

---

**AMENDMENT NO 1 TO APPLICATION FOR A CERTIFICATION PURSUANT TO SECTION 851(e) OF THE  
INTERNAL REVENUE CODE OF 1986, AS AMENDED.**

---

**HARRIS & HARRIS GROUP, INC.**

1450 Broadway  
24<sup>th</sup> Floor  
New York, NY 10018

---

*All Communications, Notices, and Orders to:*  
Daniel B. Wolfe, President and Chief Operating Officer  
Harris & Harris Group, Inc.  
1450 Broadway  
24<sup>th</sup> Floor  
New York, NY 10018

---

*Copy to:*

Steven B. Boehm, Esq.  
Sutherland Asbill & Brennan LLP  
1275 Pennsylvania Avenue, N.W.  
Washington, D.C. 20004-2415

Sandra M. Forman, Esq.  
General Counsel  
Harris & Harris Group, Inc.  
1450 Broadway  
24<sup>th</sup> Floor  
New York, NY 10018

---

July 21, 2011

---

**UNITED STATES OF AMERICA**  
**BEFORE THE**  
**SECURITIES AND EXCHANGE COMMISSION**

---

*In the Matter of:*

**Harris & Harris Group, Inc.**

1450 Broadway  
24<sup>th</sup> Floor  
New York, NY 10018

AMENDMENT NO. 1 TO 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, 2010. 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").

Applicant's investment portfolio consists 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 cleantech, which is a term used commonly to describe products and processes that solve global problems related to resource constraints. Many of Applicant's portfolio companies are privately held, thinly capitalized, unproven companies with no operating history. As of December 31, 2010, Applicant had total assets of approximately \$149.3 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, 2009, 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.<sup>1</sup>

## 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

---

<sup>1</sup> *Harris & Harris Group, Inc.*, Investment Company Act Release Nos. 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).

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 . . . .

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, 2010. Since its BDC election, Applicant 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 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 cleantech (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 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 cleantech. 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 2010:

	3/31/2010	6/30/2010	9/30/2010	12/31/2010
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	\$80,605,720	\$88,733,884	\$92,725,586	\$101,784,938
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	-	-	-	-
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*	\$2,961,680	\$3,306,113	\$4,053,843	\$4,365,484
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"	\$53,357,724	\$48,484,225	\$44,116,447	\$42,031,536
Total Investments and Cash Equivalents	\$136,925,124	\$140,524,222	\$140,895,876	\$148,181,958
Other Assets	\$1,832,326	\$935,214	\$734,345	\$1,107,210
Total Assets	\$138,757,450	\$141,459,436	\$141,630,221	\$149,289,168

\* As of December 31, 2010, the investment in this category was D-Wave Systems Inc.

As demonstrated above, as of December 31, 2010, 96.3% 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 97.1% 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. above, ("Development Companies") comprised the following percentages of the total assets less Cash Equivalents of Applicant at the end of each of the calendar quarters of 2010: March 31, 97.9%; June 30, 99.0%; September 30, 99.2%; and December 31, 99.0%. The Development Companies are discussed below. Unless otherwise indicated below, information is provided as of December 31, 2010.

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.

**Percentage of Equity held by Applicant**<sup>2</sup> -- Between 5%-25%

**Investment Value / Percentage of Applicant's Total Assets** -- \$375,000 / Less than 1%

**Date of Initial Investment** -- January 15, 2010

---

<sup>2</sup> 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.



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** -- \$4,620,000 / 3.09%

**Date of Initial Investment** -- February 20, 2007

Ancora Pharmaceuticals Inc. (“Ancora”)(Category A) -- Ancora develops synthetic carbohydrates enabled by its proprietary technology for rapid milligram to kilogram production of complex carbohydrates. The company uses this technology internally and through partnerships with pharmaceutical and biotechnology companies to pursue drug and vaccine development programs.

**Percentage of Equity held by Applicant** -- Above 25%

**Investment Value / Percentage of Applicant’s Total Assets** -- \$2,844,968 / 1.91%

**Date of Initial Investment** -- May 3, 2007

BioVex Group Inc. (“BioVex”)(Category A) -- BioVex develops novel biologics for treatment of cancer and infectious diseases. BioVex is a Phase III clinical-stage company built on oncolytic virus technology that replicates and spreads within solid tumors, causing the death of cancer cells, accompanied by the induction of a systemic immune response. On March 4, 2011, Amgen, Inc., acquired BioVex Group, Inc.

