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NANOTECHNOLOGY

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NANOTECHNOLOGY: INVESTING IN PRODUCTS OF THE FUTURE

Investment Conclusion: *We recommend buying leading nanotechnology companies (Harris and Harris, Nasdaq: TINY and Altair Nanotechnologies, Nasdaq: ALTI) in early sectors (venture capital and materials) now for the long haul. We believe nanotechnology has a trillion dollar, multi-industry potential. Over the last few decades, researchers have continued to improve on the production of making increasingly better tools. Companies are now working with the smallest solid objects possible – and at that size materials take on new and interesting properties. Just like information technology took a giant leap forward when it became available to many more users (think desktop computing in the late 1970s), we believe materials are poised to make a similar leap in the coming years.*

- **Nanotechnology will likely have a multi-industry, trillion dollar impact over the next five to seven years.** We believe nanotechnology is the next major step in technology. The National Science Foundation (NSF) estimates nanotechnology's impact around $1 trillion over the next 10-15 years, while Lux Research estimates five years. We think of nanomaterials as the next "plastic." Building at the nano-scale allows creation of new materials and the discovery of new interactions.
- **Product newsflow is the key to nano-investing.** Nanotechnology companies are just now getting to products. Announcements on deals, partnerships, patents, and of course products should drive these stocks. Moves can be significant, like Altair's 128% one-day move based on independent validation of its materials for batteries. We believe nanotechnology will be more like biotechnology than the Internet; with high barriers to entry and lower barriers to adoption, products and intellectual property will be key, in our view.
- **We are initiating coverage of Altair Nanotechnologies (ALTI) with a Buy rating and a $4 price target.** Altair Nanotechnologies is a nanotechnology leader with industrial scale processes that is going from R&D to products. The company's new CEO is a product development expert (he is responsible for the peel-and-stick postage stamp and the Duracell battery tester label). We believe good news regarding the deal with Advance Batteries could hit in the next one to two quarters. Additionally, we believe the Spectrum Pharmaceuticals deal for RenaZorb™ presents upside opportunities. We like the $30 million in cash which could help it weather any storms. We are setting a target price of $4 based on a P/S ratio of 8.6x using discounted 2008 sales.
- **We are initiating coverage of Harris and Harris Group (TINY) with a Buy rating and a $17 price target.** Harris and Harris Group is the leading public venture capitalist focused on nanotechnology and its brand is growing. With its momentum the company is achieving superior dealflow/valuation, and with its new experts, it can now pick and choose which private companies to back. Venture capitalists who can pick winning companies will likely be some of the first winners in the nanotech race. We will likely see our first high profile nanotechnology IPOs in 2005, which should act as positive catalysts for this portfolio play. We are setting a target price of $17 based on 2x a discounted future NAV of $14/share in 2008.
- **We are initiating coverage of Nanophase Technologies (NANX) with a Hold rating and a $6.50 price target.** While Nanophase Technologies is well-positioned in materials, we are waiting for more evidence of a revenue ramp. Revenue has lingered around $5.3 million for the last three years. We believe the partners (BASF, Rohm and Hass, and BYK Chemie) the company now has could drive revenue growth, but these channels need to mature first.

Please see the Important Disclosures Section at the end of this report.

TABLE OF CONTENTS

NANOTECHNOLOGY MARKET INTRODUCTION

COMPANY INITIATIONS

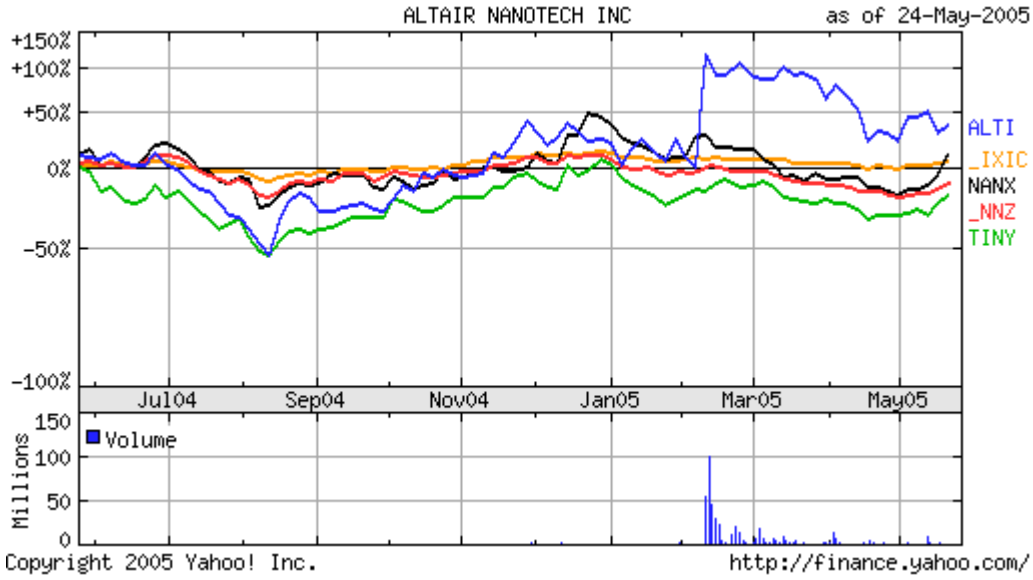
LULL IN NANOTECH REPRESENTS GOOD ENTRY POINT FOR LONG-TERM

Now looks to be a good time to buy nanotechnology leaders. Other than Altair's bounce from its battery announcement, the nanotechnology stocks have been underperforming. We believe this is due to a lack of catalysts and a general reduction in the risk investors are willing to take. We expect product announcements to act as significant catalysts over the next few quarters. Altair's spike up in early February shows the moves these announcements can cause.

We believe some of the hype has been removed from nanotechnology stocks. For the past twelve months, the NASDAQ is up 7%, the S&P is up 9%, but the Merrill Lynch Nanotechnology Index is down 11%. While nanotechnology will likely continue to be volatile, we believe investing in leaders in early sectors (materials, tools, and venture capital) is a sound strategy.

Product sales could break nanotechnology stocks out of their lull. In talking with private company CEOs, we have found the venture investing world is beginning to chase nanotechnology companies with product sales. We believe public investors likewise will see significant opportunity when nanotechnology companies get through all the technology and business issues to finally generate product sales.

EXHIBIT 1: **NANOTECHNOLOGY HAS UNDERPERFORMED OVER THE LAST YEAR**



Source: Yahoo! Finance

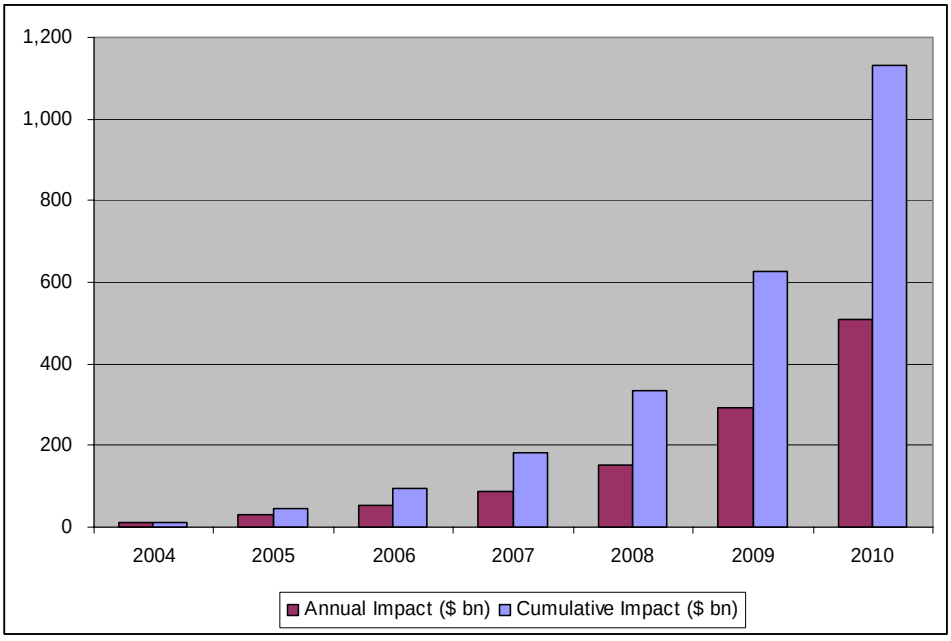
We believe investing in nanotechnology will be like investing in biotechnology – picking winners will be important. Investing in every nanotechnology company is somewhat like betting on every horse in the race, not every horse can win. Like biotechnology, much of the value will be in the intellectual property generated by scientific discoveries. However, intellectual property will be a necessary but not sufficient condition. In 2005, we see companies with product sales in the next few quarters as the winners. In the future, we may see more risk-taking and IP-based models that could work then.

Nanotechnology investing will likely be different from Internet investing. The Internet had low barriers to entry (put up a website) and high barriers to adoption (initially only a few were on the web). Nanotechnology companies have high barriers driven by the scientific nature of the companies. Patents, processes, and people are all in scarce supply. Once a nanomaterial is produced, however, people should be able to easily adopt it. For example, nano-enhanced tennis rackets and pants are used just like normal ones, they just work better.

TRILLION DOLLAR IMPACT

We believe nanotechnology could be used in products totaling a trillion dollars in the next five to seven years. The famous National Science Foundation (NSF) estimates from earlier in the decade listed the impact around $1 trillion by 2015. Newer estimates by industry analysts accelerated that timeline significantly to 2010. Given the adoption of nanotechnology in consumer products (tennis rackets, eye glass lenses, khaki pants) and upcoming adoption in semiconductors (imprinting, memory chips, displays), we are looking for the impact to hit one trillion dollars between 2010 to 2012.

EXHIBIT 2: **LATEST NANOTECH IMPACT ESTIMATES - $1 TRILLION BY 2010**



Source: Lux Research, January 2005

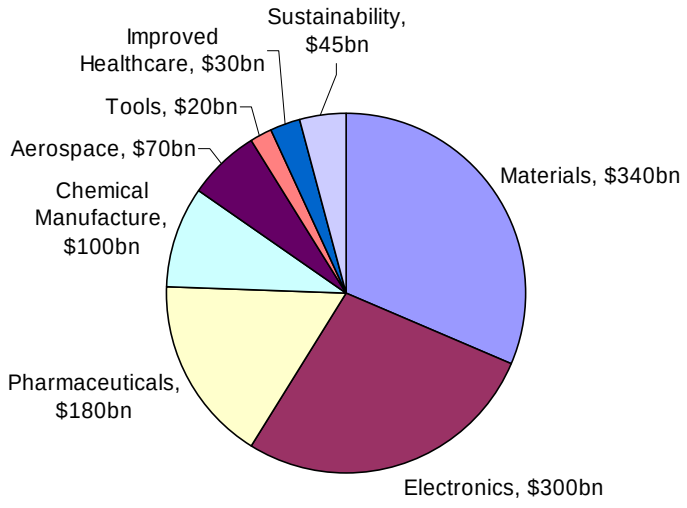
Materials and electronics look to be the big winners according to the NSF. Materials, at 31%, is estimated to be the largest segment. We also believe that materials will be one of the first markets where nanotechnology gets traction. Electronics, at 28% share, could be nearly as large, but we believe it will come after materials. The breakdown only shows potential impact, not necessarily where the profits will be.

EXHIBIT 3: **THE NSF SEES MATERIALS AS THE LARGEST OPPORTUNITY**

Market Segment	Potential Impact ($B)	Share
Materials	$340	31%
Electronics	$300	28%
Pharmaceuticals	$180	17%
Chemical Manufacture	$100	9%
Aerospace	$70	6%
Tools	$20	2%
Improved Healthcare	$30	3%
Sustainability	$45	4%
Total	$1,085	100%

Source: U.S. National Science Foundation

EXHIBIT 4: **EARLY NANOTECH IMPACT ESTIMATES - $1 TRILLION BY 2015**



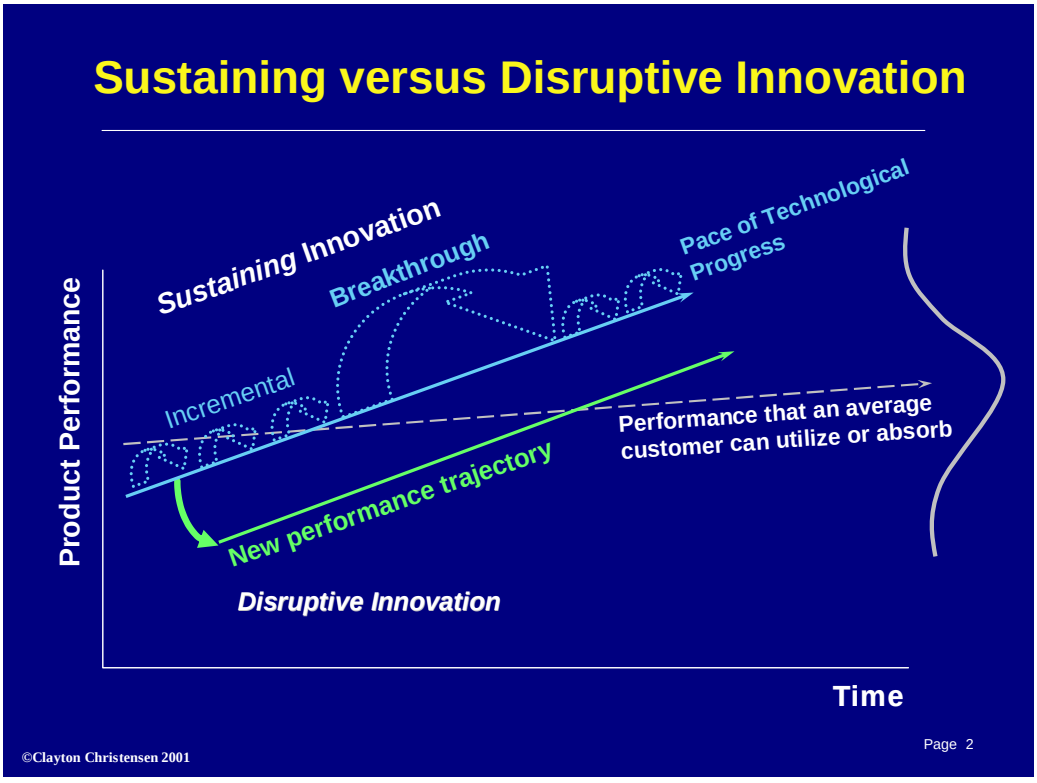
Source: U.S. National Science Foundation

NANOTECHNOLOGY DISRUPTIVE

We believe nanotechnology can be disruptive. In the classic Christensen work, *The Innovator's Dilemma*, the professor outlines how a new competitor (often with new technology) can disrupt established companies. Disruptive companies deliver a lower cost product, generally first to less demanding customers. Established companies generally do not try to compete as these customers provide lower margins. However, over time, the disruptive approach gets better and better, until it is good enough for mainstream customers and at a much lower price – which is when the disruption occurs.

We see significant disruption occurring, but not until products are redesigned to take advantage of nanotechnology. We have seen cases where nanotechnology is delivering 100–1000 times better performance. The unknowns are cost and how the enhanced performance can be utilized. It is of limited benefit if only one part of an existing product gets better. The part one improves may not be the limiting element. New designs will be needed to fully exploit the better performance. Sometimes these new designs will come from partners of nanotechnology companies, but more often they will come from start-ups willing to take a chance.

