BlackRock Health Sciences Trust Form N-Q March 26, 2012

#### **UNITED STATES**

#### SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

### FORM N-Q

# QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED

#### MANAGEMENT INVESTMENT COMPANY

Investment Company Act file number 811-21702

Name of Fund: BlackRock Health Sciences Trust (BME)

Fund Address: 100 Bellevue Parkway, Wilmington, DE 19809

Name and address of agent for service: John M. Perlowski, Chief Executive Officer, BlackRock Health

Sciences Trust, 55 East 52nd Street, New York, NY 10055

Registrant s telephone number, including area code: (800) 882-0052, Option 4

Date of fiscal year end: 10/31/2012

Date of reporting period: 01/31/2012

Item 1 Schedule of Investments

## Schedule of Investments January 31, 2012 (Unaudited)

### BlackRock Health Sciences Trust (BME)

(Percentages shown are based on Net Assets)

Common Stocks	Shares	Value
Biotechnology 21.2%		
3SBio, Inc ADR (a)	60,600	\$ 701,142
Achillion Pharmaceuticals, Inc. (a)(b)	25,600	283,904
Acorda Therapeutics, Inc. (a)(b)	73,900	1,886,667
Alexion Pharmaceuticals, Inc. (b)(c)	69,400	5,327,144
Alkermes Plc (b)	17,500	329,175
Amgen, Inc. (b)	89,900	6,105,109
Ariad Pharmaceuticals, Inc. (a)(b)(c)	139,296	2,054,616
Arqule, Inc. (a)(b)(c)	27,607	218,095
Biogen Idec, Inc. (a)	60,200	7,098,784
BioMarin Pharmaceutical, Inc. (a)(b)	58,100 29,300	2,072,427
Celgene Corp. (a)(b) CSL Ltd.		2,130,110
Cubist Pharmaceuticals, Inc. (a)(b)	31,100	1,026,120
	38,700	1,579,734
Genomic Health, Inc. (a)(b)(c)	18,500	513,375
Gilead Sciences, Inc. (a)(b)	36,560	1,785,590
Human Genome Sciences, Inc. (a)	44,600	438,864
Incyte Corp. Ltd. (a)(b)	34,000	601,800
InterMune, Inc. (a)(b)	23,300	349,500
Medivation, Inc. (a)(b)(c)	37,600	2,083,416
Momenta Pharmaceuticals, Inc. (a)(b)(c)	20,600	323,214
Neurocrine Biosciences, Inc. (a)(b)	29,800	277,140
Onyx Pharmaceutical, Inc. (a)(b)	21,500	880,210
Pharmacyclics, Inc. (a)(b)	70,342	1,292,886
Regeneron Pharmaceuticals, Inc. (a)(b)(c)	14,100	1,281,126
Rigel Pharmaceuticals, Inc. (a)(c)	18,700	182,699
Synageva Biopharma Corp. (a)	2,000	71,060
Synta Pharmaceuticals Corp. (a)(b)	116,300	538,469
Theravance, Inc. (a)(b)(c)	23,200	411,568
Verastem, Inc. (a)	16,300	179,300
Vertex Pharmaceuticals, Inc. (a)(b)	42,405	1,566,865
		43,590,109
Diversified Consumer Services 0.2%	21 400	500 (10
Stewart Enterprises, Inc., Class A	81,400	500,610
Electronic Equipment, Instruments & Components 1.1%	54.700	2 222 100
Agilent Technologies, Inc. (a)(b)	54,700	2,323,109
Food & Staples Retailing 0.7%	25.400	4 455 050
CVS Caremark Corp. (b)	35,400	1,477,950
Health Care Equipment & Supplies 17.4%		
ABIOMED, Inc. (a)	11,517	213,180
Align Technology, Inc. (a)(b)	51,700	1,218,052
Baxter International, Inc. (b)	67,300	3,733,804
Becton Dickinson & Co. (b)	13,100	1,027,171
Covidien Plc (b)	82,900	4,269,350
DENTSPLY International, Inc.	42,800	1,615,272
Elekta AB	11,500	550,277
Gen-Probe, Inc. (a)(b)	23,300	1,559,469
Given Imaging Ltd. (b)	14,731	271,934
Hologic, Inc. (a)(b)	221,300	4,512,307