**Percentage of Equity held by Applicant** -- Less than 5%

**Investment Value / Percentage of Applicant's Total Assets** -- \$11,430,062 / 7.66%

**Date of Initial Investment** -- September 27, 2007

*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 technology permits a highly reliable epitaxy structure and a robust chip and array design that enable commercially acceptable performance under severe operating conditions such as high current density and high thermal stress that adversely affect most high-power devices.

**Percentage of Equity held by Applicant** -- Less than 5%

**Investment Value / Percentage of Applicant's Total Assets** -- \$4,862,998 / 3.26%

**Date of Initial Investment** -- May 20, 2005

*Cambrios Technology Corp. ("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** -- Between 5%-25%  
**Investment Value / Percentage of Applicant's Total Assets** -- \$1,648,223 / 1.10%  
**Date of Initial Investment** -- November 9, 2004

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** -- \$375,000 / 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., develops primary and rechargeable batteries using a novel variation of existing battery chemistry that is enabled by nanotechnology. The company expects to use its proprietary nanotechnology to deliver low-cost batteries with superior performance, safety and weight. On February 24, 2010, CFX Battery, Inc., changed its name to Contour Energy Systems, Inc. On February 28, 2008, Lifco merged with CFX Battery, Inc., to form CFX Battery, Inc.

**Percentage of Equity held by Applicant** -- Between 5%-25%  
**Investment Value / Percentage of Applicant's Total Assets** -- \$4,122,378 / 2.76%  
**Date of Initial Investment** -- June 21, 2007

Crystal IS, Inc. ("Crystal IS") (Category A) -- Crystal IS commercializes patented technology for the cost-effective production of high-power, high-temperature, and compound semiconductor devices on aluminum nitride substrates. The nitride semiconductor industry provides devices that are used in water purification, stoplights, high storage capacity DVDs, military applications, biotechnology, information technology, wireless communication, lighting, and high-power microwave devices.

**Percentage of Equity held by Applicant** -- Between 5%-25%  
**Investment Value / Percentage of Applicant's Total Assets** -- \$0 / 0%  
**Date of Initial Investment** -- September 21, 2004

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** -- \$4,365,484 / 2.92%  
**Date of Initial Investment** -- April 19, 2006

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** -- \$2,349,505 / 1.57%

**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**<sup>3</sup> -- 0%

**Investment Value / Percentage of Applicant’s Total Assets** -- \$270,493 / Less than 1%

**Date of Initial Investment** -- December 23, 2009

---

<sup>3</sup> The investment is a convertible promissory note and consequently has no voting equity.

*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<sup>4</sup>** -- 0%

**Investment Value / Percentage of Applicant’s Total Assets** -- \$471,420 / Less than 1%

**Date of Initial Investment** -- September 17, 2010

*Innovalight, Inc. (“Innovalight”)(Category A)* -- Innovalight develops renewable energy products based on silicon nanotechnology. The silicon nanoparticles are synthesized using a single-step, continuous-flow, scaleable, non-thermal plasma process. The resulting stable and non-reactive nanoparticles permit tunable light absorption and emission and an increase in the quantum efficiencies of solar devices.

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

**Investment Value / Percentage of Applicant’s Total Assets** -- \$3,725,549 / 2.50%

**Date of Initial Investment** -- April 20, 2006

---

<sup>4</sup> The investment is a senior secured debt security through a participation agreement with Montage Capital and consequently has no voting equity.

Kovio, Inc. (“Kovio”)(Category A) -- Kovio is developing a new category of semiconductor products using printed electronics and thin-film technologies. Printed electronics enable fabrication of semiconductor devices over large areas, on flexible substrates, and at a fraction of the cost of conventional silicon technology. The initial target application is the production of ultra-low cost RFID tags for the retail industry, transit tickets, library inventory control, asset management, manufacturing, and logistics.