EXHIBIT 5: **NANOTECHNOLOGY WILL LIKELY BE BOTH SUSTAINING AND DISRUPTIVE**



Source: Clay Christensen, 2001

Sustaining (both breakthrough and incremental) innovations will likely come first. Today's nanotechnology is mostly incremental improvements, 20% better in factor, which translates into slightly better overall performance. We believe breakthroughs are what we will see in 2005. Better battery life, significantly better optics, possibly even better sensors. These should wet investor's appetites for the disruptive technologies to come in areas like lithography, drug delivery, and chip memory.

RISK ASSESSMENTS KEY TO VALUATION

Nanotechnology companies will likely be valued like any other company with similar intellectual property protection, growth prospects, and earnings potential. The premiums paid by such companies will vary with time. However, risk assessments by investors will likely change significantly down over time. We believe that nanotechnology will likely impact nearly every product over the next decade; it seems to be just a matter of time.

Product revenue will be key to assessing risk. We believe limited value will be attached to contract or government grant revenue. Once product revenue is achieved, many technology, pricing, and market questions are answered. Prior to profits, these companies should trade on Enterprise Value to Sales ratios as most product cycle companies do.

Pre-product revenue companies will likely trade on discounted future cash flows. Here the discount rates will likely vary from 25% to 40% depending on the stage of development. Cash flow estimates will only be considered for three to five years, beyond that point investors will likely assign no value as technology risks will seem too high. While the three to five year estimate may seem high, we believe the high barriers to entry (particularly for healthcare-related efforts) make the timeframe reasonable to consider.

INVESTMENT THESIS: NANOTECHNOLOGY PRODUCTS ARE COMING, NOW IS THE TIME TO BUY THE STOCKS

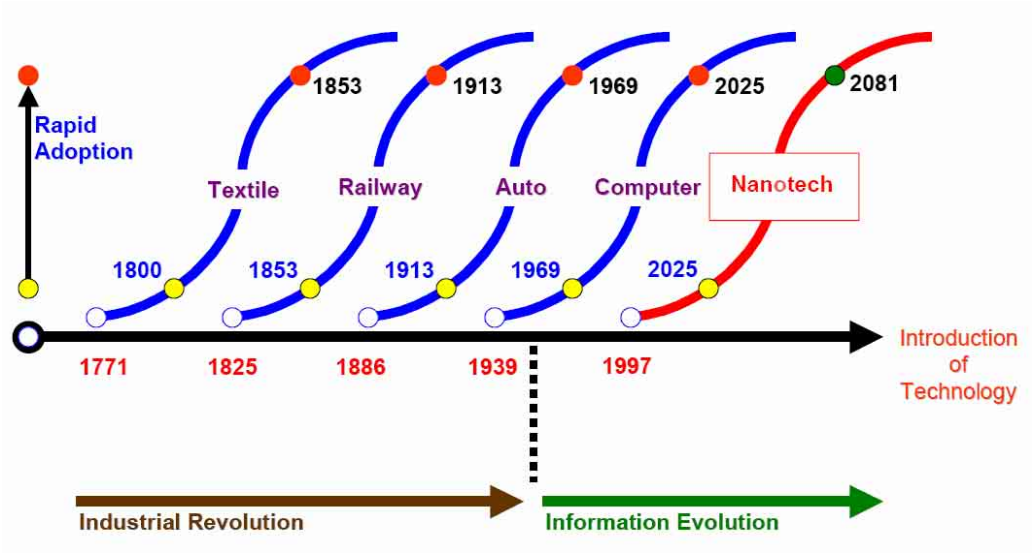
We believe the next step in technology is nanotechnology. There are only a few who question this; the trick is when and where. We believe the when is very soon, and the where is materials and venture capital. Materials companies are beginning to see million dollar revenue streams, many which have the potential to grow significantly. Venture capitalists are poised to take advantage of any IPO window. Once the first large nanotechnology IPO is understood, we believe investors will look more favorably on nanotechnology venture capitalist and business development companies.

It is all about products, products, products. We believe nanotechnology will become part of nearly every new product over the upcoming decades**.** One way to think of nanotechnology is as the next "plastic." It is in nearly every product, but this time the performance of the material can be tailored to a given application, and can potentially produce a 1,000-fold improvement in performance.

Nanotechnology today is similar to personal computers in the 1970s, and a similar technology growth curve is likely. Scientists believed back then that there should be a personal computer on every desk. Well, we now have one or two on every desk and the PC business has turned from growth to cyclical growth to cyclical. This is to be expected. Technologies and their industries mature over time.

The long-term view is the best for nanotechnology investing. It could take some time for nanotechnology winners to be identified, but it seems highly likely that nanotechnology will be the next growth technology. Economist Norman Poire argues that growth innovations drive the economy and the stock market. His theory is that it takes about 28 years for a new technology to become widely accepted, which is then followed by a period of rapid growth lasting about 56 years. Some 112 years after invention, the innovation reaches maturity and grows in-line with population increases.

EXHIBIT 6: **NANOTECHNOLOGY DRIVES THE NEXT GROWTH CYCLE**

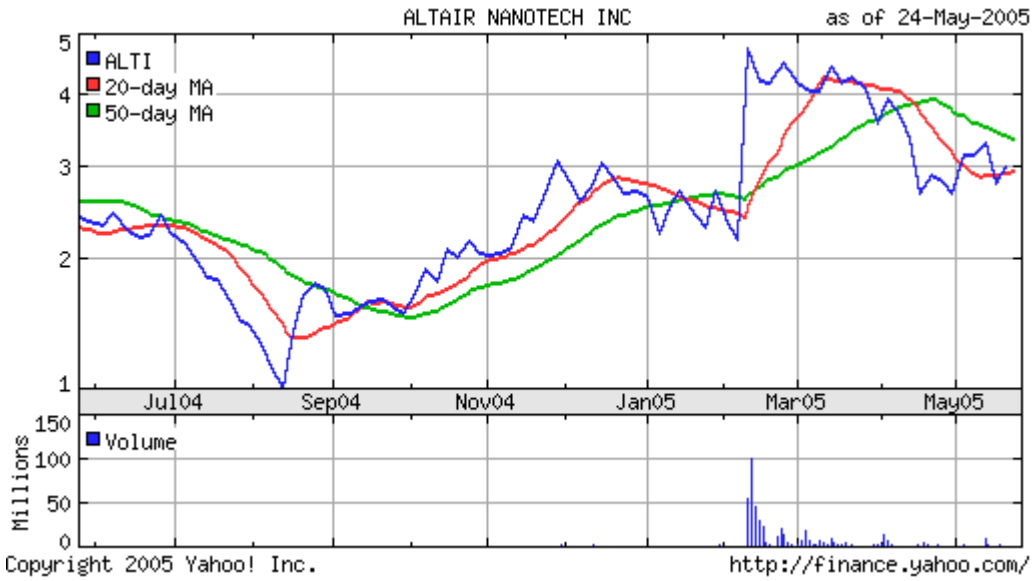


Source: Economist Norman Poire

COMPANY PROFILES

ALTAIR NANOTECHNOLOGIES (NASDAQ: ALTI); BUY, $4 PRICE TARGET

Current Price	Market Cap ($mn)	Cash ($mn)	2005 Projected Revenue Growth
$2.82	**$178**	**$30**	**40%**



Source: Yahoo! Financials

COMPANY PROFILE: INDUSTRIAL NANOTECHNOLOGY MATERIALS

While a Canadian company, Altair Nanotechnologies has its principal assets and operation in the U.S. Altair's primary business is developing and commercializing nanomaterial and titanium dioxide pigment technologies; its current focus is ceramics. The company is broken up into two divisions, Life Sciences and Nanomaterials. Each division is focusing on three products, all based on the patented technology platform acquired or developed over the last five years. With its main operations in Reno, NV, the company has 36 employees and did $1.15 million in sales in FY:04. The company owns an 80,000 square foot facility and is capable of manufacturing up to 200 tons of nanomaterials annually.

INVESTMENT THESIS: MOVING FROM R&D INTO PRODUCTS

- **Recent pullback based on questions surrounding battery partner provide a good entry point.** Advanced Battery is Altair's partner, but only for lithium polymer batteries in China. The stock has fallen recently due to some questioning the size of Advanced Battery and the exclusivity of the contract. We have had Chinese documents from the City of Shuang Cheng translated, and they state that Advanced Battery Technologies has over 1,200 employees including 18 with Ph.D. degrees, and 31 with Masters degrees.

- **New management means a new approach – practical and product based.** The company is moving from an R&D focus to a product focus. New CEO Alan Gotcher has a strong track record of large scale product development. Alan has grown four startups to multi-billion unit run rates, each a $100+ million company. Alan was the driver of the "peel and stick" postage stamp (55 billion units by year three) and Duracell's charge testing battery label (4 billion units annually).
- **Recent license agreements and partnership announcements demonstrate the potential and reduce the risk.** January's RenaZorb deal with Spectrum Pharmaceuticals is a start for the Life Science Division, and we are expecting several more deals in the next couple of quarters. We feel the deals with Advanced Battery, TIMET, Genesis Air, Western Sands, and Batemen also bode well for future revenue and validate a number of technologies.
- **Strong cash position ($30 million) gives Altair flexibility and longevity.** Many small technology companies get squeezed because large partners can dictate terms. While Altair is still small, its cash gives it time to work out the right deals with the right partners. Management is also looking to acquire as needed.

STOCK CATALYSTS: PRODUCT NEWSFLOW

- **Product announcements are the major mover of the stock.** As seen by the move in early February (up from $2.08 to $4.77, that is 129% in one day), product announcements can move this stock significantly. The February case involved advancement in lithium ion battery electrode materials. Since the initial move up, confidence of the impact has waned somewhat and the stock has fallen back. We expect more battery related and other product announcements in the next few quarters.
- **Partnership announcements should act as catalysts.** Partnerships give investors both an independent validation of the technology and some indications of future revenue streams. We expect more announcements (like the partnerships with Spectrum Pharmaceuticals, Bateman Engineering, and Advanced Battery) this year.
- **Patent announcements can move the stock, and we expect Altair to apply for 30 – 40 more this year.** Patents not only protect intellectual property, but give some independent validation of the technology involved. Altair currently has 19 patents issued and 93 patents pending.
- **Greater visibility for nanotechnology and nanotechnology stocks should act as a positive catalyst.** As the year progresses, we expect some nanotechnology IPOs to emerge, which should raise investor interest. In addition, large companies (like Intel) are beginning to position nanotechnology as key to their future. We expect at least two nanotechnology IPOs this year depending on market conditions.

POTENTIAL CONCERNS

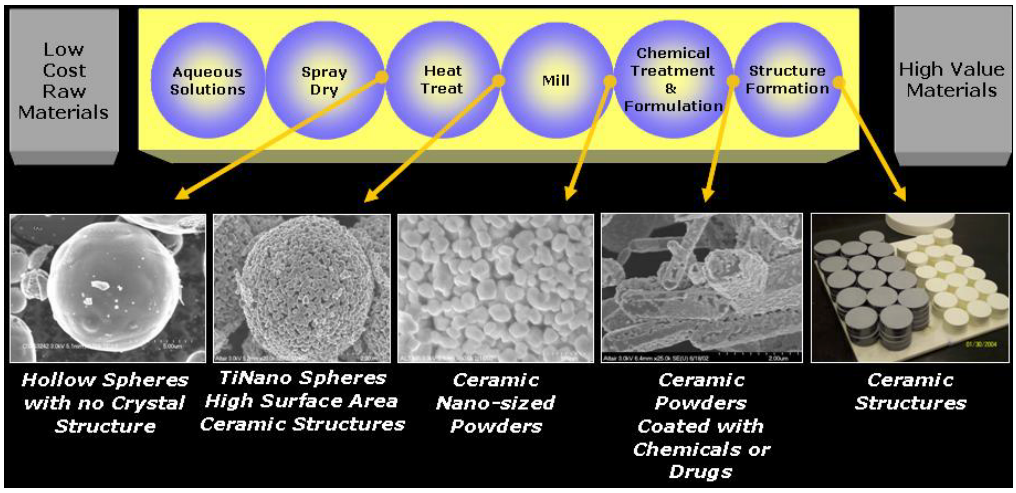
- **Fluctuations based on newsflow should be expected.** Many nanotechnology companies are small and have high betas. The beta of the ML Nanotechnology Index is 2.35. Nanotechnology stocks will likely be a risky investment for some time (just like any emerging technology stocks). We will look to trade around news events to enhance returns.
- **Partnerships could fail.** Advanced Battery in China may not be able to deliver, likewise Altair's material enhancements may not be cost effective or may not scale. The risks with Batemen are lower, but any joint venture has risks. Relying on partners is a risk until the partnerships have had time to mature.
- **Competition from larger pharmaceutical companies could cut the Life Science Division's potential sales.** Shire already as a drug that is similar to RenaZorb in some aspects. The marketing heft of large companies means that Altair needs to have a significantly better solution.

PRODUCT OVERVIEW: PROCESS CONTROL ENABLES NEW MATERIALS

The key to Altair, like many upcoming nanomaterial companies, is the process control now possible. The new tools (atomic force microscopes and dip pen nanotools) enable these companies to develop new materials. The next step (which Altair has completed) is to scale and industrialize the process. Altair can now control the particle size, shape, and crystalline form to a high degree in large scale.

Once the materials and processes are understood, they are also patented. Altair has 19 patents issued and 93 patents pending. Patents cover drug delivery and drug candidates as well as high surface area electrodes (for batteries) and materials for alternative energy. We believe patents are a necessary, but not sufficient, condition for a nanotechnology company. The patents can keep the barriers to entry high, but execution is also needed.

EXHIBIT 7: **NANO PROCESS CONTROLS SIZE, AREA, PURITY AND STRUCTURE**



Source: Altair Nanotechnologies, May 2005

PERFORMANCE MATERIALS DIVISION: NEXT GENERATION BATTERIES

Altair's battery electrode nanomaterial is driving the stock today, and we expect the deal with Advanced Battery to be a good one. The excitement generated by the February 10 press release announcing the results of independent studies into its Lithium Ion battery electrode materials has waned. Altair's press release states "these new materials allow rechargeable batteries to be manufactured that have three times the power of existing Lithium Ion batteries at the same price and with recharge times measured in a few minutes rather than hours."

This press release was followed up with a deal with Advanced Battery Technology of China. There have been some questions about the size of Advanced Battery; however, we have reviewed documents in the original Chinese version and believe Advanced Battery has over 1,200 employees including 18 with Ph.D. degrees, and 31 with Masters degrees. The agreement with Advance Battery also is limited to China; Altair can partner with other battery makers for the rest of the world. Getting manufacturing in China from the start does seem to be a good idea to us.

Batteries built with Altair's nanomaterials have an advantage because of the high surface area to volume ratio. The particles are small (and more uniform), thus allowing faster charge time as fewer electrons are needed; and as a result, one does not waste charge in the middle of the particle. Similarly, the bonds of the particles are less stressed (less charging) and thus the durability and cycle counts increase. These virtually zero strain crystal lattices eliminate the main cause for battery electrode material fatigue and could increase the number of recharge and discharge cycles from a few hundred to many thousand.

