BlackRock Health Sciences Trust Form N-Q September 26, 2008

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: Donald C. Burke, Chief Executive Officer, BlackRock Health Sciences Trust, 800 Scudders Mill Road, Plainsboro, NJ, 08536. Mailing address: P.O. Box 9011, Princeton, NJ, 08543-9011

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

Date of fiscal year end: 10/31/2008

Date of reporting period: $05/01/2008 \sqcap 07/31/2008$

Schedule of Investments July 31, 2008 (Unaudited)

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

Shares	Common Stocks	Value
	Biotechnology 27.1%	
127,400	Alexion Pharmaceuticals, Inc.(a)	\$ 11,943,75
177,900	Amgen, Inc.	11,141,87
20,300	ARYx Therapeutics, Inc.	104,74
119,300	Celera Corp.	1,628,44
89,071	Celgene Corp.(b)	6,723,97
74,600	Charles River Laboratories Intl., Inc.(b)(c)	4,957,91
78,800	Genentech, Inc.(b)	7,505,70
100,300	Genzyme Corp.(b)	7,687,99
38,500	Halozyme Therapeutics, Inc.(b)	308,38
29,700	Incyte Corp. Ltd.(b)	267,30
97,400	Integra LifeSciences Holdings Corp.(b)(c)	4,447,28
467	InterMune, Inc.	8,02
35,600	Millipore Corp.(b)	2,504,46
13,200	Nanosphere, Inc.(b)	130,54
22,300	Sequenom, Inc.(b)	
		476,32
63,300	Vertex Pharmaceuticals, Inc.(b)	2,183,85
		62,020,57
	Commercial Services 0.6%	
23,600	McKesson Corp.	1,321,36
	Healthcare Products 31.1%	
50,100	Alcon, Inc.	8,638,74
70,900	Alphatec Holdings, Inc.(b)	338,90
176,800	Baxter Intl., Inc.(a)	12,130,24
15,300	Beckman Coulter, Inc.	1,106,80
137,500	Becton Dickinson & Co.(a)	11,675,12
29,900	C.R. Bard, Inc.	2,775,91
33,700	Covidien Ltd.	1,659,38
131,100	Cyberonics, Inc.(b)	3,620,98
6,400	Hologic, Inc.(b)	118,20
76,800	Immucor, Inc.(b)	2,313,98
	,	
101,800	Johnson & Johnson	6,970,24
179,500	Medtronic, Inc.(a)	9,482,98
45,600	SenoRx, Inc.(b)	329,23
51,100	St. Jude Medical, Inc.(b)	2,380,23
31,900	Stryker Corp.	2,047,66
64,200	Varian Medical Systems, Inc.(b)(c) Zimmer Holdings, Inc.(b)	3,852,00
24,400	Ziffiller Holdings, Inc.(b)	1,681,40
		71,122,06
	Healthcare Services 3.5%	
68,300	Aetna, Inc.(a)	2,800,98
44,500	DaVita, Inc.(b)	2,485,32
48,200	Fresenius Medical Care AG & Co. KGaA	2,655,15
		7,941,46
	Pharmaceuticals 21.7%	
52.400	Abbott Laboratories(a)	2.952.2
52,400 113,200	Abbott Laboratories(a) Auxilium Pharmaceuticals, Inc.(b)(c)	2,952,21 4,199,72