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

**Investment Value / Percentage of Applicant’s Total Assets** -- \$1,343,113 / Less than 1%

**Date of Initial Investment** -- November 4, 2005

Laser Light Engines, Inc. (“LLE”)(Category A) -- LLE seeks to design and manufacture 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** -- Above 25%

**Investment Value / Percentage of Applicant’s Total Assets** -- \$4,214,709 / 2.82%

**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. Mersana is a Phase I clinical-stage company.

**Percentage of Equity held by Applicant** -- Between 5%-25%  
**Investment Value / Percentage of Applicant's Total Assets** -- \$2,830,850 / 1.90%  
**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** -- \$2,618,144 / 1.75%  
**Date of Initial Investment** -- January 11, 2006

Molecular Imprints, Inc. ("Molecular") (Category A) -- Molecular develops and manufactures 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** -- \$3,944,375 / 2.64%  
**Date of Initial Investment** -- March 31, 2004



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 initial applications include color filters for light emitting diodes and materials for lithium-ion batteries.

**Percentage of Equity held by Applicant** -- Less than 5%

**Investment Value / Percentage of Applicant's Total Assets** -- \$2,900,981 / 1.94%

**Date of Initial Investment** -- April 7, 2003

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** -- \$2,246,409 / 1.50%

**Date of Initial Investment** -- August 10, 2001

NeoPhotonics Corporation (“NEO”) (Category A) -- NEO uses its patented nanomaterials deposition technology to enable the true integration of planar optical components, by developing and manufacturing planar optical devices and components for the leading optical component manufacturers. The company, a recognized leader in nanomaterials synthesis processes, has developed commercial production systems for planar deposition and optical materials integration. Its Laser Reactive Deposition (LRD™) technology is the only commercial manufacturing process capable of producing the full complement of active and passive glass materials used to produce optical amplifiers, waveguide lasers, and passive planar waveguides. On February 2, 2011, NeoPhotonics Corporation priced its initial public offering of 7,500,000 shares of common stock at \$11 per share. As of that date, the company's common stock trades on the New York Stock Exchange under the symbol NPTN.

**Percentage of Equity held by Applicant** -- Less than 5%

**Investment Value / Percentage of Applicant’s Total Assets** -- \$4,249,615 / 2.85%

**Date of Initial Investment** -- December 5, 2003

Nextreme Thermal Solutions, Inc. (“Nextreme”) (Category A) -- Nextreme develops high-performance, thin-film, thermoelectric (“TE”) devices for both discrete and integrated cooling and power generation applications. A thermoelectric module is a semiconductor-based electronic component that functions as a small, solid-state heat pump. This cooling capability is ideally suited for applications where temperature stabilization, temperature cycling, or cooling below ambient temperatures are required. Applications of TE modules include cooling of microprocessors, power semiconductors, medical devices and optical communications devices as well as power generation by scavenging of waste heat.

**Percentage of Equity held by Applicant** -- Between 5%-25%  
**Investment Value / Percentage of Applicant's Total Assets** -- \$550,657 / Less than 1%  
**Date of Initial Investment** -- December 7, 2004

Polatis, Inc. ("Polatis") (Category A) -- Polatis focuses on delivering tunable, low-cost photonic switch subsystems for the instrumentation and test market. These subsystems are enabled by the DirectLight platform, which is a proprietary, beam-steering methodology using solid-state mechanics for precision tuning of optics. Unique to DirectLight is the ability to provide highly integrated optical functions, including monitoring and attenuation. The focus of its product line is a series of non-blocking, fully transparent switches agnostic to both bit-rate and protocol.

**Percentage of Equity held by Applicant** -- Less than 5%  
**Investment Value / Percentage of Applicant's Total Assets** -- \$0 / 0%  
**Date of Initial Investment** -- June 24, 2002

PolyRemedy, Inc. ("PolyRemedy") (Category A) -- PolyRemedy uses robotic systems for the fabrication of nano and micro-fiber wound treatments. PolyRemedy's system produces customized wound dressings, measured to fit the wound size and shape and fabricated with the precise material composition necessary to optimally treat the wound at its exact stage of healing and throughout the healing process. These dressings are shipped to customers from a centralized facility. The system is also designed to enable the capture and monitoring of wound treatment data with the potential to help evaluate costs, refine clinical protocols and demonstrate evidence-based improvements in wound management.

