BlackRock Health Sciences Trust Form N-Q September 28, 2010

#### 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: Anne F. Ackerley, Chief Executive Officer, BlackRock Health Sciences Trust, 55 East 52<sup>nd</sup> Street, New York, NY 10055.

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

Date of fiscal year end: 10/31/2010

Date of reporting period: 07/31/2010

## Schedule of Investments July 31, 2010 (Unaudited)

BlackRock Health Sciences Trust (BME) (Percentages shown are based on Net Assets)

Common Stocks	Shares	Value
Biotechnology 12.0%		
3SBio, Inc ADR (a)	35,200 \$	529,760
Alexion Pharmaceuticals, Inc. (a)	10,400	565,344
Amgen, Inc. (a)	53,100	2,895,543
Arqule, Inc. (a)	11,800	50,386
BioMarin Pharmaceutical, Inc. (a)	128,000	2,796,800
Celgene Corp. (a)	134,400	7,412,160
Gilead Sciences, Inc. (a)	161,460	5,379,847
Human Genome Sciences, Inc. (a)	77,600	2,012,944
Incyte Corp. Ltd. (a)	52,500	683,550
Ironwood Pharmaceuticals, Inc. (a)	35,500	418,900
Pharmasset, Inc. (a)	5,200	140,452
		22,885,686
Chemicals 0.6%		
Sigma-Aldrich Corp.	19,400	1,088,340
Food Products 0.2%	10.000	010 500
Synutra International, Inc. (a)	18,600	313,596
Health Care Equipment & Supplies 13.3%		
Alcon, Inc.	15,300	2,372,724
Alere, Inc. (a)	68,700	1,932,531
Becton Dickinson & Co.	14,000	963,200
China Medical Technologies, Inc ADR	28,000	287,000
Cooper Cos., Inc. (The)	36,300	1,410,618
Coviden Plc	17,300	645,636
DENTSPLY International, Inc.	13,900	417,278
Gen-Probe, Inc. (a)	65,100	2,927,547
Henry Schein, Inc. (a)	53,800	2,823,962
Hill-Rom Holdings, Inc.	78,300	2,587,032
Hologic, Inc. (a)	29,000	410,060
Medtronic, Inc.	28,790	1,064,366
Nobel Biocare Holding AG	27,300	459,951
Sirona Dental Systems, Inc. (a)	52,000	1,600,560
Sonova Holding AG	6,200	752,359
Trauson Holdings Co. (a)	128,000	59,819
Varian Medical Systems, Inc. (a)	32,400	1,788,480
Zimmer Holdings, Inc. (a)	57,100	3,025,729
		25,528,852
Health Care Providers & Services 29.4%		
Aetna, Inc.	224,100	6,241,185
AmerisourceBergen Corp.	144,200	4,321,674
CIGNA Corp.	92,200	2,836,072
Community Health Systems, Inc. (a)	88,400	2,866,812
DaVita, Inc. (a)	92,800	5,319,296
Express Scripts, Inc. (a)	90,260	4,077,947
Fresenius Medical Care AG & Co. KGaA	109,500	6,006,084
McKesson Corp.	44,700	2,808,054
Medco Health Solutions, Inc. (a)	49,610	2,381,280
Mednax, Inc. (a)	19,400	914,710

