

BlackRock Health Sciences Trust
Form N-Q
March 29, 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

BlackRock Health Sciences Trust
(Exact name of registrant as specified in charter)

100 Bellevue Parkway, Wilmington, DE
(Address of principal executive offices)

19809
(Zip code)

Robert S. Kapito, President
BlackRock Health Sciences Trust
40 East 52nd Street, New York, NY 10022

(Name and address of agent for service)

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

Date of fiscal year end: October 31, 2007

Date of reporting period: January 31, 2007

Item 1. Schedule of Investments.

The Registrant's unaudited schedule of investments as of the close of the reporting period pursuant to Rule 30b1-5 under the Investment Company Act of 1940 is as follows:

PORTFOLIO OF INVESTMENTS (unaudited)
JANUARY 31, 2007
BlackRock Health Sciences Trust (BME)
(Percentage of Net Assets)

Shares	Description	Value
	LONG-TERM INVESTMENTS 90.2%	
	Common Stocks 90.2%	
	Biotechnology 15.4%	
16,000 ¹	Affymax, Inc.	\$ 589,440
186,600 ¹	Alexion Pharmaceuticals, Inc.	7,756,962
52,000 ^{1,2}	Amgen, Inc.	3,659,240
99,500 ¹	Applera Corp. - Celera Group	1,578,070
88,600 ¹	Biogen Idec, Inc.	4,282,924
63,500 ¹	Genentech, Inc.	5,547,995
12,800 ¹	Integra LifeSciences Holdings Corp.	551,040
89,467 ¹	InterMune, Inc.	3,131,345
165,700 ¹	Kosan Biosciences, Inc.	1,183,098
34,200 ¹	Myriad Genetics, Inc.	1,222,308
26,700 ¹	NicOx S.A.	678,680
122,300 ¹	Regeneron Pharmaceuticals, Inc.	2,432,547
	Total Biotechnology	32,613,649
	Electronics 3.7%	
139,000 ¹	Waters Corp.	7,879,910
	Healthcare Products 29.8%	
27,400	Alcon, Inc.	3,226,624
91,200	Baxter Intl., Inc.	4,528,992
80,800	Becton Dickinson & Co.	6,216,752
57,600	Biomet, Inc.	2,439,936
24,300	Cooper Cos., Inc.	1,159,110
76,300 ¹	Cyberonics, Inc.	1,607,641
96,800	Dentsply Intl., Inc.	2,985,312
45,000	Edwards Lifesciences Corp.	2,302,200
119,700	Johnson & Johnson	7,995,960
118,200	Medtronic, Inc.	6,317,790
50,100 ¹	Northstar Neuroscience, Inc.	664,326
27,400 ¹	St. Jude Medical, Inc.	1,171,624
132,100	Stryker Corp.	8,182,274
17,100 ¹	Vanda Pharmaceuticals, Inc.	510,777
111,332 ¹	Varian Medical Systems, Inc.	5,135,745
194,400 ¹	Wright Medical Group, Inc.	4,255,416
47,900 ¹	Zimmer Holdings, Inc.	4,034,138
4,300 ¹	Zoll Medical Corp.	269,696
	Total Healthcare Products	63,004,313
	Healthcare Services 9.5%	
81,900	Aetna, Inc.	3,452,904

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142,900 ¹	Community Health Systems, Inc.	5,108,675
56,000 ¹	DaVita, Inc.	3,057,600
19,300 ¹	Humana, Inc.	1,071,150
84,000	Manor Care, Inc.	4,472,160
4,000 ¹	Pediatrix Medical Group, Inc.	210,160
49,200	UnitedHealth Group, Inc.	2,571,192
	Total Healthcare Services	19,943,841
	Pharmaceuticals \square 31.8%	
108,200	Abbott Laboratories	5,734,600
17,900	Allergan, Inc.	2,089,109
342,038 ^{1,2}	BioMarin Pharmaceuticals, Inc.	6,478,200
54,800 ¹	Cardiome Pharma Corp.	625,816
107,800 ¹	Gilead Sciences, Inc.	6,933,696
181,800 ²	Merck & Co., Inc.	8,135,550
88,300	Novartis AG (ADR)	5,094,027
170,800	Pfizer, Inc.	4,481,792
105,300 ¹	Pharmion Corp.	3,353,805
55,650	Roche Holding AG	10,481,623
189,300	Schering-Plough Corp.	4,732,500
12,000	Shire Plc (ADR)	761,760
8,800 ¹	United Therapeutics Corp.	471,680

BlackRock Health Sciences Trust (BME) (continued)
(Percentage of Net Assets)

