

Edgar Filing: BlackRock Health Sciences Trust - Form N-Q

BlackRock Health Sciences Trust
Form N-Q
March 29, 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 52nd Street, New York, NY 10055.

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

Date of fiscal year end: 10/31/2010

Date of reporting period: 01/31/2010

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Item 1 Schedule of Investments

Schedule of Investments January 31, 2010 (Unaudited)

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

| Shares | Common Stocks | Value |
|---|---|------------|
| Biotechnology 10.9% | | |
| 31,900 | 3SBio, Inc. - ADR (a) | \$ 364,936 |
| 5,700 | Abraxis Bioscience, Inc. (a) | 232,845 |
| 9,100 | Alexion Pharmaceuticals, Inc. (a) | 421,967 |
| 32,100 | AMAG Pharmaceuticals, Inc. (a) | 1,411,758 |
| 54,200 | Amgen, Inc. (a) | 3,169,616 |
| 237,200 | Amylin Pharmaceuticals, Inc. (a)(b) | 4,264,856 |
| 25,700 | BioMarin Pharmaceutical, Inc. (a) | 499,351 |
| 193,300 | Celera Corp. (a) | 1,300,909 |
| 37,900 | Celgene Corp. (a) | 2,151,962 |
| 55,000 | Dendreon Corp. (a) | 1,523,500 |
| 11,000 | Facet Biotech Corp. (a) | 173,250 |
| 37,660 | Gilead Sciences, Inc. (a) | 1,817,848 |
| 65,500 | Human Genome Sciences, Inc. (a) | 1,733,785 |
| 109,200 | Incyte Corp. Ltd. (a) | 1,166,256 |
| 12,900 | Momenta Pharmaceuticals, Inc. (a) | 188,211 |
| 11,200 | Nanosphere, Inc. (a) | 61,488 |
| 15,700 | Pharmasset, Inc. (a) | 328,130 |
| 20,600 | Sinovac Biotech Ltd. (a) | 123,600 |
| 40,990 | Vertex Pharmaceuticals, Inc. (a) | 1,574,016 |
| | | <hr/> |
| | | 22,508,284 |
| Health Care Equipment & Supplies 28.8% | | |
| 20,500 | Alcon, Inc. | 3,192,055 |
| 27,600 | Baxter International, Inc. (c) | 1,589,484 |
| 62,180 | Beckman Coulter, Inc. | 4,064,707 |
| 40,700 | Becton Dickinson & Co. | 3,067,559 |
| 60,000 | CareFusion Corp. (a) | 1,545,000 |
| 40,900 | China Medical Technologies, Inc. - ADR | 534,563 |
| 64,500 | Cooper Cos., Inc. (The) | 2,278,140 |
| 118,760 | Coviden Plc | 6,004,506 |
| 26,700 | CR Bard, Inc. (c) | 2,213,163 |
| 76,100 | Elekta AB | 1,785,262 |
| 47,800 | Gen-Probe, Inc. (a) | 2,052,054 |
| 20,500 | Henry Schein, Inc. (a) | 1,108,025 |
| 104,900 | Hill-Rom Holdings, Inc. | 2,451,513 |
| 55,100 | Inverness Medical Innovations, Inc. (a) | 2,224,387 |
| 103,890 | Medtronic, Inc. | 4,455,842 |
| 30,200 | ResMed, Inc. (a) | 1,544,428 |
| 15,800 | Sirona Dental Systems, Inc. (a) | 508,286 |
| 210,700 | Smith & Nephew Plc | 2,119,631 |
| 25,300 | Sonova Holding AG | 3,131,371 |
| 97,000 | Stryker Corp. | 5,036,240 |
| 83,800 | Varian Medical Systems, Inc. (a) | 4,214,302 |
| 64,800 | Zimmer Holdings, Inc. (a) | 3,649,536 |
| 27,900 | Zoll Medical Corp. (a) | 776,736 |
| | | <hr/> |
| | | 59,546,790 |
| Health Care Providers & Services 17.0% | | |
| 160,200 | Aetna, Inc. | 4,801,194 |
| 28,000 | AMERIGROUP Corp. (a) | 712,600 |
| 158,900 | AmerisourceBergen Corp. | 4,331,614 |
| 19,500 | Celesio AG | 568,615 |
| 70,900 | CIGNA Corp. | 2,394,293 |