T. W. G. 1 1T. (20)	4.600	0.115.506
Intuitive Surgical, Inc. (a)(b)	4,600	2,115,586
MAKO Surgical Corp. (a)(b)(c)	14,700	525,966
Medtronic, Inc. (b)	133,500	5,149,095
Natus Medical, Inc. (a)	33,100	374,361
Sirona Dental Systems, Inc. (a)(b)	13,400	647,890
St. Jude Medical, Inc. (b)	67,300	2,807,083
Stryker Corp. (b)	66,700	3,697,181
Varian Medical Systems, Inc. (a)(b)	7,421	488,821
Zimmer Holdings, Inc. (a)	16,700	1,014,525
	· · · · · · · · · · · · · · · · · · ·	
		35,791,324
		33,771,324
Common Stocks	Chanas	Value
Common Stocks	Shares	Value
Health Care Providers & Services 19.2%		
Acadia Healthcare Co., Inc. (a)	17,600	\$ 215,424
Aetna, Inc. (b)	124,100	5,423,170
AmerisourceBergen Corp. (b)	78,600	3,063,042
	92,800	3,993,184
Cardinal Health, Inc. (b)		, ,
CIGNA Corp. (b)	28,000	1,255,240
Express Scripts, Inc. (a)(b)	39,600	2,025,936
HCA Holdings, Inc. (a)(b)	33,700	823,628
Henry Schein, Inc. (a)(c)	14,700	1,042,083
Humana, Inc. (b)	45,400	4,041,508
Laboratory Corp. of America Holdings (a)(b)	23,500	2,147,665
	38,800	
McKesson Corp. (b)		3,170,736
Medco Health Solutions, Inc. (a)(b)	14,600	905,492
Mednax, Inc. (a)(c)	6,800	484,296
Quest Diagnostics, Inc. (b)	42,900	2,491,632
Tenet Healthcare Corp. (a)(b)	78,500	415,265
UnitedHealth Group, Inc. (b)	94,300	4,883,797
Universal Health Services, Inc. (b)	5,400	222,966
VCA Antech, Inc. (a)(b)(c)	56,500	1,264,470
WellPoint, Inc.	24,600	1,582,272
		39,451,806
		27, 121,000
Weelth Com Technology 110		
Health Care Technology 1.1%		
Cerner Corp. (a)(b)	21,300	1,296,957
SXC Health Solutions Corp. (a)(b)	14,600	920,676
SAC Health Solutions Corp. (a)(b)	14,000	720,070
		2 24 7 (22
		2,217,633
Industrial Conglomerates 0.5%		
Koninklijke Philips Electronics NV	56,000	1 124 262
Konnikijke Pinips Electronics NV	56,000	1,134,262
Life Sciences Tools & Services 2.6%		
Life Technologies Corp. (a)(b)	54,900	2,658,807
Mettler-Toledo International, Inc. (a)(b)	7,200	1,263,600
ShangPharma Corp ADR (a)	26,770	233,702
Thermo Fisher Scientific, Inc. (a)(b)(c)	9,900	523,710
	9.900	525./10
Waters Corp. (a)(b)	6,915	598,632
		598,632
		598,632
Waters Corp. (a)(b)		598,632
Waters Corp. (a)(b)  Machinery 1.4%	6,915	598,632
Waters Corp. (a)(b)  Machinery 1.4%		598,632 5,278,451
Waters Corp. (a)(b)	6,915	598,632
Waters Corp. (a)(b)  Machinery 1.4%	6,915	598,632 5,278,451
Waters Corp. (a)(b)  Machinery 1.4% Danaher Corp. (b)	6,915	598,632 5,278,451
Waters Corp. (a)(b)  Machinery 1.4% Danaher Corp. (b)  Pharmaceuticals 28.8%	6,915 53,100	598,632 5,278,451 2,788,281
Waters Corp. (a)(b)  Machinery 1.4% Danaher Corp. (b)	6,915	598,632 5,278,451
Waters Corp. (a)(b)  Machinery 1.4% Danaher Corp. (b)  Pharmaceuticals 28.8% Abbott Laboratories	6,915 53,100 76,700	598,632 5,278,451 2,788,281 4,153,305
Waters Corp. (a)(b)  Machinery 1.4% Danaher Corp. (b)  Pharmaceuticals 28.8% Abbott Laboratories Allergan, Inc. (b)	53,100 76,700 25,800	598,632 5,278,451 2,788,281 4,153,305 2,268,078
Waters Corp. (a)(b)  Machinery 1.4% Danaher Corp. (b)  Pharmaceuticals 28.8% Abbott Laboratories	53,100 76,700 25,800 29,421	598,632 5,278,451 2,788,281 4,153,305 2,268,078 584,595
Waters Corp. (a)(b)  Machinery 1.4% Danaher Corp. (b)  Pharmaceuticals 28.8% Abbott Laboratories Allergan, Inc. (b) Auxilium Pharmaceuticals, Inc. (a)(b)(c)	53,100 76,700 25,800 29,421	598,632 5,278,451 2,788,281 4,153,305 2,268,078 584,595
Waters Corp. (a)(b)  Machinery 1.4% Danaher Corp. (b)  Pharmaceuticals 28.8% Abbott Laboratories Allergan, Inc. (b) Auxilium Pharmaceuticals, Inc. (a)(b)(c) Bayer AG	53,100 76,700 25,800 29,421 7,800	598,632 5,278,451 2,788,281 4,153,305 2,268,078 584,595 547,923
Waters Corp. (a)(b)  Machinery 1.4% Danaher Corp. (b)  Pharmaceuticals 28.8% Abbott Laboratories Allergan, Inc. (b) Auxilium Pharmaceuticals, Inc. (a)(b)(c) Bayer AG Bristol-Myers Squibb Co.	53,100 76,700 25,800 29,421 7,800 77,000	598,632 5,278,451 2,788,281 4,153,305 2,268,078 584,595 547,923 2,482,480
Waters Corp. (a)(b)  Machinery 1.4% Danaher Corp. (b)  Pharmaceuticals 28.8% Abbott Laboratories Allergan, Inc. (b) Auxilium Pharmaceuticals, Inc. (a)(b)(c) Bayer AG	53,100 76,700 25,800 29,421 7,800	598,632 5,278,451 2,788,281 4,153,305 2,268,078 584,595 547,923