It would be a major win if Altair could get a partnership agreement for NanoCheck™. NanoCheck prevents the growth of algae in pools and spas. The Genesis Air agreement puts Altair in the supply chain in the $9 billion market for advanced air filtration. In both water and air filtration, the high surface area of micro-porous nanomaterials is key. Water and air treatment is likely to be more important in the future as we all be come more environmentally friendly.

A deal with TIMET for low cost electrolysis process using micro-porous TiO2 electrodes announced in Q4:04 could begin ramping revenue in 2005.

The Batemen Engineering joint venture (announced late last year) has already announced two initiating projects. The first is a Raw Material Evaluation study to determine the suitability of an emerging country client's resources for use in TiO2 pigment manufacturing. At the conclusion of the evaluation, the client will determine whether to design and construct a plant. The second project is also a Raw Material Evaluation study of a Canadian deposit for Randsburg International Gold Corporation.

Altair's Performance Materials Division has a number of potential applications (listed below); picking the right ones will be new CEO Alan Gotcher's job.

EXHIBIT 8: **POTENTIAL NANOTECHNOLOGY MATERIAL APPLICATIONS**

Applications / Markets	Physical or Chemical Attributes	Altair Nanomaterials Used / Advantages
Environmental Remediation	Photocatalytic Activity	Anatase Titanium Dioxide for photocatalytic decomposition. High surface area improves decomposition kinetics.
Self-cleaning, Self-sanitizing	Photocatalytic Activity	Anatase Titanium Dioxide for photocatalytic degradation of bacteria and grime. High surface area improves decomposition kinetics.
Chemical Mechanical Planarization	Particle size, specific gravity, hardness	Titanium dioxide fully dispersed slurries of nominal 40 nm.
Thermal Sprays Grade Powder	Glassy, abrasion, corrosion resistant barriers	Titanium dioxide, Yttria Stabilized Zirconia, Titania/Alumina mixtures - Agglomerates composed of nano-particles classified to permit ease of handling. Increased abrasion resistance.
Electrode Grade Powders	Electrochemical, Lithium Intercalation	Lithium titanate spinel, lithium manganate, lithium cobalt oxide - large surface areas radically improve lithium ion diffusion rates.
Solid Oxide Fuel Cell - ceramic and cermet core structures	Conductivity, Impermeable Membrane, Coefficient of expansion	Electrolyte YSZ, Anode and Cathode, Interconnects made from precusor nanomaterials; cermets; the formation of each is customized for properties required.
Pigments	Hiding Power, UV Protection	Nano-anatase used for paints.
Cosmetics base	Hiding Power, UV protection	Nano-anatase coated with silica and alumina provides an invisible, inorganic, high SPF base.
Electronics	Electrochemical Properties	Piezoelectric, capacitors
Catalyst Support Structures	Inert material, porous	Rigid rutile titanium dioxide structures with high porosity.
Catalysts	Inert material, porous	Titanium dioxide.
Solar Cells	Photovoltaic power	Titanium dioxide for dye sensitized "Graetzel Cell" application.

Source: Altair Nanotechnologies, May 2005

LIFE SCIENCE DIVISION: RENAZORB IS FRONT AND CENTER

RenaZorb™ is key, but revenues await approvals. In January, Altair announced a licensing agreement with Spectrum Pharmaceuticals to develop, market and sell its RenaZorb™. The market for phosphate control in kidney dialysis patients is around $600 million today and looks to be growing towards $1 billion as the population ages and the National Kidney Foundation's K/DOQI guideline recommends phosphate control drugs for a wider set of patients.

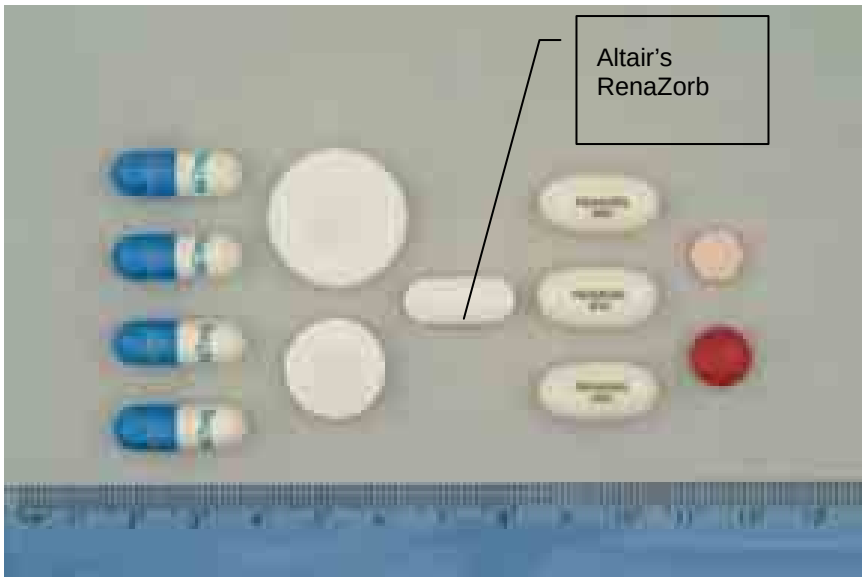
Altair is expecting $1.3 million for the first year, including upfront and milestone payments. Future consideration (assuming successful approvals and sale) could exceed $100 million according to management. Approvals will likely take two years in Europe, three years in the U.S., and five to six years in Japan. RenaZorb™ is currently in the Pre-Investigation New Drug (IND) stage.

Altair expects RenaZorb™ to:

1. Lower dosage requirements due to higher phosphate binding levels per gram of drug and high selectivity for phosphate;
2. Have fewer and less severe side effects due to lower dosage, less gassing and higher acid neutralization capacity; and
3. Result in better patient compliance due to fewer tablets required per day.

Some of the competition is currently using organic binders (Renagel™ from Genzyme) which can sometimes lead to additional patient diseases (aluminum dimentia and hypercalcaemia). Lanthanum-based compounds have been proposed as a solution. (RenaZorb™ is lanthanum-based). Shire's is Fosrenol™ and is also lanthanum based and is currently in a Food and Drug Administration (FDA) approval process.

EXHIBIT 9: **RENAZORB, ONE PILL PER MEAL VERSUS MULTIPLE**



Source: Altair Nanotechnologies, May 2005

The Life Sciences Division is also going after drug delivery applications of its nanomaterials. Altair's TiNano Sphere® controlled release system is targeting new and existing drugs, and Altair believes it has chemical and agricultural applications. Altair is also working on bio compatible applications like dental fillings, bone cement, and coatings for implants.

VALUATION: BASED ON FUTURE REVENUE POSSIBILITIES

We are setting our price target for Altair Nanotechnologies (ALTI) at $4.00 based on a discounted price to sales ratio on 2008 sales. By 2008 we believe Altair's growth and revenue profile will be like a fast growing bio or drug development company. The average P/S of bio and drug development companies with similar growth rates is 70x; however, we are using a more conservative median P/S of 20x.

We estimate 2008 product sales could hit $42 million, discounting this back at 35%, on a P/S of 20x implies a valuation of $4.23 per share. Altair's 2008 sales are dependent on a number of factors and the sensitivity analysis shows the impact.

EXHIBIT 10: **ALTI VALUATION SENSITIVITY ANALYSIS**

		Discount Rate				
Implied Share Price		25%	30%	**35%**	40%	45%
up 50%	$63	$9.74	$7.92	**$6.34**	$4.98	$3.84
up 20%	$50	$7.79	$6.33	**$5.07**	$3.99	$3.07
2008 Sales Estimate:	**$42**	**$6.49**	**$5.28**	**$4.23**	**$3.32**	**$2.56**
down 20%	$33	$5.19	$4.22	**$3.38**	$2.66	$2.05
down 50%	$21	$3.25	$2.64	**$2.11**	$1.66	$1.28

Source: WR Hambrecht + Co estimates. Sales in millions, valuation is per share.

MAJOR SHAREHOLDERS

Most of the shares are held in retail hands today. Insiders hold 5%, owners hold 2%, and 4% is held by institutions.

EXHIBIT 11: **TOP INSTITUTIONAL HOLDERS (4% OF SHARES)**

Holder	Shares	% Out	Value*	Reported
Barclays Bank Plc	835,408	1.44	$2,263,955	31-Dec-04
Hussman Econometrics Advisors, Inc.	565,800	0.98	$1,533,318	31-Dec-04
Vanguard Group, Inc. (The)	214,666	0.37	$766,357	31-Mar-05
American Century Investment Management Inc.	190,000	0.33	$514,900	31-Dec-04
Deutsche Bank Aktiengesellschaft	119,512	0.21	$323,877	31-Dec-04
Condor Capital Management	109,900	0.19	$297,829	31-Dec-04
Mellon Financial Corporation	81,300	0.14	$290,241	31-Mar-05
Northern Trust Corporation	52,922	0.09	$143,418	31-Dec-04
Merrill Lynch & Co., Inc.	48,511	0.08	$131,464	31-Dec-04
Reynolds Capital Management	45,000	0.08	$121,950	31-Dec-04

Source: Yahoo! Finance

EXHIBIT 12: **ALTAIR NANOTECHNOLOGIES (ALTI) EARNINGS MODEL**

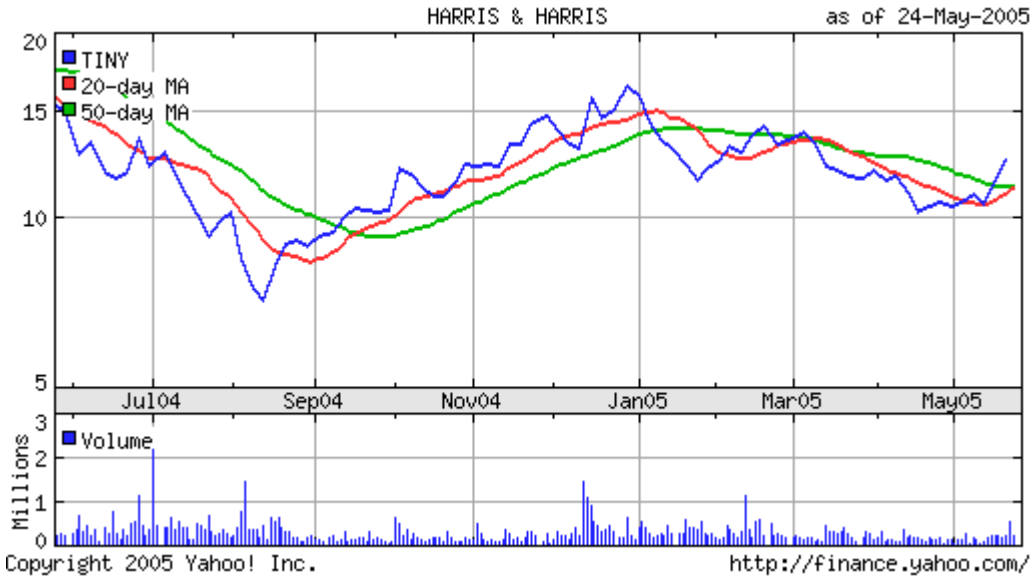
($ thousands except EPS)	2004 Actuals				2005 Estimates				Full Year			
	Mar	Jun	Sep	Dec	MarA	Jun	Sep	Dec	2003A	2004A	2005E	2006E
Total Revenue	**$140**	**$154**	**$347**	**$511**	**$1,028**	**$1,328**	**$1,628**	**$1,928**	**$73**	**$1,152**	**$5,910**	**$10,445**
Cost of Product Sales	(0)	(200)	(294)	493	(4)	(10)	(20)	(30)	(2)	(1)	(64)	(9)
Research and Development	(393)	(874)	(614)	(219)	(782)	(874)	(614)	(731)	(1,962)	(2,099)	(3,000)	(3,500)
Sales, General & Administrative	(1,209)	(989)	(633)	(2,222)	(2,296)	(989)	(633)	(2,082)	(3,016)	(5,052)	(6,000)	(6,000)
Depreciation and Amortirzation	(221)	(220)	(227)	(236)	(245)	(220)	(227)	(213)	(879)	(905)	(905)	(905)
Asset Impairment	0	0	0	0	0	0	0	0	0	0	0	0
Operating Expense	**($1,823)**	**($2,083)**	**($1,473)**	**($2,677)**	**($3,322)**	**($2,083)**	**($1,473)**	**($3,026)**	**($5,856)**	**($8,055)**	**($9,905)**	**($10,405)**
Operating Income	**($1,683)**	**($2,129)**	**($1,420)**	**($1,673)**	**($2,298)**	**($765)**	**$134**	**($1,129)**	**($5,785)**	**($6,905)**	**($4,058)**	**$31**
Interest Expense	(47)	(48)	(50)	(48)	(51)	(48)	(50)	149	(454)	(194)	(194)	(194)
Interest Income and Other, net	20	23	30	24	104	23	30	(157)	2	97	100	130
Effective Tax Rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Pretax Income	**($1,711)**	**($2,154)**	**($1,440)**	**($1,697)**	**($2,245)**	**($790)**	**$114**	**($1,137)**	**($6,238)**	**($7,002)**	**($3,958)**	**$161**
Taxes	0	0	0	0	0	0	0	0	0	0	0	0
Preferential Warrant Dividend	0	0	0	0	0	0	0	0	(592)	0	0	0
Net Income	**($1,711)**	**($2,154)**	**($1,440)**	**($1,697)**	**($2,245)**	**($790)**	**$114**	**($1,137)**	**($6,830)**	**($7,002)**	**($3,958)**	**$161**
EPS	**($0.04)**	**($0.04)**	**($0.03)**	**($0.03)**	**($0.04)**	**($0.01)**	**$0.00**	**($0.02)**	**($0.19)**	**($0.14)**	**($0.07)**	**$0.00**
Average Shares, diluted	47,333	48,740	49,122	48,677	54,238	54,238	54,238	54,238	36,222	48,677	54,238	55,000
As a % of Revenue												
Research and Development	281%	566%	177%	43%	76%	66%	38%	38%	2693%	182%	51%	34%
General and Admin. Expenses	865%	641%	182%	435%	223%	74%	39%	108%	4140%	439%	102%	57%
Operating Income	NM	NM	NM	NM	NM	NM	8%	NM	NM	NM	NM	0%
Pretax Income	NM	NM	NM	NM	NM	NM	7%	NM	NM	NM	NM	2%
Net Income	NM	NM	NM	NM	NM	NM	7%	NM	NM	NM	NM	2%
Year-Over-Year Growth												
Total Revenue	589%	3378%	1903%	1558%	635%	761%	369%	277%	-81%	1481%	413%	77%
Research and Development	-8%	133%	60%	-72%	99%	0%	0%	234%	27%	7%	43%	17%
Sales, General & Administrative	117%	65%	8%	74%	90%	0%	0%	-6%	9%	68%	19%	0%
Operating Income	NM	NM	NM	NM	NM	NM	-109%	NM	NM	NM	NM	NM
Pretax Income	NM	NM	NM	NM	NM	NM	-108%	NM	NM	NM	NM	NM
Net Income	NM	NM	NM	NM	NM	NM	-108%	NM	NM	NM	NM	NM
EPS	NM	NM	NM	NM	NM	NM	-107%	NM	NM	NM	NM	NM
Sequential Quarterly Growth												
Total Revenue	353%	10%	125%	47%	101%	29%	23%	18%				
Research and Development	-5%	-18%	-36%	251%	3%	-57%	-36%	229%				
General and Admin. Expenses	-49%	122%	-30%	-64%	257%	12%	-30%	19%				
Operating Income	NM	NM	NM	NM	NM	NM	NM	-941%				
Pretax Income	NM	NM	NM	NM	NM	NM	NM	-1097%				
Net Income	NM	NM	NM	NM	NM	NM	NM	-1097%				
EPS	NM	NM	NM	NM	NM	NM	NM	-1097%				

Fiscal year ending December

Source: WR Hambrecht + Co estimates and Company reports

HARRIS AND HARRIS GROUP (NASDAQ: TINY); BUY, $17 PRICE TARGET

Current Price	Market Cap ($mn)	Cash ($mn)	2005 Projected Revenue Growth
$12.84	**$189**	**$41**	**NA**



Source: Yahoo! Financials

COMPANY PROFILE: PUBLIC NANOTECHNOLOGY VENTURE CAPITALIST

New York-based Harris and Harris Group invests in private micro and nanotechnology companies. Harris is set up as a Business Development Company (BDC). It takes in public capital and makes venture investments. This makes it one of the few ways to play the private nanotechnology market. Since August of 2001, Harris has made all of its initial investments in nanotechnology, microsystems and MEMS. Harris has 10 employees and has investments in 17 companies.