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98,438	BioMarin Pharmaceuticals, Inc.(b)		3,204,157
100,900	Bristol-Myers Squibb Co.		2,131,008
59,000	Eli Lilly & Co.		2,779,490
120,900	Gilead Sciences, Inc.(b)		6,526,182
83,800	Medco Health Solutions, Inc.(a)(b)		4,154,804
132,100	Merck & Co., Inc.(a)		4,346,090
78,000	Novartis AG (ADR)		4,629,300
174,500	Pfizer, Inc.		3,257,915
66,500	Poniard Pharmaceuticals, Inc.(b)(c)		256,025
49,100	Rigel Pharmaceuticals, Inc.(b)		1,249,104
23,950	Roche Holding AG		4,425,046
55,100	Teva Pharmaceutical Industries Ltd. (ADR)		2,470,684
17,900	United Therapeutics Corp. (b)		2,029,681
21,122	Wyeth		855,863
			40 522 052
			49,532,053
140,400	Technology 2.3%		F 0.40 C00
146,400	CVS Caremark Corp.		5,343,600
	Software 0.2%		
22,200	MedAssets, Inc.(b)		335,664
	Total Common Stocks (Cost \$167,376,700) 86.5%		197,616,785
	(2001 \$101,010,100)		
Shares	Short-Term Securities		Value
10 120 950	Money Market Funds 9.2% Plack Pook Liquidity Series 11 C Manay Market Series 2 629/ (d)/a)/f)	\$	10 120 950
10,130,850	BlackRock Liquidity Series, LLC Money Market Series, 2.63%(d)(e)(f)	Ф	10,130,850
10,964,899	Fidelity Institutional Money Market Prime Portfolio, 2.45%(d)		10,964,899
	Total Money Market Funds		21,095,749
Principal Amount			
	U.S. Government and Agency Discount Notes 4.1%		
\$ 9,400,000	Federal Home Loan Bank Discount Notes, 1.82%, 08/01/08(g)		9,400,000
	Total Short-Term Securities (Cost \$30,495,749) 13.3%		30,495,749
Contracts	Options Purchased		
	Outstanding Call Options Purchased 0.1%		
50	Alexion Pharmaceuticals, Inc., strike price \$70, expires 11/24/08		130,500
9,000	Teva Pharmaceutical Industries Ltd. (ADR), strike price \$52.50, expires 11/21/08		3,316
	Total Outstanding Options Purchased (Cost \$55,075) 0.1%		133,816
_	Total Investments Before Outstanding Options Written (Cost \$197,927,524*) 99.9%		228,246,350

	Outstanding Call Options Written (2.0)%	
(75)	Abbott Laboratories, strike price \$57.50, expires 11/24/08	(19,875)
(75)	Abbott Laboratories, strike price \$60, expires 11/24/08	(12,375)
(100)	Aetna, Inc., strike price \$50, expires 01/19/09	(13,000)
(5,000)	Alcon, Inc., strike price \$155, expires 11/21/08	(107,968)
(50)	Alcon, Inc., strike price \$170, expires 11/24/08	(61,750)
(50)	Alcon, Inc., strike price \$175, expires 11/24/08	(48,000)
(195)	Alexion Pharmaceuticals, Inc., strike price \$100, expires 09/22/08	(88,725)
(60)	Alexion Pharmaceuticals, Inc., strike price \$70, expires 08/18/08	(900)
(200)	Alexion Pharmaceuticals, Inc., strike price \$80, expires 11/24/08	(372,000)
(200)	Alexion Pharmaceuticals, Inc., strike price \$85, expires 11/24/08	(309,000)
(67)	Alexion Pharmaceuticals, Inc., strike price \$90, expires 08/18/08	(40,200)
(65)	Alexion Pharmaceuticals, Inc., strike price \$90, expires 09/22/08	(55,900)
(10,000)	Alphatec Holdings, Inc., strike price \$6.03, expires 11/21/08	(2,939)
(10,000)	Amgen, Inc., strike price \$50.05, expires 11/21/08	(139,467)
(10,000)	Amgen, Inc., strike price \$60, expires 11/07/08	(57,848)
(100)	Auxilium Pharmaceuticals, Inc., strike price \$40, expires 09/22/08	(16,750)
(235)	Auxilium Pharmaceuticals, Inc., strike price \$42.50, expires 11/14/08	(51,700)
(75)	Baxter Intl., Inc., strike price \$62.50, expires 08/18/08	(562)
(200)	Baxter Intl., Inc., strike price \$67.50, expires 11/24/08	(89,000)
(300)	Baxter Intl., Inc., strike price \$70, expires 11/24/08	(93,000)
(50)	Beckman Coulter, Inc., strike price \$75, expires 11/24/08	(15,625)

Schedule of Investments July 31, 2008 (Unaudited) (continued)