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| | | |
|---------|--------------------------------------|-----------|
| 18,500 | Community Health Systems, Inc. (a) | 603,470 |
| 28,880 | DaVita, Inc. (a) | 1,725,869 |
| 17,780 | Express Scripts, Inc. (a) | 1,491,031 |
| 24,600 | Fresenius Medical Care AG & Co. KGaA | 1,246,894 |
| 66,010 | Medco Health Solutions, Inc. (a) | 4,058,295 |
| 11,200 | Mednax, Inc. (a) | 636,832 |
| 28,800 | Patterson Cos., Inc. (a) | 822,528 |
| 186,000 | UnitedHealth Group, Inc. | 6,138,000 |
| 88,200 | WellPoint, Inc. (a) | 5,620,104 |

35,151,339

Health Care Technology 5.1%

| | | |
|---------|--|-----------|
| 109,500 | Allscripts-Misys Healthcare Solutions, Inc. (a)(b) | 1,802,370 |
| 37,500 | Biogen Idec, Inc. (a) | 2,015,250 |

Shares

Common Stocks

Value

Health Care Technology (concluded)

| | | |
|--------|----------------------------|--------------|
| 31,800 | Cerner Corp. (a) | \$ 2,405,670 |
| 39,400 | Genzyme Corp. (a) | 2,137,844 |
| 56,800 | St. Jude Medical, Inc. (a) | 2,143,064 |

10,504,198

Industrial Conglomerates 1.1%

| | | |
|--------|--|-----------|
| 78,400 | Koninklijke (Royal) Philips Electronics NV | 2,367,537 |
|--------|--|-----------|

Life Sciences Tools & Services 6.7%

| | | |
|---------|--|-----------|
| 11,600 | Gerresheimer AG | 379,285 |
| 21,700 | Life Technologies Corp. (a) | 1,078,707 |
| 8,300 | Mettler-Toledo International, Inc. (a) | 809,001 |
| 42,900 | Millipore Corp. (a) | 2,958,813 |
| 147,300 | PerkinElmer, Inc. | 2,966,622 |
| 27,400 | Tecan Group AG | 1,939,236 |
| 82,100 | Thermo Fisher Scientific, Inc. (a) | 3,788,915 |

13,920,579

Pharmaceuticals 25.6%

| | | |
|---------|---|-----------|
| 107,340 | Abbott Laboratories | 5,682,579 |
| 17,600 | Allergan, Inc. | 1,012,000 |
| 5,300 | BioForm Medical, Inc. (a) | 28,938 |
| 128,100 | Bristol-Myers Squibb Co. | 3,120,516 |
| 65,000 | Cephalon, Inc. (a) | 4,149,600 |
| 60,100 | Eli Lilly & Co. | 2,115,520 |
| 50,700 | Endo Pharmaceuticals Holdings, Inc. (a) | 1,019,577 |
| 95,470 | Johnson & Johnson | 6,001,244 |
| 15,700 | MAP Pharmaceuticals, Inc. (a) | 235,657 |
| 107,800 | Merck & Co., Inc. | 4,115,804 |
| 84,500 | Mylan, Inc. (a) | 1,540,435 |
| 86,800 | Novartis AG | 4,645,094 |
| 15,190 | Novartis AG - ADR | 813,121 |
| 480,300 | Pfizer, Inc. | 8,962,398 |
| 26,750 | Roche Holding AG | 4,487,874 |
| 24,900 | Simcere Pharmaceutical Group - ADR (a) | 204,180 |
| 63,250 | Teva Pharmaceutical Industries Ltd. - ADR | 3,587,540 |
| 9,300 | United Therapeutics Corp. (a) | 554,001 |
| 18,500 | Watson Pharmaceuticals, Inc. (a) | 709,845 |