INVESTMENT THESIS: UPCOMING IPOS COULD DRIVE UPSIDE

- **Harris and Harris is invested and investing in some of the leaders in nanotechnology.** Nanosys, Nantero, Molecular Imprints, and NanoOpto are a few of the higher profile private companies in Harris and Harris' portfolio. Each of these companies is a leader in its market and has significant intellectual property. A few have product revenue. We believe Harris and Harris is about the only way for public investors to invest in these leaders.
- **We expect "home runs" to drive Harris and Harris' future returns as is usual for venture capitalists.** Previous stand out investments include NeuroMetrix (NURO: Buy) which went public in 2004 returning roughly 2x Harris and Harris' multi-year investment. NanoGram Devices returned 3x in about a year when it was acquired by Wilson GreatBatch Technologies in March 2004. Alliance Pharmaceuticals returned nearly 10x

in a year, but its IPO was in 2000. Likewise, NBX Corporation went public in 2000 for about a 20x return in two years. We do not expect the IPO market of 2000 to return; however, the market looks to be getting better this year and beyond.

- **We expect some nanotechnology IPOs in 2005. With more visibility and some exit validation, we believe Harris and Harris should move up.** The stock has been dropping with the NASDAQ this year. With three to four nanotechnology IPOs (possibly one to two out of Harris and Harris' portfolio) we could see upside movements as investors begin to understand the possibilities within Harris and Harris' portfolio. We expect at least two nanotechnology IPOs this year depending on market conditions.
- **Staffing moves over the last year bode well.** While well-respected Mel Melsheimer hit mandatory retirement age in December and had to move on, the recruitment of Daniel Wolfe from George Whitesides' lab at Harvard and the enticing of Alexei Andreev from DJF reveal Harris and Harris' recruitment capability. Harris and Harris now has offices in NY (main), LA (Daniel Leff), and Palo Alto (Alexei Andreev). With seasoned staff and scientific expertise, we expect Harris and Harris to be making solid investments.
- **Venture fund flows show demand for strong nanotechnology companies.** Harris and Harris portfolio companies NanoOpto and Nantero both completed funding rounds in early 2005, and both went much better than expected. We believe the private market is beginning to understand that nanotechnology can be disruptive and that once companies hit a certain point (technical and business milestones), valuations could go up significantly. We believe that once there is a little more evidence, the public markets will begin to believe the same thing.
- **Strong cash position ($41 million) gives Harris and Harris flexibility and the ability to invest as needed.** Having made $17 million in investments in 2004, we expect Harris and Harris to pick up the pace of investments in the next 12 months. If the increase is significant, Harris and Harris could come back to the market for more capital.
- **Greater visibility for nanotechnology and nanotechnology stocks should act as a positive catalyst.** As the year progresses, we expect some nanotechnology IPOs to come out, which should raise investor interest. In addition, large companies (like Intel) are beginning to position nanotechnology as key to their future.

POTENTIAL CONCERNS

- **Fluctuations based on newsflow should be expected.** Many nanotechnology companies are small and have high betas. The beta of the Merrill Lynch Nanotechnology Index is 2.35. Nanotechnology stocks will likely be a risky investment for some time (just like any emerging technology stocks). We will look to trade around news events to enhance returns.
- **Volatility of NeuroMetrix Stock.** NeuroMetrix's stock movement can affect Harris and Harris' stock; however, we believe the other 85% of Harris and Harris' portfolio is more important. Harris and Harris holds 1,137,570 shares of NeuroMetrix which went public in July 2004. As Harris and Harris' most highly valued holding (15% of NAV), it influences its net asset value per share.
- **A serious market downturn could close the IPO window and keep it closed for a long period.** Harris and Harris would like to fund future investments with its NeuroMetrix stock; if that is not possible it might have to raise capital by selling equity. Additionally, Harris and Harris' stock generally trades on perceptions of its future NAV. If exit channels (particularly IPOs) are limited, estimates of its future NAV could drop, possibly hurting the stock price.

PORTFOLIO OVERVIEW: LEADERS GETTING CLOSE TO PRODUCTS

We believe Harris and Harris will be driven (up or down) by its highest profile portfolio companies. While the company has 17 ongoing investments, we believe the top four on investors' lists are Nanosys, Nantero, Molecular Imprints, and NanoOpto. We will look at each in alphabetical order. Some of the company's other investments could also move up on investors' screens as they mature 2005 and 2006, particularly NeoPhotonics and Nanomix (which just completed a successful $16 million round earlier this year and recently launched its first CNT-based industrial sensor).

MOLECULAR IMPRINTS

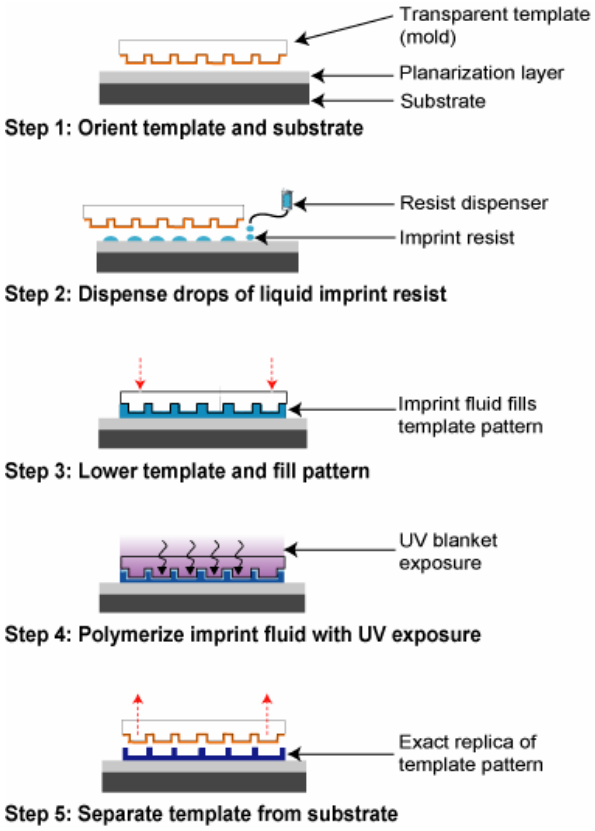
We believe Molecular Imprints (MII) could go public within the next 12 months. Dallas-based MII is already shipping product and recognizing revenue. In 2004, we believe the company did around $8 million in revenue, and could do $20 million in 2005, ramping to $40 million in 2006, and $90 million in 2007. The company hopes to be profitable in 2006. HP and Motorola are customers with the head of HP printer research calling the tool a “workhorse.”

MII’s builds nanolithography tools for the manufacture of nanodevices, microstructures, advanced packaging, and semiconductor devices. Its work in low temperature imprinting allowed it to sell its first “step and flash” system back in 2002. Step and flash is a low cost alternative to optical and e-beam lithography applications. Motorola became one of the first to use MII’s system in its labs.

We believe nanoimprinting is closer than many industry observers believe. Nanoimprinting is on the International Technology Roadmap Semiconductors (ITRS) for 30 nanometer fabs. MII hopes to get into 65 nanometer fabs. Features as small as 20 nanometers have been built using its step and flash technique. The step and flash imprint lithography (S-FIL) technique MII is commercializing came from the University of Texas.

MII seems to have solved the two critical problems that held up imprint litho in the past. The first was the high pressure and temperature normally used caused the materials to deform. The solution was to use a low viscosity fluid, which would solidify when bathed in UV light. By using a transparent mold and exploiting capillary effects on nanoscale liquids, the team found a low pressure, low temperature answer.

EXHIBIT 13: **MOLECULAR IMPRINTS' STEP-N-FLASH**



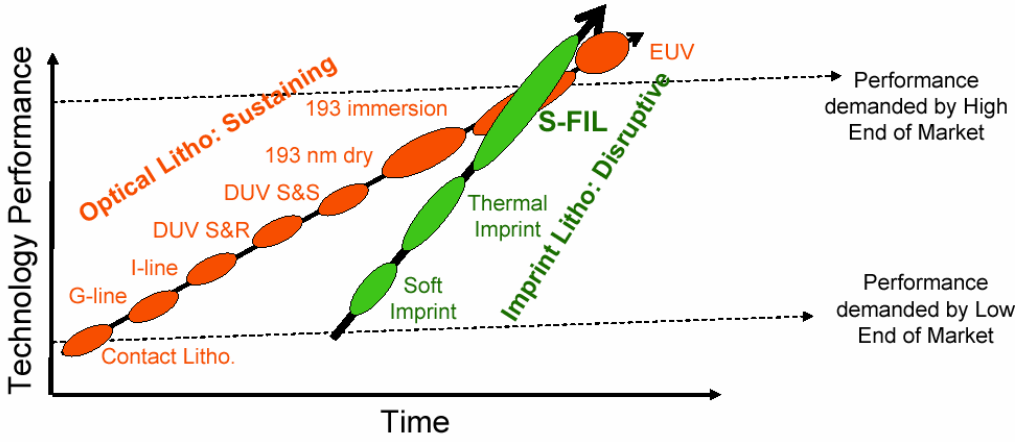
Source: Molecular Imprints

The second problem was the plane parallel/shifting problem. If the imprint master was even a little off from being x-y parallel to the substrate, error and defect rates would be unacceptable. In addition, when the template was removed, it could not shift, otherwise the features would be deformed. The team at Texas created a self-leveling approach that uses the low viscosity of the liquid and nanoscale effects to enable a repeatable solution.

The outcome is a sub-50 nm resolution lithography tool, which might be 4–10 times cheaper. The resolution of the tool is dependent on the resolution of the template. MII has seen three nanometer defects in an E-beam etched template repeated in multiple stampings. This implies the S-FIL approach could stamp out three nanometer features if the templates can be built.

We believe nanoimprinting could be a disruptive technology. The company makes the case that it can disrupt the lithography market in a classical Clay Christensen manner. If the cost is one-fourth as much, it would seem to meet the cost criteria. MII believes the first applications will be in non-mainstream applications, such as surface acoustic wave (SAW) filters for cell phones. Motorola built its first device back in June 2004.

EXHIBIT 14: **IMPRINT LITHOGRAPHY LOOKS TO BE DISRUPTIVE**



Source: Molecular Imprints

NANOOPTO

We believe NanoOpto is another Harris and Harris investment that could go public in the next 12 months. NanoOpto of Somerset, New Jersey, has begun shipping nanoscale optical devices to manufacturers (mainly focused on consumer markets). The company estimates there are one million cell phones using its products today. In April, the company had a million unit count month. This type of scale is critical because the global camera cell phone market could top 400 million units a year.

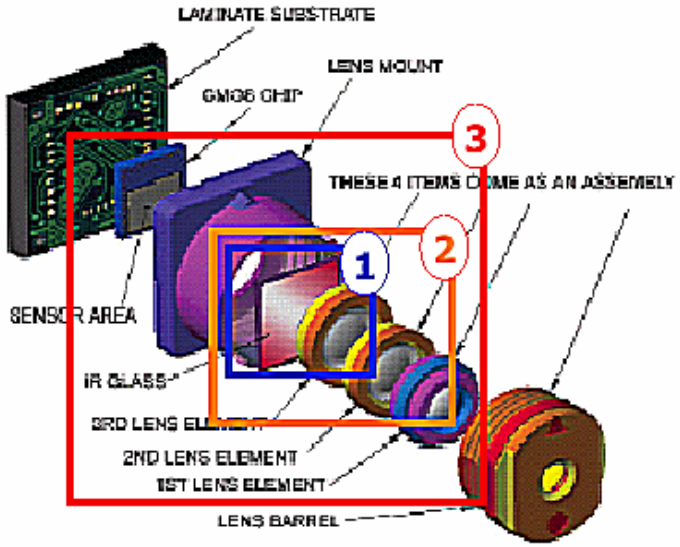
NanoOpto just completed a successful C-round of venture financing. With products shipping, the company was able to get the investors it wanted and has now raised $42.3 million. Harris and Harris President Doug Jamison is on the board. Investors include venture capitalists Harris and Harris, DFJ, U.S. Trust, Morgenthaler, Masters Capital, and First Analysis. Strategic partner and large Japanese trading company Itochu also joined in the C-round.

NanoOpto's total addressable market (TAM) is over $1 billion today and growing. The company is in volume production in three of its four initial target markets (digital imaging, optical drives, and communications equipment), and expects to hit the last market in Q4:05. Digital imaging (cell phones mostly) represents an $80 million addressable market for NanoOpto, with about 400 million units. Optical drives are a $220 million addressable market with about 250 million units a year. Communications equipment has fewer units (about five million), but it is higher value making for an addressable market of $150 million.

Optical integration (like transistor integration 50 years ago) could be key to enabling many new markets. By building at the nanoscale, NanoOpto can make light do a number of interesting things and by using semiconductor-like processing steps the company can combine currently discrete steps to reduce cost, complexity, size, while increasing performance. This integration might allow many optical devices to be re-architected.

In the figure below, Phase 1 is to prove to manufacturers that NanoOpto can deliver as promised (the current stage for its products). Phase 2 is an integration of existing components, thus reducing size and costs. Phase 3 would look at the whole device and see if there are ways to redefine or re-architect the product.

EXHIBIT 15: **OPTICAL INTEGRATION**



Source: NanoOpto

NanoOpto is keeping is revenue numbers private; however, with products shipping in volume today it should be generating tangible product revenue. Given the markets it is addressing, we believe the outlook for growth is significant.

NANOSYS

We believe Nanosys will eventually go public once it hits some key milestones. Nanosys pulled its IPO last August in a tough market, but it was looking to get investors in very early. Product revenue was not expected for a couple of years and the market at that time was not interested in taking that much risk. We believe the market is more risk tolerant today; however, product revenue or near-term expected product revenue is a key component to an IPO.

The Nanosys people are key to the company. The land grab of intellectual properly was a good idea, but only if you can produce product out of it. The three founders have pulled in some of the biggest names in nanotechnology and have impressive histories themselves. Nanosys has been able to grab exclusive licenses from researchers at Columbia, Harvard, Lawrence Berkeley Labs, MIT, UCLA, UC Berkeley, and Hebrew University.