**Percentage of Equity held by Applicant** -- Less than 5%

**Investment Value / Percentage of Applicant's Total Assets** -- \$53,893 / Less than 1%

**Date of Initial Investment** -- February 8, 2008

Questech Corporation ("Questech") (Category A) -- Questech has patented a light-weight, low-cost, premium metal composite material consisting of a metal face, a polymer core and a ceramic back. Questech manufactures and markets this material as architectural tile and trim for the commercial and residential architecture markets. The company holds several U.S. patents and a Canadian patent for a product and process technology. Questech has also developed extensive trade secrets associated with its manufacturing process.

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

**Investment Value / Percentage of Applicant's Total Assets** -- \$498,145 / Less than 1%

**Date of Initial Investment** -- May 26, 1994

Siluria Technologies, Inc. ("Siluria") (Category A) -- Siluria develops next-generation nanomaterials using technology spun out of a leading academic institution. This technology provides for unique control over the structural properties and spatial arrangement of a variety of types of nanomaterials. This control enables the production of new classes of catalysts, optical and electronic products. On February 28, 2011, Harris & Harris Group sold its shares of Siluria.

**Percentage of Equity held by Applicant** -- Less than 5%

**Investment Value / Percentage of Applicant's Total Assets** -- \$204,000 / Less than 1%

**Date of Initial Investment** -- October 17, 2007

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 in the presence of sulfur hexafluoride 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** -- \$6,528,352 / 4.37%

**Date of Initial Investment** -- May 12, 2006

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. As it develops its algal biotech platform, it will begin to focus on the bioproduction of molecules for the energy, chemical, pharmaceutical and nutraceutical industries. On March 11, 2011, Solazyme filed a registration statement on Form S-1 to register its shares of common stock for an initial public offering.

**Percentage of Equity held by Applicant** -- Less than 5%

**Investment Value / Percentage of Applicant's Total Assets** -- \$23,225,822 / 15.56%

**Date of Initial Investment** -- November 24, 2004

TetraVitae Bioscience, Inc. (“TetraVitae”)(Category A) -- TetraVitae develops biobased chemicals, plastics and fuels. Its proprietary technology and expertise in the fields of industrial fermentations, process engineering, microbiology, and cellulosic feedstocks may significantly lower the costs of production, allowing it to compete with and potentially replace petroleum processes used to produce similar products. TetraVitae's initial focus is the production of biobutanol using a proprietary fermentation process and enhanced microorganism platform.

**Percentage of Equity held by Applicant** -- Less than 5%  
**Investment Value / Percentage of Applicant’s Total Assets** -- \$0 / 0%  
**Date of Initial Investment** -- October 8, 2008

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.

**Percentage of Equity held by Applicant**<sup>5</sup> -- 0%  
**Investment Value / Percentage of Applicant’s Total Assets** -- \$1,250 / Less than 1%  
**Date of Initial Investment** -- December 14, 2010

Xradia, Inc. (“Xradia”)(Category A) -- Xradia commercializes ultra-high-resolution 3D x-ray microscopes and fluorescence imaging systems. Xradia’s proprietary x-ray optics enable the development of extremely high-resolution x-ray microscope systems having wide application in fields, including semiconductor development and inspection, advanced materials, environmental science, nanotechnology and life sciences.

---

<sup>5</sup> The investment is a convertible promissory note and consequently has no equity.

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

**Investment Value / Percentage of Applicant's Total Assets** -- \$9,279,027 / 6.22%

**Date of Initial Investment** -- December 29, 2006

### **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 positions. Applicant invests in a highly specialized area (nanotechnology and microsystems) in which appropriate investment opportunities are not always extant and, when identified, require significant diligence before an investment decision can be made. In fact, in 2010, Applicant actively reviewed over 300 potential investments.

As evidenced in the table below, Applicant made a number of investments in 2010, both in new Portfolio Companies and in the form of "follow-on" investments in existing Portfolio Companies. In addition, Applicant expects investment activity to continue in 2011, and Applicant believes that a number of additional investments will likely be made before the end of the year.