Patterson Cos., Inc.	119,800	3,196,264
Tenet Healthcare Corp. (a)	363,300	1,671,180
UnitedHealth Group, Inc.	255,500	7,779,975
WellPoint, Inc. (a)	113,200	5,741,504
		56,162,037
Health Care Technology 7.4%		
Allscripts-Misys Healthcare Solutions,		
Inc. (a)	103,000	1,719,070
Biogen Idec, Inc. (a)	73,500	4,107,180
Genzyme Corp. (a)	30,500	2,121,580
Quest Diagnostics, Inc.	14,600	686,054
St. Jude Medical, Inc. (a)	151,200	5,559,624
		14,193,508
Life Sciences Tools & Services 7.0%		
Dionex Corp. (a)(b)	34,900	2,634,950
Life Technologies Corp. (a)	48,300	2,076,417
Mettler-Toledo International, Inc. (a)	30,900	3,609,120
Tecan Group AG	22,100	1,389,167
Common Stocks	Shares	Value
Life Sciences Tools & Services (concluded)		
Thermo Fisher Scientific, Inc. (a)	84,000 \$	3,768,240
		13,477,894
Pharmaceuticals 22.3%		
Abbott Laboratories	108,100	5,305,548
Allergan, Inc.	30,700	1,874,542
Bristol-Myers Squibb Co. (b)	347,100	8,649,732
Eli Lilly & Co. GlaxoSmithKline Plc	30,900	1,100,040
Johnson & Johnson	94,000	1,641,201
Merck & Co., Inc.	28,670 77,400	1,665,440 2,667,204
Novartis AG, Registered Shares	75,200	3,655,710
Pfizer, Inc.	810,100	12,151,500
Simcere Pharmaceutical Group - ADR (a)	19,300	174,665
Teva Pharmaceutical Industries Ltd	10,000	174,000
ADR	13,050	637,493
Watson Pharmaceuticals, Inc. (a)	79,000	3,199,500
	-	42,722,575
Total Long-Term Investments		
(Cost \$173,209,040) 92.2%		176,372,488
Short-Term Securities		
Short-Term Securities BlackRock Liquidity Funds, TempFund, Institutional Class, 0.23% (c)(d)	20,701,114	20,701,114

Options Purchased	Contracts	
Exchange-Traded Call Options Purchased 0.0%		
Thoratec Corp., Strike Price USD 44,		0.0
Expires 8/23/10 Thoratec Corp., Strike Price USD 45,	9	90
Expires 8/23/10	91	910
Total Options Purchased (Cost \$1,101) 0.0%		1,000
Total investments before outstanding options written (Cost \$193,911,255*) 103.0%		197,074,602

## **Options Written**

Exchange-Traded Call Options Written (0.7)%		
3SBio, Inc ADR, Strike Price USD 15,		
Expires 9/20/10	100	(9,500)
Abbott Laboratories, Strike Price USD	005	(00,000)
50, Expires 9/20/10	325	(28,600)
Abbott Laboratories, Strike Price USD 52.50, Expires 11/22/10	100	(6,850)
Aetna, Inc., Strike Price USD 28,	100	(0,000)
Expires 8/23/10	220	(15,180)
Aetna, Inc., Strike Price USD 29,		(,)
Expires 8/23/10	370	(11,100)
Aetna, Inc., Strike Price USD 31,		
Expires 8/23/10	150	(525)
Alcon, Inc., Strike Price USD 155,	40	(15,000)
Expires 8/23/10	40	(15,300)
Alcon, Inc., Strike Price USD 160, Expires 11/22/10	10	(5,650)
Alexion Pharmaceuticals, Inc., Strike	10	(3,030)
Price USD 60, Expires 11/22/10	50	(12,375)
Allergan, Inc., Strike Price USD 65,		(,••••)
Expires 8/23/10	100	(11,000)
Allscripts-Misys Healthcare Solutions,		
Inc., Strike Price USD 17.50, Expires		<i>(</i>
9/20/10	250	(11,250)
AmerisourceBergen Corp., Strike Price	C05	(61.075)
USD 30, Expires 8/23/10	685	(51,375)