52,985,923

**Total Long-Term Investments
(Cost \$174,440,870) 95.2%**

196,984,650

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**Shares/Beneficial
Interest**

Short-Term Securities

| Money Market Fund 3.0% | | |
|---|---|-------------|
| 5,256,054 | BlackRock Liquidity Funds, TempFund, Institutional Class, 0.10%(d)(e) | 5,256,054 |
| 936,400 | BlackRock Liquidity Series, LLC, Money Market Series, 0.27% (d)(e)(f) | 936,400 |
| Total Short-Term Securities (Cost \$6,192,454) 3.0% | | 6,192,454 |
| Total investments before outstanding options written (Cost \$180,633,324*) 98.2% | | 203,177,104 |

Contracts

Options Written

| Exchange-Traded Call Options Written (0.3)% | | |
|--|---|---------|
| 100 | 3SBio, Inc. - ADR, Strike Price USD 15, Expires 3/22/10 | (3,000) |
| 75 | Abbott Laboratories, Strike Price USD 55, Expires 2/22/10 | (1,500) |
| 150 | Aetna, Inc., Strike Price USD 32, Expires 2/22/10 | (6,750) |
| 330 | Aetna, Inc., Strike Price USD 36, Expires 2/22/10 | (2,475) |
| 25 | Alcon, Inc., Strike Price USD 160, Expires 3/22/10 | (5,688) |

Schedule of Investments (continued)

