

H&Q LIFE SCIENCES INVESTORS
Form N-Q
March 01, 2007

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

OMB APPROVAL
OMB Number: 3235-0578
Expires: May 31, 2007
Estimated average burden hours per
response.....21.09

FORM N-Q

**QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED
MANAGEMENT INVESTMENT COMPANY**

Investment Company Act file number 811-06565

H&Q Life Sciences Investors
(Exact name of registrant as specified in charter)

30 Rowes Wharf, Boston, MA
(Address of principal executive offices)

02110
(Zip code)

(Name and address of agent for service)

Registrant's telephone number, including area code: 617-772-8500

Date of fiscal year end: September 30

Date of reporting period: 12/31/2006

Form N-Q is to be used by management investment companies, other than small business investment companies registered on Form N-% (ss.ss. 239.24 and 274.5 of this chapter), to file reports with the Commission, not later than 60 days after the close of the first and third fiscal quarters, pursuant to rule 30b-15 under the Investment Company Act of 1940 (17CFR 270.3b1-5). The Commission may use the information provided on Form N-Q in its regulatory, disclosure review, inspection, and policymaking roles.

A registrant is required to disclose the information specified by Form N-Q, and the Commission will make this information public. A registrant is not required to respond to the collection of information contained in Form N-Q unless the Form displays a currently valid Office of Management and Budget (OMB) control number. Please direct comments concerning the accuracy of the information collection burden estimate and any suggestions for reducing the burden to the Secretary, Securities and Exchange Commission, 450 Fifth Street, NW, Washington, DC 20549-0609. The OMB has reviewed this collection of information under the clearance requirements of 44 U.S.C. ss.3507.

Item 1. Schedule of Investments.

H&Q LIFE SCIENCES INVESTORS**SCHEDULE OF INVESTMENTS**

DECEMBER 31, 2006

(Unaudited)

SHARES		VALUE
	CONVERTIBLE SECURITIES AND WARRANTS 13.8% of Net Assets	
	Convertible Preferred (Restricted) (d) 12.7%	
	<i>Drug Discovery Technologies 1.3%</i>	
1,587,302	Agilix Corporation Series B (a) (b)	\$ 94,540
250,000	Ceres, Inc. Series C (a)	1,500,000
21,462	Ceres, Inc. Series C-1 (a)	128,772
175,540	Ceres, Inc. Series D (a)	1,053,240
174,848	Cougar Biotechnology Inc. Series A (a)	787,498
932,488	Galileo Pharmaceuticals, Inc. Series F-1 (a)	93
200,000	Zyomyx, Inc. Series A New (a)	20,000
200	Zyomyx, Inc. Series B New (a)	20
	<i>Emerging Biopharmaceuticals 3.7%</i>	
744,921	Agensys, Inc. Series C (a)	2,200,201
1,212,121	Raven biotechnologies, Inc. Series B (a)	1,006,060
1,872,772	Raven biotechnologies, Inc. Series C (a)	1,554,401
2,722,014	Raven biotechnologies, Inc. Series D (a)	800,000
1,415,385	TargeGen, Inc. Series C (a)	1,840,001
30,920	Therion Biologics Corporation Series A (a)	309
160,000	Therion Biologics Corporation Series B (a)	1,600
271,808	Therion Biologics Corporation Series C (a)	2,718
22,224	Therion Biologics Corporation Series C-2 (a)	222
16,668	Therion Biologics Corporation warrants (expiration 8/18/08) (a)	0
28,991	Therion Biologics Corporation Sinking Fund (a)	290
2,649,902	Xanthus Life Sciences Inc. Series B (a)	2,649,902
	<i>Healthcare Services 2.7%</i>	
1,051,429	CardioNet, Inc. Series C (a)	3,680,001
35,254	CardioNet, Inc. warrants (expiration 5/01/11) (a)	0
1,390	CardioNet, Inc. warrants (expiration 8/29/11) (a)	0
322,168	CytoLogix Corporation Series A (a) (b)	265,789
151,420	CytoLogix Corporation Series B (a) (b)	124,922
3,589,744	PHT Corporation Series D (a) (b)	2,800,000
802,996	PHT Corporation Series E (a) (b)	626,337
	<i>Medical Devices and Diagnostics 5.0%</i>	
3,235,293	Concentric Medical, Inc. Series B (a) (b)	4,529,410
1,162,790	Concentric Medical, Inc. Series C (a) (b)	1,627,906
455,333	Concentric Medical, Inc. Series D (a) (b)	637,466
177,778	EPR, Inc. Series A (a)	1,778
2,446,016	Labcyte, Inc. Series C (a)	1,280,000
2,050,000	Magellan Biosciences, Inc. Series A (a)	2,050,000
130,000	Masimo Corporation Series D	1,430,000
1,088,436	OmniSonics Medical Technologies, Inc. Series B (a)	910,041
1,031,992	OmniSonics Medical Technologies, Inc. Series C (a)	862,849
43,478	TherOx, Inc. Series H (a)	167,869

