HARRIS & HARRIS GROUP INC /NY/
Form 40-APP/A
September 18, 2014

U.S. SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

No. 812-14317

FIRST AMENDED AND RESTATED APPLICATION FOR A CERTIFICATION PURSUANT TO SECTION 851(e) OF THE INTERNAL REVENUE CODE OF 1986, AS AMENDED.

HARRIS & HARRIS GROUP, INC.

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September 18, 2014

UNITED STATES OF AMERICA

BEFORE THE

SECURITIES AND EXCHANGE COMMISSION

In the Matter of:

Harris & Harris Group, Inc.

1450 Broadway

24th Floor

New York, NY 10018

FIRST AMENDED AND RESTATED APPLICATION FOR A CERTIFICATION PURSUANT TO SECTION 851(e) OF THE INTERNAL REVENUE CODE OF 1986, AS AMENDED.

INTRODUCTION

Harris & Harris Group, Inc. ("Applicant") hereby applies to the Securities and Exchange Commission (the "Commission"), pursuant to Section 851(e) of the Internal Revenue Code of 1986, as amended (the "Code"), for a certification that Applicant is principally engaged in the furnishing of capital to other corporations which are principally engaged in the development or exploitation of inventions, technological improvements, new processes, or products not previously generally available.

Applicant proposes to qualify as a "regulated investment company" under Section 851(a) of the Code for the fiscal year ended December 31, 2013. The certification being sought is a prerequisite to qualification, pursuant to the provisions of Section 851(e) of the Code, as a regulated investment company under Section 851(a).

I. GENERAL DESCRIPTION OF APPLICANT

Applicant was incorporated under the laws of the State of New York in August 1981 and operates as an internally managed business development company. Applicant's securities were first registered with the Commission pursuant to Section 12 of the Securities Exchange Act of 1934, as amended, in 1982. In 1992, Applicant registered with the Commission as a closed-end, non-diversified management investment company under the Investment Company Act of 1940, as amended (the "1940 Act"). On July 26, 1995, Applicant elected to become regulated as a business development company ("BDC") pursuant to Section 54(a) of the 1940 Act (the "BDC election").

Historically, Applicant's investment portfolio has consisted primarily of equity investments in companies that are principally engaged in the development, commercialization and integration of products enabled by nanotechnology and microsystems that are applied in industries such as computer software and hardware, telecommunications, medical devices, pharmaceuticals, biotechnology, electronics, semiconductors, advanced materials and energy. Applicant currently has invested a substantial percentage of its total assets in early-stage development or start-up companies in a broad range of industry segments that are enabled by disruptive science, particularly ones that are enabled by BIOLOGY+, which refers to interdisciplinary life science companies in which biology innovation intersects with innovations in areas such as electronics, physics, materials science, chemistry, information technology, engineering and mathematics. To date, all of our BIOLOGY+ companies have also been commercializing or integrating products enabled by nanotechnology. Applicant currently expects that its Portfolio Companies (as defined below) and its future investments will continue to be engaged in the development or exploitation of inventions, technological improvements, new processes, or products not previously generally available. Many of Applicant's portfolio companies are privately held, thinly capitalized, unproven companies with no operating history. As of December 31, 2013, Applicant had total assets of approximately $125 million.

The Commission has previously issued certifications pursuant to Section 851(e) of the Code that Applicant was, for the fiscal years ended December 31, 1997 and December 31, 1999 through December 31, 2012, principally engaged in the furnishing of capital to other corporations, which are principally engaged in the development or exploitation of inventions, technological improvements, new processes, or products not previously generally available.[1]

II. LEGAL ANALYSIS

A. Applicable Law

Section 851 of the Code sets forth the general requirements a corporation must satisfy in order to qualify for treatment as a regulated investment company under Subchapter M of the Code (a "RIC"). A RIC is defined in Section 851(a) as "any domestic corporation . . . which, at all times during the taxable year . . . is registered under the . . . [1940 Act] as a management company or unit investment trust or . . .. has in effect an election under such Act to be treated as a business development company." Section 851 also imposes certain conditions and limitations upon entities seeking to qualify as RICs. Section 851(b)(3)(A) provides that an investment company or BDC seeking to qualify for treatment as a RIC must, as of the close of each quarter of the taxable year, have at least 50 percent of the value of its total assets represented by

cash and cash items (including receivables), Government securities and securities of other regulated investment companies, and . . . other securities for purposes of this calculation limited, except and to the extent provided in subsection [851](e), in respect of any one issuer to an amount not greater in value than 5 percent of the value of the total assets of the taxpayer and to not more than 10 percent of the outstanding voting securities of such issuer . . . .

