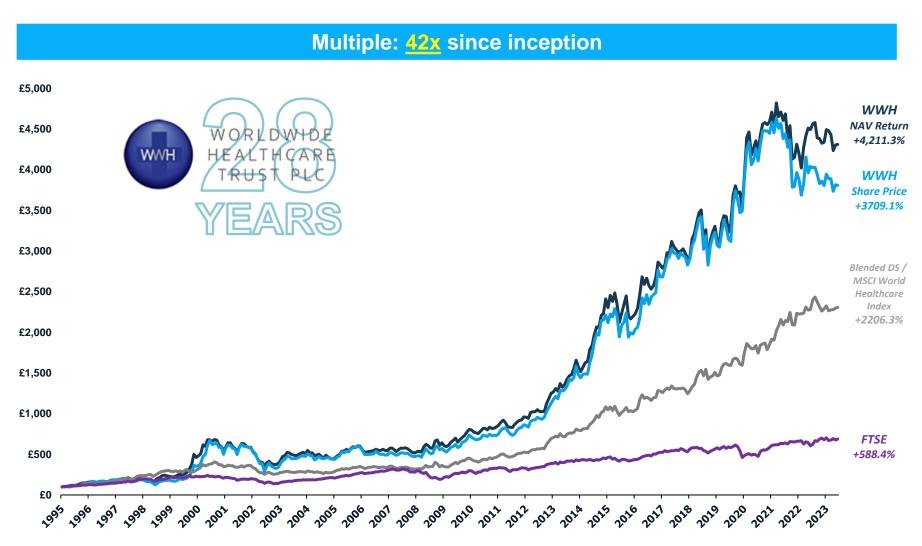
Note: Sub-sector FYTD contribution figures are not provided as they are unaudited. Estimate values are provided for informational purposes only. WWH performance figures are net of fees Source: Bloomberg, OrbiMed



## FYTD Attribution (by Market Cap)



## Performance Since Inception



<sup>\*</sup>The "Blended DS/MSCI Benchmark" uses the Datastream World Pharma/Biotech TR Index from inception to September 30, 2010, the MSCI World Health Care Gross Index from September 30, 2010 to December 31, 2011, and the MSCI World Health Care Net Index from December 31, 2011. Past performance is no guarantee of future results. See Endnotes for additional information regarding the performance presented in this slide and those that follow. Updated through 29 September 2023.



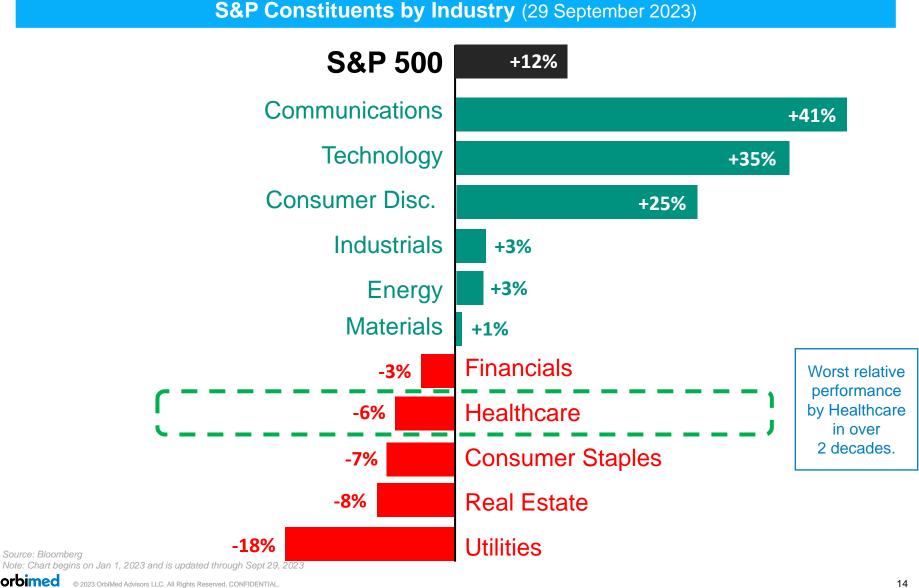
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2023 Investment Themes Recap

## 2023 Investment Themes Recap



## S&P 500 Performance CYTD



## Dreadful Biotech Bear Market Continues to Underperform

#### S&P Biotechnology Index (XBI) vs. S&P 500 Index



Record Setting: (1) Longest, (2) Largest Absolute, (3) Largest Relative Drawdown

## U.S. Drug Price Reform: Overhang Lifted

#### **Three Main Components to the IRA 2022** re: Drug Price Reform



**Drug Price Inflation Cap**  Requires drug co.s to pay rebates to Medicare if they increase drug prices faster than inflation