SHARES		VALUE
CONVERTIBLE SECURITIES AND WARRANTS continued		
Convertible Preferred (Restricted) (d) continued		
Medical Devices and Diagnostics continued		
99,646	TherOx, Inc. Series I (a)	\$ 384,733
2,813	TherOx warrants (expiration 1/26/10) (a)	0
5,427	TherOx warrants (expiration 6/09/09) (a)	0
		\$ 35,018,968

**PRINCIPAL
AMOUNT**

Convertible Notes (Restricted) (d) 1.1%		
Drug Discovery Technologies 1.0%		
\$ 2,000,000	Matritech Inc., 15.00% due 2009 (b)	2,760,615
Healthcare Services 0.1%		
216,219	CardioNet, Inc. Cvt. Note, 8.00% due 2007	216,219
112,224	CytoLogix Corporation Cvt. Note, 6.75% (b) (c)	112,224
		\$ 3,089,058
	TOTAL CONVERTIBLE SECURITIES AND WARRANTS	
	(Cost \$45,518,232)	\$ 38,108,026

SHARES

COMMON STOCKS AND WARRANTS 71.9%		
Biopharmaceuticals 29.9%		
175,880	Advancis Pharmaceutical Corporation warrants (expiration 4/29/10) (a) (d)	0
355,591	Akorn Inc. (a) (d)	2,222,444
108,889	Akorn Inc. warrants (expiration 3/07/11) (a) (d)	92,556
90,590	Alexza Pharmaceuticals, Inc. (a)	1,031,820
98,230	Amgen, Inc. (a)	6,710,091
22,350	Amylin Pharmaceuticals, Inc. (a)	806,164
263,500	Bioenvision, Inc. (a)	1,222,640
166,000	BioMarin Pharmaceuticals, Inc. (a)	2,720,740
534,805	Critical Therapeutics, Inc. (a)	1,091,002
159,672	Critical Therapeutics, Inc. warrants (expiration 6/06/10) (a) (d)	0
204,453	Cubist Pharmaceuticals, Inc. (a)	3,702,644
425,000	Encysive Pharmaceuticals, Inc. (a)	1,789,250
58,120	Genentech, Inc. (a)	4,715,276
119,882	Genzyme Corporation (a)	7,382,334
186,575	Gilead Sciences, Inc. (a)	12,114,315
328,700	Hana Biosciences, Inc. (a)	2,093,819
333,525	Idenix Pharmaceuticals, Inc. (a)	2,898,332
362,336	Inspire Pharmaceuticals, Inc. (a)	2,300,834
24,500	Invitrogen Corporation (a)	1,386,455