EXHIBIT 16: **NANOSYS' FOUNDERS**

Larry Bock, Co-founder, Executive Chairman of the Board of Directors	Mr.Bock is the Executive Chairman of the Board of Directors of Nanosys, Inc. and was the Founder and Initial CEO of ARIAD Pharmaceuticals, Neurocrine Biosciences, Pharmacopeia, GenPharm International (acquired by MedaRx), Argonaut Technologies, Caliper Technologies, Illumina Technologies, IDUN Pharmaceuticals and FASTTRACK Systems. Mr. Bock was a co-founder of Athena Neurosciences (acquired by Elan Pharmaceuticals for $700M), Vertex Pharmaceuticals, and Onyx Pharmaceuticals. Mr. Bock started his career as a Researcher at Genentech, Inc. in the field of infectious diseases. He is a Member of the Advisory Board and the Technology Advisory Board of the NanoBusiness Alliance. He received his B.A. in Biochemistry from Bowdoin College and his M.B.A. from Anderson School at the University of California Los Angeles.
Calvin "Cal" Chow, Co-founder, Chief Executive Officer and Member of the Board of Directors	Mr. Chow is a Co-founder, Chief Executive Officer and Member of the Board of Directors of Nanosys Inc. He has extensive experience in venture development and the commercialization of high technology products. Most recently he was Co-founder and Chief Operating Officer at Caliper Technologies. At Caliper, he built an operation that commercialized the world's first series of Lab-on-a-Chip products. Prior to Caliper, Mr. Chow served as the Vice President of Engineering and Operations for the chemical and biological instrumentation company, Molecular Devices. Prior to Molecular Devices, Mr. Chow was the Director of Engineering and Marketing for the Communications Group at Wavetek Inc, and an R&D Engineer at Hewlett Packard's RF and Microwave division. Over the course of his career, Mr. Chow has overseen or contributed to the commercialization of over 40 high technology products and co-authored over 50 patents. Mr. Chow has an M.S.E.E from Stanford University, and a B.S.E.E. from Illinois Institute of Technology.
Stephen Empedocles, Ph.D., Co-founder and Director of Business Development	Dr. Empedocles is a Co-founder and Director of Business Development at Nanosys Inc. He has spent several years in the field of nanotechnology, working on the fundamental study of nanomaterials and the commercialization of nanotechnology-enabled products and systems. Dr. Empedocles was an early employee at Quantum Dot Corporation, developing novel nano-based fluorescent tags and detection systems for use in biological testing. Most recently, he was part of the start-up team at Ultraphotonics, developing nano-based telecommunications technologies. Dr. Empedocles is widely published in the field of nanoscience, including articles appearing in premier journals such as Science, Nature and Physical Review Letters. He has also co-authored over 15 patents and patent applications in the field of nanotechnology, covering areas from biotechnology to optics and telecommunications. Dr. Empedocles received a Ph.D. in Physical Chemistry from the Massachusetts Institute of Technology and a B.S. in Chemistry and Psychology from the University of Colorado, Boulder.

Source: Nanosys

Nanosys' advisors are exclusive consultants to the company in the field of nanotechnology. Nanosys has exclusive worldwide licensing agreements with each of the universities for the underlying technology. Collectively, these advisors have been responsible for much of the fundamental discoveries in nanotechnology in general and inorganic semiconductor nanomaterials in particular. The next page outlines a partial list of its advisors.

EXHIBIT 17: **NANOSYS' SCIENTIFIC ADVISORS**

Paul Alivisatos, Ph.D.	Dr. Alivisatos is a Member of the Scientific Advisory Board of Nanosys, Inc. Dr. Alivisatos is a Professor of Chemistry at the University of California, Berkeley with a joint appointment at the Lawrence Berkeley Laboratories where he is the Head of Molecular Design Institute, and Director of the Material Science Division. Dr. Alivisatos is one of the leaders in nanotechnology with a particular focus on zero dimensional materials. Dr. Alivisatos was one of the Founding Scientists of Quantum Dot Corporation, a privately held company that focuses on utilizing quantum dots as biochemical labels for research and diagnostic purposes. Dr. Alivisatos received his Ph.D. in Physical Chemistry at the University of California, Berkeley, followed by a Post Doctoral Fellowship at AT&T Bell Labs.
Uri Banin, Ph.D.	Dr. Banin is a Member of the Scientific Advisory Board of Nanosys, Inc. Dr. Banin is an Associate Professor at the Institute of Chemistry and a co-director of The Center for Nanoscience and Nanotechnology at the Hebrew University of Jerusalem. Dr. Banin is a leader in nanoscience and nanotechnology of semiconductor nanocrystals with numerous publications in the field. Dr. Banin received a B.S. with honors in Physics and Chemistry (1989) and Ph.D. in Physical Chemistry (1994) from the Hebrew University of Jerusalem.
Moungi Bawendi, Ph.D.	Dr. Bawendi is a Member of the Scientific Advisory Board of Nanosys, Inc. Dr. Bawendi is a Professor of Chemistry at the Massachusetts Institute Technology. He focuses on creating zero dimensional semiconductor and magnetic quantum materials, and understanding the physical characteristics of molecular devices, including the chemistry, physics, applications and assembly of nanostructures. Dr. Bawendi is a Scientific Founder of Quantum Dot Corporation, a privately held company that focuses on utilizing quantum dots as biochemical labels for research and diagnostic purposes. Dr Bawendi received an A.M. in Chemical Physics from Harvard University and a Ph.D. from the University of Chicago. He worked as a Post Doctoral Fellow at Bell Laboratories before accepting his academic appointment.
Louis Brus, Ph.D.	Dr. Brus is a Member of the Scientific Advisory Board of Nanosys, Inc. Dr. Brus is a Professor of Chemistry at Columbia University in New York, and is recognized as the scientist responsible for discovering the "quantum dot" and explaining the basic physics of quantum size-effects in semiconductor nanocrystals. Prior to moving to Columbia University, Dr. Brus spent more than 20 years in the chemistry and materials research area of Bell Laboratories in Murray Hill, New Jersey. Dr. Brus received a B.S. in Chemical Physics from Rice University and a Ph.D. in Chemical Physics from Columbia University.
Dr. Vladimir Bulovic	Dr. Vladimir Bulovic is a Member of the Scientific Advisory Board of Nanosys. Dr. Bulovic is a Professor in the Department of Electrical Chemistry and Computer Science at the Massachusetts Institute of Technology. He is a leading expert in the development of novel optoelectronic organic and hybrid nanoscale devices and made pioneering advances in areas including LED and flat panel display technologies. Dr. Bulovic has been appointed as the KDD Career Development Chair at MIT. Just prior to joining MIT, he was a Senior Scientist and Project Head of Strategic Technology Development at Universal Display Corporation. Dr. Bulovic completed his Ph.D. at Princeton University , where he also carried out Post-doctorial studies.
Philippe Guyot-Sionnest, Ph.D.	Dr. Guyot-Sionnest is a Member of the Scientific Advisory Board of Nanosys, Inc. Dr. Guyot-Sionnest holds joint appointment of Professorship in the Department of Chemistry and the Department of Physics at the University of Chicago. He is recognized for his research in the synthesis and electronic characterization of semiconductor nanocrystals. Prior to joining the University of Chicago, Dr. Guyot-Sionnest was a research scientist in Université Paris-Sud, Orsay of France. Dr. Guyot-Sionnest received a Diplome d'Etude Approfonde (DEA) from Ecole Polytechnique in France and a Ph.D. from University of California, Berkeley.
James Heath, Ph.D.	Dr. Heath is a Member of the Scientific Advisory Board of Nanosys, Inc. Dr. Heath is a Professor of Chemistry at the California Institute of Technology and the Scientific Director of the California NanoSystems Institute. Dr. Heath is a leader in the chemical assembly of quantum based superstructures with a long-term vision of assembling quantum devices.
Charles Lieber, Ph.D.	Dr. Lieber is a Member of the Scientific Advisory Board of Nanosys, Inc.. Dr. Lieber is the Mark Hyman Professor of Chemistry at Harvard University. Dr. Lieber is a leading authority on the synthesis of one-dimensional nano-structured materials (nanowires), and the design of nanowire enabled devices. Professor Lieber's laboratory is able to rationally design, control and scale the first robust building blocks of nanoscale device architecture. His laboratory has created prototypes for nano-scale devices with biological, electronic and optoelectronic applications. Professor Lieber graduated with a Ph.D. in Chemistry from Stanford University and carried out his Post Doctoral work at the California Institute of Technology. Prior to taking his position at Harvard, Dr. Lieber was a Professor of Chemistry at Columbia University.
Paul McEuen, Ph.D.	Dr. McEuen is a Member of the Scientific Advisory Board of Nanosys, Inc. Dr. McEuen is a Professor of Physics at Cornell University, and a Principal Investigator at the Lawrence Berkeley National Laboratories. Dr. McEuen has a laboratory that explores the design and fabrication of nanostructured devices. His laboratory also explores the assembly of biological and chemical nanostructures. Prior to his appointment at Cornell University, Dr. McEuen was a Professor of Physics at the University of California, Berkeley. He completed his Ph.D. in Applied Physics at Yale University, and as a Post Doctoral Fellow at the Massachusetts Institute of Technology.
Hongkun Park, Ph.D.	Dr. Park is a Member of the Scientific Advisory Board of Nanosys, Inc. Dr. Park is a Professor of Chemistry at Harvard University. He is a leader in synthesizing molecular scale devices and his work encompasses both nanoelectronics and optoelectronics. Professor Park completed his Ph.D. in Chemistry from Stanford University, and worked as a Post Doctoral Fellow at the University of California, Berkeley.
Peidong Yang, Ph.D.	Dr. Yang is a Member of the Scientific Advisory Board of Nanosys, Inc. Dr. Yang is a Professor of Chemistry at the University of California, Berkeley. Dr. Yang is a leading expert in optoelectronics and nanoelectronics. Professor Yang completed his Ph.D. in Chemistry at Harvard University and carried out Post Doctoral work at the University of California, Santa Barbara.

Source: Nanosys

Nanosys has strategic relationships with Intel, Matsushita Electric Works, SAIC, In-Q-Tel, and DuPont. These deals give some technology validation; however, it does not mean costs or scaling issues are solved. Details of the projects (from prototype, to pilot, to field trials, to production), will be one way to track progress.

Inorganic intellectual property is core to Nanosys' vision. Nanosys is focused on inorganic (non-carbon based) nanotechnology. Carbon nanotube-based technology is being researched by many companies and many patents have been issued. Nanosys is looking to avoid the carbon nanotube patent "minefield." We believe carbon nanotubes will see significant usage, but we agree that the numerous patents are of a concern.

Inorganic nanotech should be able to lever the wealth of knowledge and infrastructure of the silicon industry. Inorganic chemistry includes working with silicon, Group III-V materials like gallium-arsenide, and Group II-VI combinations. Many years of research have gone into inorganic chemistry and many billions of dollars have been spent on infrastructure. Inorganic nanotechnology hopes to leverage both investments.

Carbon is simpler to study, but appears to have less flexibility. The issue of durability is still open, whereas inorganic is essentially a "rock" which is well understood. Carbon could have advantages in performance, but application will have to avoid known problems. The ability of inorganic materials to mix elements gives it more flexibility.

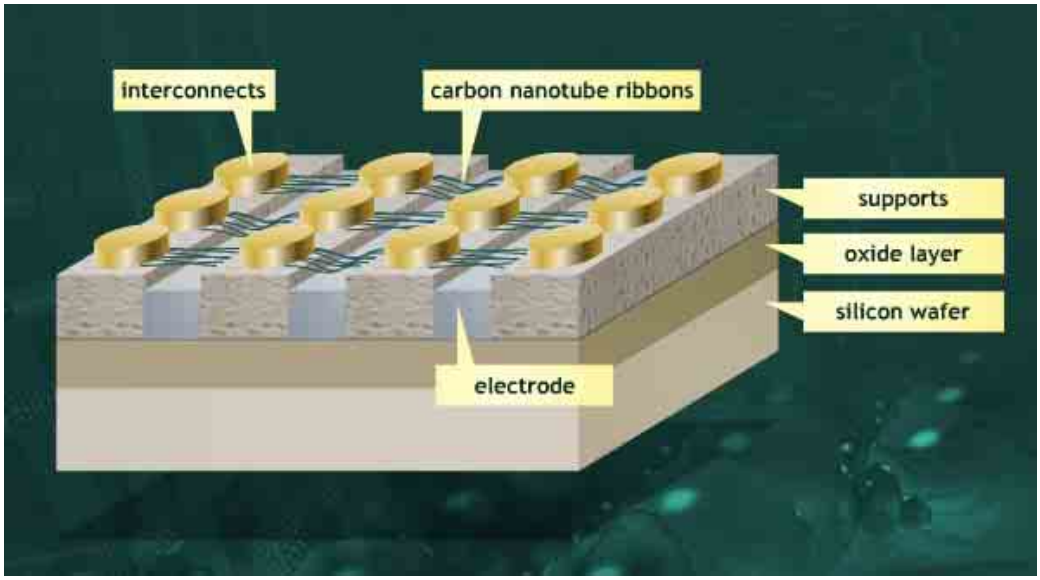
Nanosys feels a number of organic researchers have moved to inorganic as limitations have appeared. Inorganic nanotechnology currently has fewer researchers and could have more flexibility than organic. The biggest problems in carbon nanotubes today are (1) the inability to manufacture them in an aligned pattern and (2) the inability to build only semiconducting or only insulating versions. Applications that are making progress avoid these issues by either being electromechanical (like in Nantero's memory chip) or by purely being a material additive for strength.

NANTERO

We believe Nantero could go public in the next 18 months. It just finished raising $15 million in venture capital in only six weeks. Management had originally expected it to take six months. The company is conservatively estimating royalty/product revenue in 2006. Nantero has 80 patents pending with 10 already issued. Many of the patents concern processing and cleaning of nanotubes – which could be useful outside of its focus on memory chips. The technology is based on research out of Harvard.

Nantero's business model is similar to Rambus' (RMBS: Hold). By developing the key technology, then leveraging big partners, it can keep its staffing low (25 people today) and capital requirements down. Key partners include Brewer Science (in order to supply materials to partners), LSI Logic (LSI: Not Rated) (likely its first big customer), ASML (for tools), and BAE Systems (for government and radiation hardened applications). Nantero is also supplementing its venture funding with government grants—the latest it won was for $13.5 million over three years.

EXHIBIT 18: **CARBON NANOTUBE MEMORY CELL**



Source: NanoOpto

Nantero expects to have megabit engineering samples coming out of the LSI fab by the end of 2006. Nantero is targeting cells sizes 1/5-1/10 standard memory with similar speeds, reduced power consumption, and non-volatility. The main issue (as in nearly every semiconductor) is yield. The soft error problem with today's memory structures is solved by the electromechanical design of Nantero's memory. The company is currently hiring more test engineering, signaling that it is making progress.

The idea of nanomemory (NRAM) is compelling. NRAM could be non-volatile like flash memory, fast like SRAM, and dense like DRAM. It is even possible for NRAM to become the "universal memory" which would be used everywhere; however, even if that works out it will take some time. Currently, Nantero is targeting the $8 billion embedded SRAM market.