Eli Lilly & Co. (b)	102,900	4,089,246
Endo Pharmaceuticals Holdings, Inc. (a)(b)	27,200	1,011,024
GlaxoSmithKline Plc	102,658	2,283,496
Johnson & Johnson	123,670	8,151,090
Merck & Co., Inc.	189,900	7,265,574
Merck KGaA	17,100	1,786,757
Mylan, Inc. (a)(b)	97,400	2,021,050
Pfizer, Inc. (b)	424,600	9,086,440
Roche Holding AG	17,500	2,968,954
Sanofi SA	56,200	4,166,814
Shire Plc - ADR (b)	10,400	1,035,008
Teva Pharmaceutical Industries Ltd ADR (b)	46,500	2,098,545

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## Schedule of Investments (continued)

### BlackRock Health Sciences Trust (BME)

(Percentages shown are based on Net Assets)

Common Stocks	Shares	Value
Pharmaceuticals (concluded)		
Viropharma, Inc. (a)(b)	17,200	\$ 512,388
		59,142,641
Total Long-Term Investments		
(Cost \$169,558,551) 94.2%		193,696,176
(652-453-453-45-2)		
Short-Term Securities	Shares	
BlackRock Liquidity Funds, TempFund, Institutional Class, 0.15% (d)(f)	8,446,597	8,446,597
	Beneficial	
	Interest	
	(000)	
BlackRock Liquidity Series, LLC Money Market Series, 0.09% (d)(e)(f)	\$ 5,510	5,510,489
Total Short-Term Securities		
(Cost \$13,957,086) 6.8%		13,957,086
<b>Total Investments Before Outstanding Options Written</b>		
(Cost \$183,515,637*) 101.0%		207,653,262
Options Written	Contracts	
Exchange-Traded Call Options (1.0)%	0.5	(10.550)
Achillion Pharmaceuticals, Inc., Strike Price USD 10, Expires 3/19/12 Acorda Therapeutics, Inc., Strike Price USD 26, Expires 4/23/12	85 250	(19,550) (54,375)
Actionst Technologies Inc.	400	(41,800)
Agilent Technologies, Inc.: Strike Price USD 35, Expires 2/20/12	70	(53,200)
Strike Price USD 40, Expires 2/20/12	100	(30,750)
Alexion Pharmaceuticals, Inc., Strike Price USD 75, Expires 3/19/12 Align Technology, Inc., Strike Price USD 26, Expires 3/19/12	230 170	(104,650) (5,950)
Alkermes Plc:	170	(3,730)
Strike Price USD 17, Expires 2/20/12	120	(23,700)
Strike Price USD 19, Expires 2/20/12 Allergan, Inc., Strike Price USD 90, Expires 2/20/12	55 100	(3,575) (8,250)
AmerisourceBergen Corp., Strike Price USD 40, Expires 3/19/12	260	(15,600)
Amgen, Inc., Strike Price USD 70, Expires 3/19/12	365	(43,800)
Ariad Pharmaceuticals, Inc., Strike Price USD 13, Expires 2/20/12	325	(60,938)

Arqule, Inc., Strike Price USD 7.50, Expires 4/23/12 Auxilium Pharmaceuticals, Inc., Strike Price USD 20, Expires 2/20/12	100 90	(10,250) (7,425)
Baxter International, Inc.:		,
Strike Price USD 52.50, Expires 2/20/12	25	(7,812)
