



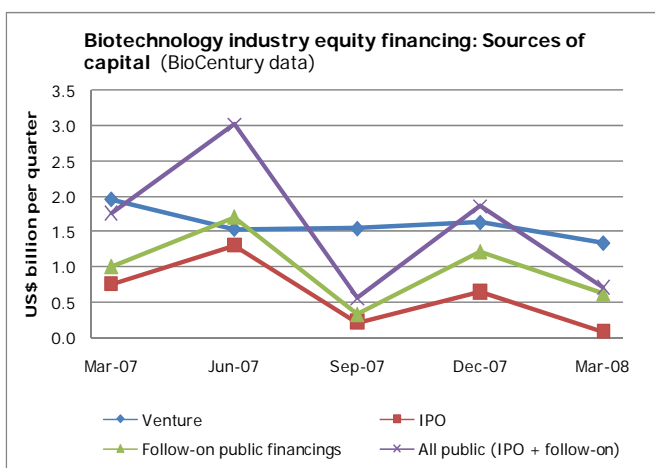
public markets

In the public equity market, both the biotech and medtech sectors outperformed the broader markets during the first quarter and year-over-year. The Nasdaq Biotechnology Index (the "NBI") was down 6.5% in the first quarter, but on a year-over-year basis it squeaked out a 0.5% gain. As a proxy for the medtech sector of the U.S. equity market, the iShares Dow Jones US Medical Devices ETF (NYSE:IHI) was down 6.3% during the first quarter, but year-over-year it remained up 8.4%. In contrast, the Nasdaq Composite Index was down 14.1% in the first quarter and down 5.9% year-over-year.

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venture capital

According to the National Venture Capital Association, during the first quarter of 2008 venture funds invested \$7.1 billion in 922 deals. This quarterly investment activity was down from the fourth quarter of 2007 when \$7.8 billion was invested in 1,045 deals. The life sciences sector (Biotechnology and Medical Devices combined) continued to be a large part the North American venture market in the first quarter with \$2.4 billion being invested via 220 deals. This was approximately the same as in the fourth quarter of 2007. Investments in life sciences companies represented 32% of all venture dollars invested and 24% of all venture deals in the first quarter, which resulted in the **Biotechnology industry edging out**



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the road to liquidity

The first quarter continued the trend of decreasing amounts of public equity going into the biotech sector (this was also true for the venture-backed IT sector as well, where the issue was perhaps even more evident). IPO and follow-on public financings continued to trend down in the first quarter. While some of the behavior of the public biotech market during the quarter is undoubtedly attributable to broader market conditions, it is likely that the quarter also continues to reflect a more fundamental, long-term trend with respect to the financing of medical innovation.

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quarterly transaction review

Among the first quarter's interesting transactions, we noted the merger of Protiva Biotherapeutics with Tekmira Pharmaceuticals (TSX:TKM) – a Canadian deal that has attracted strategic investment from major international partners. Protiva is a Vancouver drug delivery company playing in a dynamic new segment of the pharma industry -- small interfering RNA (siRNA). The highest-profile companies in the siRNA space, Alnylam and Sirna Therapeutics, illustrate what can happen

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in canada

In the first quarter of 2008, activity in Canada's venture capital market declined on both a year-over year and quarter-over-quarter basis (CVCA and Thomson Reuters). On the life sciences side this decline was very dramatic with a mere \$54 million being invested in 31 companies (less than \$2 million per company), compared to \$208 million recorded in Q1 2007. Consequently, life sciences sectors accounted for only 17% of all disbursements in the quarter, well below the 30% share reported last year and the allocation going to life sciences companies in the US.

The CVCA data on the private side seem to echo the findings from Ernst and Young which commented in its recently released Beyond borders: Global Biotechnology Report 2008,

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partner profile



Beni Rovinski

Focused primarily on late stage companies involved in drug discovery and development, biological and small molecule therapeutics, drug delivery, and specialty pharmaceuticals, Beni brings to Lumira Capital 23 years of investment, operational, managerial and research experience. Prior to joining the firm in 2001, Beni held senior management positions at Sanofi Pasteur where he was a senior scientist and director of molecular virology, with a particular focus in the areas of virology, vaccine development, recombinant protein production, and functional genomics. While there, Beni led global R&D programs in the areas of HIV/AIDS and therapeutic cancer vaccines (e.g. colorectal, prostate, and cervical cancers), bringing several of them through to the clinic.

