

BlackRock Health Sciences Trust  
Form N-CSR  
January 06, 2011

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

**FORM N-CSR**

**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: Anne F. Ackerley, Chief Executive Officer, BlackRock Health Sciences Trust, 55 East 52<sup>nd</sup> 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: 10/31/2010

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October 31, 2010

BlackRock Dividend Achievers™ Trust (BDV)

BlackRock Enhanced Dividend Achievers™ Trust (BDJ)

BlackRock Strategic Dividend Achievers™ Trust (BDT)

BlackRock EcoSolutions Investment Trust (BQR)

BlackRock Energy and Resources Trust (BGR)

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)

**Not FDIC Insured No Bank Guarantee May Lose Value**

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### Section 19(b) Disclosure

BlackRock Dividend Achievers™ Trust (BDV), BlackRock Enhanced Dividend Achievers™ Trust (BDJ), BlackRock Strategic Dividend Achievers™ Trust (BDT), BlackRock EcoSolutions Investment Trust (BQR), BlackRock Energy and Resources Trust (BGR), BlackRock Global Opportunities Equity Trust (BOE), BlackRock Health Sciences Trust (BME), BlackRock International Growth and Income Trust (BGY), BlackRock Real Asset Equity Trust (BCF) and BlackRock S&P Quality Rankings Global Equity Managed Trust (BQY) (collectively, the Trusts), acting pursuant to a Securities and Exchange Commission (SEC) exemptive order and with the approval of each Trust's Board of Trustees (the Board), each have adopted a plan, consistent with its investment objectives and policies to support a level distribution of income, capital gains and/or return of capital (the Plan). In accordance with the Plans, the Trusts currently distribute the following fixed amounts per share on a quarterly basis:

Exchange Symbol	Amount Per Common Share
BDV	\$0.162500
BDJ	\$0.245000
BDT	\$0.162500
BQR	\$0.300000
BGR	\$0.405000
BOE	\$0.568750
BME	\$0.384375
BGY	\$0.340000
BCF	\$0.271800
BQY	\$0.250000

The fixed amounts distributed per share are subject to change at the discretion of each Trust's Board. Under its Plan, each Trust will distribute all available investment income to its shareholders, consistent with its primary investment objectives and as required by the Internal Revenue Code of 1986, as amended (the Code). If sufficient investment income is not available on a quarterly basis, the Trusts will distribute long-term capital gains and/or return of capital to shareholders in order to maintain a level distribution. Each quarterly distribution to shareholders is expected to be at the fixed amount established by the Board, except for extraordinary distributions and potential distribution rate increases or decreases to enable the Trusts to comply with the distribution requirements imposed by the Code.

Shareholders should not draw any conclusions about the Trust's investment performance from the amount of these distributions or from the terms of the Plan. Each Trust's total return performance on net asset value is presented in its financial highlights table.

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The Board may amend, suspend or terminate a Trust's Plan without prior notice if it deems such actions to be in the best interests of the Trust or its shareholders. The suspension or termination of the Plan could have the effect of creating a trading discount (if the Trust's stock is trading at or above net asset value) or widening an existing trading discount. The Trusts are subject to risks that could have an adverse impact on their ability to maintain level distributions. Examples of potential risks include, but are not limited to, economic downturns impacting the markets, decreased market volatility, companies suspending or decreasing corporate dividend distributions and changes in the Code. Please refer to each Trust's prospectus for a more complete description of its risks.

Please refer to the Additional Information for a cumulative summary of the Section 19(a) notices for each Trust's current fiscal period. Section 19(a) notices for the Trusts, as applicable, are available on the BlackRock website [www.blackrock.com](http://www.blackrock.com).

## A Letter to Shareholders

Dear Shareholder:

The global economic recovery that began in 2009 has continued on its choppy course this year, delivering mixed but slowly improving economic data and gradual if uneven improvement of investor sentiment. The risks of a double-dip recession continue to recede, but the economy remains mired in a slow-growth environment. In the United States, the National Bureau of Economic Research declared that the Great Recession ended in June 2009. Spanning December 2007 to June 2009, this marked the longest reported recession since the Great Depression. Structural problems of ongoing deleveraging and weak spending among businesses and households weigh heavily on the pace of economic growth. The unemployment rate remains stubbornly high in the face of sluggish job gains in the private sector. The US dollar, along with other developed market currencies, has experienced devaluation resulting from aggressively easy monetary and fiscal policies. Given these long-standing conditions, the Federal Reserve Board has announced that additional policy action will be taken to combat deflation and unemployment and promote economic growth.