**NEUTRAL** 

- Price is no longer a revenue driver for pharma
- LIST prices do rise today, but < levels of inflation
- NET prices are cut even further due to rebating
- Curbs bad actors = positive for industry image

**Medicare Part D** Redesign



Removes the "donut hole" and replaces it with an "out-of-pocket cap" of \$2,000 per patient



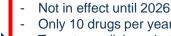


- Lowers out of pocket expenses for patients
- Increases affordability of medicines
- Increases adherence / treatment duration of times
- Increases patient access
- Should result in increased volumes

**Medicare Price Negotiations** 



Fnables Health & Human Services to set the prices of certain costly drugs within the Medicare program



- Only 10 drugs per year are negotiated
- Targets medicines that are near the end of their life cycles but do not yet have generic competition (9 yrs – small molecules / 13 yrs – biologics)

**NEGATIVE but MANAGEABLE** 

Only a potential \$40 billion incremental hit to U.S. Rx revenues to 2032 (out of \$660 billion)

The IRA will have an impact but the net of it is manageable. Perhaps the biggest benefit is that the headline risk is now behind us.

Source: Jefferies. The Drug Pricing Handbook. 9/15/22

## A Conversation with Dave Ricks – CEO, Eli Lilly & Co.

## Three Main Components to the IRA 2022 re: Drug Price Reform





#### **Drug Price Inflation Cap**

"It is not a major issue...it's really kind of a non-event...it's kind of a **nothing burger** from our perspective."

#### Medicare Part D Redesign

"There are (many) changes to part D design, that we saw as **positive** on a net basis."

#### **Medicare Price Negotiations**

"Honestly, it was pretty disappointing..."

The Pharma industry has commenced legal proceedings against HHS

## IRA Advances – First 10 Drugs Named





Net financial impact expected to be modest...

## IRA Advances – The Industry Responds

## Lawsuits PRMA U.S. Chamber of Commerce 3 Bristol Myers Squibb 4 Johnson&Johnson MERCK AstraZeneca 6 NOVARTIS Boehringer Ingelheim

#### **Arguments**

- Compelled Speech
- Takings Clause
  (5th Amendment)
- 3 Excessive Fines
  (8th Amendment)
- 4 Standing Clause
- 5 Due Process
- 6 Orphan Drug Act
- 7 Non-Delegation
- 8 Separation of Powers
- 9 Unconstitutional Condition

The industry is taking a "shots on goal" approach.

Any judge from any district from any court could rule in favor of the industry on any argument.

Even a SINGLE ruling against the government could halt the drug price negotiations portion of the IRA.

Ultimately the Supreme Court will have the final say.

Optionality to quash price negotiations remains anytime ahead of the 2026 enactment

## M&A Activity Surging

2022								
Date	Target	Acquirer	% Premium					
11/29/22	HORIZON	AMGEN	48%					
11/29/22	neo gene	AstraZeneca	\$320m (private)					
11/21/22	Imago 🐉 🎆	MERCK 107%						
10/23/22	MYOVANT SCIENCES	Sumitomo	50%					
10/18/22	ONCOLOGY	<b>LG Chem</b>	43%					
10/18/22	VKOROS	Lilly	121%					
10/03/22	LogicBio	AstraZeneca	667%					
09/01/22	forma therapeutics.	novo pordijsk	49%					
08/08/22	GBT <sup>™</sup>	<b>₹</b> Pfizer	102%					
08/04/22	CHEMOCENTRYX	AMGEN	116%					
08/04/22	mirĕbio	<b>GILEAD</b>	\$405m (private)					
07/11/22	<b>⋄</b> VIACYTE	VERTEX	\$320m (private)					
07/11/22	La Jolla Pharmaceutical	INNOVIVA	84%					
07/05/22	TeneoTwo	AstraZeneca	\$1,270 (private)					
06/17/22	<b>Seagen</b>	MERCK	Rumored					
06/03/22	Turning Point	Bristol Myers Squibb	122%					
05/31/22	Affinivax	GSK	\$2,650 (private)					
05/10/22	bichaven	<b>₽</b> Pfizer	79%					
04/13/22	SIERRA	GSK	39%					