[1] *Harris & Harris Group, Inc*., Investment Company Act Release Nos. 30604 (July 22, 2013); 30104 (June 15, 2012); 29736 (July 22, 2011); 28289 (May 28, 2010); 28761 (June 9, 2009); 28294 (May 30, 2008); 27870 (June 20, 2007); 27398 (June 16, 2006); 26908 (June 15, 2005); 26467 (June 15, 2004); 25990 (Apr. 2, 2003); 25454 (Mar. 7, 2002); 24888 (Mar. 8, 2001); 24314 (Feb. 24, 2000); 23102 (Apr. 6, 1998).

The 1940 Act generally imposes no similar diversification requirements.

Section 851(e) provides an exemption from the diversification requirements of Subchapter M for certain investment companies furnishing capital to certain development corporations. In pertinent part, Section 851(e) provides that

[i]f the . . . Commission determines, in accordance with regulations issued by it, and certifies to the Secretary not earlier than 60 days prior to the close of the taxable year of a management company or a business development company . . . that such investment company is principally engaged in the furnishing of capital to other corporations which are principally engaged in the development or exploitation of inventions, technological developments, new processes, or products not previously generally available, such investment company may, in the computation of 50 percent of the value of its assets under subparagraph (A) of subsection (b)(3) for any quarter of such taxable year, include the value of any securities of an issuer, whether or not the investment company owns more than 10 percent of the outstanding voting securities of such issuer, the basis of which, when added to the basis of the investment company for securities of such issuer previously acquired, did not exceed 5 percent of the value of the total assets of the investment company at the time of the subsequent acquisition of securities.

B. Need for Relief

Applicant's board of directors has determined that it would be in the best interests of Applicant and its shareholders for Applicant to qualify for treatment as a RIC for the fiscal year ended December 31, 2013. Since its BDC election, Applicant historically has invested a substantial percentage of its total assets in early-stage development or start-up companies in a broad range of industry segments that have been primarily engaged in the development, commercialization and integration of products enabled by nanotechnology and microsystems that are applied in industries such as computer software and hardware, telecommunications, medical devices, pharmaceuticals, biotechnology, electronics, semiconductors, advanced materials and energy. Applicant currently has invested a substantial percentage of its total assets in early-stage development or start-up companies (the Portfolio Companies are more fully described below) in a broad range of industry segments that are enabled by disruptive science, particularly ones that are enabled by BIOLOGY+, which refers to interdisciplinary life science companies in which biology innovation intersects with innovations in areas such as electronics, physics, materials science, chemistry, information technology, engineering and mathematics, (each a "Portfolio Company" and together the "Portfolio Companies"). Given the inherent nature of start-up and early-stage development companies, many of the Portfolio Companies are thinly capitalized, unproven companies that lack management depth and have no operating history. As a consequence, Applicant, in addition to providing capital to the Portfolio Companies, may also assist with the development of financial plans for the companies, recruiting and hiring management, as well as providing management expertise. Given Applicant's level of involvement in many of the Portfolio Companies, Applicant may, from time to time, own a majority of the equity securities of a given Portfolio Company. Thus, without the relief requested, Applicant may be unable to satisfy the requirements of Section 851(b)(3)(A). This result would have a deleterious impact on Applicant's shareholders by reducing Applicant's income without achieving any concomitant policy objective.

