

BlackRock Health Sciences Trust
Form N-CSRS
July 03, 2008

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM N-CSRS

**CERTIFIED SHAREHOLDER REPORT OF REGISTERED MANAGEMENT
INVESTMENT COMPANIES**

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 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: 11/01/2007 04/30/2008

EQUITIES FIXED INCOME REAL ESTATE LIQUIDITY ALTERNATIVES BLACKROCK SOLUTIONS

Semi-Annual Report

APRIL 30, 2008 | (UNAUDITED)

[BlackRock Dividend Achievers™ Trust \(BDV\)](#)

[BlackRock Enhanced Dividend Achievers™ Trust \(BDJ\)](#)

[BlackRock Strategic Dividend Achievers™ Trust \(BDT\)](#)

[BlackRock EcoSolutions Investment Trust \(BQR\)](#)

[BlackRock Global Energy and Resources Trust \(BGR\)](#)

[BlackRock Global Equity Income Trust \(BFD\)](#)

[BlackRock Global Opportunities Equity Trust \(BOE\)](#)

[BlackRock Health Sciences Trust \(BME\)](#)

[BlackRock International Growth and Income Trust \(BGY\)](#)

[BlackRock Real Asset Equity Trust \(BCF\)](#)

[BlackRock S&P Quality Rankings Global Equity Managed Trust \(BQY\)](#)

[BlackRock World Investment Trust \(BWC\)](#)

NOT FDIC INSURED
MAY LOSE VALUE
NO BANK GUARANTEE

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A Letter to Shareholders

THIS PAGE NOT PART OF YOUR FUND REPORT

Dear Shareholder

Over the past several months, financial markets have been buffeted by the housing recession, the credit market unraveling and related liquidity freeze and steadily rising commodity prices. Counterbalancing these difficulties were booming export activity, a robust non-financial corporate sector and, notably, aggressive and timely monetary and fiscal policy actions.

Amid the market tumult, the Federal Reserve Board (the Fed) intervened with a series of moves to bolster liquidity and ensure financial market stability. Since September 2007, the central bank slashed the target federal funds rate 325 basis points (3.25%), bringing the rate to 2.0% as of period-end. Of greater magnitude, however, were the Fed's other policy decisions, which included opening the discount window directly to broker dealers and investment banks and backstopping the unprecedented rescue of Bear Stearns.

The Fed's response to the financial crisis helped to improve credit conditions and investor mood. After hitting a low point on March 17 (coinciding with the collapse of Bear Stearns), equity markets found a welcome respite in April, when the S&P 500 Index of U.S. stocks posted positive monthly performance for the first time since October 2007. International markets, which outpaced those of the U.S. for much of 2007, saw a reversal in that trend, as effects of the credit crisis and downward pressures on growth were far-reaching.

In contrast to equity markets, Treasury securities rallied (yields fell as prices correspondingly rose), as a broad flight-to quality theme persisted. The yield on 10-year Treasury issues, which touched 5.30% in June 2007 (its highest level in five years), fell to 4.04% by year-end and to 3.77% by April 30. Treasury issues relinquished some of their gains in April, however, as investor appetite for risk returned and other high-quality fixed income sectors outperformed.

Problems within the monoline insurance industry and the failure of auctions for auction rate securities plagued the municipal bond market, driving yields higher and prices lower across the curve. However, in conjunction with the more recent shift in sentiment, the sector delivered strong performance in the final month of the reporting period.

Overall, the major benchmark indexes generated results that generally reflected heightened investor risk aversion:

Total Returns as of April 30, 2008	6-month	12-month
U.S. equities (S&P 500 Index)	(9.64)%	(4.68)%
Small cap U.S. equities (Russell 2000 Index)	(12.92)	(10.96)
International equities (MSCI Europe, Australasia, Far East Index)	(9.21)	(1.78)
Fixed income (Lehman Brothers U.S. Aggregate Index)	4.08	6.87
Tax-exempt fixed income (Lehman Brothers Municipal Bond Index)	1.47	2.79
High yield bonds (Lehman Brothers U.S. Corporate High Yield 2% Issuer Capped Index)	(0.73)	(0.80)

Past performance is no guarantee of future results. Index performance shown for illustrative purposes only.

You cannot invest directly in an index.

As you navigate today's volatile markets, we encourage you to review your investment goals with your financial professional and to make portfolio changes, as needed. For more up-to-date commentary on the economy and financial markets, we invite you to visit www.blackrock.com/funds. As always, we thank you for entrusting BlackRock with your investment assets, and we look

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forward to continuing to serve you in the months and years ahead.