Fluent in English, French and Spanish, Beni has published over 25 scientific articles and reviews and is the recipient of 28 issued patents. He is an active member of the American Association for the Advancement of Science, the Canadian Healthcare Licensing Association, the Canadian Association of HIV/AIDS Researchers, the International AIDS Society, the National Venture Capital Association, and The American Society for Microbiology. Beni holds a Ph.D. in biochemistry from McGill University in Montréal, Québec and did post-doctoral studies in molecular oncology and retrovirology at the Ontario Cancer Institute in Toronto. He obtained his B.Sc. in biochemistry from Rice University in Houston, Texas.

Beni's current Lumira Capital I investments include: Cervelo Pharmaceuticals, Morphotek (acquired by Eisai), Depomed (exit via public market sale), Ista Pharmaceuticals (exit via public market sale).

"My passion for my work is complemented by my devotion to my family and my keen interest and appreciation of red wines. I believe that finding a winning biotech investment opportunity is a bit like choosing a great red wine: it is all about selecting a vintage that comes from the right "terroir", has lots of structure, exhibits perfect balance and harmony, and can withstand and improves with age". My family and I are also avid travelers and adventure seekers. To quote Hemingway, one of my favorite writers: "The World is a book, and those who do not travel read only a page."

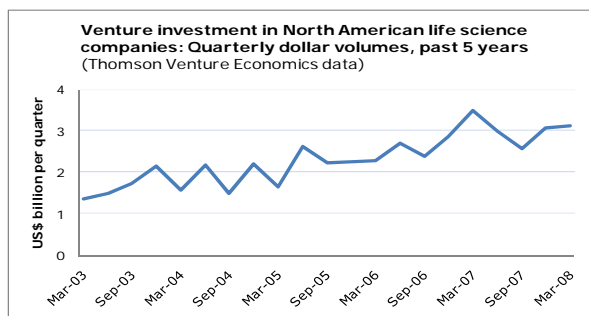
venture capital

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Software as the number one industry sector for the quarter (based on dollars invested).

Of particular note during the quarter was the continued strength in the medtech sector which for the first time since Q3, 1996 attracted more venture money than the biopharmaceuticals segment of the market. The average transaction size for the quarter was approximately \$10 million which was consistent with, albeit slightly lower than, the \$10.5 million average for 2007. We are of the view that the average deal size will largely remain flat in the coming year as more companies emphasize capital efficiency; there are more "bridge financings" designed to position companies for liquidity (given a stalled IPO market); there is an increase in the use of non-dilutive capital from development partners; and there is a shift to more medtech deals (although we are less confident about this trend).

While life science venture investing has enjoyed a compound annual rate of growth in dollar volumes of 17% during the past five years, the 5 year trend for new money going into life science venture funds has not kept up with this rate of capital deployment as it has exhibited only a growth rate of 5% per year (this



could of course all change as Essex Woodlands threatens to close on \$1.2 billion in new capital in June 2008). Clearly this lack of net new capital has tremendous potential implications for the sector, particularly as the role of venture capital in the funding spectrum continues to increase (Q1 was the third quarter in the past five quarters in which venture was the primary source of capital for biotech financings).