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

Contracts	Options Written	Value
	Outstanding Call Options Written (cont d)	
(10,000)	Becton Dickinson & Co., strike price \$85.05, expires 11/17/08	\$ (42,724)
(200)	Becton Dickinson & Co., strike price \$90, expires 12/22/08	(56,000)
(100)	Becton Dickinson & Co., strike price \$95, expires 12/22/08	(12,750)
(25,000)	BioMarin Pharmaceuticals, Inc., strike price \$41, expires 11/21/08	(26,332)
(10,000)	BioMarin Pharmaceuticals, Inc., strike price \$43, expires 11/21/08	(6,773)
(250)	Bristol-Myers Squibb Co., strike price \$25, expires 12/22/08	(9,125)
(25)	C.R. Bard, Inc., strike price \$110, expires 01/19/09	(2,437)
(190)	Celgene Corp., strike price \$71.50, expires 11/14/08	(166,235)
(300)	Celgene Corp., strike price \$75, expires 08/18/08	(75,000)
(200)	Charles River Laboratories Intl., Inc., strike price \$65, expires 11/24/08	(110,000)
(26)	Charles River Laboratories Intl., Inc., strike price \$70, expires 11/24/08	(7,930)
(8,500)	Coviden Ltd., strike price \$51.32, expires 11/21/08	(19,730)
(5,000)	CVS Caremark Corp., strike price \$44, expires 11/21/08	(1,950)
(200)	CVS Caremark Corp., strike price \$45, expires 11/24/08	(4,000)
(150)	Cyberonics, Inc., strike price \$25, expires 11/03/08	(64,731)
(200)	Cyberonics, Inc., strike price \$27.50, expires 01/19/09	(82,000)
(180)	Cyberonics, Inc., strike price \$30, expires 08/18/08	(6,300)
(125)	Cyberonics, Inc., strike price \$30, expires 09/22/08	(17,500)
(65)	DaVita, Inc., strike price \$55, expires 01/19/09	(34,125)
(250)	Eli Lilly & Co., strike price \$50, expires 09/22/08	(12,500)
(10,000)	Eli Lilly & Co., strike price \$55.90, expires 11/21/08	(5,464)
(10,000)	Fresenius Medical Care AG & Co. KGaA, strike price 35.50 EUR, expires 11/04/08	(34,138)
(50)	Genentech, Inc., strike price \$75, expires 12/22/08	(110,750)
(15,000)	Genentech, Inc., strike price \$75.64, expires 11/21/08	(311,987)
(10,000)	Genzyme Corp., strike price \$72.19, expires 11/21/08	(80,634)
(501)	Genzyme Corp., strike price \$75, expires 08/18/08	(134,018)
(100)	Genzyme Corp., strike price \$80, expires 10/20/08	(30,000)
(15,000)	Gilead Sciences, Inc., strike price \$55, expires 11/21/08	(56,450)
(35,000)	Gilead Sciences, Inc., strike price \$56, expires 11/21/08	(117,068)
(150)	Gilead Sciences, Inc., strike price \$57.50, expires 11/24/08	(40,875)
(100)	Gilead Sciences, Inc., strike price \$60, expires 11/24/08	(18,750)
(171)	Hologic, Inc., strike price \$22.50, expires 08/18/08	(68,400)
(12,000)	Immucor, Inc., strike price \$30.25, expires 11/21/08	(34,613)
(250)	Integra LifeSciences Holdings Corp., strike price \$50, expires 09/22/08	(23,750)
(10,000)	Integra LifeSciences Holdings Corp., strike price \$50, expires 11/21/08	(21,321)
Contracts	Options Written	Value
	Outstanding Call Options Written (cont d)	
(135)	Integra LifeSciences Holdings Corp., strike price \$50, expires 12/22/08	\$ (33,413)
(10)	Integra LifeSciences Holdings Corp., strike price \$50, expires 01/19/09	(3,150)
(7,000)	Johnson & Johnson, strike price \$68, expires 08/28/08	(7,887)
(100)	Johnson & Johnson, strike price \$70, expires 01/19/09	(22,000)
(6)	Johnson & Johnson, strike price \$70, expires 10/20/08	(750)
(150)	Johnson & Johnson, strike price \$70, expires 11/03/08	(25,111)
(210)	Medco Health Solutions, Inc., strike price \$53, expires 11/03/08	(34,511)
(200)	Medtronic, Inc., strike price \$52.50, expires 11/14/08	(60,256)
(50)	Medtronic, Inc., strike price \$55, expires 01/19/09	(13,125)
(48)	Medtronic, Inc., strike price \$55, expires 11/24/08	(9,480)
(200)	Merck & Co., Inc., strike price \$37.50, expires 08/18/08	(1,500)
(50)	Millipore Corp., strike price \$75, expires 01/19/09	(19,500)
(150)	Novartis AG (ADR), strike price \$53, expires 11/03/08	(103,125)
(100)	Novartis AG (ADR), strike price \$60, expires 01/19/09	(34,500)
(350)	Pfizer, Inc., strike price \$20, expires 12/22/08	(22,225)
(100)	Poniard Pharmaceuticals, Inc., strike price \$5, expires 12/22/08	(6,000)
(75)	Rigel Pharmaceuticals, Inc., strike price \$25, expires 12/22/08	(33,750)
(15,000)	Roche Holding AG, strike price 190 CHF, expires 11/07/08	(166,882)
(20)	Sequenom, Inc., strike price \$22.50, expires 12/22/08	(8,200)
(20)	Sequenom, Inc., strike price \$25, expires 12/22/08	(6,100)