JULY 31, 2010

1

## Schedule of Investments (continued)

#### BlackRock Health Sciences Trust (BME) (Percentages shown are based on Net Assets)

Options Written	Contracts	Value
Exchange-Traded Call Options Written (continued)		
Amgen, Inc., Strike Price USD 55, Expires 8/23/10	75 \$	\$ (7,350)
Amgen, Inc., Strike Price USD 60, Expires 8/23/10	100	(400)
Biogen Idec, Inc., Strike Price USD 55, Expires 9/20/10	240	(80,400)
Biogen Idec, Inc., Strike Price USD 60, Expires 9/20/10	100	(13,000)
BioMarin Pharmaceuticals, Inc., Strike Price USD 20, Expires 8/23/10	100	(21,500)
BioMarin Pharmaceuticals, Inc., Strike Price USD 22.50, Expires 8/23/10	200	(13,500)
BioMarin Pharmaceuticals, Inc., Strike Price USD 22.50, Expires 9/20/10	100	
Bristol-Myers Squibb Co., Strike Price		(9,750)
USD 25, Expires 8/23/10 Bristol-Myers Squibb Co., Strike Price	100	(4,450)
USD 26, Expires 8/23/10 Bristol-Myers Squibb Co., Strike Price	335	(3,350)
USD 26, Expires 9/20/10 Celgene Corp., Strike Price USD 52.50,	590	(21,240)
Expires 8/23/10 Celgene Corp., Strike Price USD 57.50,	150	(49,125)
Expires 8/23/10 Celgene Corp., Strike Price USD 57.50,	230	(14,490)
Expires 9/20/10 China Medical Technologies, Inc ADR,	100	(13,900)
Strike Price USD 11, Expires 8/23/10 Cigna Corp., Strike Price USD 32, Expires	280	(7,000)
8/23/10	305	(16,775)
Community Health Systems, Inc., Strike Price USD 35, Expires 9/20/10	160	(11,200)
Cooper Cos., Inc. (The), Strike Price USD 40, Expires 9/20/10	100	(12,250)
Coviden Ltd., Strike Price USD 37.50, Expires 8/23/10	93	(7,905)
DaVita, Inc., Strike Price USD 62.50, Expires 9/20/10	230	(10,106)
Eli Lilly & Co., Strike Price USD 35, Expires 8/23/10	65	(5,362)
Eli Lilly & Co., Strike Price USD 36, Expires 9/20/10	25	(1,325)
Express Scripts, Inc., Strike Price USD 45, Expires 8/23/10	210	(30,450)
Express Scripts, Inc., Strike Price USD		
50, Expires 8/23/10 Express Scripts, Inc., Strike Price USD	220	(2,200)
55, Expires 8/23/10 Express Scripts, Inc., Strike Price USD	100	(500)
57.50, Expires 11/22/10 Gen-Probe, Inc., Strike Price USD 50,	100	(2,000)
Expires 8/23/10 Genzyme Corp., Strike Price USD 52.50,	165	(1,650)
Expires 8/23/10	200	(342,000)
	76	(111,340)

Genzyme Corp., Strike Price USD 55, Expires 8/23/10		
Gilead Sciences, Inc., Strike Price USD 35, Expires 9/20/10	480	(43,200)
Gilead Sciences, Inc., Strike Price USD 36, Expires 11/22/10	100	(12,500)
Henry Schein, Inc., Strike Price USD 55, Expires 9/20/10	135	(10,800)
Hill-Rom Holdings, Inc., Strike Price USD		
30, Expires 8/23/10 Hill-Rom Holdings, Inc., Strike Price USD	100	(25,000)
32.50, Expires 8/31/10 Hologic, Inc., Strike Price USD 16,	160	(21,105)
Expires 9/20/10	170	(5,100)
Options Written	Contracts	Value
Exchange-Traded Call Options Written (continued)		
Human Genom Science, Inc., Strike Price USD 25, Expires 8/23/10	235 \$	(39,245)
Incyte Corp. Ltd., Strike Price USD 15, Expires 8/23/10	300	(2,250)
Incyte Corp. Ltd., Strike Price USD 15, Expires 9/20/10	155	(5,425)
Inverness Medical Innovations, Inc.,		, ,
Strike Price USD 35, Expires 8/23/10 Ironwood Pharmaceuticals, Inc., Strike	150	(1,500)
Price USD 15, Expires 8/23/10 Ironwood Pharmaceuticals, Inc., Strike	10	(400)
Price USD 17.50, Expires 11/22/10 Johnson & Johnson, Strike Price USD 60,	100	(10,500)
Expires 8/23/10 Life Technologies Corp., Strike Price	259	(4,662)
USD 53.50, Expires 8/23/10	120	(2,240)
McKesson, Corp., Strike Price USD 70, Expires 8/23/10	150	(750)
McKesson, Corp., Strike Price USD 72.50, Expires 8/23/10	185	(925)
Medco Health Solutions, Inc., Strike Price USD 56, Expires 8/23/10	60	(158)
Medco Health Solutions, Inc., Strike		. ,
Price USD 60, Expires 9/20/10 Mednax, Inc., Strike Price USD 60,	100	(1,000)
Expires 8/23/10 Medtronic, Inc., Strike Price USD 40,	60	(300)
Expires 8/23/10 Merck & Co., Inc., Strike Price USD 36,	150	(1,200)
Expires 8/23/10 Merck & Co., Inc., Strike Price USD 37,	200	(3,600)
Expires 8/23/10	100	(650)
Patterson Cos., Inc., Strike Price USD 30, Expires 8/23/10	150	(750)
Pfizer, Inc., Strike Price USD 15, Expires 8/23/10	458	(16,488)
Pfizer, Inc., Strike Price USD 16, Expires 8/23/10	542	(5,962)
Quest Diagnostics, Inc., Strike Price USD 55, Expires 8/23/10	50	(375)
Sigma-Aldrich Corp., Strike Price USD		, ,
60, Expires 9/20/10 Sirona Dental Systems, Inc., Strike Price	55	(1,925)
USD 35, Expires 8/23/10 Sirona Dental Systems, Inc., Strike Price	50	(875)
USD 40, Expires 8/23/10 St. Jude Medical, Inc., Strike Price USD	120	(1,200)
40, Expires 11/02/10 St. Jude Medical, Inc., Strike Price USD	100	(7,366)
40, Expires 8/23/10	350	(3,500)
	500	(17,500)