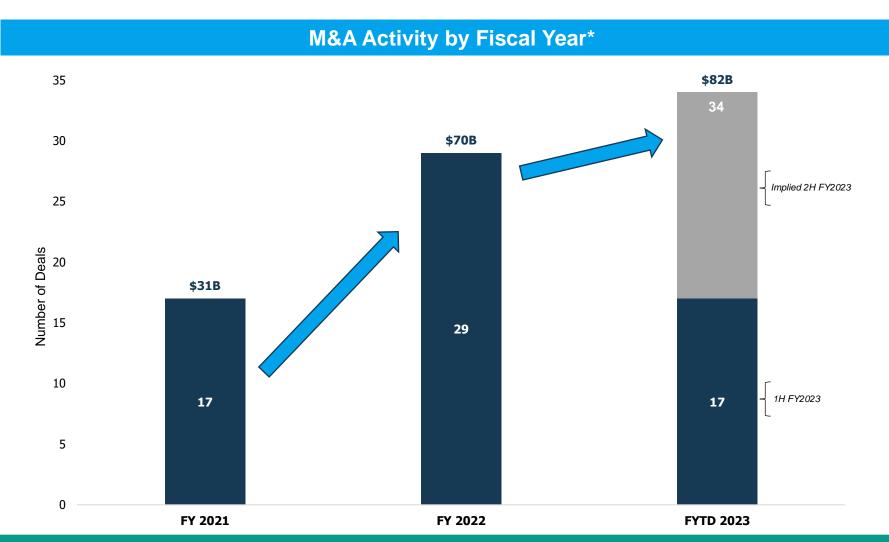
2023								
Date	Target	Acquirer	% Premium					
09/26/23	Intercept 🗓	ALFASIGMA	82%					
08/30/23	EMBARKBIOTECH	nous postilist	\$519 (private)*					
08/14/23	Zynerba	HARMONY BIOSCIENCES	226%					
08/10/23	inversago	<b>777</b>	\$1,075 (private)					
08/09/23	Decibel THERAPEUTICS:	REGENERON	169%*					
07/28/23	REATA	Biogen	59%					
07/17/23	DT	U NOVARTIS	\$1,000 (private)*					
07/14/23	Versanis	Lilly	\$1,925 (private)					
06/29/23	sigilon	Lilly	~380%					
06/20/23	DICE	Lilly	~40%					
06/12/23	CHINOOK"	U NOVARTIS	83%					
05/22/23	VectivBio <sup>▽</sup>	✓ Ironwood <sup>®</sup>	80%					
05/10/23	CTî	sobi	89%					
04/30/23	<b>IVERIC</b>	astellas	23%					
04/25/23	SPECTRUM'	-ASSERTIO=	~94%*					
04/18/23	Bellus	GSK	>100%					
04/16/23	Prometheus	MERCK	75%					
03/27/23	Jounce Jounce	Concentra Biosciences	75%					
03/13/23	<b>O</b> Seagen	<b>₽</b> Pfizer	42%					
03/13/23	proventionbio	sanofi	278%					
01/19/23	Concert  Pharmaceuticals Inc.	SUN PHARMA	~67%*					
01/09/23	CINCOR	AstraZeneca 2	>200%*					
01/09/23	Albireo	SIPSEN Innovation for patient care	>100%					
01/08/23	AMRYT	<b>⊕</b> Chiesi	>100% CVR					

Source: FactSet, Company Websites as of September 29, 2023

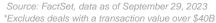
Note: Public companies shown here are not necessarily representative of portfolio holdings



## M&A Activity Remains Elevated



M&A activity remains robust in FY23; expected to continue in 2H and beyond





## Innovation: The Next Big Thing?





ADCs





New Standard of Care in HER2+ "low" metastatic BC

10



Bristol Myers Squibb

Approved

**TIGIT** 

Roche

Awaiting the final analysis in lung cancer, expected 2024

TAGRISSO"

AstraZeneca 2

ADAURA - ASCO '23

51% reduction in risk of death in Adj. lung cancer

Targeted Therapy

FLAURA2 - WLCLC '23

38% reduction in PFS or death in 1L lung cancer

Obesity



tirzepatide



Lilly

Flled

🏞 semaglutide



itide injection **2.4 mg** 

Approved

SELECT CVOT

-20% RRR on MACE











Positive data across multiple oral tx's at ADA 2023

Alzheimer's



gantenerumab

GRADUATE 1/2
CLINICAL TRIALS





Patients on drug improved; but outcome was not SS

**lecanemab** 



Clarity AD



dpoints & reduced

Met all endpoints & reduced cognitive decline by -27%

donanemab

TRAILBLAZER

ALZ-3

Lilly

Met all endpoints & reduced cognitive decline by -36%

Note: Examples may not be representative of portfolio holdings.