We believe Nantero's board is strong for a company with 25 people. Like many start-ups, its board can give some indication of its progress and potential.

Harris and Harris has a total of 17 significant investments, these are listed on the next page.

EXHIBIT 19: **OTHER HARRIS & HARRIS GROUP INVESTMENTS**

Company	Profile / Focus Areas
Cambrios, Inc.	Cambrios is developing a directed-evolution technology platform that uses genetic approaches to evolve rapidly biomolecules that express specific control over materials synthesis and assembly. Unlike alternative methods of producing nanostructures.
Chlorogen, Inc.	Chlorogen is developing plant-made drugs and vaccines for the treatment and prevention of human diseases.
Continuum Photonics, Inc.	Continuum Photonics is developing a family of unique and value-added optical networking subsystems that will enhance the flexibility and reliability of optical networks by offering equipment manufacturers capabilities heretofore unavailable.
Crystal IS	Crystal IS develops methods to produce large, high-quality, single-crystal substrates of aluminum nitride (AlN) for use in the nitride semiconductor industry.
CSwitch	CSwitch develops low-power, highly integrated, system-on-a-chip solutions for communications-based platforms.
Experion Systems	Experion Systems provides software to credit unions.
NanoGram Corporation	NanoGram owns a patent portfolio of approximately 75 patents and a complementary family of trademarks in nanotechnology.
Nanomix, Inc.	Nanomix is developing nanoelectronic sensors that integrate carbon nanotube electronics with silicon microstructures.
Nanopharma Corp.	Nanopharma is a research-based company developing fully biodegradable nanoscopic drug delivery vehicles based on "biological stealth" materials.
Nanotechnologies, Inc.	Nanotechnologies is developing for production a wide variety of high-performance nanoscale materials for industry.
NeoPhotonics Corp	NeoPhotonics builds planar optical devices by monolithically integrating active and passive optical materials using nanomaterials-based process solutions.
Nextreme Thermal Solutions, Inc.	Nextreme is developing thermoelectrics based on its unique, thin-film superlattice technology for applications that require extreme thermal management solutions.
NeuroMetrix (NURO)	NeuroMetrix sells medical devices for monitoring neuromuscular disorders.
Optiva, Inc.	Optiva, Inc. is developing and commercializing a new class of nanomaterials for advanced optical applications, initially for the flat panel display industry.
Questech Corporation	Questech manufactures and markets proprietary metal decorative tiles and signs.
Solazyme, Inc.	Solazyme is harnessing the power of the sun through the directed evolution of selected photosynthetic microbes.
Starfire Systems	Starfire offers a family of patented silicon carbide forming polymers for the manufacture of advanced ceramic materials applications.

Source: Harris and Harris, WR Hambrecht + Co

We believe the Harris and Harris executive team is one of the best in nanotechnology venture investing. Putting money into work at Harris and Harris is an investment in the management team. In our view, Charlie Harris is the key, and he continues to pull in talented lieutenants to dive deep into the technical aspects of each potential portfolio company. Listed below are the backgrounds of the Harris and Harris executives we have worked through the years.

EXHIBIT 20: **HARRIS & HARRIS EXECUTIVES**

Executive	Background
Charles E. Harris Chairman of the Board and Chief Executive Officer since 1984	Prior to 1984, Mr. Harris had an 18-year career in the investment industry, including serving as Chairman of Wood, Struthers and Winthrop Management Corp., the investment advisory subsidiary of Donaldson, Lufkin & Jenrette. He is currently a trustee of two not-for-profit entities, Cold Spring Harbor Laboratory, a research and education institution in molecular biology and genetics, and the Nidus Center, a life sciences business incubator. He is a life-sustaining fellow of MIT and a Shareholder of its Entrepreneurship Center. Mr. Harris was a member of the Advisory Panel for the Congressional Office of Technology Assessment. He graduated from Princeton (A.B.) and the Columbia Business (M.B.A.).
Douglas W. Jamison VP since 2002 President, Chief Operating Officer and Chief Financial Officer since 2005	Prior to joining Harris & Harris Group, Mr. Jamison worked for five years as a senior technology manager at the University of Utah Technology Transfer Office, where he managed intellectual property for the University of Utah. This included assessing technologies in both the biological sciences and the physical sciences, working with patent attorneys to develop patent protection, and developing and marketing these technologies with industry. He was graduated from Dartmouth College (B.A.) and the University of Utah (M.S.).
Daniel V. Leff, Ph.D. Executive VP/Managing Director since 2004	Prior to joining Harris & Harris Group, Mr. Leff was a Senior Associate with Sevin Rosen Funds where he focused on early-stage investment opportunities. While at Sevin Rosen he played an integral role in the funding of Nanomix, InnovaLight, Sana Security, and D2Audio. He previously held positions with Intel Corporation. Mr. Leff received his Ph.D. degree in Physical Chemistry from UCLA, where his thesis advisor was Professor James R. Heath (recipient of the 2000 Feynman Prize in Nanotechnology). He received a B.S. in Chemistry from UC Berkeley and an MBA from The Anderson School at UCLA. Mr. Leff published several articles in peer-reviewed scientific journals and has two patents in nanotechnology.
Alexei A. Andreev, Ph.D. Executive VP/Managing Director since 2005	Prior to joining Harris & Harris Group, Mr. Andreev was an associate with Draper Fisher Jurvetson, a venture capital firm, from 2002 to March 9, 2005. From 1997 to 2000, he was employed by Renaissance Capital Group/Sputnik Funds, a venture capital fund in Moscow, Russia. Previously, he was a researcher at the Centre of Nanotechnology, Isan, in Troitsk, Russia. He graduated with a B.S. with honors in Engineering/Material Sciences and a Ph.D. in Solid State Physics from Moscow Steel and Alloys Institute and has an M.B.A. from Stanford.
Daniel B. Wolfe, Ph.D. VP since 2004	Prior to joining Harris & Harris Group, Mr. Wolfe was a consultant to Nanosys, Inc., CW Group, and Bioscale, Inc. From 2000 to 2002, he was co-founder and president of Scientific Venture Assessments, a provider of scientific analysis for private equity placements. Mr. Wolfe received his Ph.D. in Chemistry from Harvard University in 2004, where his thesis advisor was Professor George Whitesides. He also received a B.A. in Chemistry from Rice University in 1999, where he worked with Prof. Naomi Halas. Mr. Wolfe has published several articles in scientific peer-reviewed journals.

Source: Harris and Harris, May 2005

VALUATION: BASED ON DISCOUNTED FUTURE NAV

We are setting our price target for Harris and Harris Group (TINY) at $17 based on a discounted net asset value in 2008. By 2008, we believe many of today's investments will have readily identifiable values, either because they are public or they have been acquired or they have been written down. Over Harris and Harris' history, it has had 38 liquidity events and averaged a 2.7x return over a dollar weighted average of 1.6 years. We assumed 1.6 years based on first-dollar-in to last-dollar-out being 3.2 years, and later stage investments tend to be larger so ½ is a reasonable estimate. This gives an average annual rate of return of 86%.

EXHIBIT 21: **FUTURE NAV ESTIMATES**

	Rate of Return	2005*	2006	2007	2008**
NURO	11%	$10,864	$12,059	$13,385	$0
Privates	86%	$21,456	$54,917	$122,167	$248,780
Treasury Notes	2%	$40,191	$25,995	$6,515	$0
Operating Expenses		$3,000	$4,500	$5,000	$6,000
Total		**$69,511**	**$88,471**	**$137,067**	**$242,780**
Investments (moves $ from Treasury Notes to Privates):					
		$15,000	$20,000	$25,000	$30,000

*Source: WR Hambrecht + Co estimates. NAV in thousands. Note *: 2005 numbers adjusted for having only 9 months left. Note **: In 2008, we assume TINY sells NURO shares to continue investing.*

We believe 2x NAV is a conservative Price/NAV given TINY's price history and growth prospects for nanotechnology. TINY has not traded below 2x NAV since Bush signed the NNI Bill in the fall of 2003. Generally TINY has been trading above 3x NAV for the last year.

EXHIBIT 22: **TINY VALUATION SENSITIVITY ANALYSIS**

Implied Share Price		**Discount Rate (per year)**				
		5%	10%	**15%**	20%	30%
up 50%	$21	$36	$31	**$26**	$22	$14
up 20%	$17	$29	$25	**$21**	$17	$12
2008 NAV Estimate	**$14**	**$24**	**$21**	**$17**	**$14**	**$10**
down 20%	$11	$19	$16	**$14**	$12	$8
down 50%	$7	$12	$10	**$9**	$7	$5

Source: WR Hambrecht + Co estimates. NAV in millions, Valuation is per share.

MAJOR SHAREHOLDERS

Two-thirds of the shares are held in retail hands today. Insiders hold 5%, owners hold 8%, and 24% is held by institutions.

EXHIBIT 23: **TOP INSTITUTIONAL HOLDERS (4% OF SHARES)**

Holder	Shares	% Out	Value*	Reported
Masters Capital Management, L.L.C.	346,100	2.01	$5,669,118	31-Dec-04
Essex Investment Management Co Inc	1,770,230	10.26	$28,996,367	31-Dec-04
Wall Street Associates	300,400	1.74	$4,920,552	31-Dec-04
Barclays Bank Plc	292,933	1.7	$4,798,242	31-Dec-04
Oppenheimerfunds, Inc.	181,700	1.05	$2,976,246	31-Dec-04
State Street Corporation	170,512	0.99	$2,792,986	31-Dec-04
Northern Trust Corporation	125,649	0.73	$2,058,130	31-Dec-04
TIAA Cref Investment Management, LLC	116,107	0.67	$1,397,928	31-Mar-05
Granahan Investment Management Inc.	92,130	0.53	$1,109,245	31-Mar-05
Gartmore Global Asset Management Ltd	89,700	0.52	$1,469,286	31-Dec-04

Source: Yahoo! Finance

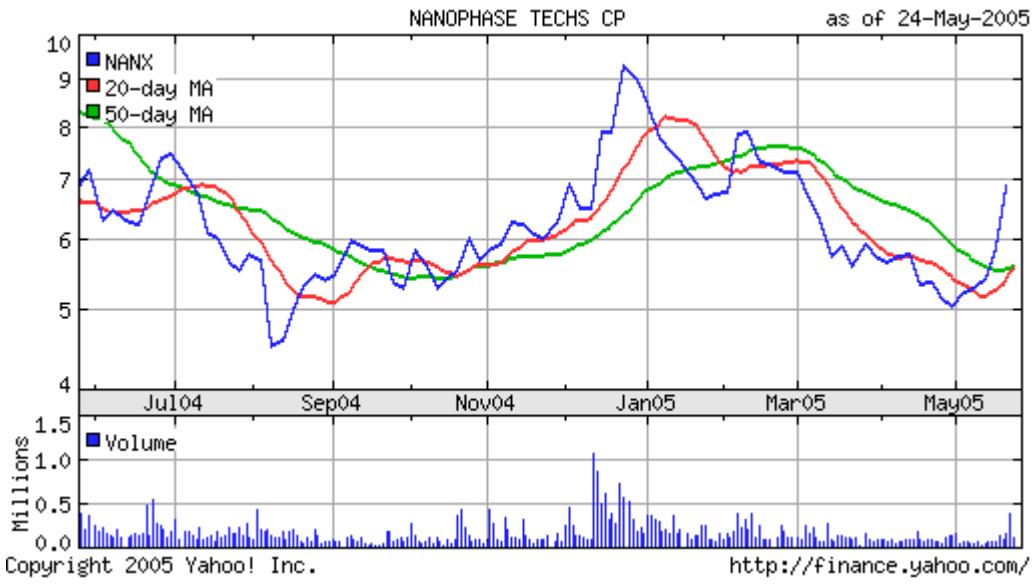
EXHIBIT 24: **HARRIS AND HARRIS GROUP (TINY) BALANCE SHEET**

($ thousands except EPS)	2003A				2004A				2005A	Year End		
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	2002A	2003A	2004A
Assets												
Investments	$34,800	$34,354	$32,633	$42,227	$53,041	$40,302	$78,614	$76,245	$73,901	$27,487	$42,227	$76,245
Cash And Cash Equivalents	$116	$193	$240	$426	$390	$291	$291	$650	$412	$5,967	$426	$650
Restricted Funds	$763	$1,002	$1,099	$1,212	$1,331	$1,321	$1,393	$1,592	$1,599	$757	$1,212	$1,592
Receivable from Portfolio Company	$0	$0	$0	$0	$0	$0	$0	$10	$17	$786	$0	$10
Interest Receivable	$22	$0	$0	$0	$21	$62	$184	$59	$164	$0	$0	$59
Income Tax Receivable	$73	$78	$84	$17	$11	$8	$10	$2	$2	$0	$17	$2
Prepaid Expenses	$76	$62	$24	$7	$79	$53	$26	$542	$421	$97	$7	$542
Other Current Assets	$110	$213	$313	$226	$233	$306	$240	$261	$256	$858	$226	$261
Total Assets	**$35,958**	**$35,903**	**$34,392**	**$44,115**	**$55,106**	**$42,342**	**$80,758**	**$79,361**	**$76,773**	**$35,952**	**$44,115**	**$79,361**
Liabilities												
Accounts Payable	$1,519	$1,725	$1,846	$2,723	$2,312	$2,370	$2,565	$2,906	$2,864	$1,452	$2,723	$2,906
Accured Profit Sharing	$2	$2	$0	$0	$10,583	$0	$337	$312	$0	$15	$40	$312
Deferred Rent	$3	$28	$41	$40	$38	$36	$35	$35	$33	$5	0	$35
Income Tax Liability	$669	$669	$669	$669	$669	$669	$1,316	$1,364	$1,364	$1,527	$669	$1,364
Other Liabilities	$7,724	$7,984	$7,610	$0	$0	$0	$0	$0	$0	$5,697	$0	$0
Total Liabilities	**$9,918**	**$10,407**	**$10,166**	**$3,432**	**$13,602**	**$3,076**	**$4,253**	**$4,617**	**$4,262**	**$8,696**	**$3,432**	**$4,617**
Net Assets												
Preferred Stock	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Common Stock	$133	$133	$133	$156	$156	$156	$191	$191	$191	$133	$156	$191
Additional Paid In Capital	$32,846	$32,846	$32,846	$49,564	$49,564	$49,564	$85,658	$85,658	$85,658	$32,846	$49,564	$85,658
Accumlated Net Realized Loss	$660	($53)	($1,626)	($2,411)	($2,374)	($3,147)	($4,122)	($4,961)	($6,747)	$1,247	($2,411)	($4,961)
Accumlated Unrealized Depreciation of Assets	($4,193)	($4,025)	($3,722)	($3,222)	($2,438)	($3,902)	($1,816)	($2,737)	($3,185)	($3,565)	($3,222)	($2,737)
Treasury Stock	($3,406)	($3,406)	($3,406)	($3,406)	($3,406)	($3,406)	($3,406)	($3,406)	($3,406)	($3,406)	($3,406)	($3,406)
Net Assets	**$26,041**	**$25,496**	**$24,226**	**$40,683**	**$41,503**	**$39,266**	**$76,505**	**$74,745**	**$72,511**	**$27,256**	**$40,683**	**$74,745**
Average Shares	**11,499**	**11,499**	**11,499**	**13,799**	**13,799**	**13,799**	**17,249**	**17,249**	**17,249**	**11,499**	**13,799**	**17,249**
NAV per share	**$2.26**	**$2.22**	**$2.11**	**$2.95**	**$3.01**	**$2.85**	**$4.44**	**$4.33**	**$4.20**	**$2.37**	**$2.95**	**$4.33**

Source: Company reports

NANOPHASE TECHNOLOGIES (NASDAQ: NANX); HOLD, $6.50 PRICE TARGET

Current Price	Market Cap ($mn)	Cash ($mn)	2005 Projected Revenue Growth
$6.90	$104	$10	20%



Source: Yahoo! Financials

COMPANY PROFILE: NANOMATERIAL MANUFACTURING AT SCALE

Nanophase Technologies is a nanocrystalline materials developer and manufacturer which went public in 1997. Nanophase produces engineered nanomaterials for use in a variety of diverse markets. Current markets include sunscreens, personal care, abrasion-resistant applications, environmental catalysts, antimicrobial products and a variety of polishing applications for semiconductors, hard disk drives and optics. Nanophase has two distinct and patented processes for the preparation and commercial manufacturing of nanopowder metal oxides, including Aluminum Oxide, Zinc Oxide, Cerium Oxide, and Titanium Dioxide. The company received 70% of its 2004 revenue from BASF, up from 61% in 2003. Total revenues in 2004 were $5.2 million with $4.3 million in product revenue, and EPS of ($0.37). The company is based outside of Chicago and has 51 employees.