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SHARES		VALUE
COMMON STOCKS AND WARRANTS continued		
Biopharmaceuticals continued		
125,400	MannKind Corporation (a)	\$ 2,067,846
135,300	Medarex, Inc. (a)	2,001,087
235,260	MedImmune, Inc. (a)	7,615,366
34,640	Myriad Genetics Inc. (a)	1,084,232
259,350	Nektar Therapeutics (a)	3,944,713
717,000	Panacos Pharmaceuticals, Inc. (a)	2,875,170
239,900	PDL BioPharma, Inc. (a)	4,831,586
100,400	Point Therapeutics, Inc. (a)	103,412
257,600	Solexa, Inc. warrants (expiration 4/29/07) (a) (d)	0
286,411	Tercica, Inc. (a)	1,432,055
67,650	Vertex Pharmaceuticals, Inc. (a)	2,531,463
		82,767,646
Drug Delivery 2.3%		
190,300	Alkermes, Inc. (a)	2,544,311
249,775	DepoMed, Inc. (a)	861,724
178,685	Penwest Pharmaceuticals Co. (a)	2,969,744
		6,375,779
Drug Discovery Technologies 9.6%		
183,967	Aspreva Pharmaceuticals Corporation (a)	3,775,003
162,288	Avalon Pharmaceuticals, Inc. (a)	632,923
124,130	Celgene Corporation (a)	7,141,199
25,260	Cougar Biotechnology Inc. (Restricted) (a) (d)	113,753
568,932	deCODE Genetics, Inc. (a)	2,577,262
1,846,154	Matritech Inc. warrants (expiration 1/17/11) (a) (b) (d)	0
582,700	Pharmacopeia Drug Discovery, Inc. (a)	2,482,302
189,250	Senomyx, Inc. (a)	2,458,357
55,350	Shire PLC (e)	3,418,416
36,050	United Therapeutics Corporation (a)	1,960,039
133,400	ZymoGenetics, Inc. (a)	2,077,038
200,000	Zyomyx, Inc. (Restricted) (a) (d)	2,000
		26,638,292
Emerging Biopharmaceuticals 7.8%		
340,920	ACADIA Pharmaceuticals, Inc. (a)	2,996,687
319,454	Ariad Pharmaceuticals, Inc. (a)	1,641,994
229,973	Barrier Therapeutics, Inc. (a)	1,733,996
82,320	DOV Pharmaceutical, Inc. (a)	22,226
343,980	Exelixis, Inc. (a)	3,095,820
1,099,000	Lexicon Genetics, Inc. (a)	3,967,390
108,681	Momenta Pharmaceuticals, Inc. (a)	1,709,552
154,480	Neurogen Corporation (a)	919,156
242,522	Nitromed, Inc. (a)	594,179
31,830	Progenics Pharmaceuticals, Inc. (a)	819,304
45,300	Rigel Pharmaceuticals, Inc. (a)	537,711
333,570	Seattle Genetics, Inc. (a)	1,777,928
55,759	Theravance, Inc. (a)	1,722,396