#### 2023 "Catalysts to Watch": Large Cap Pharmaceuticals



#### There are many highly anticipated catalysts in pharma.







 Showed -20% RRR in MACE in obese patients







Dato-DXd TROPION-Lung01 Monotherapy

- Met primary endpoint of PFS...OS immature
- Awaiting final readout



tiragolumab

Phase III SKYSCRAPER-01

- Leaked interim data showed +20% benefit
- Awaiting final readout





Dupixent®A COPD

- Showed -30% RRR in lowering exacerbations
- Awaiting 2<sup>nd</sup> trial readout



donanemab

TRAILBLAZER ALZ-3

Showed 36% slowing in cognitive decline

Positive clinical trial readouts will inflect the valuations of these companies.

Examples may not be representative of portfolio holdings

## 2023 "Catalysts to Watch": Medical Technology



#### Significant improvements in current technologies can materially impact sales.





Investors are eagerly awaiting the best kept secret in medical technology: the unveiling of the latest version of the DaVinci surgical robot.

Whilst the new robot was initially delayed due to regulatory concerns, the company has consistently hinted to an imminent debut of the next generation surgical robot.

Scientific



**FARAPULSE**Pulsed Field Ablation (PFA)

The atrial fibrillation market is the fastest growing market in medical technology.

Boston Scientific's latest electrophysiology offering is perhaps "best in class".

The ADVENT clinical trial in paroxysmal Afib showed non-inferior and superior trend vs. SOC

These catalysts can drive end market demand in two "hot" technology areas.

## 2023 "Catalysts to Watch": Landmark Catalysts in Biotech

#### Selected first-in-class approvals and important clinical trial results



First gene therapies approved for hemophilia A and B

BIOMARIN uniQure



First FDA approval of an oral microbiome therapy for C. difficile infection





First topical gene therapy approved for rare genetic skin disease





Positive Phase 3 results of RNAi drug in amyloidosis with cardiomyopathy





First gene therapy approved for Duchenne muscular dystrophy





First therapy approved for Friedrich's ataxia





Positive Phase 3 results of antiamyloid antibody for Alzheimer's







Positive Phase 3 results of drug for liver fibrosis





**Positive Phase 2 results** of mRNA cancer vaccine in melanoma





Examples may not be representative of portfolio holdings

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# Emerging Themes for 2024+

## Emerging Themes for 2024+

#### **Obesity**



- Supply?
- · Lilly's formal launch
  - Global roll outs
- Additional indications
  - Reimbursement
- Next generation injectables
  - Novel orals
  - New targets













#### Alzheimer's



- Legembi launch
- LLY approval/launch
- Earlier intervention
- Next gen products
- New formulations
  - New targets
  - · New entrants









Examples may not be representative of portfolio holdings

#### **Vaccines**



- RSV
- Cancer
- COVID?
- Combinations
  - Flu (new)
- Pneumococcal (new)

















#### **Immunology**



- "Hot Space" (M&A)
- Psoriasis / HS / AD
  - IBD / UC / CD
    - COPD
  - New targets















#### **Oncology**



- Rise of IO+IO Combos
  - TIGIT
  - LAG3
  - CTLA4
  - Bi-Specifics
  - ADCs (cont.)
  - Targeted Tx (cont.)
- Radiopharmaceuticals



**Pfizer** 













#### Cardiovascular

**U** NOVARTIS



- · "Back in Vogue"
  - Factor XIa
    - PAH
    - TTR
    - Lp(a)
  - Oral PCSK-9















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# Portfolio and Positioning

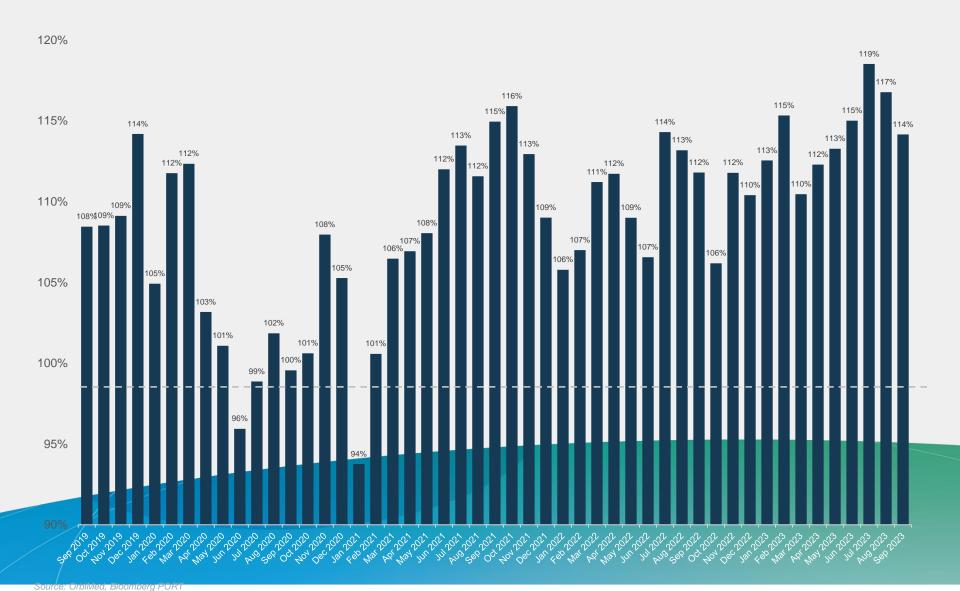
## WWH vs. MSCI World Health Care Index As of 29 September 2023