1. Investment Portfolio

As stated above, Applicant historically has invested a substantial portion of its assets in early stage companies primarily engaged in the development, commercialization and integration of products enabled by nanotechnology and microsystems that are applied in industries such as computer software and hardware, telecommunications, medical devices, pharmaceuticals, biotechnology, electronics, semiconductors, advanced materials and energy, and currently has invested a substantial portion of its assets in early stage companies enabled by disruptive science, particularly ones that are enabled by BIOLOGY+, which refers to interdisciplinary life science companies in which biology innovation intersects with innovations in areas such as electronics, physics, materials science, chemistry, information technology, engineering and mathematics. Applicant believes that most of those companies satisfy the requirements of section 851(e) of the Code. In reaching this conclusion, the Applicant generally has relied upon information provided by the Portfolio Companies themselves and others, including, but not limited to, offering circulars, prospectuses, analyst reports, internal company memoranda, patent applications and similar documents. In addition, Applicant generally is represented on the boards of directors of the Portfolio Companies through member or observer status and also has direct access to senior management of those companies through contractual information rights.

The following table shows the composition of Applicant's total assets as of the end of each calendar quarter of 2013:

	3/31/2013	6/30/2013	9/30/2013	12/31/2013
A. Investments in "eligible portfolio companies" described in Section 2(a)(46) of the 1940 Act and believed by the Applicant to be engaged in the business activities required by Section 851(e) of the Code	$101,375,520[2]	$100,262,062[2]	$87,438,433[2]	$87,157,177[2]
B. Investments in "eligible portfolio companies" described in Section 2(a)(46) of the 1940 Act and treated by Applicant as not engaged in the business activities required by Section 851(e) of the Code	493,254[3]	2,653,349[3]	1,006,305[3]	1,001,551[3]
C. Investments that do not qualify under Section 55(a) of the 1940 Act, but as to which the issuers are believed by Applicant to be engaged in the business activities required by Section 851(e) of the Code[4]	$5,994,727	$5,810,012	$5,938,798	$ 5,740,731
D. Investments that do not qualify under Section 55(a) of the 1940 Act and treated by Applicant as not covered by Section 851(e) of the Code	-	-	-	-
E. Cash, cash items and securities as set forth in Section 55(a)(6) of the 1940 Act, collectively "Cash Equivalents"	$21,059,820	$22,194,779	$13,528,468	$ 27,538,358
Total Investments and Cash Equivalents	$128,923,321	$130,920,202	$107,912,004	$ 121,437,817
Other Assets	$1,122,682	$4,408,643	$25,163,276[5]	$ 3,626,129
Total Assets	$130,046,003	$135,328,845	$133,075,280	$ 125,063,946

[2] This value includes the fair value of rights to milestone payments from the acquisition of BioVex Group, Inc., by Amgen, Inc., and the acquisition of Nextreme Thermal Solutions, Inc., by Laird PLC. We do not include these rights as Portfolio Companies in Section 2.

[3] For purposes of this calculation, this value includes our investment in SynGlyco, Inc. ("SynGlyco"); however, Applicant does not necessarily believe that SynGlyco is not engaged in the business activities required by Section 851(e) of the Code.

[4]As of December 31, 2013, the investment in this category was D-Wave Systems, Inc.

[5] As of September 30, 2013, "Other Assets" included a receivable of $22,799,975 from the sale of a U.S. Treasury Bill.

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As demonstrated above, as of December 31, 2013, 91.7% of Applicant's total assets consisted of assets of the type set forth in paragraphs 1 through 6 of Section 55(a) of the 1940 Act. Such assets comprise 94.5% of Applicant's invested assets.

2. Portfolio Companies

As reflected in the table above, companies engaged in the type and degree of business activities described in Section 851(e) of the Code, excluding the investments in issuers described in Categories B. and D. ("Development Companies") above, comprised the following percentages of the total assets less Cash Equivalents of Applicant at the end of each of the calendar quarters of 2013: March 31, 98.5%; June 30, 93.8%; September 30, 78.1%[6]; and December 31, 95.3%. The Development Companies are discussed below. Unless otherwise indicated below, information is provided as of December 31, 2013.

ABSMaterials, Inc. ("ABS")(Category A) — ABS develops reactive glass products and nanosands for remediation, or site-cleanups, of volatile organic and related spills, plumes and gas discharges. Once having captured a spill, ABS' materials can be recovered safely and inexpensively and can be recycled for future use by heat-mediated removal of the captured organic chemical compounds.

[6] The change in the percentage of total assets less Cash Equivalents as of September 30, 2013, is primarily owing to a receivable of $22,799,975 from the sale of a U.S. Treasury Bill.