Sincerely,
Rob Kapito
President, BlackRock Advisors, LLC

Trust Summary as of April 30, 2008

BlackRock Dividend Achievers™ Trust

Investment Objective

BlackRock Dividend Achievers™ Trust (BDV) seeks to provide total return through a combination of current income and capital appreciation by investing in common stocks that pay above average dividends and have the potential for capital appreciation.

Performance

For the six months ended April 30, 2008, the Trust returned (12.19)% based on market price, with dividends reinvested. The Trust's return based on net asset value (NAV) was (11.96)%, with dividends reinvested. For the same period, the benchmark Mergent Broad Dividend Achievers Index returned (7.11)% on a NAV basis. The Trust's performance was hindered by its emphasis on higher-yielding stocks, which underperformed the broad market. The focus on yield also resulted in a relatively significant exposure to financials, the weakest-performing sector during the period. In contrast, the Trust's performance benefited from a focus on large-capitalization stocks, which outperformed their small-cap counterparts.

Trust Information

Symbol on New York Stock Exchange	BDV
Initial Offering Date	December 23, 2003
Current Quarterly Distribution per Common Share ¹	\$0.225
Current Annualized Distribution per Common Share ¹	\$0.900

¹ The distribution is not constant and is subject to change. Past performance does not guarantee future results. A portion of the distribution may be deemed a tax return of capital or net realized gain.

The table below summarizes the changes in the Trust's market price and net asset value per share:

	4/30/08	10/31/07	Change	High	Low
Market Price	\$11.54	\$ 13.64	(15.40)%	\$ 13.64	\$ 10.61
Net Asset Value	\$13.14	\$ 15.49	(15.17)%	\$ 15.49	\$ 12.53

The following chart shows the portfolio composition of the Trust's long-term investments:

Portfolio Composition²

Sector	4/30/08	10/31/07
Financial Institutions	28%	36%
Consumer Products	22	15
Health Care	14	12
Energy	13	16
Industrials	10	7
Telecommunications	5	6
Technology	3	2
Real Estate Investment Trusts	3	4
Basic Materials	1	1
Aerospace & Defense	1	

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Automotive

1

- ² For Trust compliance purposes, the Trust's sector and industry classifications refer to any one or more of the Standard Industry Codes as defined by the SEC. This definition may not apply for purposes of this report, which may combine sector and industry sub-classifications for reporting ease.

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SEMI-ANNUAL REPORT

APRIL 30, 2008

Trust Summary as of April 30, 2008

BlackRock Enhanced Dividend Achievers™ Trust

Investment Objective

BlackRock Enhanced Dividend Achievers™ Trust (BDJ) seeks to provide current income and current gains, with a secondary objective of long-term capital appreciation. The Trust seeks to achieve these objectives by investing in common stocks that pay above average dividends and have the potential for capital appreciation and by utilizing an option writing strategy to enhance distributions paid to the Trust's shareholders.

Performance

For the six months ended April 30, 2008, the Trust returned (5.62)% based on market price, with dividends reinvested. The Trust's return based on NAV was (10.11)%, with dividends reinvested. For the same period, the benchmark Mergent Broad Dividend Achievers Index returned (7.11)% on a NAV basis. The Trust's performance was hindered by its emphasis on higher-yielding stocks, which underperformed the broad market. The focus on yield also resulted in a relatively significant exposure to financials, the weakest-performing sector during the period. In contrast, a focus on large-capitalization stocks proved advantageous, as the group outpaced its small-capitalization counterparts. During the market downturn, the income generated from writing (i.e. selling) call options provided additional benefit to the portfolio.

Trust Information

Symbol on New York Stock Exchange	BDJ
Initial Offering Date	August 31, 2005
Current Monthly Distribution per Common Share ¹	\$0.101875
Current Annualized Distribution per Common Share ¹	\$1.222500

¹ The distribution is not constant and is subject to change. Past performance does not guarantee future results. A portion of the distribution may be deemed a tax return of capital or net realized gain.

The table below summarizes the changes in the Trust's market price and net asset value per share:

	4/30/08	10/31/07	Change	High	Low
Market Price	\$ 11.35	\$ 12.68	(10.49)%	\$ 12.68	\$ 10.23
Net Asset Value	\$ 12.02	\$ 14.10	(14.75)%	\$ 14.10	\$ 11.50

The following chart shows the portfolio composition of the Trust's long-term investments:

Portfolio Composition²

Sector	4/30/08	10/31/07
Financial Institutions	28%	37%
Consumer Products	21	15
Health Care	14	12
Energy	13	15
Industrials	10	7
Telecommunications	5	6
Technology	3	2

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Real Estate Investment Trusts	3	4
Basic Materials	1	1
Aerospace & Defense	1	
Media	1	
Automotive		1

- ² For Trust compliance purposes, the Trust's sector and industry classifications refer to any one or more of the Standard Industry Codes as defined by the SEC. This definition may not apply for purposes of this report, which may combine sector and industry sub-classifications for reporting ease.