Tenet Healthcare Corp., Strike Price USD 5, Expires 11/22/10		
Teva Pharmaceutical Ltd ADR, Strike		
Price USD 55, Expires 8/23/10	50	(525)
Thermo Fisher Scientific, Inc., Strike		
Price USD 48, Expires 8/23/10	390	(11,370)
Thermo Fisher Scientific, Inc., Strike		
Price USD 52.50, Expires 9/20/10	240	(5,433)
Thermo Fisher Scientific, Inc., Strike		
Price USD 55, Expires 8/23/10	40	(400)
Thermo Fisher Scientific, Inc., Strike		
Price USD 55, Expires 9/20/10	90	(900)
Thoratec Corp., Strike Price USD 50,		
Expires 8/23/10	100	(500)
UnitedHealth Group, Inc., Strike Price		
USD 31, Expires 8/23/10	190	(10,640)
UnitedHealth Group, Inc., Strike Price		
USD 32, Expires 9/20/10	120	(6,900)

JULY 31, 2010

2

## Schedule of Investments (continued)

#### BlackRock Health Sciences Trust (BME) (Percentages shown are based on Net Assets)

Options Written	Contracts	Value
Exchange-Traded Call Options Written (concluded)		
UnitedHealth Group, Inc., Strike Price USD 33, Expires 8/23/10	100 \$	(900)
Varian Medical Systems, Inc., Strike Price USD 55, Expires 8/23/10	100 \$	(15,000)
Watson Pharmaceuticals, Inc., Strike		
Price USD 45, Expires 8/23/10 WellPoint, Inc., Strike Price USD 55,	250	(2,500)
Expires 8/23/10 WellPoint, Inc., Strike Price USD 55,	215	(3,010)
Expires 9/20/10	150	(9,825)
Zimmer Holdings, Inc., Strike Price USD 55, Expires 8/23/10	155	(6,588)
Zimmer Holdings, Inc., Strike Price USD 60.50, Expires 8/06/10	150	(1,180)
Total Exchange-Traded Call Options Written		(1,317,345)
Exchange Traded But Ontions Written (0.0%)		
Exchange-Traded Put Options Written (0.0)% Abbott Laboratories, Strike Price USD		
48, Expires 8/23/10 Aetna, Inc., Strike Price USD 27, Expires	200	(8,600)
8/23/10	75	(3,188)
BioMarin Pharmaceuticals, Inc., Strike Price USD 20, Expires 8/23/10	255	(6,375)
Bristol-Myers Squibb Co., Strike Price USD 24, Expires 8/23/10	100	(1,950)
Gilead Sciences, Inc., Strike Price USD 31, Expires 8/23/10	150	(4,125)
Gilead Sciences, Inc., Strike Price USD 32, Expires 8/23/10	150	(6,975)
UnitedHealth Group, Inc., Strike Price USD 29, Expires 9/20/10	120	(25,800)
WellPoint, Inc., Strike Price USD 47.50,		
Expires 8/23/10	35	(1,382)
Total Exchange-Traded Put Options Written		(58,395)
Over-the-Counter Call Options Written (0.1)%		
Bristol-Myers Squibb Co., Strike Price USD 26, Expires 11/02/10, Broker		
Morgan Stanley & Co., Inc.	10,000	(6,710)
Bristol-Myers Squibb Co., Strike Price USD 26, Expires 9/24/10, Broker		
Goldman Sachs & Co.	10,000	(3,181)
Covidien Plc, Strike Price USD 40.18, Expires 9/08/10, Broker JPMorgan	8 000	(0.100)
Chase Securities Dionex Corp., Strike Price USD 80.07,	8,000	(2,136)
Expires 8/13/10, Broker UBS Securities LLC	12,000	(6,722)
Eli Lilly & Co., Strike Price USD 35.04,	12,000	(0,722)
Expires 8/04/10, Broker Morgan Stanley & Co., Inc.	2,500	(1,503)
	_,	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

