



FTIF - Franklin Biotechnology Discovery Fund

December 31, 2018

Portfolio Holdings

The following portfolio data for the Franklin Templeton funds is made available to the public under our Portfolio Holdings Release Policy and is "as of" the date indicated.

This portfolio data should not be relied upon as a complete listing of a fund's holdings (or of a fund's top holdings) as information on particular holdings may be withheld if it is in the fund's interest to do so. Additionally, foreign currency forwards are not included in the portfolio data. Instead, the net market value of all currency forward contracts is included in cash and other net assets of the fund. Further, portfolio holdings data of over-the-counter derivative investments such as Credit Default Swaps, Interest Rate Swaps or other Swap contracts list only the name of counterparty to the derivative contract, not the details of the derivative. Complete portfolio data can be found in the semi- and annual financial statements of the fund.

Security Identifier	Security Name	Shares/ Positions Held	Market Value	% of TNA	Coupon Rate	Maturity Date
004225108	ACADIA PHARMACEUTICALS INC	18,800	\$303,996	0.02%	N/A	N/A
00434H108	ACCELERON PHARMA INC	334,077	\$14,549,053	0.86%	N/A	N/A
00461U105	ACLARIS THERAPEUTICS INC	1,587,488	\$11,731,536	0.69%	N/A	N/A
00900T107	AIMMUNE THERAPEUTICS INC	239,600	\$5,731,232	0.34%	N/A	N/A
015351109	ALEXION PHARMACEUTICALS INC	1,247,900	\$121,495,544	7.19%	N/A	N/A
DDD926837	ALLOGENE THERAPEUTICS INC	283,900	\$7,645,427	0.45%	N/A	N/A
031162100	AMGEN INC	331,700	\$64,572,039	3.82%	N/A	N/A
03152W109	AMICUS THERAPEUTICS INC	1,270,000	\$12,166,600	0.72%	N/A	N/A
032724106	ANAPTYSBIO INC	163,600	\$10,436,044	0.62%	N/A	N/A
03874P101	ARATANA THERAPEUTICS INC	1,756,100	\$10,764,893	0.64%	N/A	N/A
DDD606246	ARCA BIOPHARMA INC	2,068,536	\$10,324	0.00%	N/A	06/16/22
04016X101	ARGENX SE	244,078	\$23,448,573	1.39%	N/A	N/A
04269X105	ARRAY BIOPHARMA INC	4,419,900	\$62,983,575	3.73%	N/A	N/A
04351P101	ASCENDIS PHARMA A/S	289,067	\$18,110,047	1.07%	N/A	N/A
045396108	ASSEMBLY BIOSCIENCES INC	121,400	\$2,746,068	0.16%	N/A	N/A
05156V102	AURINIA PHARMACEUTICALS INC	1,088,900	\$7,426,298	0.44%	N/A	N/A
05455M100	AVROBIO INC	44,600	\$742,590	0.04%	N/A	N/A
449370105	BIOGEN INC	393,140	\$118,303,688	7.01%	N/A	N/A
09061G101	BIOMARIN PHARMACEUTICAL INC	590,109	\$50,247,781	2.98%	N/A	N/A
DDD619300	BIOPHARMX CORP	2,500,000	\$269,750	0.02%	N/A	N/A
DDD630453	BIOPHARMX CORP	162,000	\$1,365	0.00%	N/A	03/29/21
DDD642930	BIOPHARMX CORP	138,878	\$14,984	0.00%	N/A	N/A
DDD653937	BIOPHARMX CORP	2,695,100	\$100,039	0.01%	N/A	11/22/23
09609G100	BLUEBIRD BIO INC	90,900	\$9,017,280	0.53%	N/A	N/A
140755109	CARA THERAPEUTICS INC	290,900	\$3,781,700	0.22%	N/A	N/A
151020104	CELGENE CORP	1,746,200	\$111,913,958	6.63%	N/A	N/A
16383L106	CHEMOCENTRYX INC	854,389	\$9,321,383	0.55%	N/A	N/A
19459J104	COLLEGIUM PHARMACEUTICAL INC	642,536	\$11,032,343	0.65%	N/A	N/A