Percentage of Equity held by Applicant[7] — Between 5%-25%

Investment Value / Percentage of Applicant's Total Assets — $1,227,579 / Less than 1%

Date of Initial Investment — January 15, 2010

Adesto Technologies Corporation ("Adesto")(Category A) — Adesto develops non-volatile memory technology enabled by nanoscale phenomena. The company's technology addresses several problems that limit the capabilities of certain traditional memory technologies, including the ability to scale the devices as standard chip dimensions shrink, the ability to increase speed of operation and the ability to decrease power consumption.

Percentage of Equity held by Applicant — Between 5%-25%

Investment Value / Percentage of Applicant's Total Assets — $14,701,448 / 11.8%

Date of Initial Investment — February 21, 2007

AgBiome, LLC ("AgBiome")(Category A) — AgBiome provides early-stage research for agriculture and utilizes a crop microbiome to identify products that reduce risk and improve yield. The core competencies of AgBiome are strain isolation and culturing methods, bioassays for activity (*in vitro* and whole plant), analytical protein biochemistry, gene annotation and bacterial phylogeny, and biochemical profiles as biomarkers for yield. Its research programs include biological crop protection, trait identification, and plant breeding tools.

[7] Percentage of Equity for all Portfolio Companies held by Applicant is reported on a voting equity basis. The range of equity held by Applicant that is reported matches those ranges reported in the Applicant's annual and quarterly financial statements on Form 10-K and 10-Q, respectively.

Percentage of Equity held by Applicant — Between 5%-25%

Investment Value / Percentage of Applicant's Total Assets — $3,021,740/ 2.4%

Date of Initial Investment — December 19, 2012

Bridgelux, Inc. ("Bridgelux")(Category A) — Bridgelux develops high-power, indium gallium nitride light emitting diodes and arrays that are used in various solid-state lighting applications. Bridgelux's proprietary technology consists of robust chip and array designs that provide commercially acceptable performance at competitive prices and energy efficiencies.

Percentage of Equity held by Applicant — Less than 5%

Investment Value / Percentage of Applicant's Total Assets — $3,200,642 / 2.6%

Date of Initial Investment — May 20, 2005

Cambrios Technologies Corporation ("Cambrios")(Category A) — Cambrios develops flexible, transparent conductive surfaces that can be deposited from solution onto any substrate in a roll-to-roll manufacturing process. Metallic nanowires are used as the conductive medium because they minimize the absorption and scattering of visible light. Roll-to-roll manufacturing processes are cost-effective solutions for high volume manufacturing and do not require expensive specialized equipment that is required by the incumbent material, indium-tin-oxide.

Percentage of Equity held by Applicant — Less than 5%

Investment Value / Percentage of Applicant's Total Assets — $3,418,349 / 2.7%

Date of Initial Investment — November 9, 2004

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Champions Oncology, Inc. ("Champions")(Category A) — Champions develops advanced technology solutions to personalize the development and use of oncology drugs. Champions' Tumorgraft™ (CTG) Technology Platform is a novel approach based upon the implantation of primary human tumors in immune-deficient mice followed by propagation of the resulting engraftments, or Tumorgrafts™, in a manner that preserves the biological characteristics and nanoscale morphology of the original human tumor. Champions Oncology uses CTG technology in both its Personalized Oncology Solutions and Translational Oncology Solutions. Shares of the company's common stock trade over-the-counter under the symbol CSBR.

Percentage of Equity held by Applicant — Less than 5%

Investment Value / Percentage of Applicant's Total Assets — $3,743,084 / 3.0%

Date of Initial Investment — April 4, 2011

Cobalt Technologies, Inc. ("Cobalt") (Category A) — Cobalt develops biobutanol, a high-volume, high-value industrial chemical and next-generation biofuel. Cobalt's proprietary technologies in microbial physiology, strain development, fermentation and low-energy fuel separation enable it to produce a new generation of fuels that burn cleaner, are more cost-effective, and enhance environmental sustainability. By optimizing productivity, titer and yield, it is seeking to make its biobutanol an affordable substitute to butanol produced from petroleum.