Strike Price USD 55, Expires 3/19/12	65	(10,270)
Strike Price USD 57.50, Expires 3/19/12	122	(5,673)
Becton Dickinson & Co.:		
Strike Price USD 71.50, Expires 2/09/12	90	(66,174)
Strike Price USD 75, Expires 2/20/12	20	(7,700)
Options Written	Contracts	Value
Exchange-Traded Call Options (continued)		
BioMarin Pharmaceutical, Inc.:		
Strike Price USD 35, Expires 2/20/12	185	\$ (23,125)
Strike Price USD 35, Expires 4/23/12	75	(18,562)
Cardinal Health, Inc., Strike Price USD 43, Expires 3/19/12	340	(45,050)
Celgene Corp., Strike Price USD 75, Expires 3/19/12	95	(13,348)
Cerner Corp., Strike Price USD 60, Expires 2/20/12	55	(13,062)
CIGNA Corp., Strike Price USD 47, Expires 3/19/12	90	(8,550)
Covidien Plc:		
Strike Price USD 52.50, Expires 2/20/12	60	(3,000)
Strike Price USD 52.50, Expires 3/19/12	70	(7,000)
Strike Price USD 50, Expires 4/23/12	130	(37,700)
Cubist Pharmaceuticals, Inc., Strike Price USD 40, Expires 3/19/12	130	(27,625)
CVS Caremark Corp., Strike Price USD 43.75, Expires 3/19/12	120	(6,522)
Danaher Corp.:		
Strike Price USD 49, Expires 2/20/12	110	(40,700)
Strike Price USD 52.50, Expires 3/19/12	70	(11,200)
Elan Corp. Plc - ADR, Strike Price USD 14, Expires 2/20/12	635	(26,988)
Eli Lilly & Co.:		
Strike Price USD 40, Expires 2/20/12	145	(6,235)
Strike Price USD 40.25, Expires 2/20/12	60	(2,771)
Strike Price USD 40, Expires 4/23/12	130	(11,635)
Endo Pharmaceuticals Holdings, Inc., Strike Price USD 40, Expires 3/19/12	90	(10,125)
Express Scripts, Inc., Strike Price USD 52.50, Expires 2/20/12	130	(15,535)
Genomic Health, Inc., Strike Price USD 30, Expires 3/19/12	60	(4,650)
Gen-Probe, Inc., Strike Price USD 70, Expires 2/20/12	55	(7,425)
Gilead Sciences, Inc., Strike Price USD 48, Expires 3/19/12	120	(28,440)
Given Imaging Ltd., Strike Price USD 19, Expires 2/22/12	40	(3,342)
HCA Holdings, Inc., Strike Price USD 25, Expires 2/20/12	110	(8,525)
Hologic, Inc., Strike Price USD 20, Expires 3/19/12	740	(75,850)
Humana, Inc., Strike Price USD 92.50, Expires 3/19/12	150	(28,500)
Incyte Corp. Ltd., Strike Price USD 20, Expires 3/19/12	94	(6,345)
InterMune, Inc., Strike Price USD 15, Expires 2/20/12	80	(9,200)
Intuitive Surgical, Inc., Strike Price USD 465, Expires 3/19/12	15	(19,275)
Laboratory Corp. of America Holdings, Strike Price USD 92.50, Expires 3/19/12	80	(18,600)
Life Technologies Corp., Strike Price USD 50, Expires 3/19/12	200	(33,000)
MAKO Surgical Corp., Strike Price USD 40, Expires 3/19/12	50	(7,625)