This emerging "funding gap" when paired with the strong fundamental value drivers for the sector, should be extremely positive for well capitalized and deeply experienced investing teams who are well positioned to take advantage of this emerging investment opportunity. **Nowhere in North America is this funding gap more evident than in Canada, and this should represent a tremendous opportunity for deeply engaged, sector focused, life sciences venture investors who know the Canadian landscape and are able to identify and add value to the best emerging companies in Canada.**

portfolio company



MAKO Surgical, is a medical device company based in Florida that sells and markets the

MAKO Tactile Guidance System ("TGS" an advanced surgical robotic system) and implants for minimally invasive orthopedic knee procedures. This FDA-cleared system allows surgeons to provide a tissue-sparing, bone resurfacing procedure called MAKOplasty to a large, yet underserved patient population suffering from early to mid-stage osteoarthritic knee disease. MAKO has a deep intellectual property portfolio of more than 200 patent applications and patents and in 2006 MAKO's CEO Dr. Maurice Ferré was named Ernst & Young's Entrepreneur of the Year.

Lumira Capital led MAKO Surgical's \$20 million Series B financing in 2005 and participated in the Company's \$30 million Series C financing which was led by Tudor Investment Corp. in 2007. Since our initial investment the Company has completed development and received FDA clearance for its products, launched sales in the U.S. in 2007, and in early 2008 become one of the only medical technology companies to successfully complete an IPO and go public on the Nasdaq (MAKO). The IPO, underwritten by Morgan Stanley and JPMorgan, raised \$51 million and positions the Company with the capital necessary to execute its business model successfully.

public markets

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Among public biotechs, the share price pain during the first quarter was shared relatively equally across the full spectrum of market capitalizations. Median share prices were down between 9% and 18% for companies across various market cap segments, with the large cap segment (companies with market caps above \$2 billion) putting in the strongest performance based on a median share price decline of 9% during the quarter.

One might ask why the segmented information seems to indicate fundamentally weaker sector performance than the NBI and the answer is probably that the NBI is a largely US-based index composed of the elite companies in sectors that meet certain hurdles such as having a market capitalization over \$200 million and an average daily trading volumes of at least 100,000 shares. It is also worth noting that **of the 154 biotechnology and pharmaceutical companies in the NBI, four are Lumira Capital I portfolio companies: Alexza, Pharmasset, ISTA, and Depomed** and Lumira Capital has more portfolio companies listed on the NBI than any other Canadian based venture firm.

quarterly transaction review

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when VCs invest in new life science assets. Alnylam and Sirna were startups 5-6 years ago. Sirna has since been acquired by Merck in 2006 for \$1.1 billion. Alnylam went public in 2004 (Nasdaq: ALNY) and currently enjoys a market value of \$1 billion – and a share price that is multiples of its IPO price. Despite these valuations and the market enthusiasm, at the end of Q1-2008 very few siRNA drugs were yet in clinical testing, partly because of the challenge of delivering these drugs to the target tissue. Protiva believes it may be able to solve this problem. When Protiva was spun out of Inex Pharmaceuticals in Vancouver in 2001, a legacy Lumira Capital managed fund led its first financing. Protiva went on to raise further financing from that fund and others, and entered into significant partnerships with both major siRNA players. In March 2008, Protiva and Tekmira (Inex 's successor company) agreed to a reverse merger where Tekmira issued common stock worth about \$18.2 million in exchange for all outstanding Protiva shares. In conjunction with the merger, Alnylam and Roche, a global pharmaceuticals company, each agreed to make a \$5 million equity investment in the new Tekmira in exchange for access to its drug delivery technology. The combined company, which retains the Tekmira name and TSX listing, is led by Protiva's founding CEO Mark Murray, Ph.D.

in canada

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that "Canada's biotech industry is facing a real funding crisis," and that in "Canada, the industry market cap dropped 26% in 2007, funding to public companies dropped by almost US\$900 million and the number of companies shrunk by 14% reflecting the long-awaited consolidation. It's getting harder and harder to attract investors to this area."