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

| Contracts | Options Written | Value |
|---|--|-------------|
| Exchange-Traded Call Options Written (continued) | | |
| 25 | Alcon, Inc., Strike Price USD 165, Expires 2/22/10 | \$ (750) |
| 60 | Allergan, Inc., Strike Price USD 65, Expires 4/19/10 | (3,450) |
| 200 | AmerisourceBergen Corp., Strike Price USD 25, Expires 2/22/10 | (46,000) |
| 50 | Amgen, Inc., Strike Price USD 57.50, Expires 4/19/10 | (16,375) |
| 150 | Amgen, Inc., Strike Price USD 60, Expires 3/22/10 | (20,850) |
| 100 | Amylin Pharmaceuticals, Inc., Strike Price USD 17.50, Expires 2/22/10 | (10,750) |
| 230 | Amylin Pharmaceuticals, Inc., Strike Price USD 20, Expires 2/22/10 | (4,600) |
| 480 | Amylin Pharmaceuticals, Inc., Strike Price USD 20, Expires 3/22/10 | (48,000) |
| 35 | Baxter International, Inc., Strike Price USD 60, Expires 2/22/10 | (1,225) |
| 50 | Baxter International, Inc., Strike Price USD 62.50, Expires 3/22/10 | (1,500) |
| 45 | Beckman Coulter, Inc., Strike Price USD 65, Expires 2/22/10 | (10,463) |
| 100 | Beckman Coulter, Inc., Strike Price USD 70, Expires 2/22/10 | (4,750) |
| 50 | Beckman Coulter, Inc., Strike Price USD 70, Expires 3/22/10 | (4,250) |
| 50 | Becton Dickinson & Co., Strike Price USD 80, Expires 2/22/10 | (875) |
| 430 | Bristol-Myers Squibb Co., Strike Price USD 26, Expires 3/22/10 | (12,685) |
| 150 | CareFusion Corp., Strike Price USD 27.50, Expires 3/22/10 | (300) |
| 33 | Celgene Corp., Strike Price USD 60, Expires 2/22/10 | (1,237) |
| 120 | Cerner Corp., Strike Price USD 85, Expires 2/22/10 | (5,700) |
| 24 | China Medical Technologies, Inc. - ADR, Strike Price USD 15, Expires 3/22/10 | (1,020) |
| 400 | CIGNA Corp., Strike Price USD 39, Expires 2/22/10 | (4,000) |
| 160 | Cooper Cos., Inc. (The), Strike Price USD 40, Expires 2/22/10 | (4,000) |
| 126 | Coviden Plc, Strike Price USD 47.50, Expires 2/22/10 | (40,950) |
| 150 | Coviden Plc, Strike Price USD 51, Expires 4/16/10 | (24,843) |
| 100 | CR Bard, Inc., Strike Price USD 90, Expires 4/19/10 | (6,500) |
| 74 | DaVita, Inc., Strike Price USD 65, Expires 4/19/10 | (4,995) |
| 300 | Dendreon Corp., Strike Price USD 30, Expires 2/22/10 | (16,050) |
| 100 | Endo Pharmaceuticals Holdings, Inc., Strike Price USD 22.50, Expires 4/19/10 | (4,000) |
| 60 | Express Scripts, Inc., Strike Price USD 90, Expires 2/22/10 | (2,700) |
| 150 | Gen-Probe, Inc., Strike Price USD 45, Expires 2/22/10 | (9,375) |
| 150 | Genzyme Corp., Strike Price USD 57.50, Expires 3/22/10 | (17,250) |
| 100 | Gilead Sciences, Inc., Strike Price USD 46, Expires 2/22/10 | (26,500) |
| 150 | Gilead Sciences, Inc., Strike Price USD 47, Expires 2/22/10 | (28,125) |
| Exchange-Traded Call Options Written (concluded) | | |
| 200 | Henry Schein, Inc., Strike Price USD 56.25, Expires 2/26/10 | \$ (10,212) |
| 330 | Hill-Rom Holdings, Inc., Strike Price USD 25, Expires 3/22/10 | (20,625) |
| 110 | Human Genome Sciences, Inc., Strike Price USD 31, Expires 2/22/10 | (1,485) |
| 50 | Human Genome Sciences, Inc., Strike Price USD 34, Expires 2/22/10 | (250) |
| 360 | Incyte Corp. Ltd., Strike Price USD 10, Expires 3/22/10 | (44,100) |
| 80 | Inverness Medical Innovations, Inc., Strike Price USD 45, Expires 2/22/10 | (1,200) |
| 100 | Inverness Medical Innovations, Inc., Strike Price USD 45, Expires 3/22/10 | (5,250) |
| 50 | Mednax, Inc., Strike Price USD 60, Expires 2/22/10 | (2,750) |
| 50 | Medtronic, Inc., Strike Price USD 45, Expires 2/22/10 | (2,500) |
| 250 | Merck & Co., Inc., Strike Price USD 41, Expires 2/22/10 | (5,625) |
| 40 | Mettler-Toledo International, Inc., Strike Price USD 110, Expires 2/22/10 | (1,400) |
| 20 | Millipore Corp., Strike Price USD 75, Expires 3/22/10 | (1,100) |
| 250 | Mylan, Inc., Strike Price USD 18, Expires 2/22/10 | (18,750) |
| 151 | Novartis AG - ADR, Strike Price USD 55, Expires 2/22/10 | (5,662) |
| 200 | PerkinElmer, Inc., Strike Price USD 22.50, Expires 3/22/10 | (5,000) |
| 530 | Pfizer, Inc., Strike Price USD 19, Expires 3/22/10 | (28,355) |
| 550 | Pfizer, Inc., Strike Price USD 20, Expires 3/22/10 | (12,925) |
| 90 | St. Jude Medical, Inc., Strike Price USD 40, Expires 2/22/10 | (1,800) |
| 100 | Stryker Corp., Strike Price USD 55, Expires 3/22/10 | (7,000) |
| 200 | Stryker Corp., Strike Price USD 56, Expires 3/19/10 | (7,671) |

