

BlackRock Health Sciences Trust
Form N-Q
September 24, 2007

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

Fund Address: 100 Bellevue Parkway, Wilmington, DE 19809

Name and address of agent for service: Robert S. Kapito, President, BlackRock Health Sciences Trust, 40 East 52nd Street, New York, NY 10022.

Registrant's telephone number, including area code: (888) 825-2257

Date of fiscal year end: 10/31/2007

Date of reporting period: 05/01/2007 - 07/31/2007

Item 1 □ Schedule of Investments

PORTFOLIO OF INVESTMENTS (unaudited)**JULY 31, 2007****BlackRock Health Sciences Trust (BME)****(Percentages shown are based on Net Assets)**

Shares	Description	Value
LONG-TERM INVESTMENTS □94.8%		
Common Stocks □94.8%		
Biotechnology □21.4%		
186,600	Alexion Pharmaceuticals, Inc.	\$ 10,852,656
37,800	Amgen, Inc.	2,031,372
89,900	Applera Corp. - Celera Group	1,080,598
40,700	Arqule, Inc.	231,176
71,3001	Celgene Corp.	4,317,928
61,0001	Charles River Laboratories Intl., Inc.	3,121,980
78,3001	Genentech, Inc.	5,823,954
54,5001	Halozyne Therapeutics, Inc.	438,180
85,7001	Integra LifeSciences Holdings Corp.	4,255,005
90,1671	InterMune, Inc.	1,925,066
191,7181	Kosan Biosciences, Inc.	797,547
28,1001	Millipore Corp.	2,208,941
144,7001	Myriad Genetics, Inc.	5,408,886
87,3371	NicOx S.A.	2,036,271
21,3001	Seattle Genetics, Inc.	202,989
	Total Biotechnology	44,732,549
Commercial Services □0.4%		
28,2001	PRA Intl.	815,826
Distribution/Wholesale □1.3%		
23,5001	MWI Veterinary Supply, Inc.	908,745
48,600	Owen & Minor, Inc.	1,868,670
	Total Distribution/Wholesale	2,777,415
Electronics □2.2%		
41,2001	Varian, Inc.	2,477,768
35,8001	Waters Corp.	2,085,708
	Total Electronics	4,563,476
Healthcare Products □27.9%		
31,300	Alcon, Inc.	4,272,450
98,600	Baxter Intl., Inc.	5,186,360
106,500	Becton Dickinson & Co.	8,132,340
97,3001	Cyberonics, Inc.	1,362,200
110,700	Dentsply Intl., Inc.	4,039,443
40,100	Edwards Lifesciences Corp.	1,842,996
86,500	Johnson & Johnson	5,233,250
22,5001	Kyphon, Inc.	1,476,450
135,200	Medtronic, Inc.	6,850,584
52,6001	SenoRx, Inc.	511,798
37,0001	St. Jude Medical, Inc.	1,596,180
132,500	Stryker Corp.	8,271,975