Fresenius Medical Care AG & Co. KGaA, Strike Price EUR 42, Expires 9/17/10,	70		(11 70 4)
Broker Morgan Stanley & Co., Inc. Fresenius Medical Care AG & Co. KGaA, Strike Price EUR 43.69, Expires 9/28/10, Broker Citigroup Global	73		(11,794)
Markets Fresenius Medical Care AG & Co. KGaA,	15,500		(11,661)
Strike Price EUR 45, Expires 8/20/10, Broker Morgan Stanley & Co., Inc.	150		(873)
GlaxoSmithKline Plc, Strike Price GBP 11.98, Expires 9/14/10, Broker Citigroup Global Markets	25,500		(1,837)
Mettler-Toledo International, Inc., Strike Price USD 117.21, Expires 8/27/10,	20,000		(1,007)
Broker Morgan Stanley & Co., Inc.	5,000		(9,861)
Mettler-Toledo International, Inc., Strike Price USD 119.54, Expires 8/27/10, Broker Morgan Stanley & Co., Inc.	5,000		(5,435)
Options Written	Contracts		Value
	Contracts		Vulue
Over-the-Counter Call Options Written (concluded)			
Nobel Biocare Holding AG, Strike Price CHF 23, Expires 8/20/10, Broker			
Deutsche Bank Securities	100	\$	(1,012)
Novartis AG, Registered Shares, Strike		Ŷ	(1,01=)
Price CHF 53.83, Expires 8/10/10,			
Broker Deutsche Bank Securities	11,000		(158)
Pfizer, Inc., Strike Price USD 15.29, Expires 11/02/10, Broker Credit Suisse			
First Boston	156,000		(102,618)
Pfizer, Inc., Strike Price USD 16, Expires	,		(102,010)
11/02/10, Broker Morgan Stanley &			
Co., Inc.	40,000		(17,480)
St. Jude Medical, Inc., Strike Price USD 39, Expires 11/02/10, Broker Morgan			
Stanley & Co., Inc.	10,000		(10,800)
Tecan Group AG, Registered Shares,			
Strike Price CHF 70.40, Expires			
9/01/10, Broker Deutsche Bank Securities	7 800		(7.001)
Tenet Healthcare Corp., Strike Price	7,800		(7,921)
USD 5, Expires 11/02/10, Broker			
Morgan Stanley & Co., Inc.	70,000		(20,930)
Teva Pharmaceutical Ltd ADR, Strike			
Price USD 56.42, Expires 8/31/10, Broker UBS Securities LLC	8,000		(1,653)
UnitedHealth Group, Inc., Strike Price	-,		(1,000)
USD 32, Expires 8/04/10, Broker			
Credit Suisse First Boston	55,500		(1,111)
Total Over-the-Counter Call Options Written			(225,396)
Total Options Written			
(Premiums Received \$1,910,346) (0.8)%			(1,601,136)
Total investments net of outstanding options written 102.2%			195,473,466
Liabilities in Excess of Other Assets (2.2)%			(4,174,739)
Net Assets 100.0%		\$	191,298,727
		Ψ	101,200,727

\* The cost and unrealized appreciation (depreciation) of investments as of July 31, 2010, as computed for federal income tax purposes, were as follows:

Aggregate cost	\$ 195,990,350
Gross unrealized appreciation Gross unrealized depreciation	\$ 8,838,389 (7,754,137)
Net unrealized appreciation	\$ 1,084,252

(a) Non-income producing security.