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| | | |
|---|--|------------------|
| 100 | Teva Pharmaceutical Industries Ltd. - ADR, Strike Price USD 52.50, Expires 3/22/10 | (48,000) |
| 270 | Thermo Fisher Scientific, Inc., Strike Price USD 50, Expires 2/22/10 | (4,050) |
| 250 | UnitedHealth Group, Inc., Strike Price USD 36, Expires 2/22/10 | (3,375) |
| 25 | UnitedHealth Group, Inc., Strike Price USD 36, Expires 3/22/10 | (1,487) |
| 300 | Varian Medical Systems, Inc., Strike Price USD 50, Expires 2/22/10 | (40,500) |
| 150 | Vertex Pharmaceuticals, Inc., Strike Price USD 45, Expires 2/22/10 | (2,250) |
| 100 | Watson Pharmaceuticals, Inc., Strike Price USD 45, Expires 5/24/10 | (4,000) |
| 150 | WellPoint, Inc., Strike Price USD 65, Expires 2/22/10 | (18,375) |
| 120 | WellPoint, Inc., Strike Price USD 75, Expires 3/22/10 | (2,400) |
| 220 | Zimmer Holdings, Inc., Strike Price USD 60, Expires 2/22/10 | (5,500) |
| 60 | Zimmer Holdings, Inc., Strike Price USD 65, Expires 2/22/10 | (300) |
| 80 | Zoll Medical Corp., Strike Price USD 30, Expires 3/22/10 | (5,600) |
| Total Exchange-Traded Call Options Written | | (722,978) |

JANUARY 31, 2010

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Schedule of Investments (continued)