The high levels of volatility experienced in global equity markets throughout 2009 continued into 2010 as mixed economic data and lingering credit issues caused stocks to trade in both directions, but by the end of the first quarter, most markets had managed to post gains. The second quarter, in contrast, brought higher levels of volatility and a flight to quality as investor sentiment was dominated by fears of a double-dip recession. Global equity markets saw negative quarterly returns and for many markets, the first significant downturn since the bull market began in March 2009. In the third quarter, economic data turned less negative and strong corporate earnings reports became increasingly consistent. These factors, along with attractive valuations and expectations for additional quantitative easing, drove equity markets higher, with most markets recapturing their second quarter losses. Stocks continued their rally into the beginning of the fourth quarter, closing out the 12-month period in positive territory. International equities posted gains on both a six- and 12-month basis. In the United States, both large and small cap equities posted robust gains for the 12-month period, while on a six-month basis, large cap stocks remained relatively flat and small caps turned slightly negative.

In fixed income markets, yields fluctuated but declined significantly over the past 12 months amid heightened uncertainty. Weak economic data, lingering credit problems and, near the end of the period, the expectation of additional quantitative easing drove interest rates lower and bond prices higher. Treasuries rallied over the period, modestly outperforming the credit spread sectors of the market. Corporate credit spreads benefited from the low interest rate environment and high yield fixed income became increasingly attractive due to declining default rates and better-than-expected results on European bank stress tests. Tax-exempt municipal bonds performed well over the 12-month period, driven primarily by technical factors including favorable supply-and-demand dynamics.

Cash investments, as represented by the 3-month Treasury bill, returned only a fraction over 0% for the 12-month period as short-term interest rates remained low. Yields on money market securities remain near all-time lows.

Against this backdrop, the major market averages posted the following returns:

<b>Total Returns as of October 31, 2010</b>	<b>6-month</b>	<b>12-month</b>
US large cap equities (S&P 500 Index)	0.74%	16.52%
US small cap equities (Russell 2000 Index)	(1.24)	26.58
International equities (MSCI Europe, Australasia, Far East Index)	5.74	8.36
3-month Treasury bill (BofA Merrill Lynch 3-Month Treasury Bill Index)	0.08	0.12
US Treasury securities (BofA Merrill Lynch 10-Year US Treasury Index)	10.63	10.03
US investment grade bonds (Barclays Capital US Aggregate Bond Index)	5.33	8.01
Tax-exempt municipal bonds (Barclays Capital Municipal Bond Index)	3.95	7.78
US high yield bonds (Barclays Capital US Corporate High Yield 2% Issuer Capped Index)	6.73	19.10

Past performance is no guarantee of future results. Index performance shown for illustrative purposes only. You cannot invest directly in an index.

As global economic conditions continue to improve, investors across the world continue to face uncertainty about the future of economic growth. Through periods of uncertainty, as ever, BlackRock's full resources are dedicated to the management of our clients' assets. For additional market perspective and investment insight, visit [www.blackrock.com/shareholdermagazine](http://www.blackrock.com/shareholdermagazine), where you'll find the most recent issue of our award-winning **Shareholder**® magazine, as well as its quarterly companion

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newsletter, ***Shareholder Perspectives***. As always, we thank you for entrusting BlackRock with your investments, and we look forward to your continued partnership in the months and years ahead.

Sincerely,

Rob Kapito  
President, BlackRock Advisors, LLC

THIS PAGE NOT PART OF YOUR FUND REPORT

OCTOBER 31, 2010

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Trust Summary as of October 31, 2010

BlackRock Dividend Achievers™ Trust

**Trust Overview**

**BlackRock Dividend Achievers™ Trust s (BDV) (the Trust )** investment objective is to provide total return through a combination of current income, capital gains and long-term capital appreciation. The Trust seeks to achieve its investment objective by investing, under normal market conditions, at least 80% of its assets in common stocks included in the universe of common stocks of issuers which Indxis (formerly Mergent), a recognized provider of financial information, has determined are Dividend Achievers . Each issuer in the Dividend Achievers universe has been identified as a U.S. publicly traded company that has consistently increased its regular annual dividend payments for at least each of the last ten years. The Trust may invest directly in such securities or synthetically through the use of derivatives. The Trust utilizes an option writing (selling) strategy to enhance current gains.