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133,6001	Thoratec Corp.	2,593,176
20,8001	Ventana Medical Systems, Inc.	1,733,472
211,5001	Wright Medical Group, Inc.	5,120,415
	Total Healthcare Products	58,223,089
	Healthcare Services 7.6%	
73,700	Aetna, Inc.	3,542,759
27,9001	Covance, Inc.	1,968,903
87,800	Manor Care, Inc.	5,562,130
20,6001	Pediatric Medical Group, Inc.	1,111,576
24,0831	Psychiatric Solutions, Inc.	820,990
56,300	UnitedHealth Group, Inc.	2,726,609
	Total Healthcare Services	15,732,967
	Pharmaceuticals 32.3%	
103,100	Abbott Laboratories	5,226,139
199,4381	BioMarin Pharmaceuticals, Inc.	3,601,850
101,700	Bristol-Myers Squibb Co.	2,889,297
13,3001	Cephalon, Inc.	999,362
137,0001	Gilead Sciences, Inc.	5,100,510
69,7001	ImClone Systems, Inc.	2,293,130
233,2002	Merck & Co., Inc.	11,578,380
31,000	Novartis AG (ADR)	1,672,450
28,0651	Onyx Pharmaceuticals, Inc.	780,488
195,5002	Pfizer, Inc.	4,596,205
66,5001	Poniard Pharmaceuticals, Inc.	385,700
7,2001	Pozen, Inc.	119,880
63,650	Roche Holding AG	11,272,817
184,500	Schering-Plough Corp.	5,265,630
37,000	Teva Pharmaceutical Industries Ltd. (ADR)	1,554,740
74,700	Tongjitang Chinese Medicines Co. (ADR)	888,183
10,1001	United Therapeutics Corp.	700,536
177,000	Wyeth	8,588,040
	Total Pharmaceuticals	67,513,337
	Technology 1.5%	
89,100	CVS Caremark Corp.	3,135,429
	Software 0.2%	
25,2001	Phase Forward, Inc.	433,188
	Total Long-Term Investments	
	(cost \$180,356,720)	197,927,276
	MONEY MARKET FUND 4.2%	
8,809,2793	Fidelity Institutional Money Market Prime Portfolio, 4.99% (cost \$8,809,279)	8,809,279
	Contracts	
	OUTSTANDING CALL OPTIONS PURCHASED 0.0%	
10,000	Elan Corp. Plc (ADR), strike price \$23, expires 11/16/07	10,626
10,000	Regeneron Pharmaceuticals, Inc., strike price \$29, expires 11/16/07	1,867
23,500	Wyeth, strike price \$59, expires 11/16/07	383
12,000	Zimmer Holdings, Inc., strike price \$90, expires 11/16/07	11,964
	Total Outstanding Call Options Purchased	
	(cost \$45,707)	24,840
	Total Investments before outstanding options written	
	(cost \$189,211,7064)	206,761,395
	OUTSTANDING OPTIONS WRITTEN (1.0)%	

OUTSTANDING CALL OPTIONS WRITTEN (0.9)%

(250)	Abbott Laboratories, strike price \$58.50, expires 11/02/07	(10,632)
(15,000)	Aetna, Inc., strike price \$55.25, expires 11/16/07	(7,551)
(50)	Alcon, Inc., strike price \$150, expires 11/19/07	(19,000)
(450)	Alexion Pharmaceuticals, Inc., strike price \$50, expires 08/20/07	(387,000)
(150)	Alexion Pharmaceuticals, Inc., strike price \$50, expires 11/19/07	(165,000)
(25,000)	Alexion Pharmaceuticals, Inc., strike price \$61, expires 11/16/07	(108,735)
(11,000)	Amgen, Inc., strike price \$58.56, expires 11/16/07	(17,410)
(150)	Applera Corp. - Celera Group, strike price \$15, expires 12/24/07	(8,250)
(200)	Baxter Intl., Inc., strike price \$57.50, expires 08/20/07	(3,000)
(10,000)	Baxter Intl., Inc., strike price \$60.50, expires 11/16/07	(6,903)
(12,500)	Becton Dickinson & Co., strike price \$77.84, expires 11/16/07	(36,645)
(100)	Becton Dickinson & Co., strike price \$80, expires 12/24/07	(28,500)
(250)	BioMarin Pharmaceuticals, Inc., strike price \$20, expires 11/02/07	(18,858)
(200)	Bristol-Myers Squibb Co., strike price \$32.50, expires 12/24/07	(10,000)
(11,000)	Celgene Corp., strike price \$59.89, expires 11/16/07	(61,822)
(20)	Cephalon, Inc., strike price \$90, expires 11/19/07	(1,200)
(100)	Charles River Laboratories Intl., Inc., strike price \$55, expires 08/20/07	(8,000)