The obvious question is: why this marked discrepancy between Canada and the US., particularly when one contemplates that while a first-world country with only 0.5% of the world's population and 1.8% of the world's GDP, **Canada enjoys a disproportionately large impact in medical science, in fact ranking third in the world (behind the US and UK) by one measure of scientific productivity (Source)** While there are lots of potential reasons for this, we believe the issues can be addressed by continued focus on building the

eco-system, being extremely disciplined about our investment choices, supporting and promoting government policies that enhance access to capital in the sector (such as new federal regulations that enhance cross border investing in Canada such as section 116 reform), and focusing on building a venture capital infrastructure that is world class in all respects. How do we get there? By recognizing that in parallel with building strong, regionally focused firms, we have to build a domestic market comprised of sector-focused funds that have deep domain expertise; well-established and deeply-rooted relationships with leading independent and corporate health-care VCs throughout North America and the rest of the world; deep operational and academic skills so as to be truly value-added; broad relationships in the US-investment banking community; a track record of success (on both sides of the border); a true commitment to meet the evolving needs and realities of the market; and a passion for working with entrepreneurs to build great companies both here and abroad.

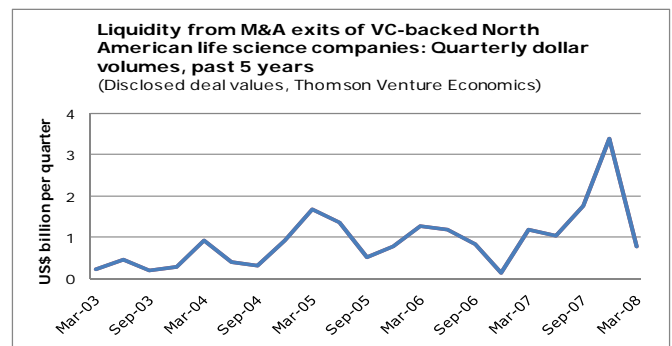
road to liquidity

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This trend is characterized by an increasing proportion of the equity capital flowing into medical innovation being deployed by specialist managers dedicated to the sector such as venture capitalists and corporate investors.

What each of these participants in the market share is deep domain knowledge and deep deal experience in the life science sector. Disciplined, value-added investing by these groups, and in fact a closer and more collaborative approach between them, will likely be the key to greater real value realizations from healthcare venture investing in the coming years. Having said all this, and despite the generally negative sentiment in the public markets during the first quarter, **Lumira capital portfolio company MAKO Surgical successfully completed the only medtech IPO of note during the quarter.** The IPO clearly leveraged the strength of the team, an innovative technology, product participation in a "hot sector" and an outstanding market opportunity.

In parallel with fewer IPO's in Q1, venture backed life science companies also saw a sharp decline in M&A exits from the extraordinarily strong fourth quarter of 2007. During the first quarter, venture-backed life science companies saw seven M&A exits with disclosed values totaling \$0.8 billion. This was down from the extraordinarily high level of 15 exits for \$3.1



billion seen in the previous quarter. Despite the down quarter, overall trajectory remains high. **With a 27% growth rate in the dollar volume of venture-backed life science M&A exits during the past five years, the growth in M&A activity in life sciences during the past five years has in fact materially outpaced that for M&A of venture-backed info tech companies, which only grew at a 14% rate during the same period.**

investment team



From left to right:

Daniel Hetu, Jack Jenuth, Gerry Brunk, Peter van der Velden, Charles Trimble, Nandini Tandon, Beni Rovinski, Graysanne Bedell, Steve Cummings, Brian Underdown.



Built on a foundation that leverages 18 years of experience as one of North America's leading healthcare and life science venture capital investors, Lumira Capital is the successor business to MDS Capital. During the past five years Lumira Capital's partners have helped build over 50 companies and the team currently manages over \$350 million of capital in three funds. Recent successes include the acquisitions of portfolio companies such as Morphotek, (by Eisai Co.), and Corus Pharma (by Gilead Sci-

ences) as well as the IPOs of Alexza Pharmaceuticals, Replidyne, Pharmasset and MAKO Surgical. Other portfolio companies and recent investments include Argos Therapeutics, Archemix, Cervelo, Ception Therapeutics, and Spinal Kinetics. Lumira Capital invests primarily in North American emerging-stage biopharmaceutical and medical device companies. Its current portfolio of companies is split approximately 30% medical technology and 70% drug discovery and development companies. The majority of Lumira Capital's portfolio companies are located in the U.S. and the Company has offices in Canada and the U.S. www.lumiracapital.com

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