Percentage of Equity held by Applicant — Less than 5%

Investment Value / Percentage of Applicant's Total Assets — $901,558 / Less than 1%

Date of Initial Investment — October 7, 2008

Contour Energy Systems, Inc. ("Contour")(Category A) — Contour, formerly CFX Battery, Inc., and Lifco, Inc., developed primary and rechargeable batteries using a novel variation of existing battery chemistry that is enabled by nanotechnology.

Percentage of Equity held by Applicant — Between 5%-25%

Investment Value / Percentage of Applicant's Total Assets — $90,844 / Less than 1%

Date of Initial Investment — June 21, 2007

D-Wave Systems, Inc. ("D-Wave")(Category C) — D-Wave develops high-performance quantum computing systems for commercial use in logistics, bioinformatics, life and physical sciences, quantitative finance and electronic design automation. Its analog computing approach enabled by quantum mechanics enables the solution of problems that are difficult or impossible to solve using existing digital computing technologies.

Percentage of Equity held by Applicant — Less than 5%

Investment Value / Percentage of Applicant's Total Assets — $5,740,731 / 4.6%

Date of Initial Investment — April 19, 2006

EchoPixel, Inc. ("EchoPixel")(Category A) — EchoPixel develops algorithms and software tools to visualize and analyze data generated by magnetic resonance imaging, computational tomography scanners, X-ray microscopes, and other imaging equipment. EchoPixel uses its proprietary tools for data analysis in life science and healthcare applications by "amplifying human expertise with machine learning."

Percentage of Equity held by Applicant – Between 5%-25%

Investment Value / Percentage of Applicant's Total Assets — $750,000 / Less than 1%

Date of Initial Investment – June 21, 2013

Ensemble Therapeutics Corporation ("Ensemble")(Category A) — Ensemble develops DNA Programmed Chemistry ("DPC") for the discovery of new classes of therapeutics. DPC provides unprecedented control of chemical reactivity, enabling the synthesis of diverse libraries of compounds for use in drug discovery internally and through partnerships with pharmaceutical and biotechnology companies. On June 9, 2010, Ensemble Discovery Corporation changed its name to Ensemble Therapeutics Corporation.

Percentage of Equity held by Applicant — Less than 5%

Investment Value / Percentage of Applicant's Total Assets — $4,099,787 / 3.3%

Date of Initial Investment — June 6, 2007

Enumeral Biomedical Corporation ("Enumeral")(Category A) — Enumeral develops high-value opportunities in immunology including therapeutic discovery, immune profiling and personalized medicine. The company's proprietary technology enables the isolation and study of chemicals and proteins produced by individual human cells simultaneously in a highly parallel format. On November 18, 2010, Enumeral Technologies, Inc., changed its name to Enumeral Biomedical Corporation.

Percentage of Equity held by Applicant — Between 5%-25%

Investment Value / Percentage of Applicant's Total Assets — $1,682,504 / 1.3%

Date of Initial Investment — December 23, 2009

GEO Semiconductor, Inc. ("GeoSemi")(Category A) — GeoSemi develops semiconductor devices that enable in-stream sub-pixel processing (ISSP). This technology enables correction of optical and illumination aberrations that are inherent to nanotechnology-enabled solutions used in displays (LED backlights) and digital cameras (high-density, small form-factor image sensors). These technologies suffer from non-uniformities in color, brightness and sensitivity. GeoSemi's ISSP processors can correct these issues, thereby enabling the use of nanotechnology-enabled solutions in a range of products, while reducing overall system costs.

Percentage of Equity held by Applicant[8] — 0%

Investment Value / Percentage of Applicant's Total Assets — $130,887 / Less than 1%

Date of Initial Investment — September 17, 2010

HzO, Inc. ("HzO")(Category A) — HzO manufactures novel industrial coatings. HzO's technology is a unique process to create a nanoscale coating that protects electronics against damage caused by exposure to water, which is the leading cause of lost function in electronics. The coating is transparent and can be applied to a variety of surfaces including plastic, metal and glass. In addition to water repellence, the coating can repel oils, synthetic fluids, hazardous materials, dust and dirt.

[8] The investment includes both directly owned warrants and warrants for the purchase of equity through a participation agreement with Montage Capital and has no voting equity.

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Percentage of Equity held by Applicant — Between 5%-25%

Investment Value / Percentage of Applicant's Total Assets — $7,225,954 / 5.8%

Date of Initial Investment — August 12, 2011

Kovio, Inc. ("Kovio")(Category A) — Kovio developed a new category of semiconductor products using printed electronics and thin-film technologies.