INVESTMENT THESIS: AWAITING PRODUCT REVENUE RAMP

- **We believe Nanophase will grow revenue this year; however, we need more confidence it can grow significantly in the 2006-2008 timeframe.** Revenue has been flat over the last three years. Management points to a manufacturing slowdown from 2001-2003. Additionally, the company spent significant time with major partners which did not lead to products. Management believes it has cracked the code on which partners and which products, but we believe the stock is in a “show-me” mode with investors.

- **Once again, it is all about products and product futures.** The company is out of the R&D mode and into production mode. We expect product announcements (like the recent BASF Z-COTE Max and the $380,000 medical device product order) could move the stock up. We are watching for something out of the ALTANA partnership relatively soon. New partners in the pharmaceutical and medical device arenas are likely.
- **Nanophase's nano-manufacturing expertise positions it well; however, product demand needs to grow.** Nanophase's nanoparticle processes (PVS and NanoArc Synthesis) are both up and running. Customers like BASF are quite demanding as is the FDA, and Nanophase has satisfied both. The ALTANA relationship could add $200 million in addressable nano materials market in the 2006-2007 timeframe. The total coatings market is $60 billion.
- **Greater visibility for nanotechnology and nanotechnology stocks should act as a positive catalyst.** As the year progresses, we expect some nanotechnology IPOs to emerge, which should raise investor interest. In addition, large companies (like Intel) are beginning to position nanotechnology as key to their future. We expect at least two nanotechnology IPOs this year depending on market conditions.

POTENTIAL CONCERNS

- **Fluctuations based on newsflow should be expected.** Many nanotechnology companies are small and have high betas. The beta of the ML Nanotechnology Index is 2.35. Nanotechnology stocks will likely be a risky investment for some time (just like any emerging technology stocks). We will look to trade around news events to enhance returns.
- **Loss of a top three customer (combine for 89% of revenue).** BASF, Rohm and Haas, and Kasei accounted for 89% of revenue in 2004 and 94% in 2003. BASF is the largest at 70% in 2004. While the agreements are long-term, they can be terminated after a reasonable notice period. We look for the BASF relationship, in particular, to grow with the latest coating announcement this month.
- **Demand for its product might not materialize.** In the past, some partners have decided not to roll out nano-based products. The nanoparticle-based products might not be sufficiently better to warrant a switch from existing suppliers. New products based solely on nanoparticles have yet to appear.
- **Toxicity regulation and insurance could suspend and/or delay deployment of personal care products.** Toxicity studies continue. Regulators across the globe are looking seriously at the unknown impacts of nanoparticles in the body. Insurers are also actively looking at the issue and may separate the risks associated with nanoparticles. A UK Royal Society report last year highlighted the issues. Currently, Nanophase has (and will likely continue to have) all appropriate FDA certifications. Current risks are likely included in existing insurance policies.

PRODUCTS AND MARKETS: REAL AND GROWING

It is all about the products, and personal care is Nanophase's first target. Transparent sunscreen is the product most people have heard of. Through a mutually exclusive multi-year agreement with BASF, Nanophase 's NanoGard® zinc oxide is part of Oil of Olay's daily wear cosmetics (approximately 70% of the sunscreen market is for daily wear, only 30% for beach wear). Nanophase is also in Dr. Scholl's and SunSmart products. In order to service the personal care market with an active ingredient, Nanophase had to have FDA approval and its manufacturing has to continue to meet cGMP guidelines. With these in hand, Nanophase can look to attack other personal care markets.

Aging baby boomers will likely accelerate the growth of the personal care market. Facial skincare is the most mature market of the skincare markets ($6.7 billion last year in the U.S.), it grew 23% in the last five years. Baby boomers are the largest buyers, and we believe sales of daily wear sunscreen products will accelerate.

Semiconductor polishing via CMP (chemical-mechanical planarization) is Nanophase's next target. With partner Rohm and Haas, Nanophase plans to attack Cabot Microelectronics' (CCMP: Hold) core business. The market for CMP consumables is projected to be $800 million in 2007.

EXHIBIT 25: **NANOPHASE PRODUCT APPLICATIONS**

Area	***Applications***
Anti-microbial	Wood Preservation, Marine Antifouling, Textile Fibers, Thermoplastics, Permanent Coatings
Catalysts	Environmental Catalysts, Fuel Cells
Performance Coatings	UV-Attenuating Coatings, Abrasion-Resistant Coatings, Charge Dissipating Materials
Personal Care	Sunscreen Formulations, Foot Powder, Deodorant/Antiperspirant, Shaving/Depilatory Products, Oral Care
Polishing	Glass Polishing, Semiconductor Polishing

Source: Nanophase

Nanophase's R&D is more D than R. The company's intellectual property position looks solid, with 24 U.S. and 50 foreign patents or patent applications. The focus these days is now on product development and revenue growth.

Nanophase is one of the few industrial scale nanomaterials manufacturers. The company has already delivered over two million pounds of nanomaterials to BASF. It has two plants operating with annual capacity now at 1.5 million pounds.

EXHIBIT 26: **PLANTS ALREADY PRODUCING THOUSANDS OF POUNDS**

- **Two Plants: Lean Manufacturing – work cells**
- **Six Sigma Process Discipline**
- **ISO 9001:2000/cGMP Registered (FDA); ISO 14001**
- **Annual Nanoparticle Capacity - Over 1.5 Million Pounds**
- **99.9% Customer Service Levels and 0 customer returns over 3 years**

Source: Nanophase Technologies, May 2005

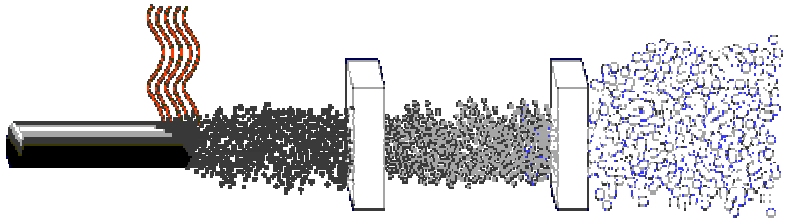
NANOMATERIALS PROCESSES

Nanophase has two key proprietary processes for building nanomaterials (PVS and NanoArc). The first nanopowder manufacturing process developed and scaled-up at Nanophase was a patented Physical Vapor Synthesis (PVS) process. In this process, arc energy is first applied to a solid precursor (typically metal) in order to generate a vapor at high temperature. A reactant gas is then added to the vapor, which is then cooled at a controlled rate and condenses to form nanoparticles. The nanomaterials produced by the PVS process consist of discrete, fully-dense particles of defined crystallinity. Because of the latest tools and controls, Nanophase is able to achieve particles with average sizes ranging from 8-75 nm. Nanophase uses the PVS process in the commercial scale production of NanoGard® Zinc Oxide and NanoTek® Aluminum Oxide.

EXHIBIT 27: **PLASMA PROCESSES CENTRAL TO THE COMPANY**

nanophase Nanoengineered Products

Nanoparticle Plasma Processes



Vapor Phase Plasma Synthesis

PVS	NanoArc™ Synthesis
• **Solid precursor**	• **Powder precursor – large materials palette**
• **Patented process, equipment, and materials**	• **Patented**
	• **"Active" plasma technology**
	• ***in-situ* particle surface modification**

•Nanoparticles – Building Blocks of Nanomaterials technology

• De-agglomeration is Key Application Issue

Source: Nanophase Technologies, May 2005

Nanophase's next generation process, NanoArc, can handle a wide variety of precursor formats and chemical compositions. This increased flexibility will likely enable new applications and produces particle with average sizes ranging from 7-45 nm. The materials produced by this process have application in ultrafine polishing and chemical-mechanical planarization (CMP), catalysis, fuel cells, electronic materials, and advanced imaging.

PARTNERS ARE THE KEY TO THE FUTURE

BASF is Nanophase's key partner, and at 70% of revenues, a double-edged sword. We believe BASF will continue to be a close and good partner of Nanophase. The multi-year exclusive on Zinc Oxide creates a supplier/consumer relationship, which should remain stable. Market demand for these products should increase and Nanophase looks like it can continue to deliver for BASF. The relationship is so key for BASF that if Nanophase were to have financial issues, BASF could take over production. We see this as a sign of the criticality of the component, not a worry of imminent take over.

BASF has designed Nanophase as a strategic partner for new product development. BASF just launched its second Nanophase-based sunscreen product called Z-Cote MAX. BASF is

the world's leading chemical company with $11 billion in annual sales. It sells many intermediates from chemicals, plastics, performance products, agricultural products and fine chemicals to crude oil and natural gas. We believe BASF is an excellent partner for Nanophase.

EXHIBIT 28: **BASF PARTNERSHIP**

nanophase
Nanoengineered Products

Partnership with BASF

Personal Care – Multi $B Growing Global Market

- **Global exclusivity for sunscreens (daily and beach wear) and certain products in personal care**
- **Long-term supply agreement for sunscreen products**
- **Delivered over 2 million lbs.**
- **Global Growth Continues**

BASF
The Chemical Company

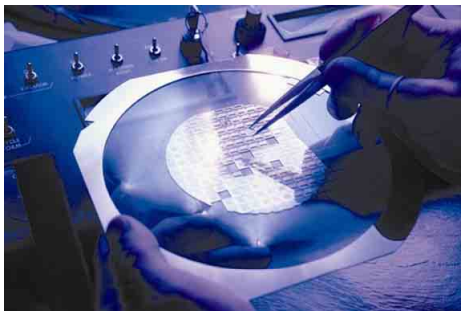
Source: Nanophase Technologies, May 2005

Rohm and Haas is Nanophase's partner in the semiconductor/CMP space. Rohm and Haas is a specialty materials company with annual sales of approximately $7 billion. Rohm and Haas sells into a number of end-markets including building and construction, electronic devices, computers, communications equipment, packaging, household, personal care, automotive, paper, retail food, and pharmaceuticals. The company's CMP Technologies division (formerly Rodel) expanded its slurry production facilities in Delaware last fall and has been supplying the semiconductor industry since 1969. Rohm and Haas operates over 100 manufacturing and 37 research facilities in 27 countries.

EXHIBIT 29: **ROHM AND HAAS PARTNERSHIP**

Partnership with Rohm & Haas

- Application – chemical mechanical planarization for semiconductors (CMP); global exclusivity & distribution
- $800M market by 2007
- Reduced Defects
  High Selectivity
  Highly Repeatable
  Highly Stable



- STI/SON/ILD(O) Slurry in Market Introduction
  Copper & Tungsten Slurry in Development
  New Technology Nodes

ROHM AND HAAS Electronic Materials CMP Technologies

Source: Nanophase Technologies, May 2005

ALTANA is a somewhat new partner for Nanophase. ALTANA AG, a ~$3.5B company focused on pharmaceuticals and chemicals, made a $10 million equity investment in Nanophase in March 2004. In the coatings field, ALTANA is known as BYK Chemie (pronounced "book chem e"). A recent Chemical Market Reporter estimated that the U.S. formulated coating market is $21.2 billion. Management believes its partnership with ALTANA for nanomaterial applications in coatings, sealants, insulations, and nanocomposites could be a key component of revenue growth during 2005-2006.

EXHIBIT 30: **ALTANA PARTNERSHIP**

Source: Nanophase Technologies, May 2005

VALUATION: BASED ON FUTURE REVENUE POSSIBILITIES

We are setting our price target for Nanophase (NANX) at $6.50 based on a discounted price to sales ratio on 2008 product sales. By 2008, we believe Nanophase's value will be like a biotech company with similar growth rates. The average P/S of 50 biotech and drug companies with revenue growth from 40-80% is 366x (because some have very few sales); however, we are using a much more conservative median P/S of 6.9x.

We estimate 2008 product sales could hit $30 million, discounting this back at 15% on a P/S of 6.9x implies a valuation of $6.57 per share. Nanophase's 2008 sales are dependent on a number of factors and the sensitivity analysis shows the impact. If Nanophase starts to show faster growth, we could see a higher P/S multiple; this is not reflected in the analysis below.

EXHIBIT 31: **NANX VALUATION SENSITIVITY ANALYSIS**

		Discount Rate				
Implied Share Price		5%	10%	**15%**	20%	30%
up 50%	$45	$13.75	$11.69	**$9.85**	$8.21	$5.50
up 20%	$36	$11.00	$9.35	**$7.88**	$6.57	$4.40
2008 Sales Estimate:	**$30**	**$9.17**	**$7.80**	**$6.57**	**$5.47**	**$3.67**
down 20%	$24	$7.33	$6.24	**$5.25**	$4.38	$2.93
down 50%	$15	$4.58	$3.90	**$3.28**	$2.74	$1.83

Source: WR Hambrecht + Co estimates. Sales in millions, valuation is per share.

MAJOR SHAREHOLDERS

ALTANA holds 7%, insiders hold 5%, owners hold 2%, and 7% is held by institutions.