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## Schedule of Investments (continued)

### BlackRock Health Sciences Trust (BME)

(Percentages shown are based on Net Assets)

Options Written	Contracts	Value
Exchange-Traded Call Options (continued)		
McKesson Corp., Strike Price USD 77.50, Expires 3/19/12	135	\$ (72,900)
Medco Health Solutions, Inc., Strike Price USD 65, Expires 4/23/12	50	(17,250)
Medivation, Inc., Strike Price USD 47, Expires 2/20/12	120	(140,100)
Medtronic, Inc.:	2.0	(00.200)
Strike Price USD 36, Expires 2/20/12 Strike Price USD 41, Expires 3/10/12	360 100	(98,280)
Strike Price USD 41, Expires 3/19/12 Mettler-Toledo International, Inc., Strike Price USD 175, Expires 4/23/12	25	(3,850) (25,875)
Momenta Pharmaceuticals, Inc., Strike Price USD 20, Expires 3/19/12	65	(2,438)
Mylan, Inc., Strike Price USD 23, Expires 2/20/12	320	(6,080)
Neurocrine Biosciences, Inc., Strike Price USD 9, Expires 3/19/12	100	(8,000)
Onyx Pharmaceutical, Inc.:	40	(=00)
Strike Price USD 48, Expires 2/20/12 Strike Price USD 45, Expires 2/10/12	40 40	(700)
Strike Price USD 45, Expires 3/19/12 Pfizer, Inc., Strike Price USD 22, Expires 3/19/12	1,480	(4,500) (29,600)
Pharmacyclics, Inc., Strike Price USD 16, Expires 2/20/12	250	(61,875)
Quest Diagnostics, Inc., Strike Price USD 60, Expires 3/19/12	140	(13,300)
Regeneron Pharmaceuticals, Inc., Strike Price USD 65, Expires 2/20/12	60	(157,800)
Shire Plc - ADR, Strike Price USD 100, Expires 2/20/12	35	(7,262)
Sirona Dental Systems, Inc., Strike Price USD 45, Expires 2/20/12	43	(18,060)
St. Jude Medical, Inc., Strike Price USD 40, Expires 3/19/12	220	(57,200)
Stryker Corp.: Strike Price USD 54, Expires 3/19/12	130	(29,955)
Strike Price USD 55, Expires 3/19/12	100	(18,500)
SXC Health Solutions Corp., Strike Price USD 65, Expires 3/19/12	50	(13,500)
Synta Pharmaceuticals Corp., Strike Price USD 5, Expires 3/19/12	100	(3,250)
Tenet Healthcare Corp., Strike Price USD 5, Expires 2/20/12	50	(2,000)
Teva Pharmaceutical Industries Ltd ADR:	100	(9,950)
Strike Price USD 45, Expires 2/20/12 Strike Price USD 47.50, Expires 3/19/12	55	(2,585)
Theravance, Inc., Strike Price USD 20, Expires 3/19/12	50	(3,125)
Thermo Fisher Scientific, Inc., Strike Price USD 45, Expires 2/20/12	30	(23,850)
UnitedHealth Group, Inc., Strike Price USD 52.50, Expires 3/19/12	310	(39,060)
Universal Health Services, Inc., Strike Price USD 45, Expires 4/23/12	20	(2,150)
Varian Medical Systems, Inc., Strike Price USD 70, Expires 3/19/12	30	(2,175)
VCA Antech, Inc., Strike Price USD 22.50, Expires 3/19/12 Options Written	185 Contracts	(15,725) <b>Value</b>
Options Written	Contracts	Value
Exchange-Traded Call Options (concluded)		
Vertex Pharmaceuticals, Inc.:		
Strike Price USD 39, Expires 2/20/12	100	\$ (9,250)
Strike Price USD 41, Expires 2/20/12 Viropharma, Inc., Strike Price USD 30, Expires 2/20/12	25 60	(1,188) (9,450)
Waters Corp., Strike Price USD 90, Expires 3/19/12	30	(5,100)
, and so corp., same 1110 cost 70, 25, piece 5/17/12		(5,100)
Total Exchange-Traded Call Options		(2,076,835)
Exchange-Traded Put Options (0.0)%		
Gilead Sciences, Inc., Strike Price USD 48, Expires 2/20/12	145	(11,600)
Quest Diagnostics, Inc., Strike Price USD 60, Expires 2/20/12	175	(39,375)
Waters Corp., Strike Price USD 85, Expires 2/20/12	85	(10,838)
Total Exchange-Traded Put Options		(61,813)