Trust Summary as of April 30, 2008

BlackRock Strategic Dividend Achievers™ Trust

Investment Objective

BlackRock Strategic Dividend Achievers™ Trust (BDT) seeks to provide total return through a combination of current income and capital appreciation.

Performance

For the six months ended April 30, 2008, the Trust returned (6.74)% based on market price, with dividends reinvested. The Trust's return based on NAV was (7.38)%, with dividends reinvested. For the same period, the benchmark Mergent Broad Dividend Achievers Index returned (7.11)% on a NAV basis. The Trust's performance was hindered by an emphasis on higher-yielding stocks, which underperformed the broad market. A lack of exposure to mega-cap energy stocks also was a detractor. In contrast, the Trust's considerable exposure to smaller regional banks, and at the same time, avoidance of the largest troubled banks, benefited comparative results for the period.

Trust Information

Symbol on New York Stock Exchange	BDT
Initial Offering Date	March 30, 2004
Current Quarterly Distribution per Common Share ¹	\$0.225
Current Annualized Distribution per Common Share ¹	\$0.900

¹ The distribution is not constant and is subject to change. Past performance does not guarantee future results. A portion of the distribution may be deemed a tax return of capital or net realized gain.

The table below summarizes the changes in the Trust's market price and net asset value per share:

	4/30/08	10/31/07	Change	High	Low
Market Price	\$11.85	\$13.19	(10.16)%	\$13.19	\$10.46
Net Asset Value	\$13.58	\$15.22	(10.78)%	\$15.22	\$12.64

The following chart shows the portfolio composition of the Trust's long-term investments:

Portfolio Composition²

Sector	4/30/08	10/31/07
Financial Institutions	33%	32%
Consumer Products	19	15
Energy	16	20
Real Estate Investment Trusts	10	10
Industrials	7	7
Technology	4	4

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Building & Development	4	2
Basic Materials	3	2
Media	2	3
Automotive	2	4
Health Care		1

- ² For Trust compliance purposes, the Trust's sector and industry classifications refer to any one or more of the Standard Industry Codes as defined by the SEC. This definition may not apply for purposes of this report, which may combine sector and industry sub-classifications for reporting ease.

Trust Summary as of April 30, 2008

BlackRock EcoSolutions Investment Trust

Investment Objective

BlackRock EcoSolutions Investment Trust (BQR) seeks to provide current income, current gains and long-term capital appreciation.

Performance

For the six months ended April 30, 2008, the Trust returned (4.84)% based on market price, with dividends reinvested. The Trust's return based on NAV was 0.60%, with dividends reinvested. For the same period, the closed-end Lipper Sector Equity Funds category posted an average return of (5.89)% on a NAV basis. The Trust's performance was aided by its holdings in fertilizer and crop science companies, as well as those in water-related industrials. Heightened investor risk aversion due to financial market instability caused some areas of the new energy segment to struggle. Trust performance in the water utility sector was lackluster, with some weakness in U.S. companies.

Trust Information

Symbol on New York Stock Exchange	BQR
Initial Offering Date	September 28, 2007
Current Quarterly Distribution per Common Share ¹	\$0.40
Current Annualized Distribution per Common Share ¹	\$1.60

¹ The distribution is not constant and is subject to change. Past performance does not guarantee future results. A portion of the distribution may be deemed a tax return of capital or net realized gain.

The table below summarizes the changes in the Trust's market price and net asset value per share:

	4/30/08	10/31/07	Change	High	Low
Market Price	\$18.00	\$19.75	(8.86)%	\$19.79	\$16.03
Net Asset Value	\$19.57	\$20.31	(3.64)%	\$20.34	\$17.19

The following charts show the portfolio composition of the Trust's long-term investments:

Portfolio Composition

Country	4/30/08	10/31/07
United States	34%	35%
United Kingdom	8	8
Germany	6	7
Brazil	6	4
Belgium	6	7
Spain	5	4
Denmark	4	3

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Canada	4	4
France	3	3
Australia	3	2
Bermuda	2	2
Hong Kong	2	4
Switzerland	2	2
Israel	2	1
Japan	2	1
Norway	1	2
Philippines	1	1
China	1	1
Singapore	1	1
Chile	1	1
South Africa	1	1
Italy	1	1
Greece	1	1
Argentina	1	1
Malaysia	1	1
Austria	1	1
Netherlands		1