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 / Senior Secured Debt Investments**

<b>Date</b>	<b>Company</b>	<b>Shares/Face</b>	<b>Description</b>	<b>Follow-on</b>	<b>New</b>	<b>Total</b>	<b>By Quarter</b>
01/15/10	ABSMaterials, Inc.	\$250,000	Bridge Note		\$250,000	\$250,000	
01/19/10	Mersana Therapeutics, Inc.	\$87,500	Bridge Note	\$87,500		\$87,500	
01/20/10	NeoPhotonics Corporation	16,364	Common Stock	\$2,455		\$2,455	
02/05/10	Orthovita, Inc.	28,600	Common Stock	\$98,427		\$98,427	
02/10/10	Ancora Pharmaceuticals Inc.	\$500,000	Bridge Note	\$500,000		\$500,000	
02/11/10	NeoPhotonics Corporation	14,063	Common Stock	\$2,109		\$2,109	
02/19/10	Mersana Therapeutics, Inc.	\$84,475	Bridge Note	\$84,475		\$84,475	
03/08/10	Satcon Technology Corporation	42,900	Common Stock		\$99,957	\$99,957	
03/10/10	Bridgelux, Inc.	166,666	Series D Convertible Preferred	\$250,041		\$250,041	
03/16/10	Satcon Technology Corporation	9,500	Common Stock	\$22,134		\$22,134	
03/17/10	Satcon Technology Corporation	12,000	Common Stock	\$27,960		\$27,960	
03/24/10	Laser Light Engines, Inc.	\$250,000	Bridge Note	\$250,000		\$250,000	
							<b>\$1,675,058</b>
04/07/10	Ancora Pharmaceuticals Inc.	\$600,000	Bridge Note	\$600,000		\$600,000	
04/21/10	ABSMaterials, Inc.	125,000	Series A Convertible Preferred	\$125,000		\$125,000	
04/23/10	SiOnyx, Inc.	\$339,760	Bridge Note	\$339,760		\$339,760	

Date	Company	Shares/Face	Description	Follow-on	New	Total	By Quarter
05/04/10	Laser Light Engines, Inc.	\$250,000	Bridge Note	\$250,000		\$250,000	
05/19/10	Solazyme, Inc.	169,390	Series D Convertible Preferred	\$1,499,991		\$1,499,991	
06/08/10	BioVex Group, Inc.	1,687,570	Series G Convertible Preferred	\$354,390		\$354,390	
06/08/10	SiOnyx, Inc.	1,393,040	Series B-1 Convertible Preferred	\$956,740		\$956,740	
06/30/10	Kovio, Inc.	526,225	Series A' Convertible Preferred	\$526,225		\$526,225	
							<b>\$4,652,106</b>
07/02/10	D-Wave Systems, Inc.	\$580,257	Bridge Note	\$580,257		\$580,257	
07/23/10	Ancora Pharmaceuticals Inc.	\$400,000	Bridge Note	\$400,000		\$400,000	
07/29/10	Laser Light Engines, Inc.	\$40,000	Bridge Note	\$40,000		\$40,000	
08/13/10	Nanosys, Inc.	433,688	Series E Convertible Preferred	\$496,573		\$496,573	
08/30/10	Laser Light Engines, Inc.	\$90,000	Bridge Note	\$90,000		\$90,000	
09/17/10	Laser Light Engines, Inc.	3,412,075	Series B Convertible Preferred	\$910,000		\$910,000	
09/17/10	GEO Semiconductor, Inc.	\$500,00	Senior Secured Debt through Participation Agreement with Montage Capital		\$500,000	\$500,000	
09/29/10	BioVex Group, Inc.	1,538,460	Series G Convertible Preferred	\$323,077		\$323,077	
							<b>\$3,339,907</b>
10/27/10	Ancora Pharmaceuticals Inc.	\$300,000	Bridge Note	\$300,000		\$300,000	
11/16/10	Cambrios Technologies Corporation	\$92,400	Bridge Note	\$92,400		\$92,400	
12/14/10	Ultora, Inc.	\$1,250	Bridge Note		\$1,250	\$1,250	
							<b>\$ 393,650</b>
				<b>\$ 9,209,514</b>	<b>\$ 851,207</b>	<b>\$ 10,060,721</b>	<b>\$10,060,721</b>



### C. Certification Requested

Applicant hereby requests, pursuant to Section 851(e) of the Code, a certification that it is principally engaged in the furnishing of capital to other corporations that are principally engaged in the development or exploitation of inventions, technological improvements, new processes, or products not previously generally available. Applicant's board of directors has determined that it is in the best interests of Applicant and its shareholders to qualify as a RIC. Among other things, RIC qualification would permit Applicant to avoid taxation at the corporate level. However, based upon the composition of Applicant's investment portfolio and in the absence of the requested certification, Applicant may not satisfy the diversification requirements of Subchapter M as set forth in Section 851(b)(3)(A) of the Code. Thus, without the requested certification, Applicant may not be able to qualify as a RIC.