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SHARES		VALUE
COMMON STOCKS AND WARRANTS continued		
Emerging Biopharmaceuticals continued		
146,982	Therion Biologics Corporation (Restricted) (a) (d)	\$ 1,470
		21,539,809
Generic Pharmaceuticals 5.0%		
335,500	Caraco Pharmaceutical Laboratories, Ltd. (a)	4,697,000
296,612	Impax Laboratories, Inc. (a) (d)	2,325,438
50,500	Medicis Pharmaceutical Corporation	1,774,065
159,908	Teva Pharmaceutical Industries, Ltd. (e)	4,969,941
		13,766,444
Healthcare Services 3.1%		
148,148	Aveta, Inc. (Restricted) (a) (d)	2,370,368
17,416	Dako A/S (Restricted) (d) (f)	181,301
178,540	Emageon, Inc. (a)	2,742,374
16,475	National Medical Health Card Systems, Inc. (a)	194,570
204,139	Syntiro Healthcare Services (Restricted) (a) (d)	204
2,475,000	Zix Corporation (a) (b)	2,945,250
1,485,000	Zix Corporation warrants (expiration 10/05/11) (a) (b) (d)	0
		8,434,067
Medical Devices and Diagnostics 14.2%		
86,270	Adeza Biomedical Corporation (a)	1,286,286
335,650	Align Technology, Inc. (a)	4,689,031
193,000	Arena Pharmaceuticals, Inc. (a)	2,491,630
258,177	Conor Medsystems, Inc. (a)	8,088,685
84,910	Cytoc Corporation (a)	2,402,953
51,105	IDEXX Laboratories, Inc. (a)	4,052,627
24,610	Inverness Medical Innovations, Inc. (a)	952,407
130,000	Masimo Corporation (Restricted) (a) (d)	1,300
447,080	Medwave Inc. (a) (d)	220,410
111,770	Medwave Inc. warrants (expiration 8/21/11) (a) (d)	0
305,600	Natus Medical, Inc. (a)	5,076,016
572,525	Orthovita, Inc. (a)	2,078,266
139,019	Songbird Hearing, Inc. (Restricted) (a) (d)	1,390
420,873	Third Wave Technologies, Inc. (a)	2,024,399
75,000	Vital Images, Inc. (a)	2,610,000
373,471	VNUS Medical Technologies, Inc. (a)	3,316,422
		39,291,822
	TOTAL COMMON STOCKS AND WARRANTS	
	(Cost \$181,639,336)	\$ 198,813,859

PRINCIPAL AMOUNT

SHORT-TERM INVESTMENTS 16.6%		
\$ 11,890,000	American Express Corporation; 5.00% due 01/02/07	11,888,349
25,000,000	UBS Financial Development LLC; 5.27% due 01/12/07	24,959,781

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PRINCIPAL AMOUNT		VALUE
	SHORT-TERM INVESTMENTS continued	
\$ 9,000,000	United Parcel Service America Inc.; 5.15% due 01/05/07	\$ 8,994,850
	TOTAL SHORT-TERM INVESTMENTS (Cost \$45,842,980)	\$ 45,842,980
	TOTAL INVESTMENTS 102.3% (Cost \$273,000,548)	\$ 282,764,865
	OTHER LIABILITIES IN EXCESS OF ASSETS (2.3)%	(6,315,721)
	NET ASSETS - 100%	\$ 276,449,144

-
- (a) Non-income producing security.
 - (b) Affiliated issuers in which the Fund holds 5% or more of the voting securities (Total Market Value of \$16,524,459).
 - (c) Variable maturity.
 - (d) Security fair valued by the Valuation Committee of the Board of Trustees.
 - (e) American Depository Receipt.
 - (f) Foreign Security.

Investment Securities Valuation - Investments traded on national securities exchanges or in the over-the-counter market that are National Market System securities are valued at the last sale price or, lacking any sales, at the mean between the last bid and asked prices. Other over-the-counter securities are valued at the most recent bid prices as obtained from one or more dealers that make markets in the securities. Exchange-traded investments for which market quotations are not readily available are valued at fair value as determined in good faith by the Trustees of the Fund. The fair value of venture capital and other restricted securities is determined in good faith by the Trustees. However, because of the uncertainty of fair valuations these estimated values may differ significantly from the values that would have been used had a ready market for these securities existed, and the differences could be material. Each such fair value determination is based on a consideration of relevant factors. Factors the Trustees consider may include (i) the existence of any contractual restrictions on the disposition of securities; (ii) information obtained from the issuer which may include an analysis of the company's financial statements, the company's products or intended markets or the company's technologies; and (iii) the price of a security negotiated at arm's length in an issuer's completed subsequent round of financing. Short-term investments with maturity of 60 days or less are valued at amortized cost.