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

| Contracts | Options Written | Value |
|--|--|-----------------|
| Exchange-Traded Put Options Written (0.1)% | | |
| 245 | Aetna, Inc., Strike Price USD 29, Expires 2/22/10 | \$ (18,375) |
| 180 | Celgene Corp., Strike Price USD 55, Expires 2/22/10 | (14,400) |
| 200 | Genzyme Corp., Strike Price USD 52.50, Expires 2/22/10 | (17,500) |
| Total Exchange-Traded Put Options Written | | (73,775) |
| Over-the-Counter Put Options Written | | |
| 100 | Vertex Pharmaceuticals, Inc., Strike Price USD 40, Expires 2/22/10 | (23,500) |
| Over-the-Counter Call Options Written (0.2)% | | |
| 40,000 | Abbott Laboratories, Strike Price USD 55.25, Expires 2/18/10, Broker UBS Securities LLC | (4,129) |
| 10,000 | AmerisourceBergen Corp., Strike Price USD 26.78, Expires 3/04/10, Broker Morgan Stanley & Co., Inc. | (9,962) |
| 22,000 | AmerisourceBergen Corp., Strike Price USD 26.89, Expires 3/12/10, Broker Credit Suisse First Boston | (22,220) |
| 20,000 | Amylin Pharmaceuticals, Inc., Strike Price USD 15.70, Expires 2/04/10, Broker Morgan Stanley & Co., Inc. | (45,609) |
| 8,000 | Becton Dickinson & Co., Strike Price USD 78.51, Expires 2/26/10, Broker UBS Securities LLC | (2,783) |
| 34,500 | Bristol-Myers Squibb Co., Strike Price USD 26.01, Expires 2/25/10, Broker Morgan Stanley & Co., Inc. | (2,300) |
| 19,500 | Cephalon, Inc., Strike Price USD 66.03, Expires 3/01/10, Broker Morgan Stanley & Co., Inc. | (29,217) |
| 6,000 | Coviden Plc, Strike Price USD 51.80, Expires 3/30/10, Broker Citigroup Global Markets | (6,407) |
| 26,600 | Elektro AB, Strike Price SEK 185.64, Expires 2/24/10, Broker Citigroup Global Markets | (6,899) |
| 20,000 | Eli Lilly & Co., Strike Price USD 37.97, Expires 3/05/10, Broker UBS Securities LLC | (3,033) |
| 62 | Fresenius Medical Care AG & Co. KGaA, Strike Price EUR 39, Expires 2/19/10, Broker Citigroup Global Markets | (1,048) |
| 17,000 | Johnson & Johnson, Strike Price USD 65, Expires 2/16/10, Broker Deutsche Bank Securities | (3,034) |
| 19,000 | Johnson & Johnson, Strike Price USD 65.25, Expires 3/03/10, Broker Deutsche Bank Securities | (5,523) |
| 100 | Koninklijke (Royal) Philips Electronics NV, Strike Price EUR 21.50, Expires 2/19/10, Broker Citigroup Global Markets | (12,238) |
| 18,000 | Koninklijke (Royal) Philips Electronics NV, Strike Price EUR 21.50, Expires 3/24/10, Broker Goldman Sachs & Co. | (25,671) |
| 75 | Koninklijke (Royal) Philips Electronics NV, Strike Price EUR 24, Expires 2/19/10, Broker Citigroup Global Markets | (6,736) |
| 25,000 | Medco Health Solutions, Inc., Strike Price USD 66.52, Expires 2/26/10, Broker UBS Securities LLC | (6,157) |
| Over-the-Counter Call Options Written (concluded) | | |
| 30,000 | Medtronic, Inc., Strike Price USD 46, Expires 3/08/10, Broker Goldman Sachs & Co. | \$ (14,587) |
| 9,000 | Merck & Co., Inc., Strike Price USD 38, Expires 2/10/10, Broker Credit Suisse First Boston | (7,667) |
| 10,000 | Millipore Corp., Strike Price USD 72.63, Expires 2/08/10, Broker Morgan Stanley & Co., Inc. | (1,737) |
| 15,000 | Novartis AG, Registered Shares, Strike Price CHF 55.39, Expires 2/09/10, Broker UBS Securities LLC | (22,032) |
| 12,000 | Novartis AG, Registered Shares, Strike Price CHF 56.85, Expires 3/05/10, Broker Citigroup Global Markets | (4,740) |
| 45,000 | PerkinElmer, Inc., Strike Price USD 20.50, Expires 2/19/10, Broker Morgan Stanley & Co., Inc. | (16,455) |
| 53,000 | Pfizer, Inc., Strike Price USD 18.50, Expires 2/19/10, Broker UBS Securities LLC | (28,793) |
| 80 | Roche Holding AG, Strike Price CHF 180, Expires 3/19/10, Broker Morgan Stanley & Co., Inc. | (27,882) |
| 65,000 | Smith & Nephew Plc, Strike Price GBP 6.48, Expires 2/24/10, Broker UBS Securities LLC | (7,448) |
| 8,400 | Sonova Holding AG, Strike Price CHF 126.38, Expires 2/09/10, Broker Credit Suisse First Boston | (45,098) |
| 10,000 | St. Jude Medical, Inc., Strike Price USD 40.98, Expires 2/25/10, Broker Morgan Stanley & Co., Inc. | (931) |
| 9,300 | Tecan Group AG, Registered Shares, Strike Price CHF 80.52, Expires 3/10/10, Broker UBS Securities LLC | (7,070) |
| 12,500 | | (8,367) |

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Teva Pharmaceutical Industries Ltd. - ADR, Strike Price USD 58.64, Expires 3/05/10, Broker UBS Securities LLC

| | | |
|--------|--|----------|
| 34,000 | UnitedHealth Group, Inc., Strike Price USD 33.27, Expires 2/08/10, Broker Citigroup Global Markets | (19,101) |
|--------|--|----------|

| | |
|--|-----------|
| Total Over-the-Counter Call Options Written | (404,874) |
|--|-----------|

| | |
|---|-------------|
| Total Options Written (Premiums Received \$1,944,830) (0.6)% | (1,201,627) |
|---|-------------|

| | |
|---|-------------|
| Total investments net of outstanding options written 97.6% | 201,975,477 |
| Other Assets Less Liabilities 2.4% | 4,879,204 |

| | |
|--------------------------|-----------------------|
| Net Assets 100.0% | \$ 206,854,681 |
|--------------------------|-----------------------|