### Over-the-Counter Call Options (0.3)%

Abbott Laboratories, Strike Price USD 55.58, Expires 3/02/12, Broker Goldman Sachs & Co.	25,500	(8,291)
Bayer AG, Strike Price EUR 46.54, Expires 2/03/12, Broker UBS Securities LLC	7,800	(73,123)
Biogen Idec, Inc., Strike Price USD 114.66, Expires 2/07/12, Broker Goldman Sachs & Co.	17,000	(66,130)
Bristol-Myers Squibb Co., Strike Price USD 35.25, Expires 3/05/12, Broker Credit Suisse First Boston	77,000	(1,055)
Covidien Plc, Strike Price USD 51.80, Expires 3/27/12, Broker Goldman Sachs & Co.	1,500	(1,951)
DENTSPLY International, Inc., Strike Price USD 38.73, Expires 3/14/12, Broker Morgan Stanley & Co., Inc.	14,000	(9,973)
GlaxoSmithKline Plc:		
Strike Price GBP 14.52, Expires 2/02/12, Broker Citigroup Global Markets, Inc.	11,300	(43)
Strike Price GBP 14.97, Expires 2/02/12, Broker UBS Securities LLC	61,700	(10)
Henry Schein, Inc., Strike Price USD 66.22, Expires 2/27/12, Broker Goldman Sachs & Co.	10,000	(49,468)
Johnson & Johnson, Strike Price USD 65.50, Expires 3/13/12, Broker Deutsche Bank Securities Corp.	57,000	(67,845)
Koninklijke Philips Electronics NV, Strike Price EUR 14.90, Expires 2/29/12, Broker Citigroup Global Markets,		
Inc.	18,500	(18,572)
Merck & Co., Inc.:		
Strike Price USD 35.96, Expires 2/06/12, Broker Deutsche Bank Securities Corp.	53,600	(123,494)
Strike Price USD 35.90, Expires 2/13/12, Broker Goldman Sachs & Co.	7,000	(16,520)

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### Schedule of Investments (continued)

#### **BlackRock Health Sciences Trust (BME)**

(Percentages shown are based on Net Assets)