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206022105	CONCERT PHARMACEUTICALS INC	349,200	\$4,382,460	0.26%	N/A	N/A
H17182108	CRISPR THERAPEUTICS AG	283,019	\$8,085,852	0.48%	N/A	N/A
23257D103	CYMABAY THERAPEUTICS INC	1,055,800	\$8,309,146	0.49%	N/A	N/A
DDD664177	DELMAR PHARMACEUTICALS INC	516,115	\$1,331	0.00%	N/A	04/12/22
24983L104	DERMIRA INC	1,445,100	\$10,390,269	0.62%	N/A	N/A
268158201	DYNAVAX TECHNOLOGIES CORP	1,170,560	\$10,710,624	0.63%	N/A	N/A
30161Q104	EXELIXIS INC	446,600	\$8,784,622	0.52%	N/A	N/A
31189P102	FATE THERAPEUTICS INC	1,983,995	\$25,454,655	1.51%	N/A	N/A
BQRB1Q0	FOAMIX PHARMACEUTICALS LTD	1,221,300	\$4,384,467	0.26%	N/A	N/A
3621LQ109	G1 THERAPEUTICS INC	639,541	\$12,247,210	0.73%	N/A	N/A
375558103	GILEAD SCIENCES INC	1,001,000	\$62,612,550	3.71%	N/A	N/A
37890U108	GLOBAL BLOOD THERAPEUTICS INC	321,300	\$13,189,365	0.78%	N/A	N/A
38000Q102	GLYCOMIMETICS INC	1,190,979	\$11,278,571	0.67%	N/A	N/A
40131M109	GUARDANT HEALTH INC	32,400	\$1,217,916	0.07%	N/A	N/A
427746102	HERON THERAPEUTICS INC	2,293,120	\$59,483,532	3.52%	N/A	N/A
438083107	HOMOLOGY MEDICINES INC	225,100	\$5,033,236	0.30%	N/A	N/A
452327109	ILLUMINA INC	295,400	\$88,599,322	5.25%	N/A	N/A
452907108	IMMUNOMEDICS INC	509,500	\$7,270,565	0.43%	N/A	N/A
DDD573353	INTARCIA THERAPEUTICS INC	166,795	\$2,687,165	0.16%	N/A	N/A
45845P108	INTERCEPT PHARMACEUTICALS INC	174,500	\$17,587,855	1.04%	N/A	N/A
46116X101	INTRA-CELLULAR THERAPIES INC	378,700	\$4,313,393	0.26%	N/A	N/A
462260100	IOVANCE BIOTHERAPEUTICS INC	3,486,479	\$30,855,339	1.83%	N/A	N/A
BF3W0Q3	ITERUM THERAPEUTICS PLC	212,778	\$1,066,017	0.06%	N/A	N/A
B4Q5ZN4	JAZZ PHARMACEUTICALS PLC	277,131	\$34,353,158	2.03%	N/A	N/A
48576U106	KARYOPHARM THERAPEUTICS INC	699,295	\$6,552,394	0.39%	N/A	N/A
DDD878132	KEZAR LIFE SCIENCES INC	202,600	\$4,781,360	0.28%	N/A	N/A
BGPF6R0	LOGICBIO THERAPEUTICS INC	419,300	\$4,360,720	0.26%	N/A	N/A
548862101	LOXO ONCOLOGY INC	114,700	\$16,066,029	0.95%	N/A	N/A
556099109	MACROGENICS INC	279,000	\$3,543,300	0.21%	N/A	N/A
56854Q101	MARINUS PHARMACEUTICALS INC	1,375,465	\$3,947,584	0.23%	N/A	N/A
DDD876446	METACRINE INC	2,207,049	\$3,134,009	0.19%	N/A	N/A
603380106	MINERVA NEUROSCIENCES INC	708,300	\$4,773,942	0.28%	N/A	N/A
DDD597503	MOLECULAR TEMPLATES INC	60,045	\$0	0.00%	N/A	02/28/20
617760202	MORPHOSYS AG	394,100	\$9,947,084	0.59%	N/A	N/A
64052L106	NEOS THERAPEUTICS INC	829,100	\$1,368,015	0.08%	N/A	N/A
64125C109	NEUROCRINE BIOSCIENCES INC	621,705	\$44,395,954	2.63%	N/A	N/A
DDD558900	NORTHWEST BIOTHERAPEUTICS INC	223,880	\$0	0.00%	N/A	02/20/19
66988N106	NOVAN INC	197,064	\$163,563	0.01%	N/A	N/A
670002104	NOVAVAX INC	2,962,045	\$5,450,162	0.32%	N/A	N/A
676079106	ODONATE THERAPEUTICS INC	756,812	\$10,655,912	0.63%	N/A	N/A