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

Contracts	Description	Value
	OUTSTANDING CALL OPTIONS WRITTEN (cont'd)	
(15,000)	Charles River Laboratories Intl., Inc., strike price \$56.50, expires 11/16/07	\$ (23,726)
(50)	Covance, Inc., strike price \$70, expires 11/19/07	(27,500)
(30)	Covance, Inc., strike price \$75, expires 11/19/07	(8,700)
(100)	CVS Caremark Corp., strike price \$40, expires 08/20/07	(500)
(10,000)	CVS Caremark Corp., strike price \$41, expires 11/16/07	(9,518)
(20,000)	Cyberonics, Inc., strike price \$20.50, expires 11/16/07	(2,844)
(300)	Dentsply Intl., Inc., strike price \$36, expires 11/02/07	(70,899)
(50)	Edwards Lifesciences Corp., strike price \$50, expires 08/20/07	(750)
(50)	Edwards Lifesciences Corp., strike price \$55, expires 11/19/07	(1,500)
(10,000)	Elan Corp. Plc (ADR), strike price \$23.55, expires 11/16/07	(9,481)
(20,000)	Genentech, Inc., strike price \$78.25, expires 09/21/07	(16,914)
(400)	Gilead Sciences, Inc., strike price \$42.50, expires 08/20/07	(4,000)
(20,000)	Gilead Sciences, Inc., strike price \$45.50, expires 11/16/07	(6,764)
(100)	Halozyne Therapeutics, Inc., strike price \$10, expires 12/24/07	(7,500)
(50)	ImClone Systems, Inc., strike price \$50, expires 11/19/07	(1,000)
(40)	Integra Lifesciences Holdings Corp., strike price \$50, expires 09/24/07	(9,400)
(15,000)	Integra Lifesciences Holdings Corp., strike price \$55.25, expires 11/16/07	(13,707)
(20,000)	InterMune, Inc., strike price \$30.50, expires 11/16/07	(3,700)
(50)	Kyphon, Inc., strike price \$50, expires 12/24/07	(88,500)
(200)	Manor Care, Inc., strike price \$70, expires 08/20/07	(1,000)
(250)	Medtronic, Inc., strike price \$55, expires 11/19/07	(28,750)
(100)	Medtronic, Inc., strike price \$57.50, expires 11/19/07	(6,000)
(300)	Merck & Co., Inc., strike price \$50.50, expires 11/02/07	(68,883)
(500)	Merck & Co., Inc., strike price \$57, expires 11/02/07	(27,260)
(50)	Millipore Corp., strike price \$80, expires 10/22/07	(20,000)
(250)	Myriad Genetics, Inc., strike price \$40, expires 11/19/07	(57,500)
(100)	Myriad Genetics, Inc., strike price \$45, expires 11/19/07	(9,000)
(16,000)	NicOx S.A., strike price 21.30 EUR, expires 11/06/07	(4,639)
(10,000)	Novartis AG (ADR), strike price \$57.25, expires 11/16/07	(10,360)
(10,000)	Owen & Minor, Inc., strike price \$37.50, expires 09/21/07	(20,106)
(50)	Pediatric Medical Group, Inc., strike price \$60, expires 11/19/07	(4,750)
(106,200)	Pfizer, Inc., strike price \$25, expires 10/22/07	(57,114)
(10,000)	Poniard Pharmaceuticals, Inc., strike price \$10, expires 11/02/07	(114)
(30)	Pozen, Inc., strike price \$20, expires 12/24/07	(8,850)
(100)	Regeneron Pharmaceuticals, Inc., strike price \$30, expires 11/19/07	(2,000)
(11,000)	Roche Holdings AG, strike price 222 CHF, expires 11/06/07	(49,538)
(480)	Schering-Plough Corp., strike price \$33.50, expires 11/09/07	(17,846)
(20,000)	Schering-Plough Corp., strike price \$35.25, expires 11/16/07	(4,336)
(40)	Seattle Genetics, Inc., strike price \$10, expires 12/24/07	(4,600)
(10,000)	St. Jude Medical, Inc., strike price \$46, expires 11/16/07	(18,328)
(200)	Stryker Corp., strike price \$70, expires 09/24/07	(6,000)
(10,000)	Stryker Corp., strike price \$71, expires 11/16/07	(8,856)
(75)	Teva Pharmaceutical Industries Ltd. (ADR), strike price \$45, expires 12/24/07	(15,000)
(200)	Thoratec Corp., strike price \$22.50, expires 10/22/07	(10,000)
(10,000)	Thoratec Corp., strike price \$23, expires 11/16/07	(6,519)
(12,000)	Tongjitang Chinese Medicines Co. (ADR), strike price \$12.50, expires 11/09/07	(9,487)