Options Written	Contracts		Value
Over-the-Counter Call Options (concluded)  Merck KGaA, Strike Price EUR 78.02, Expires 3/07/12, Broker Morgan Stanley & Co., Inc.  Pfizer, Inc., Strike Price USD 21.59, Expires 3/27/12, Broker Morgan Stanley & Co., Inc.  Roche Holding AG:  Strike Price CHF 165.03, Expires 2/14/12, Broker UBS Securities LLC  Strike Price CHF 165, Expires 2/17/12, Broker UBS Securities LLC  Sanofi SA, Strike Price EUR 56.73, Expires 3/07/12, Broker Citigroup Global Markets, Inc.  Stewart Enterprises, Inc., Class A, Strike Price USD 6.24, Expires 4/10/12, Broker Deutsche Bank Securities Corp.  Tenet Healthcare Corp., Strike Price USD 5.32, Expires 3/02/12, Broker UBS Securities LLC	6,000 32,500 12,200 40 19,700 26,000 23,500	\$	(27,000) (9,919) (3,944) (2,394) (31,499) (5,463) (5,944)
Total Over-the-Counter Call Options			(522,638)
Total Options Written			
(Premiums Received \$2,038,931) (1.3)%			(2,661,286)
Total Investments Net of Outstanding Options Written 99.7% Other Assets Less Liabilities 0.3%			204,991,976 576,078
Net Assets 100.0%		\$	205,568,054
* As of January 31, 2012, gross unrealized appreciation and gross unrealized depreciation based on cost for fed	deral income tax purpo	oses we	ere as follows:
Tax cost		\$	186,178,846
Gross unrealized appreciation Gross unrealized depreciation		\$	25,040,811 (3,566,395)
Net unrealized appreciation		\$	21,474,416

- (a) Non-income producing security.
- (b) All or a portion of security has been pledged/segregated as collateral in connection with outstanding options written.
- (c) Security, or a portion of security, is on loan.
- (d) Represents the current yield as of report date.
- (e) Security was purchased with the cash collateral from loaned securities.

(f) Investments in companies considered to be an affiliate of the Trust during the period, for purposes of Section 2(a)(3) of the Investment Company Act of 1940, as amended, were as follows:

Affiliate	Shares/	Net	Shares/	Realized	Income
	Beneficial Interest		Beneficial Interest	Gain	
	Held at	Activity	Held at January 31,		
	October 31,				
			2012		

2011

BlackRock Liquidity Funds, TempFund, Institutional Class	7,801,065	645,532	8,446,597	\$178	\$4,159
BlackRock Liquidity Series, LLC Money Market Series	\$7,320,205	\$(1,809,716)	\$5,510,489		\$2,864

Foreign currency exchange contracts as of January 31, 2012 were as follows:

				Un	realized
Currency	Currency			App	reciation
Purchased	Sold	Counterparty	Settlement Date	(Dep	reciation)
USD 2,028,606	CHF 1,858,000	Banc of America Securites	2/01/12	\$	10,138
USD 1,707,915	GBP 1,084,000	Citigroup Global Markets, Inc.	2/03/12		(248)
Total				\$	9,890

For Trust compliance purposes, the Trust s industry classifications refer to any one or more of the industry sub-classifications used by one or more widely recognized market indexes or ratings group indexes, and/or as defined by Trust management. These definitions may not apply for purposes of this report, which may combine industry sub-classifications for reporting ease.

Fair Value Measurements Various inputs are used in determining the fair value of investments and derivative financial instruments. These inputs are categorized into a disclosure hierarchy consisting of three broad levels for financial reporting purposes as follows:

Level 1 - unadjusted price quotations in active markets/exchanges for identical assets and liabilities

Level 2 - other observable inputs (including, but not limited to: quoted prices for similar assets or liabilities in markets that are active, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable for the assets or liabilities (such as interest rates, yield curves, volatilities, prepayment speeds, loss severities, credit risks and default rates) or other market-corroborated inputs)

Level 3 - unobservable inputs based on the best information available In the circumstances, to the extent observable inputs are not available (including the Trust s own assumptions used in determining the fair value of investments and derivative financial instruments)