No assurance can be given that the Trust s investment objective will be achieved.

**Performance**

For the 12 months ended October 31, 2010, the Trust returned 28.15% based on market price and 17.36% based on net asset value ( NAV ). For the same period, the benchmark Indxis Broad Dividend Achievers Index ( Dividend Achievers Index ) (formerly Mergent Broad Dividend Achievers Index) returned 18.27% and the broader market, as measured by the Russell 1000 Index and the Russell 1000 Value Index, returned 17.67% and 15.71%, respectively. All returns reflect reinvestment of dividends. The Trust s discount to NAV, which narrowed during the period, accounts for the difference between performance based on price and performance based on NAV. The following discussion relates to performance based on NAV. Detracting from performance for the period was security selection in the industrials sector as well as consumer staples and health care, where the Trust s holdings in more defensive names weighed on performance. The Trust s cash weighting, though minimal, detracted marginally as markets appreciated. Contributing to performance was stock selection in materials and in the more stable-yielding utilities sector. An underweight allocation to financials proved beneficial as the strong price appreciation seen in the sector early in 2010 trailed off during the year due to significant headwinds, including increased regulation and a tightening competitive environment. In addition, earnings generated through the Trust s option writing strategy enhanced performance for the period.

The views expressed reflect the opinions of BlackRock as of the date of this report and are subject to change based on changes in market, economic or other conditions. These views are not intended to be a forecast of future events and are no guarantee of future results.

**Trust Information**

Symbol on New York Stock Exchange ( NYSE )	BDV
Initial Offering Date	December 23, 2003
Yield based on Closing Market Price as of October 31, 2010 (\$9.88) <sup>1</sup>	6.58%
Current Quarterly Distribution per Common Share <sup>2</sup>	\$0.1625
Current Annualized Distribution per Common Share <sup>2</sup>	\$0.6500

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- <sup>1</sup> Yield on closing market price is calculated by dividing the current annualized distribution per share by the closing market price. Past performance does not guarantee future results.
- <sup>2</sup> The distribution rate is not constant and is subject to change. 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:

	10/31/10	10/31/09	Change	High	Low
Market Price	\$ 9.88	\$ 8.27	19.47%	\$ 9.98	\$ 5.88
Net Asset Value	\$ 10.00	\$ 9.14	9.41%	\$ 10.11	\$ 8.86

The following charts show the ten largest holdings and sector allocations of the Trust's long-term investments:

### Ten Largest Holdings

	10/31/10
International Business Machines Corp.	5%
Chevron Corp.	4
Exxon Mobil Corp.	3
Caterpillar, Inc.	3
Johnson & Johnson	3
McDonald's Corp.	3
AT&T Inc.	3
Abbott Laboratories	3
Procter & Gamble Co. (The)	3
Altria Group, Inc.	3

### Sector Allocations

	10/31/10	10/31/09
Consumer Staples	21%	22%
Industrials	14	15
Health Care	12	15
Energy	11	9
Utilities	9	4
Consumer Discretionary	8	8
Financials	7	13
Information Technology	6	6
Materials	6	3
Telecommunication Services	6	5

For Trust compliance purposes, the Trust's sector classifications refer to any one or more of the sector sub-classifications used by one or more widely recognized market indexes or ratings group indexes, and/or as defined by Trust management. This definition may not apply for purposes of this report, which may combine sector sub-classifications for reporting ease.



Trust Summary as of October 31, 2010

BlackRock Enhanced Dividend Achievers™ Trust

## Trust Overview

**BlackRock Enhanced Dividend Achievers™ Trust s (BDJ) (the Trust )** primary investment objective is to provide current income and current gains, with a secondary investment objective of long-term capital appreciation. The Trust seeks to achieve its investment objectives by investing in common stocks that pay above average dividends and have the potential for capital appreciation and by utilizing an option writing (selling) strategy to enhance current gains. The Trust invests, under normal market conditions, at least 80% of its assets in common stocks that are included in the universe of common stocks of issuers which Indxis (formerly Mergent) has determined are Dividend Achievers and options with exposure to such stocks. Each issuer in the Dividend Achievers universe has been identified as a U.S. publicly traded company that has consistently increased its regular annual dividend payments for at least each of the last ten years. The Trust may invest directly in such securities or synthetically through the use of derivatives.