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(10)	United Therapeutics Corp., strike price \$75, expires 11/19/07	(6,500)
(10,000)	UnitedHealth Group, Inc., strike price \$60.25, expires 11/16/07	(638)
(30)	Varian, Inc., strike price \$60, expires 08/20/07	(7,500)
(30)	Varian, Inc., strike price \$65, expires 08/20/07	(900)
(25)	Varian, Inc., strike price \$65, expires 11/19/07	(5,375)
(100)	Waters Corp., strike price \$65, expires 08/20/07	(1,000)
(200)	Wright Medical Group, Inc., strike price \$25, expires 08/20/07	(16,000)
(800)	Wright Medical Group, Inc., strike price \$25, expires 11/19/07	(140,000)
(300)	Wyeth, strike price \$52.50, expires 08/20/07	(6,000)
(300)	Wyeth, strike price \$52.50, expires 09/24/07	(25,500)
(200)	Wyeth, strike price \$60, expires 10/22/07	(5,000)
(23,500)	Wyeth, strike price \$60, expires 11/16/07	(273)
(12,000)	Zimmer Holdings, Inc., strike price \$90.50, expires 11/16/07	(11,099)
Total Outstanding Call Options Written		
(premium received \$(2,262,954))		(1,908,030)
OUTSTANDING PUT OPTIONS WRITTEN (0.1)%		
(100)	Abbott Laboratories, strike price \$50, expires 08/20/07	(8,500)
(100)	Abbott Laboratories, strike price \$55, expires 08/20/07	(39,000)
(275)	Aetna, Inc., strike price \$49.50, expires 08/10/07	(43,769)
(100)	Becton Dickinson & Co., strike price \$75, expires 08/20/07	(2,000)
(200)	Gilead Sciences, Inc., strike price \$36.25, expires 08/20/07	(11,000)
(200)	Gilead Sciences, Inc., strike price \$37.50, expires 08/20/07	(18,000)
(240)	Manor Care, Inc., strike price \$60, expires 08/20/07	(14,400)
(140)	St. Jude Medical, Inc., strike price \$45, expires 08/20/07	(33,600)
Total Outstanding Put Options Written		
(premium received \$(116,049))		(170,269)
Total Outstanding Options Written		
(cost \$(2,379,003))		(2,078,299)
Total Investments net of outstanding options written 98.0%		\$ 204,683,096
Other assets in excess of liabilities 2.0%		4,267,683
Net Assets 100.0%		\$ 208,950,779

BlackRock Health Sciences Trust (BME) (continued)

(Percentages shown are based on Net Assets)

- 1 Non-income producing security.
- 2 Security, or a portion thereof, pledged as collateral for outstanding options written.
- 3 Represents current yield as of July 31, 2007.
- 4 Cost for federal income tax purposes is \$189,211,705. The net unrealized appreciation on a tax basis is \$17,549,690, consisting of \$22,387,587 gross unrealized appreciation and \$4,837,897 gross unrealized depreciation.

KEY TO ABBREVIATIONS

ADR	□	American Depositary Receipt
CHF	□	Swiss Franc
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 and 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 (17 CFR 270.30a-3(d)) 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,
Treasurer of
BlackRock Health Sciences Trust

Date: September 20, 2007

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/ Robert S. Kapito
Robert S. Kapito,
President (principal executive officer) of
BlackRock Health Sciences Trust

Date: September 20, 2007

By: /s/ Donald C. Burke
Donald C. Burke,
Treasurer (principal financial officer) of
BlackRock Health Sciences Trust

Date: September 20, 2007