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

| | |
|-------------------------------|----------------|
| Aggregate cost | \$ 180,631,153 |
| Gross unrealized appreciation | \$ 24,534,347 |
| Gross unrealized depreciation | (1,988,396) |
| Net unrealized appreciation | \$ 22,545,951 |

- (a) Non-income producing security.
- (b) Security, or a portion of security, is on loan.
- (c) Security, or a portion thereof, pledged as collateral for outstanding options written.
- (d) 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:

Schedule of Investments (concluded)

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

| Affiliate | Net Activity | Income |
|--|----------------|--------|
| BlackRock Liquidity Funds, TempFund, Institutional Class | \$ (4,476,284) | \$ 560 |
| BlackRock Liquidity Series, LLC Money Market Series | \$ (1,215,600) | \$ 66 |

(e) Represents current yield as of report date.

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

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

| Currency Purchased | Currency Sold | Counterparty | Settlement Date | Unrealized Appreciation (Depreciation) |
|--------------------|---------------|--------------------------|-----------------|--|
| CHF 485,000 | USD 461,869 | Citigroup Global Markets | 2/01/10 | \$ (4,623) |
| USD 4,189 | EUR 3,000 | Citigroup Global Markets | 2/02/10 | 30 |
| USD 38,833 | EUR 28,000 | Citigroup Global Markets | 2/03/10 | 11 |
| USD 18,073 | CHF 19,000 | Deutsche Bank Securities | 2/02/10 | 160 |
| Total | | | | \$ (4,422) |

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, 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)

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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 annual report.

The following table summarizes the inputs used as of January 31, 2010 in determining the fair valuation of the Trust's investments:

| Investments in Securities | | | | |
|----------------------------------|-----------------------|----------------------|----------------|-----------------------|
| Valuation Inputs | Level 1 | Level 2 | Level 3 | Total |
| Assets: | | | | |
| Common Stocks: | | | | |
| Biotechnology | \$ 22,508,284 | | | \$ 22,508,284 |
| Health Care Equipment & Supplies | 52,510,526 | \$ 7,036,264 | | 59,546,790 |
| Health Care Providers & Services | 33,335,830 | 1,815,509 | | 35,151,339 |
| Health Care Technology | 10,504,198 | | | 10,504,198 |
| Industrial Conglomerates | | 2,367,537 | | 2,367,537 |
| Life Sciences Tools & Services | 11,602,058 | 2,318,521 | | 13,920,579 |
| Pharmaceuticals | 43,852,955 | 9,132,968 | | 52,985,923 |
| Short-Term Securities | 5,256,054 | 936,400 | | 6,192,454 |
| Total | \$ 179,569,905 | \$ 23,607,199 | | \$ 203,177,104 |

| Other Financial Instruments¹ | | | | |
|--|---------------------|---------------------|----------------|-----------------------|
| Valuation Inputs | Level 1 | Level 2 | Level 3 | Total |
| Assets: | | | | |
| | | \$ 201 | | \$ 201 |
| Liabilities: | | | | |
| | \$ (754,027) | (452,223) | | (1,206,250) |
| Total | \$ (754,027) | \$ (452,022) | | \$ (1,206,049) |

¹ Other 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 market value.

KEY TO ABBREVIATIONS

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

JANUARY 31, 2010

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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 13(a)-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: March 19, 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: March 19, 2010

By: /s/ Neal J. Andrews

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

Date: March 19, 2010