Shares	Description	Value
Pharmaceuticals (cont'd)		
156,200	Wyeth	\$ 7,717,842
	Total Pharmaceuticals	67,092,000
	Total Common Stocks (cost \$168,261,738)	190,533,713
SHORT-TERM INVESTMENTS 8.4%		
Money Market Fund 3.0%		
6,370,689	Fidelity Institutional Money Market Prime Portfolio	6,370,689
Principal Amount		
U.S. Government and Agency Discount Notes 5.4%		
\$ 11,500,000 ³	Federal Home Loan Bank Discount Notes, 5.00%, 2/01/07	11,500,000
	Total Short-Term Investments (cost \$17,870,689)	17,870,689
	Total investments before outstanding options written (cost \$186,132,4274)	208,404,402
Contracts		
OUTSTANDING OPTIONS WRITTEN (0.6)%		
OUTSTANDING CALL OPTIONS WRITTEN (0.6)%		
(150)	Abbott Laboratories, strike price \$50, expires 02/17/07	(48,000)
(250)	Abbott Laboratories, strike price \$51.75, expires 03/30/07	(59,542)
(100)	Abbott Laboratories, strike price \$55, expires 03/19/07	(5,500)
(20,000)	Aetna, Inc., strike price \$43.50, expires 03/30/07	(24,720)
(40)	Alcon, Inc., strike price \$115, expires 02/17/07	(18,400)
(20)	Alcon, Inc., strike price \$120, expires 02/19/07	(4,200)
(400)	Alexion Pharmaceuticals, Inc., strike price \$45, expires 03/17/07	(44,000)
(45)	Allergan, Inc., strike price \$120, expires 03/17/07	(10,350)
(45)	Allergan, Inc., strike price \$125, expires 02/17/07	(1,125)
(50)	Amgen, Inc., strike price \$72.50, expires 02/19/07	(1,500)
(150)	Amgen, Inc., strike price \$75, expires 04/21/07	(17,250)
(100)	Applera Corp. - Celera Group, strike price \$15, expires 02/17/07	(11,000)
(50)	Applera Corp. - Celera Group, strike price \$15, expires 03/17/07	(6,500)
(100)	Applera Corp. - Celera Group, strike price \$17.50, expires 06/16/07	(7,500)
(50)	Baxter Intl., Inc., strike price \$47.50, expires 02/17/07	(11,500)
(100)	Baxter Intl., Inc., strike price \$50, expires 03/17/07	(12,000)
(100)	Baxter Intl., Inc., strike price \$52.50, expires 05/19/07	(11,000)
(80)	Becton Dickinson & Co., strike price \$75, expires 02/17/07	(20,000)
(100)	Becton Dickinson & Co., strike price \$75, expires 03/17/07	(34,000)
(200)	Biogen Idec, Inc., strike price \$55, expires 04/21/07	(9,000)
(250)	BioMarin Pharmaceuticals, Inc., strike price \$17.75, expires 02/07/07	(35,446)
(200)	BioMarin Pharmaceuticals, Inc., strike price \$20, expires 02/17/07	(10,000)
(500)	BioMarin Pharmaceuticals, Inc., strike price \$20, expires 04/21/07	(100,000)
(150)	Cardiome Pharma Corp., strike price \$12.50, expires 02/17/07	(3,750)
(150)	Cardiome Pharma Corp., strike price \$15, expires 03/17/07	(3,000)
(22,000)	Community Health Systems, Inc., strike price \$37, expires 03/16/07	(14,810)
(80,000)	Community Health Systems, Inc., strike price \$39, expires 03/30/07	(25,596)
(10)	Community Health Systems, Inc., strike price \$40, expires 03/17/07	(200)
(50)	Cooper Cos., Inc., strike price \$55, expires 02/17/07	(500)

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(115)	Cyberonics, Inc., strike price \$25, expires 04/21/07	(13,225)
(100)	DaVita, Inc., strike price \$60, expires 04/21/07	(5,500)
(300)	Dentsply Intl., Inc., strike price \$32.50, expires 3/23/07	(12,046)
(100)	Edwards Lifesciences Corp., strike price \$50, expires 02/17/07	(18,000)
(182)	Edwards Lifesciences Corp., strike price \$50, expires 03/17/07	(43,680)
(50)	Genentech, Inc., strike price \$90, expires 02/17/07	(2,000)
(100)	Genentech, Inc., strike price \$90, expires 03/17/07	(13,500)
(200)	Gilead Sciences, Inc., strike price \$67.50, expires 02/17/07	(12,000)
(100)	Gilead Sciences, Inc., strike price \$70, expires 02/17/07	(2,000)
(30)	Humana, Inc., strike price \$55, expires 02/17/07	(6,150)
(120)	InterMune, Inc., strike price \$40, expires 03/17/07	(12,000)
(20,000)	Johnson & Johnson, strike price \$67.50, expires 02/16/07	(3,432)
(230)	Manor Care, Inc., strike price \$55, expires 05/19/07	(36,800)
(100)	Medtronic, Inc., strike price \$55, expires 02/17/07	(2,500)
(100)	Medtronic, Inc., strike price \$55, expires 03/17/07	(8,000)
(100)	Medtronic, Inc., strike price \$55, expires 05/19/07	(15,000)
(50)	Myriad Genetics, Inc., strike price \$35, expires 02/17/07	(8,000)
(100)	Novartis AG (ADR), strike price \$60, expires 02/17/07	(3,000)