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68404V100	OPTINOSE INC	376,600	\$2,334,920	0.14%	N/A	N/A
717071104	PFENEX INC	1,430,985	\$4,564,842	0.27%	N/A	N/A
737010108	PORTOLA PHARMACEUTICALS INC	655,400	\$12,793,408	0.76%	N/A	N/A
DDD875724	PRECISION BIOSCIENCES INC	1,245,815	\$6,241,533	0.37%	N/A	N/A
74257L108	PRINCIPIA BIOPHARMA INC	132,400	\$3,626,436	0.21%	N/A	N/A
69366J200	PTC THERAPEUTICS INC	690,500	\$23,697,960	1.40%	N/A	N/A
75615P103	REATA PHARMACEUTICALS INC	373,500	\$20,953,350	1.24%	N/A	N/A
75886F107	REGENERON PHARMACEUTICALS INC	200,600	\$74,924,100	4.44%	N/A	N/A
75901B107	REGENXBIO INC	358,100	\$15,022,295	0.89%	N/A	N/A
76029N106	REPLIMUNE GROUP INC	18,723	\$187,230	0.01%	N/A	N/A
761330109	REVANCE THERAPEUTICS INC	954,354	\$19,211,146	1.14%	N/A	N/A
45780V102	ROCKET PHARMACEUTICALS INC	143,403	\$2,125,232	0.13%	N/A	N/A
78116T103	RUBIUS THERAPEUTICS INC	260,800	\$4,193,664	0.25%	N/A	N/A
78667J108	SAGE THERAPEUTICS INC	213,830	\$20,482,775	1.21%	N/A	N/A
803607100	SAREPTA THERAPEUTICS INC	217,500	\$23,735,775	1.41%	N/A	N/A
88338N107	THERAPEUTICSMD INC	4,559,748	\$17,372,639	1.03%	N/A	N/A
DDD810924	TRUE NORTH THERAPEUTICS INC	1,239,800	\$1,612,508	0.10%	N/A	N/A
BJFSR88	UNIQURE NV	126,200	\$3,637,084	0.22%	N/A	N/A
92532F100	VERTEX PHARMACEUTICALS INC	634,162	\$105,086,985	6.22%	N/A	N/A
98401F105	XENCOR INC	291,700	\$10,547,872	0.62%	N/A	N/A
98978L204	ZOGENIX INC	440,210	\$16,050,056	0.95%	N/A	N/A
98985W102	ZYMEWORKS INC	384,295	\$5,641,450	0.33%	N/A	N/A

Important Information

Source: Franklin Templeton Investments as at 31/12/18 , unless stated otherwise. The fund is a subfund of Franklin Templeton Investment Funds, a Luxembourg-domiciled SICAV. For further information please refer to the relevant Full Prospectus and the relevant Key Investor Information Document.

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For a free copy of the latest prospectus, the relevant Key Investor Information Document, the annual report and semi-annual report, if published thereafter or for more information about any Franklin Templeton Investments' fund, UK investors should contact: Franklin Templeton Investments, Telephone: 0800 305 306, Email: enquiries@franklintempleton.co.uk or write to us at the address below.

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