### D. Precedents

The present request by Applicant is substantially identical to its requests for certifications submitted for the tax years ending December 31, 1997 and December 31, 1999 through December 31, 2009, which the Commission granted.<sup>6</sup> Moreover, the Commission has issued certifications pursuant to Section 851(e) of the Code in the past to, among others, Greater Washington Investors, Inc.,<sup>7</sup> American Enterprise Development Corp.,<sup>8</sup> Boston Capital Corp. -- Boston Capital Small Business Investment Corp.,<sup>9</sup> and American Research & Development Corp.<sup>10</sup>

---

<sup>6</sup> *See supra*, n. 1.

<sup>7</sup> Greater Washington Investors, Inc. (File No. 811-1622), Investment Company Act Release No. 6604 (July 2, 1971) (certification).

<sup>8</sup> American Enterprise Development Corp. (File No. 811-1543), Investment Company Act Release No. 6501 (May 3, 1971) (certification).

<sup>9</sup> Boston Capital Corp., Boston Capital Small Business Investment Corp. (File No. 811-1650), Investment Company Act Release No. 6054 (May 14, 1970) (certification).

<sup>10</sup> American Research & Development Corp. (File No. 811-4817), Investment Company Act Release No. 4817 (Jan. 12, 1967) (certification).

**E. Applicant's Legal Arguments**

Given the nature of the companies in which Applicant has invested the majority of its assets as well as the benefit for Applicant and its shareholders for Applicant to be able to elect to be subject to taxation under Subchapter M, it is appropriate for the Commission to issue the requested certification pursuant to Section 851(e) of the Code. Section 851(e) was intended to foster the development of companies that “are principally engaged in the development or exploitation of inventions, technological improvements, new processes or products not previously generally available . . . .”<sup>11</sup> Accordingly, Section 851(e) is available to those investment companies that are “principally engaged in the development or exploitation of inventions, technological developments, new processes or products not previously generally available . . . .” In determining whether an investment company is ‘principally engaged’ in investing in such companies, the Commission is to give

consideration . . . to the purpose and function of the investment company and to its continuing over-all operation. Ordinarily, for example, it would be requisite that a major portion of the assets of the investment company represent securities in operating companies developing and exploiting new processes and products.<sup>12</sup>

---

<sup>11</sup> The Revenue Act of 1951, Pub. L. No. 82-183, § 337, 65 Stat. 452 (1951).

<sup>12</sup> *Id.*

In the case of Applicant, as of December 31, 2010, approximately 99.0% of its total assets less Cash Equivalents were invested in the securities of companies engaged in the type and degree of business activities described in Section 851(e). Applicant, furthermore, is committed to continuing investing in such companies.

The Portfolio Companies are consistent with the types of companies that Congress envisioned when it enacted Section 851(e). As noted in connection with the enactment of Section 851(e), “[a]n operating company will not be considered to be engaged in the development of new processes or products merely because the process or development is new to the [operating] company.”<sup>13</sup> Rather, the process or invention developed by the operating company the investment company has invested in “must represent a substantial technological improvement, or be different to a material degree from a product previously available.”<sup>14</sup> The investments of Applicant at issue here fall squarely within the types of portfolio investments identified by Congress as the intended beneficiaries of Section 851(e). The Portfolio Companies are companies that are engaged in pioneering research into a variety of new technical and medical advances that previously have not been available. The advances being developed by the Portfolio Companies range from the development of high-efficiency solar cells and renewable fuels and chemicals to novel therapies for cancer. The technologies being developed by each of the Portfolio Companies represent material advancements in each of the companies’ respective industries; they do not represent mere changes in style or new models.