(b) Security, or a portion thereof, pledged as collateral for outstanding options written.

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

Affiliate	Shares/ Beneficial Interest Held at October 31, 2009	Shares/ Beneficial Interest Held at July 31, Net Activity 2010 Inco			come	
BlackRock Liquidity Funds, TempFund, Institutional Class BlackRock Liquidity Series,	9,732,338	10,968,776	20,701,114	\$	7,658	
LLC Money Market Series	2,152,000	(2,152,000)		\$	756	

JULY 31, 2010

#### Schedule of Investments (concluded)

BlackRock Health Sciences Trust (BME) (Percentages shown are based on Net Assets)

(d) Represents current yield as of report date.

Foreign currency exchange contracts as of July 31, 2010 were as follows:

	rrency chased	(	Currency Sold	Counterparty	Settlement Date	Арр	realized reciation reciation)
				UBS			
USD	735,769	EUR	562,000	Securities LLC	8/03/10	\$	3,399
				Deutsche Bank			
CHF	483,000	USD	464,115	Securities	8/04/10		(430)
				Deutsche Bank			( )
GBP	100,000	USD	155,909	Securities	8/04/10		1,002
Total						\$	3,971

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 defined by Trust management. This definition 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 derivatives, which are as follows:

Level 1 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 derivatives)

The inputs or methodologies used for valuing securities are not necessarily an indication of the risk associated with investing in those securities. For information about the Trust s policy regarding valuation of investments and other significant accounting policies, please refer to the Trust s most recent financial statements as contained in its semi-annual report.

The following tables summarize the inputs used as of July 31, 2010 in determining the fair valuation of the Trust s investments and derivatives:

Valuation Inputs			
Level 1	Level 2	Level 3	Total

Assets:			
Investments in Securities:			
Common Stocks:			
Biotechnology	\$ 22,885,686		\$ 22,885,686
Chemicals	1,088,340		1,088,340
Food Products	313,596		313,596
Health Care			
Equipment &			
Supplies	24,316,542	\$ 1,212,310	25,528,852
Health Care			
Providers &			
Services	50,155,953	6,006,084	56,162,037
Health Care			
Technology	14,193,508		14,193,508
Life Sciences Tools &			
Services	12,088,727	1,389,167	13,477,894
Pharmaceuticals	37,425,664	5,296,911	42,722,575
Short-Term Securities	20,701,114		20,701,114
Total	\$ 183,169,130	\$ 13,904,472	\$ 197,073,602

#### Derivative Financial Instruments<sup>1</sup>

Valuation Inputs	Level 1		Level 2	Level 3	Total
Assets:					
Equity contracts	\$ 1,000				\$ 1,000
Foreign currency		•			
exchange contracts Liabilities:		\$	4,401		4,401
Equity contracts	(1,316,782)		(284,354)		(1,601,136)
Foreign currency exchange contracts			(430)		(430)
Total	\$ (1,315,782)	\$	(280,383)		\$ (1,596,165)

<sup>1</sup> Derivative financial instruments are foreign currency exchange contracts and options. Foreign currency exchange contracts are shown at the unrealized appreciation/depreciation on the instrument and options are shown at value.

#### **KEY TO ABBREVIATIONS**

ADR	American Depositary Receipt
CHF	Swiss Franc
EUR	Euro
GBP	British Pound
USD	U.S. Dollar

JULY 31, 2010

4

#### 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/ Anne F. Ackerley

Anne F. Ackerley Chief Executive Officer of BlackRock Health Sciences Trust

Date: September 27, 2010

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/ Anne F. Ackerley

Anne F. Ackerley Chief Executive Officer (principal executive officer) of BlackRock Health Sciences Trust

Date: September 27, 2010

By: /s/ Neal J. Andrews

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

Date: September 27, 2010