BlackRock Health Sciences Trust (BME) (continued)
(Percentage of Net Assets)

Contracts	Description	Value
OUTSTANDING CALL OPTIONS WRITTEN (cont'd)		
(250) Novartis AG (ADR), strike price \$60, expires 04/21/07		\$ (25,000)
(330) Pfizer, Inc., strike price \$27.50, expires 02/19/07		(1,650)
(100) Pharmion Corp., strike price \$30, expires 02/17/07		(25,500)
(100) Pharmion Corp., strike price \$30, expires 03/17/07		(33,000)
(11,000) Roche Holding AG, strike price 242.20 CHF, expires 04/03/07		(27,481)
(53,000) Schering-Plough Corp., strike price \$24, expires 02/16/07		(52,669)
(400) Schering-Plough Corp., strike price \$25, expires 03/17/07		(28,000)
(50) St. Jude Medical, Inc., strike price \$45, expires 04/21/07		(7,500)
(150) Stryker Corp., strike price \$60, expires 02/17/07		(37,500)
(100) Stryker Corp., strike price \$60, expires 03/19/07		(33,000)
(50) Stryker Corp., strike price \$65, expires 06/16/07		(10,500)
(100) UnitedHealth Group, Inc., strike price \$60, expires 03/17/07		(1,000)
(165) Varian Medical Systems, Inc., strike price \$50, expires 02/17/07		(1,650)
(130) Waters Corp., strike price \$50, expires 02/17/07		(92,300)
(100) Waters Corp., strike price \$55, expires 03/17/07		(29,000)
(29) Waters Corp., strike price \$60, expires 05/19/07		(5,510)
(400) Wright Medical Group, Inc., strike price \$25, expires 02/17/07		(6,000)
(250) Wyeth, strike price \$52.50, expires 04/21/07		(10,000)
(100) Zimmer Holdings, Inc., strike price \$80, expires 03/17/07		(54,000)
(75) Zimmer Holdings, Inc., strike price \$85, expires 03/19/07		(14,250)
Total Outstanding Call Options Written (premium received (\$1,231,039))		(1,262,732)
OUTSTANDING PUT OPTIONS WRITTEN 0.0%		
(130) Aetna, Inc., strike price \$40, expires 02/17/07		(5,200)
(130) Amgen, Inc., strike price \$70, expires 02/17/07		(10,400)
(80) Becton Dickinson & Co., strike price \$70, expires 02/17/07		(800)
(100) Biogen Idec, Inc., strike price \$45, expires 02/17/07		(3,500)
(250) BioMarin Pharmaceuticals, Inc., strike price \$17.50, expires 02/17/07		(10,000)
(50) Genentech, Inc., strike price \$85, expires 02/17/07		(2,500)
(120) Johnson & Johnson, strike price \$65, expires 02/17/07		(1,200)
(50) Stryker Corp., strike price \$55, expires 02/17/07		(250)
(20,000) Varian Medical Systems, Inc., strike price \$47.50, expires 02/16/07		(35,760)
Total Outstanding Put Options Written (premium received (\$75,933))		(69,610)
Total outstanding options written (premium received (\$1,306,972))		(1,332,342)
Total investments net of outstanding options written 98.0%		\$ 207,072,060
Other assets in excess of liabilities 2.0%		4,190,935
Net Assets 100.0%		\$ 211,262,995

- 1 Non-income producing security.
- 2 Security, or a portion thereof, pledged as collateral for outstanding options written.
- 3 Rate shown is the yield to maturity as of the date of purchase.

- 4 Cost for federal income tax purposes is \$187,375,525. The net unrealized appreciation on a tax basis is \$21,028,877, consisting of \$21,715,519 gross unrealized appreciation and \$686,642 gross unrealized depreciation.

KEY TO ABBREVIATIONS

ADR □ American Depositary Receipt
CHF □ Swiss Franc

Item 2. Controls and Procedures.

(a) The Registrant's principal executive and principal financial officers have evaluated the Registrant's disclosure controls and procedures within 90 days of this filing and have concluded, as of that date, that the Registrant's disclosure controls and procedures were reasonably designed to ensure that information required to be disclosed by the Registrant in this Form N-Q was recorded, processed, summarized, and reported within the required time periods and that information to be disclosed by the Registrant in this Form N-Q was accumulated and communicated to the Registrant's management, including its principal executive and principal financial officers, as appropriate, to allow timely decisions regarding required disclosure.

(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.

Separate certifications of the Registrant's Principal Executive and Financial Officers pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 are attached as EX-99.CERT.

SIGNATURES

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.

(Registrant) BlackRock Health Sciences Trust

By: /s/ Donald C. Burke

Name: Donald C. Burke

Title: Treasurer and Principal Financial Officer

Date: March 28, 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

Name: Robert S. Kapito

Title: President and Principal Executive Officer

Date: March 28, 2007

By: /s/ Donald C. Burke

Name: Donald C. Burke

Title: Treasurer and Principal Financial Officer

Date: March 28, 2007