Percentage of Equity held by Applicant — Between 5%-25%

Investment Value / Percentage of Applicant's Total Assets — $0 / 0%

Date of Initial Investment — November 4, 2005

Laser Light Engines, Inc. ("LLE") (Category A) — LLE designs and manufactures ultra-high-brightness, solid-state light sources for digital cinema and large-venue projection displays. LLE uniquely combines laser technology, non-linear optics, specialty optical fibers, digital control and applications knowledge to produce its laser-driven light engines.

Percentage of Equity held by Applicant — Between 5%-25%

Investment Value / Percentage of Applicant's Total Assets — $164,122 / Less than 1%

Date of Initial Investment — May 6, 2008

Mersana Therapeutics, Inc. (“Mersana”)(Category A) — Mersana is a pharmaceutical company developing cancer therapeutics using an advanced drug delivery system. Mersana uses fully biodegradable, nanoscopic drug delivery vehicles based on proprietary molecular constructs and “biological stealth” materials.

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Percentage of Equity held by Applicant – Less than 5%

Investment Value / Percentage of Applicant's Total Assets — $551,705 / Less than 1%

Date of Initial Investment — February 12, 2002

Metabolon, Inc. ("Metabolon")(Category A) — Metabolon uses a proprietary technology platform in metabolomics to map changes in metabolic pathways for the identification of biomarkers and the early diagnosis of disease states. Metabolomics is the study of the repertoire of non-proteinaceous, endogenously synthesized small molecules present in an organism. Metabolon's platform uses mass-spectrometry based technologies, data integration and propriety software.

Percentage of Equity held by Applicant — Between 5%-25%

Investment Value / Percentage of Applicant's Total Assets — $10,699,204 / 8.6%

Date of Initial Investment — January 11, 2006

Molecular Imprints, Inc. ("Molecular")(Category A) — Molecular developed and manufactured nanoimprint-based lithography technology and systems for manufacturing nano scale features useful in hard disk drives, optical components and semiconductor devices. Its technology overcomes limitations of optical lithography and enables the continued reduction of the dimensions of components that enable products in these markets.

Percentage of Equity held by Applicant — Less than 5%

Investment Value / Percentage of Applicant's Total Assets — $8,278,943 / 6.6%

Date of Initial Investment — March 31, 2004

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Nanosys, Inc. ("Nanosys")(Category A) — Nanosys develops novel and patent-protected nanostructures that integrate functional complexity directly into each individual nanostructure. This capability enables the low-cost fabrication of revolutionary high-value, high-performance applications in a broad range of industries including life sciences, physical sciences, information technology, communications, renewable energy and homeland security. The company's first products are color filters for light-emitting-diode displays.

Percentage of Equity held by Applicant — Less than 5%

Investment Value / Percentage of Applicant's Total Assets — $4,128,386 / 3.3%

Date of Initial Investment — April 10, 2003

Nano Terra, Inc. ("Nano Terra")(Category A) — NanoTerra seeks to leverage an exclusive license to the extensive suite of intellectual property that enables nanomanufacturing and patterning developed in the laboratory of Prof. George Whitesides of Harvard University by establishing partnerships with companies in a wide variety of industries, including electronics, aerospace, energy, industrial products, and consumer goods, as well as government agencies. Key components of its technology platform include surface engineering techniques (such as soft lithography, self-assembly, and surface chemistry), and nanomaterials.

Percentage of Equity held by Applicant[9] — 0%

Investment Value / Percentage of Applicant's Total Assets — $792,334 / Less than 1%

Date of Initial Investment — February 22, 2011

[9] The investment includes a senior secured debt security and warrants for the purchase of equity and has no voting equity.

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Nantero, Inc. ("Nantero")(Category A) — Nantero is currently developing NRAM™, a high-density nonvolatile random access memory chip using patented nanotechnology. The NRAM™ design uses carbon nanotubes as the active memory elements, and Nantero is developing a straightforward way to manufacture the memory chip and integrate it with standard semiconductor processes. Potential applications for Nantero's non-volatile memory include instant-on computers, radiation-hardened memory and data storage in devices such as MP3 players, digital cameras, and smartphones.