	WWH as of 29 September 2023			WWH as of 31 March 2023		
Subsector	WWH %NAV	MSCI HC	Delta	WWH %NAV	MSCI HC	Delta
Pharmaceuticals	29.9	44.5	(14.5)	26.7	43.1	(16.4)
Big Pharma	29.5	41.3	(11.7)	26.4	39.7	(13.3)
Spec Pharma	0.4	3.0	(2.6)	0.2	3.2	(3.0)
Generics	0.0	0.2	(0.2)	0.0	0.1	(0.1)
Biotechnology	28.2	9.4	18.9	23.9	9.4	14.6
Big Biotech	3.2	5.2	(2.0)	2.7	5.1	(2.4)
Emerging Biotech	25.1	4.2	20.9	21.3	4.3	17.0
Life Science Tools	4.6	11.0	(6.4)	3.8	12.3	(8.4)
Medtech/Devices	16.6	15.5	1.1	19.3	16.2	3.2
Healthcare Services	15.0	15.6	(0.6)	15.4	14.9	0.5
Japan	6.5	4.0	2.5	6.3	4.2	2.1
<b>Emerging Markets</b>	5.9	0.0	5.9	8.0	0.0	8.0
Structured Finance & ETFs	0.0	0.0	0.0	0.0	0.0	0.0
Privates	7.4	0.0	7.4	6.8	0.0	6.8
Total	114.2	100.0	14.2	110.2	100.0	10.2

<sup>\*</sup>Excludes Options. Basket positions have their constituents allocated to their respective subsectors. Future weightings may differ.



## WWH Leverage over Time (29 September 2023)



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# Playbook

## Playbook for 2024 and Beyond

Continue to Invest in Innovation IRA is Manageable (does it even stick?) Continued High Expectations for M&A 4 Remain Patient with Biotech 5 Healthcare Underperformance Unsustainable ENTER Valuations Undemanding 6 Overall Bullish Outlook into 2024



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Q&A

## **Endnotes**

#### **General Notes**

- 1. The information presented herein relates to Worldwide Healthcare Trust PLC (the "Fund"). OrbiMed Capital LLC ("OrbiMed") is an investment adviser registered with the U.S. Securities and Exchange Commission (the "SEC") that specializes in the investment of clients' assets, including the Fund's assets, in healthcare and life sciences companies, including the biotechnology and pharmaceutical sectors, across a number of products and strategies. This presentation includes information specifically relating to the Fund, and potential OrbiMed clients or fund investors should be aware that such information may not be applicable to other OrbiMed funds, products or strategies. The information contained in this presentation is not intended to supplement or replace the disclosures made in Part 2 of OrbiMed's Form ADV filed with the SEC or in the prospectus or other offering document for any investment fund sponsored and/or managed by OrbiMed or its affiliates. SEC registration does not imply a certain level of skill or training.
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## Endnotes (continued)

#### <u>Indices</u>

Information about indices is provided to allow for comparison of the performance of the Shares to the Fund's benchmark and certain other recognized indices. Investors cannot invest directly in an index, which also does not take into account trading commissions and costs. The indices shown are unmanaged, do not charge fees or expenses and do not employ special techniques such as leveraging or short selling. The volatility of indices may be materially different from the performance of the Fund. In addition, the Fund's portfolio holdings may differ significantly from the securities that comprise such indices.

The MSCI World Health Care Index is a market-value weighted index of health care sector equities within the MSCI World Index, a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets. Index data for the MSCI World Health Care Index is available since December 30, 1994. For the period from the Fund's inception through December 30, 1994, returns of the MSCI World Health and Personal Care Index are used as a proxy for the MSCI World Health Care Index. Return numbers for these include reinvestment of dividends net of withholding taxes, as calculated by the index provider.