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#### Schedule of Investments (concluded)

#### **BlackRock Health Sciences Trust (BME)**

Changes in valuation techniques may result in transfers in or out of an assigned level within the disclosure hierarchy. The categorization of a value determined for investments and derivative financial instruments is based on the pricing transparency of the investment and derivative financial instrument and does not necessarily correspond to the Trust speciety risk of investing in those securities. For information about the Trust spolicy regarding valuation of investments and derivative financial instruments and other significant accounting policies, please refer to the Trust s most recent financial statements as contained in its annual report.

The following tables summarize the inputs used as of January 31, 2012 in determining the fair valuation of the Trust s investments and derivative financial instruments:

Valuation Inputs		Level 1	Level 2	Level 3	Total
Assets:					
Investments:					
Long-Term Investments:					
Common Stocks:					
Biotechnology		\$ 42,563,989	\$ 1,026,120	)	\$ 43,590,109
Diversified Consumer Services		500,610			500,610
Electronic Equipment, Instruments & Components		2,323,109			2,323,109
Food & Staples Retailing		1,477,950			1,477,950
Health Care Equipment & Supplies		35,241,047	550,277	,	35,791,324
Health Care Providers & Services		39,451,806			39,451,806
Health Care Technology		2,217,633			2,217,633
Industrial Conglomerates			1,134,262	2	1,134,262
Life Sciences Tools & Services		5,278,451			5,278,451
Machinery		2,788,281			2,788,281
Pharmaceuticals		47,388,697	11,753,944	ļ	59,142,641
Short-Term Securities		8,446,597	5,510,489	)	13,957,086
Total		\$187,678,170	\$19,975,092	!	\$207,653,262
Valuation Inputs	Level 1	Level 2	Leve	el 3	Total
Derivative Financial Instruments <sup>1</sup>					
Assets:					
Foreign Currency Exchange Contracts	\$ 10,138			\$	10,138
Liabilities:					
Equity contracts	(2,029,883)	\$(631,40)	3)		(2,661,286)
Foreign currency exchange contracts	(248)	)			(248)
Total	\$ (2,019,993)	\$(631,40)	3)	\$	(2,651,396)

Derivative financial instruments are foreign currency exchange contracts and options. Foreign currency exchange contracts are valued at the unrealized appreciation/depreciation on the instrument and options are shown at value.

#### Portfolio Abbreviations

To simplify the listings of portfolio holdings in the Trust s Schedule of Investments, the names and descriptions of many securities CHF Swiss Franc USD US Dollar have been abbreviated according to the following list: EUR Euro

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#### Item 2 Controls and Procedures

- 2(a) The registrant s principal executive and principal financial officers, or persons performing similar functions, have concluded that the registrant s disclosure controls and procedures (as defined in Rule 30a-3(c) under the Investment Company Act of 1940, as amended (the 1940 Act )) are effective as of a date within 90 days of the filing of this report based on the evaluation of these controls and procedures required by Rule 30a-3(b) under the 1940 Act and Rule 13a-15(b) under the Securities Exchange Act of 1934, as amended.
- 2(b) There were no changes in the registrant s internal control over financial reporting (as defined in Rule 30a-3(d) under the 1940 Act) that occurred during the registrant s last fiscal quarter that have materially affected, or are reasonably likely to materially affect, the registrant s internal control over financial reporting.
- Item 3 Exhibits

Certifications Attached hereto

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

BlackRock Health Sciences Trust

By: /s/ John M. Perlowski
 John M. Perlowski
 Chief Executive Officer (principal executive officer) of
 BlackRock Health Sciences Trust

Date: March 23, 2012

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

By: /s/ John M. Perlowski John M. Perlowski Chief Executive Officer (principal executive officer) of BlackRock Health Sciences Trust

Date: March 23, 2012

By: /s/ Neal J. Andrews
Neal J. Andrews
Chief Financial Officer (principal financial officer) of
BlackRock Health Sciences Trust

Date: March 23, 2012