Percentage of Equity held by Applicant — Less than 5%

Investment Value / Percentage of Applicant's Total Assets — $3,034,180 / 2.4%

Date of Initial Investment — August 13, 2001

OhSo Clean, Inc. ("OhSo Clean")(Category A) — OhSo Clean, which does business as CleanWell Company, develops and commercializes antibacterial cleansers and soaps based on the antiseptic capabilities of thymol, produced by thyme plants. These products do not contain harsh chemicals that can illicit adverse dermatologic reactions in humans, yet have the ability to kill a broad spectrum of bacteria, viruses and funguses that are sources of disease. These products are enabled by a proprietary nanoemulsion technology that facilitates the high-efficiency delivery of thymol into the cell membranes of bacteria and funguses and the protein-based structures of viruses. This mechanism disrupts the ability of these sources of disease to cause infection.

Percentage of Equity held by Applicant[10] — 0%

Investment Value / Percentage of Applicant's Total Assets — $662,793 / Less than 1%

Date of Initial Investment — March 30, 2012

[10] The investment includes a senior secured debt security and warrants for the purchase of equity through a participation agreement with Montage Capital and has no voting equity.

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OpGen, Inc. ("OpGen")(Category A) — OpGen offers comprehensive multi-parameter screening and surveillance panels to combat current and emerging human pathogens with the next generation of diagnostic and epidemiologic solutions. OpGen's technology improves the quality of data and time-to-results by providing sequence information from single DNA molecules more rapidly and less expensively than previously possible. The company is dedicated to positively influencing individual healthcare outcomes, advancing scientific research and enhancing public health by delivering precise, actionable information and results to customers in the life science and healthcare communities.

Percentage of Equity held by Applicant — Between 5%-25%

Investment Value / Percentage of Applicant's Total Assets — $245,000 / Less than 1%

Date of Initial Investment — March 5, 2012

Produced Water Absorbents, Inc. ("PWA") (Category A) — PWA, which does business as ProSep, Inc., improves the resource recovery and environmental protections of drilling and mining operations through a portfolio of separation technologies and services, including the use of its reactive glass products and nanosands (Osorb) for treating produced and flowback water on-site. PWA is creating commercial solutions in silica-based sol-gel solids, also referred to as swellable glass. The materials are designed such that non-polar liquids (e.g., oils) are absorbed selectively over polar liquids (e.g., water). These silica-based materials are highly stable, hydrophobic and capable of capturing and recovering a range of hydrocarbons and pervasive solvents including TCEs, organic acids and BTEX. PWA acquired ProSep, Inc., in the fourth quarter of 2013.

Percentage of Equity held by Applicant — Between 5%-25%

Investment Value / Percentage of Applicant's Total Assets — $2,709,430 / 2.2%

Date of Initial Investment — June 21, 2011

ProMuc, Inc. ("ProMuc")(Category A) — ProMuc develops synthetic mucins. Mucins perform critical functions within biological systems. The specific mucin structure- activity relationships for each of these functions remain largely unknown, in large part due to the lack of access to defined mucin materials of relevant size and composition. Rationally-designed synthetic mucins may have commercial applications ranging from lubricants for food and medicines to anti-microbial coatings and prophylactics that can avoid resistance, to potentially anti-cancer vaccines.

Percentage of Equity held by Applicant — Above 25%

Investment Value / Percentage of Applicant's Total Assets — $351,075 / Less than 1%

Date of Initial Investment – December 18, 2013

Senova Systems, Inc. ("Senova")(Category A) — Senova develops next-generation sensors to measure pH, which is a fundamental property of nature. Senova's sensors address several limitations of the current technology, including that it does not require calibration, it is not subject to fouling and it does not drift with changes in temperature. The platform technology can be used for a variety of applications, including industrial processing, single use bioprocessing, and advanced analytical systems.

Percentage of Equity held by Applicant — Between 5%-25%

Investment Value / Percentage of Applicant's Total Assets — $1,219,710 / Less than 1%

Date of Initial Investment — September 9, 2011

SiOnyx, Inc. ("SiOnyx")(Category A) — SiOnyx develops silicon-based optoelectronic products enabled by its proprietary process that makes "black silicon." Black silicon is the result of the interaction of a femtosecond laser pulse with silicon to create a thin layer of highly doped silicon with nanocrystalline domains. Black silicon has high absorptive properties to visible wavelengths and also absorbs in the infrared, enabling its use in photodetectors, imaging arrays and potentially high-efficiency solar cells.