(13,000)	St. Jude Medical, Inc., strike price \$45.25, expires 11/21/08	(53,658)
(205)	Stryker Corp., strike price \$72, expires 11/07/08	(16,095)
(200)	Teva Pharmaceutical Industries Ltd. (ADR), strike price \$47.50, expires 09/22/08	(15,000)
(100)	Teva Pharmaceutical Industries Ltd. (ADR), strike price \$47.50, expires 12/22/08	(19,750)
(9,000)	Teva Pharmaceutical Industries Ltd. (ADR), strike price \$53, expires 11/21/08	(2,866)
(100)	United Therapeutics Corp., strike price \$115, expires 11/24/08	(161,500)
(150)	Varian Medical Systems, Inc., strike price \$55, expires 11/24/08	(114,750)
(182)	Varian Medical Systems, Inc., strike price \$60, expires 08/18/08	(24,570)
(50)	Varian Medical Systems, Inc., strike price \$60, expires 11/24/08	(22,250)
(6,000)	Vertex Pharmaceuticals, Inc., strike price \$35, expires 11/21/08	(25,245)
(20)	Wyeth, strike price \$45, expires 08/18/08	(9,700)
(45)	Wyeth, strike price \$50, expires 08/18/08	(225)
(122)	Zimmer Holdings, Inc., strike price \$67, expires 08/22/08	(35,162)
(122)	Zimmer Holdings, Inc., strike price \$67, expires 09/12/08	(44,104)
	Total Outstanding Call Options Written	(4,599,284)

Schedule of Investments July 31, 2008 (Unaudited) (continued)

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

Contracts	Options Written	Value
	Outstanding Put Options Written (0.0)%	
(80)	Charles River Laboratories Intl., Inc., strike price \$60, expires 08/18/08	\$ (1,600)
(501)	Genzyme Corp., strike price \$75, expires 08/18/08	(52,605)
(48)	Medtronic, Inc., strike price \$45, expires 11/24/08	(2,760)
	Total Outstanding Put Options Written	(56,965)
	Total Outstanding Options Written (Premium Received \$3,076,444) (2.0)%	(4,656,249)
	Total Investments Net of Outstanding Options Written 97.9%	223,590,101
	Other Assets in Excess of Liabilities 2.1%	4,883,863
	Net Assets 100.0%	\$ 228,473,964

^{*} The cost and unrealized appreciation (depreciation) of investments as of July 31, 2008, as computed for federal income tax purposes, were as follows:

Aggregate cost	\$ 198,339,019
Gross unrealized appreciation Gross unrealized depreciation	\$ 32,292,873 (2,385,542)
Net unrealized appreciation	\$ 29,907,331

- (a) Security, or a portion thereof, pledged as collateral for outstanding options written.
- (b) Non-income producing security.
- (c) Security, or a portion of security, is on loan.
- (d) Represents current yield as of report date.
- (e) 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 were as follows:

Affiliate	Net Activity	Interest Income
BlackRock Liquidity Series, LLC Money Market Series	6,955,250	\$56,036

⁽f) Security purchased with the cash proceeds from securities loans.

Rate shown is the yield to maturity as of the date of purchase. (g)

KEY TO ABBREVIATIONS

American Depositary Receipt Swiss Franc ADR

CHF EUR

Euro

Item 2 ☐ Controls and Procedures

- 2(a) The registrants principal executive and principal financial officers or persons performing similar functions have concluded that the registrants 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/ Donald C. Burke

Donald C. Burke

Chief Executive Officer of

BlackRock Health Sciences Trust

Date: September 19, 2008

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/ Donald C. Burke

Donald C. Burke

Chief Executive Officer (principal executive officer) of

BlackRock Health Sciences Trust

Date: September 19, 2008

By: /s/ Neal J. Andrews

Neal J. Andrews

Chief Financial Officer (principal financial officer) of

BlackRock Health Sciences Trust

Date: September 19, 2008