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Venture Capital and Other Restricted Securities - The following table details the acquisition date, cost, carrying value per unit, and value of the Fund's venture capital and other restricted securities at December 31, 2006, as determined by the Trustees of the Fund. The Fund may invest up to 40% of its net assets in venture capital and other restricted securities. The values of these securities represent 15% of the Fund's net assets at December 31, 2006. The Fund on its own does not have the right to demand that such securities be registered.

Security (g)	Acquisition Date	Cost	Carrying Value per Unit	Value
Agensys, Inc.				
Series C Cvt. Pfd.	2/14/02, 9/27/05	\$ 2,204,684	\$ 2.95	\$ 2,200,201
Agilix Corporation				
Series B Cvt. Pfd.	11/8/01	1,663,667	0.06	94,540
Aveta, Inc.				
Restricted Common	12/21/05	1,999,998	16.00	2,370,368
CardioNet, Inc.				
Series C Cvt. Pfd.	5/3/01 - 3/25/03	3,701,714	3.50	3,680,001
Warrants (expiration 5/01/11)	5/1/06	0	0.00	0
Warrants (expiration 8/29/11)	8/29/06	0	0.00	0
Convertible Note	8/15/05, 8/29/06	211,709	100.00	216,219
Ceres, Inc.				
Series C Cvt. Pfd.	12/23/98	1,000,875	6.00	1,500,000
Series C-1 Cvt. Pfd.	3/31/01	74,339	6.00	128,772
Series D Cvt. Pfd.	3/14/01	1,046,887	6.00	1,053,240
Concentric Medical, Inc.				
Series B Cvt. Pfd.	5/7/02, 1/24/03	2,219,473	1.40	4,529,410
Series C Cvt. Pfd.	12/19/03	999,999	1.40	1,627,906
Series D Cvt. Pfd.	9/30/05	638,511	1.40	637,466
Cougar Biotechnology Inc.				
Series A Cvt. Pfd.	3/30/06	788,030	4.50	787,498
Restricted Common	3/30/06-12/31/06	113,803	4.50	113,753
CytoLogix Corporation				
Series A Cvt. Pfd.	1/13/98-7/21/99	1,077,912	0.83	265,789
Series B Cvt. Pfd.	1/11/01	506,622	0.83	124,922
Convertible Note	5/29/02	112,224	100.00	112,224
Dako A/S				
Restricted Common	6/14/04	734,913	10.41	181,301
EPR, Inc.				
Series A Cvt. Pfd.	3/9/94	800,331	0.01	1,778
Galileo Pharmaceuticals, Inc.				
Series F-1 Cvt. Pfd.	8/18/00	2,002,559	0.00	93
Labcyte, Inc.				
Series C Cvt. Pfd.	7/18/05	1,282,337	0.52	1,280,000
Magellan Biosciences, Inc.				
Series A Cvt. Pfd.	11/28/06	2,050,000	1.00	2,050,000
Masimo Corporation				
Series D Cvt. Pfd.	8/14/96	910,530	11.00	1,430,000
Restricted Common	3/31/98	0	0.01	1,300
Matritech, Inc.				
Convertible Note	1/17/06	2,013,664	138.03	2,760,615
Omnisonics Medical Technologies, Inc.				
Series B Cvt. Pfd.	5/24/01	1,606,312	0.84	910,041
Series C Cvt. Pfd.	10/1/03	1,200,224	0.84	862,849
PHT Corporation				
Series D Cvt. Pfd.	7/23/01	2,803,841	0.78	2,800,000
Series E Cvt. Pfd.	9/12/03-12/17/03	627,472	0.78	626,337