Percentage of Equity held by Applicant — Between 5%-25%

Investment Value / Percentage of Applicant's Total Assets — $4,570,383 / 3.7%

Date of Initial Investment — May 12, 2006

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Solazyme, Inc. ("Solazyme")(Category A) — Solazyme is a biotechnology company devoted to harnessing the energy-harvesting machinery of algae to produce valuable products. The company utilizes proprietary genetic engineering methods to develop commercially relevant, sugar-driven biochemical pathways to produce molecules for the energy, chemical, pharmaceutical and nutraceutical industries. On May 27, 2011, Solazyme priced its initial public offering of 10,975,000 shares of common stock at $18 per share. As of that date, the company's common stock trades on the Nasdaq Global Select Market under the symbol SZYM.

Percentage of Equity held by Applicant — Less than 5%

Investment Value / Percentage of Applicant's Total Assets — $1,827,712 / 1.5%

Date of Initial Investment — November 24, 2004

Ultora, Inc. ("Ultora")(Category A) — Ultora develops a class of energy-storage devices called super-capacitors based on catalyst-free, purified carbon nanotubes (CNT) as the enabling element in the device. Ultora's supercapacitors have operating characteristics similar to expensive and large ceramic supercapacitors, but at a fraction of the cost and size of such incumbent technology. These capabilities open near-term market opportunities in solid-state disk drives and oil and gas exploration equipment.

Percentage of Equity held by Applicant — Between 5%-25%

Investment Value / Percentage of Applicant's Total Assets — $238,391 / Less than 1%

Date of Initial Investment — December 14, 2010

3. Existence of Cash Positions

Applicant is an opportunistic investor that ideally would be as fully invested as practicable in the securities of its target Portfolio Companies. From time to time, however, Applicant may maintain a substantial portion of its assets in Cash Equivalents. Applicant does not believe it is in its shareholders' best interest to make investments solely for the purpose of reducing its cash position. Applicant has historically invested in a highly specialized area (nanotechnology and microsystems) and has now refined its investment focus to BIOLOGY+. Applicant defines its investment focus of BIOLOGY+ as investments in interdisciplinary life science companies in which biology innovation intersects with innovations in areas such as electronics, physics, materials science, chemistry, information technology, engineering and mathematics. .. The investment opportunities in BIOLOGY+ are not always extant and, when identified, require significant diligence before an investment decision can be made. In fact, in 2013, Applicant actively reviewed over 400 potential investments.

As evidenced in the table below, Applicant made a number of investments in 2013, both in new Portfolio Companies and in the form of "follow-on" investments in existing Portfolio Companies. It is important to note that Applicant has no motive, indeed has a great disincentive, to maintain a significant position in cash. Most notably, cash is a very unattractive asset class in terms of investment return. The higher the level of cash, the greater its potentially depressing impact on the overall internal rate of return of Applicant. Thus, Applicant believes that relying on cash as an asset class for investment returns would ultimately have an extremely negative effect on shareholders and, thus, ultimately on the market price of Applicant's stock.

Harris & Harris Group, Inc.

Equity Securities / Debt Investments

Date	Company	Shares/Face	Description	Follow-on	New	Total	By Quarter
01/17/13	Adesto Technologies Corporation	$672,070	Bridge Note	$672,070		$672,070	
01/23/13	SynGlyco, Inc.	$350,000	Bridge Note	$350,000		$350,000	
01/28/13	Champions Oncology, Inc.	400,000	PIPE	$200,000		$200,000	
03/11/13	Cobalt Technologies, Inc.	$28,920	Bridge Note	$28,920		$28,920	
03/12/13	Nano Terra, Inc.	$350,000	Senior Secured Debt	$350,000		$350,000	
03/22/13	D-Wave Systems, Inc.	196,154-Class E 188,461-Class F	Class E/F Preferred	$491,100		$491,100	
03/26/13	HzO, Inc.	$350,000					