---

<sup>13</sup> *Id.*

<sup>14</sup> *Id.*

Given the composition of Applicant's investment portfolio, Applicant may need to rely upon the provisions of Section 851(e) in order to qualify as a RIC. Obtaining the requested certification is a prerequisite to relying upon Section 851(e). Moreover the Commission, and only the Commission, has been authorized to issue such a certification. Thus, for Applicant to rely upon Section 851(e), the Commission must issue the requested certification.<sup>15</sup> For the reasons set forth above, we believe that it is appropriate in the public interest and consistent with the best interests of Applicant's shareholders for the Commission to issue the requested certification pursuant to Section 851(e), and hereby request that such certification be issued.

---

<sup>15</sup> Applicant represents that the limitation of Section 851(e)(2) does not apply to it. That provision generally makes Section 851(e) unavailable to an investment company if more than 25% of the value of its total assets is represented by securities of issuers with respect to each of which the company holds more than 10% of the outstanding voting securities and in respect of each of which the company has held any security for 10 or more years.

### III. COMMUNICATIONS

Please address all communications concerning this application and the Notice and Order to:

Daniel B. Wolfe  
President & Chief Operating Officer  
Harris & Harris Group, Inc.  
1450 Broadway  
24<sup>th</sup> Floor  
New York, NY 10018

Please address any questions concerning this application and a copy of any communications, Notice, or Order to:

Steven B. Boehm, Esq.  
Sutherland Asbill & Brennan LLP  
1275 Pennsylvania Avenue, N.W.  
Washington, D.C. 20004-2415

Sandra M. Forman, Esq.  
General Counsel  
Harris & Harris Group, Inc.  
1450 Broadway  
24<sup>th</sup> Floor  
New York, NY 10018



#### IV. AUTHORIZATION

Under New York law and the Articles of Incorporation and bylaws of Applicant, the Applicant's business and affairs are to be conducted by its board of directors. In accordance with New York law and the Articles of Incorporation and bylaws of Applicant, a resolution was adopted by Applicant's board of directors authorizing the appropriate officers of Applicant to prepare, execute, and file with the Commission this Application for a certification pursuant to Section 851(e) of the Code. A copy of the resolution is attached hereto as Exhibit A. Accordingly, the persons signing and filing this Application have been duly authorized to do so.

Applicant has caused this Application to be duly signed on its behalf in the county of New York in the City of New York on the 21<sup>st</sup> day of July, 2011.

HARRIS & HARRIS GROUP, INC.

By: /s/ Daniel B. Wolfe  
Daniel B. Wolfe  
President & Chief Operating Officer

Attest: /s/ Jacqueline M. Matthews  
Jacqueline M. Matthews

**VERIFICATION**

The undersigned, being duly sworn, deposes and says that he has duly executed the attached Application dated July 21, 2011, for and on behalf of Harris & Harris Group, Inc.; that he is the President and Chief Operating Officer of Harris & Harris Group, Inc.; and that all actions by shareholders, trustees, and other bodies necessary to authorize deponent to execute and file this Application have been taken. Deponent further says that he is familiar with such instrument, and the contents thereof, and the facts set forth are true to the best of his knowledge, information, and belief.

/s/ Daniel B. Wolfe  
Daniel B. Wolfe

Sworn and subscribed to before me, a notary public, this twenty first day of July, 2011.

/s/ Jacqueline M. Matthews

Notary Public, State of New York  
No. 01MA6004743  
Qualified in New York County  
Commission Expires March 30, 2014

**EXHIBIT LIST**

A Resolution adopted by the board of directors of Harris & Harris Group, Inc.

---

**HARRIS & HARRIS GROUP, INC.**

Resolutions by the Board

March 10, 2011

**RESOLVED**, that the officers of the Company shall be, and each of them hereby is, authorized and directed, by and on behalf of the Company, and in its name, to execute and cause to be filed with the SEC any applications for exemptive relief or certifications, or amendments thereto, or requests for no-action or interpretive positions under the Securities Act of 1933, the Securities Exchange Act of 1934, the Investment Company Act of 1940, or any other applicable federal or state securities law, or applicable provisions of the Internal Revenue Code of 1986, as amended, as such officers, in their sole discretion, deem necessary or to effect such actions or pursue such activities or transactions of the Company as are duly authorized; and further

**RESOLVED**, that all prior actions taken by the officers of the Company in connection with the filing of such application with the SEC are hereby approved and ratified in all respects.

---