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Security (g)	Acquisition Date	Cost	Carrying Value per Unit	Value
Raven biotechnologies, Inc.				
Series B Cvt. Pfd.	12/12/00	\$ 2,001,150	\$ 0.83	\$ 1,006,060
Series C Cvt. Pfd.	11/26/02	1,554,400	0.83	1,554,401
Series D Cvt. Pfd.	6/23/05	803,610	0.29	800,000
Songbird Hearing, Inc.				
Restricted Common	12/14/00	2,003,239	0.01	1,390
Syntiro Healthcare Services				
Restricted Common	2/5/97	800,325	0.001	204
TargeGen, Inc.				
Series C Cvt. Pfd.	8/30/05	1,842,331	1.30	1,840,001
Therion Biologics Corporation				
Series A Cvt. Pfd.	8/20/96-10/16/96	289,847	0.01	309
Series B Cvt. Pfd.	6/22/99	600,929	0.01	1,600
Series C Cvt. Pfd.	9/26/01-10/15/01	1,019,568	0.01	2,718
Series C-2 Cvt. Pfd.	8/13/03	40,003	0.01	222
Warrants (expiration 8/18/08)	8/18/03	0	0.00	0
Sinking Fund Cvt. Pfd.	10/18/94-4/3/96	582,505	0.01	290
Restricted Common	6/30/93	251,642	0.01	1,470
TherOx, Inc.				
Series H Cvt. Pfd.	9/11/00	2,001,626	3.86	167,869
Series I Cvt. Pfd.	7/8/05	386,273	3.86	384,733
Warrants (expiration 1/26/10)	1/26/05	0	0.00	0
Warrants (expiration 6/09/09)	6/9/04	0	0.00	0
Xanthus Life Sciences, Inc.				
Series B Cvt. Pfd.	12/5/03- 11/15/06	2,652,161	1.00	2,649,902
Zyomyx, Inc.				
Series A New Cvt. Pfd.	2/19/99, 1/12/04	199,800	0.10	20,000
Series B New Cvt. Pfd.	3/31/04	112	0.10	20
New Restricted Common	2/19/99-7/22/02	2,401,101	0.01	2,000
		\$ 53,823,252		\$ 40,779,812

(g) See Schedule of Investments and corresponding footnotes for more information on each issuer.

Federal Income Tax Cost- At December 31, 2006, the total cost of securities for Federal income tax purposes was \$273,000,548. The net unrealized gain on securities held by the Fund was \$9,764,317 including gross unrealized gain of \$42,003,839 and gross unrealized loss of \$32,239,522.

Affiliate Transactions An affiliate issuer is a company in which the Fund holds 5% or more of the voting securities. Transactions with such companies during the three months ended December 31, 2006 were as follows:

Issuer	Value on October 1, 2006	Purchases	Sales	Income	Value on December 31, 2006
Agilix Corporation	\$ 94,540	\$	\$	\$	\$ 94,540
Concentric Medical, Inc.	6,794,782				6,794,782
CytoLogix Corporation	502,935			1,894	502,935

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Matritech, Inc.	2,625,846					2,760,615
PHT Corporation	3,426,337					3,426,337
Zix Corporation	1,534,500					2,945,250
	\$ 14,978,940	\$	\$	\$	1,894	\$ 16,524,459

Item 2. Controls and Procedures.

(a.) The registrant's principal executive officer and principal financial officer have concluded, based on their evaluation of the registrant's disclosure controls and procedures as conducted within 90 days of the filing date of this report, that these disclosure controls and procedures are adequately designed and are operating effectively to ensure that information required to be disclosed by the registrant on Form N-Q is (i) accumulated and communicated to the investment company's management, including its certifying officers, to allow timely decisions regarding required disclosure; and (ii) recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms.

(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 has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

Item 3. Exhibits.

Separate certifications for each principal executive officer and principal financial officer of the registrant as required by Rule 30a-2(a) under the Act (17 CFR 270.30a-2(a)). Filed herewith.

SIGNATURES

Pursuant to the requirements of the Securities and 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) H&Q Life Sciences Investors
By (Signature and Title) /s/ Daniel Omstead
Daniel Omstead, President
Date 3/1/07

Pursuant to the requirements of the Securities and 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 (Signature and Title) /s/ Kathleen Eckert
Kathleen Eckert, Treasurer
Date 3/1/07