No assurance can be given that the Trust s investment objectives will be achieved.

## Performance

For the 12 months ended October 31, 2010, the Trust returned 28.30% based on market price and 15.23% based on NAV. For the same period, the benchmark Dividend Achievers Index returned 18.27% and the broader market, as measured by the Russell 1000 Index and the Russell 1000 Value Index, returned 17.67% and 15.71%, respectively. All returns reflect reinvestment of dividends. The Trust moved from a discount to NAV to a premium by period-end, which accounts for the difference between performance based on price and performance based on NAV. The following discussion relates to performance based on NAV. Stock selection in the industrials sector was the primary cause of the Trust s underperformance relative to the benchmark. The Trust s cash position hindered relative performance as markets appreciated over the period. Also detracting was stock selection in consumer staples and health care, where the Trust s holdings in more defensive names weighed on performance. Contributing positively to performance was security selection based on fundamental analyses in materials, utilities, and telecommunication services; the Trust s holdings in these sectors performed as anticipated and generated meaningful dividend income in an environment where investors avidly sought yield and income. In addition, earnings generated through the Trust s option writing strategy enhanced performance for the period.

The views expressed reflect the opinions of BlackRock as of the date of this report and are subject to change based on changes in market, economic or other conditions. These views are not intended to be a forecast of future events and are no guarantee of future results.

## Trust Information

Symbol on NYSE	BDJ
Initial Offering Date	August 31, 2005
Yield based on Closing Market Price as of October 31, 2010 (\$8.99) <sup>1</sup>	10.90%
Current Quarterly Distribution per Common Share <sup>2</sup>	\$0.245
Current Annualized Distribution per Common Share <sup>2</sup>	\$0.980

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- <sup>1</sup> Yield on closing market price is calculated by dividing the current annualized distribution per share by the closing market price. Past performance does not guarantee future results.
- <sup>2</sup> The distribution is not constant and is subject to change. 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:

	10/31/10	10/31/09	Change	High	Low
Market Price	\$ 8.99	\$ 7.89	13.94%	\$ 9.28	\$ 7.29
Net Asset Value	\$ 8.32	\$ 8.13	2.34%	\$ 8.64	\$ 7.61

The following charts show the ten largest holdings and sector allocations of the Trust's long-term investments:

### Ten Largest Holdings

	10/31/10
International Business Machines Corp.	5%
Chevron Corp.	4
Exxon Mobil Corp.	4
Johnson & Johnson	3
Caterpillar, Inc.	3
McDonald's Corp.	3
Procter & Gamble Co. (The)	3
Abbott Laboratories	3
AT&T Inc.	3
Coca-Cola Co. (The)	3

### Sector Allocations

	10/31/10	10/31/09
Consumer Staples	21%	22%
Industrials	14	14
Health Care	12	16
Energy	11	9
Utilities	9	4
Consumer Discretionary	8	8
Financials	7	12
Information Technology	6	6
Materials	6	3
Telecommunication Services	6	6

For Trust compliance purposes, the Trust's sector classifications refer to any one or more of the sector sub-classifications used by one or more widely recognized market indexes or ratings group indexes, and/or as defined by Trust management. This definition may not apply for purposes of this report, which may combine sector sub-classifications for reporting ease.



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Trust Summary as of October 31, 2010

**BlackRock Strategic Dividend Achievers™ Trust**

#### Trust Overview

**BlackRock Strategic Dividend Achievers™ Trust s (BDT) (the Trust )** investment objective is to provide total return through a combination of current income, current gains and long-term capital appreciation. The Trust seeks to achieve its investment objective by investing primarily in common stocks of small to mid-capitalization issuers that pay above average dividends and have the potential for capital appreciation. The Trust invests, under normal market conditions, at least 80% of its assets in common stocks included in the universe of common stocks of issuers which Indxis (formerly Mergent), a recognized provider of financial information, has determined are Dividend Achievers . Each issuer in the Dividend Achievers universe has been identified as a U.S. publicly traded company that has consistently increased its regular annual dividend payments for at least each of the last ten years. The Trust may invest directly in such securities or synthetically through the use of derivatives. The Trust utilizes an option writing (selling) strategy to enhance current gains.

No assurance can be given that the Trust s investment objective will be achieved.

#### Performance

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