EXHIBIT 32: **TOP INSTITUTIONAL HOLDERS (4% OF SHARES)**

Holder	Shares	% Out	Value*	Reported
Dimensional Fund Advisors Inc	289,198	1.61	$2,565,186	31-Dec-04
Citigroup Inc.	222,696	1.24	$1,975,313	31-Dec-04
Vanguard Group, Inc. (The)	104,001	0.58	$595,925	31-Mar-05
Barclays Bank Plc	103,003	0.58	$913,636	31-Dec-04
Hussman Econometrics Advisors, Inc.	100,000	0.56	$887,000	31-Dec-04
Wachovia Corp New	83,032	0.46	$736,493	31-Dec-04
Stoneridge Investment Partners, L.L.C.	62,075	0.35	$355,689	31-Mar-05
Comerica, Inc.	58,129	0.32	$515,604	31-Dec-04
Northern Trust Corporation	46,698	0.26	$414,211	31-Dec-04
Condor Capital Management	35,250	0.2	$312,667	31-Dec-04

Source: Yahoo! Finance

EXHIBIT 33: **NANOPHASE TECHNOLOGIES (NANX) EARNINGS MODEL**

($ thousands except EPS)	2004 Actuals				2005 Estimates				Full Year		
	Mar	**Jun**	**Sep**	**Dec**	**MarA**	**Jun**	**Sep**	**Dec**	**2004A**	**2005E**	**2006E**
Product Revenue	1,066	1,288	1,144	755	1,526	1,940	1,954	1,970	4,253	7,390	11,824
Other Revenue	227	254	233	240	87	111	111	112	954	422	675
Total Revenue	**$1,293**	**$1,542**	**$1,377**	**$995**	**$1,613**	**$2,051**	**$2,066**	**$2,082**	**$5,208**	**$7,812**	**$12,499**
Cost of Revenue	(1,213)	(1,428)	(1,312)	(1,172)	(1,445)	(1,649)	(1,661)	(1,576)	(5,125)	(6,330)	(8,277)
Gross Profit	**80**	**114**	**65**	**(177)**	**169**	**402**	**405**	**506**	**83**	**1,482**	**4,222**
Research and Development	(475)	(477)	(438)	(540)	(494)	(496)	(457)	(581)	(1,929)	(2,029)	(1,250)
Sales, General & Administrative	(1,059)	(1,104)	(1,025)	(1,174)	(1,143)	(1,436)	(1,446)	(1,444)	(4,361)	(5,468)	(6,874)
Operating Expense	**($1,534)**	**($1,581)**	**($1,463)**	**($1,713)**	**($1,638)**	**($1,932)**	**($1,903)**	**($2,025)**	**($6,291)**	**($7,498)**	**($8,124)**
Operating Income	**($1,454)**	**($1,467)**	**($1,397)**	**($1,890)**	**($1,469)**	**($1,530)**	**($1,499)**	**($1,518)**	**($6,208)**	**($6,016)**	**($3,902)**
Interest Income, net	(9)	22	(254)	32	53	50	50	50	(209)	203	200
Pretax Income	**($1,463)**	**($1,445)**	**($1,651)**	**($1,858)**	**($1,416)**	**($1,480)**	**($1,449)**	**($1,468)**	**($6,417)**	**($5,813)**	**($3,702)**
Effective Tax Rate	0.51%	0.52%	0.45%	0.40%	0.00%	0.00%	0.00%	0.00%	0.47%	0.00%	0.00%
Taxes	(8)	(8)	(8)	(8)	0	0	0	0	(30)	0	0
Net Income	**($1,471)**	**($1,452)**	**($1,658)**	**($1,866)**	**($1,416)**	**($1,480)**	**($1,449)**	**($1,468)**	**($6,447)**	**($5,813)**	**($3,702)**
EPS	**($0.09)**	**($0.08)**	**($0.09)**	**($0.11)**	**($0.08)**	**($0.08)**	**($0.08)**	**($0.08)**	**($0.37)**	**($0.32)**	**($0.19)**
Average Shares, diluted	16,210	17,377	17,572	17,266	17,907	18,207	18,507	18,807	17,266	18,357	19,448
As a % of Revenue											
Gross Profit (*% of product sales*)	8%	9%	6%	NM	11%	15%	15%	20%	2%	20%	30%
Research and Development	37%	31%	32%	54%	31%	24%	22%	28%	37%	26%	10%
Sales, General & Administrative	82%	72%	74%	118%	71%	70%	70%	69%	84%	70%	55%
Operating Expense	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Operating Income	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Pretax Income	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Net Income	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Year-Over-Year Growth											
Total Revenue					25%	33%	50%	109%		50%	60%
Gross Profit					110%	253%	518%	NM		37%	47%
Research and Development					4%	4%	4%	8%		5%	-38%
Sales, General & Administrative					8%	30%	41%	23%		25%	26%
Operating Income					NM	NM	NM	NM		NM	NM
Pretax Income					NM	NM	NM	NM		NM	NM
Net Income					NM	NM	NM	NM		NM	NM
EPS					NM	NM	NM	NM		NM	NM
Sequential Quarterly Growth											
Total Revenue		19%	-11%	-28%	62%	27%	1%	1%			
Gross Profit		42%	-42%	-370%	-195%	138%	1%	25%			
Research and Development		4%	-7%	15%	-3%	26%	1%	0%			
General and Admin. Expenses		0%	-8%	23%	-8%	0%	-8%	27%			
Operating Income		NM	NM	NM	NM	NM	NM	NM			
Pretax Income		NM	NM	NM	NM	NM	NM	NM			
Net Income		NM	NM	NM	NM	NM	NM	NM			
EPS		NM	NM	NM	NM	NM	NM	NM			

Source: WR Hambrecht + Co estimates and Company reports

IMPORTANT DISCLOSURES SECTION

To view a list of companies that WR Hambrecht + Co makes a market in, please click here:
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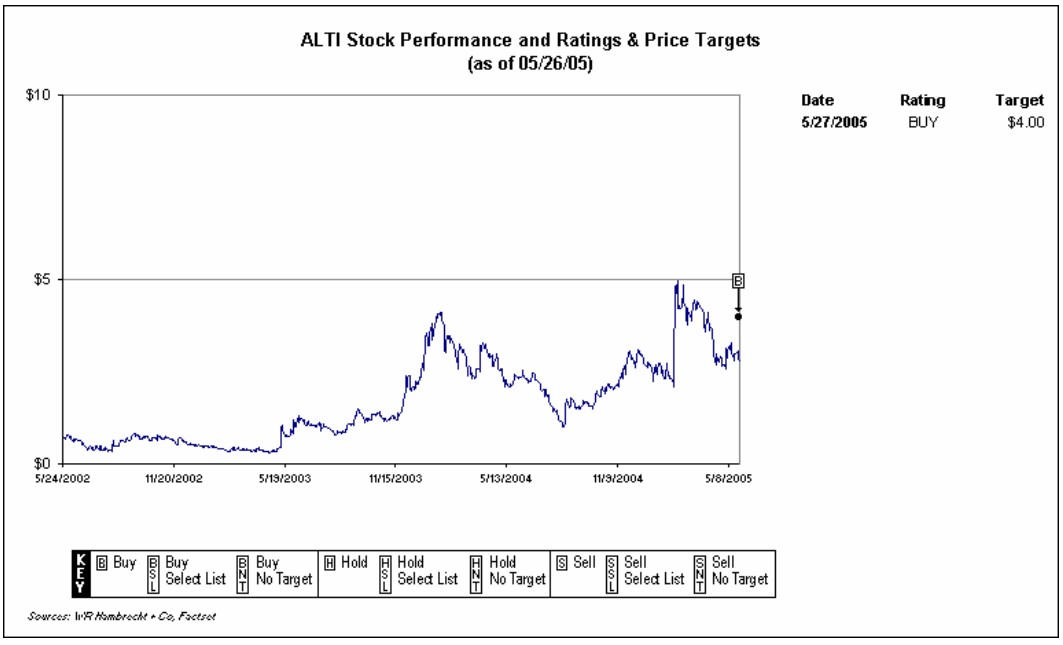

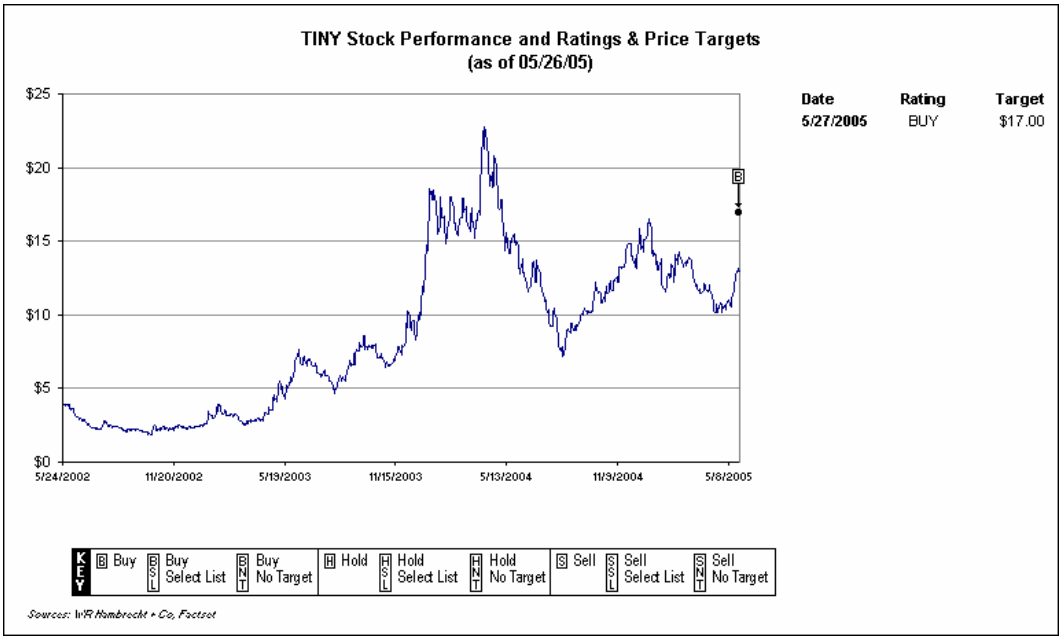

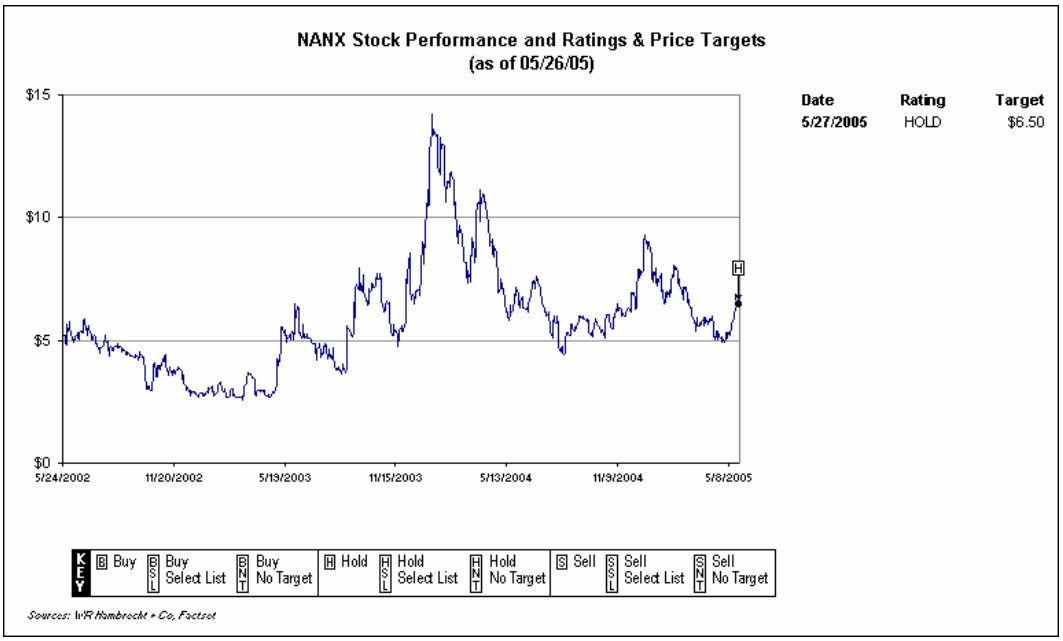

BENEFICIAL OWNERSHIP DISCLOSURE

As of May 1, 2005, WR Hambrecht + Co has a beneficial ownership of greater than 1% in the common equity securities of the following companies:

- FlexiInternational Software, Inc. (FLXI)
- Salon Media Group, Inc. (SALNC)

MARKET MAKING AND INVESTMENT BANKING DISCLOSURES

At the time this report was published, WR Hambrecht + Co made a market in the securities of Altair Nanotechnologies, Inc. (ALTI), Cabot Microelectronics (CCMP), Harris and Harris Group (TINY), Nanophase Technologies (NANX), NeuroMetrix, Inc. (NURO), and Rambus (RMBS).

WR Hambrecht + Co managed or co-managed a public offering of securities and/or received compensation for investment banking services from the following companies on the respective dates as indicated. In addition, the following companies currently are, or during the past 12 months were, clients of WR Hambrecht + Co: LSI Logic, Inc. (LSI), Investment Advisory Fees, 05/17/04; and NeuroMetrix, Inc. (NURO), Co-Manager, 07/22/04.

STOCK RATING SYSTEM

The WR Hambrecht + Co stock ratings system reflects the investment decisions our clients face every day, and is meant to assist clients in making these decisions by recommending a specific action to take with each stock we cover. All of the ratings correspond to a specific investment action that we recommend taking on the date the research is published. Thus, "Buy" ratings are reserved only for stocks that we would be actively buying at the time the research is published. "Hold" ratings are reserved for stocks that we recommend holding. "Sell" ratings are assigned to stocks where the analyst anticipates stock price declines for any reason. None of our ratings are qualitative in nature (e.g., "Strong Buy") because these recommendations do not correspond to an investment action (investors cannot "Strong Buy" a stock). Please note also that the price expectations that determine the rating are in absolute dollar terms, not in terms of relative performance to a sector or an index. Therefore, analysts will not use the Buy rating for stocks that are expected to perform well relative to their sector but only for stocks that are expected to appreciate in actual dollar returns.

WR Hambrecht + Co uses the following rating system (last updated April 7, 2005):

Rating	Definition	% of companies under coverage with this rating	% for which Investment Banking services have been provided in the previous twelve months
BUY	Stocks rated Buy are those we recommend actively buying; these stocks are expected in absolute dollar terms to appreciate at least 10% over the next 6 months.	**55**	**17**
HOLD	Stocks rated Hold are those stocks we would continue to hold in our portfolio; these stocks are expected to appreciate or depreciate in absolute dollar terms less than 10% over the next 6 months.	**40**	**6**
SELL	Stocks rated Sell are those we would be actively selling; these stocks are expected to depreciate in absolute dollar terms at least 10% over the next 6 months.	**1**	**0**

Note: 4% of companies under coverage are not rated.

PRICE TARGET RISKS

Investment risks associated with the achievement of the price target include, but are not limited to, the company's failure to achieve our earnings and revenue estimates, unforeseen macroeconomic and/or industry events that adversely impact demand for the company's products or services, product obsolescence, changes in investor sentiment regarding the specific company or industry, intense and rapidly changing competitive pressures, the continuing development of industry standards, the company's ability to recruit and retain competent personnel, and adverse market conditions. For a complete discussion of the risk factors that could affect the market price of the company's shares, refer to the most recent form 10-Q or 10-K that the company has filed with the SEC.

VALUATION METHODS TO DETERMINE PRICE TARGET

Our $17 price target for Harris and Harris Group (TINY) is based on 2x a discounted future NAV of $14/share in 2008.

Our $4 price target for Altair Nanotechnologies (ALTI) is based on a P/S ratio of 8.6x using discounted 2008 sales.

Our $6.50 price target for Nanophase Technologies (NANX) is based on a discounted price to sales ratio on 2008 product sales.

OBTAINING CURRENT DISCLOSURES

Applicable current disclosures can be obtained by calling the toll-free telephone number listed below or by writing to the address listed below.

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