

Cleveland – The Next Healthcare Venture Hotspot

a report by

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Four years ago, the Cleveland region set out to make itself a nationally recognised healthcare commercialisation hub, on par with major league communities such as Minneapolis and Research Triangle. Building on a strong and well-known research and clinical base, as well as a broad but poorly understood, industry base, Cleveland has sought to achieve its ambition by concentrating on the identification, development and acceleration of venture-oriented start-ups.

Uniquely, Cleveland selected a single metric to set its target and to measure performance – capital-raised by healthcare start-ups in its region. Equally unique is that Cleveland has attained that level of performance in that short period – with US\$171 million in healthcare capital being invested across 16 companies in 2005 (see *Figure 1*). This level of investment is on par with recent investment levels seen in Minneapolis and Research Triangle, and a nearly five-fold increase on Cleveland's historical performance even through the bubble.

Background – Cleveland Region's Bioscience Base

Cleveland's healthcare institutions, including The Cleveland Clinic, University Hospitals of Cleveland, Case, and Summa Health System, are world-renowned for a number of specialties and research areas. Beyond all areas of cardiovascular (CV) research and care, the region's institutions boast significant strengths in orthopaedics and tissue engineering, neurostimulation, regenerative medicine, medical imaging, cancer and paediatric care. Together, the institutions annually conduct over US\$400 million in sponsored research and more than 550 clinical trials for novel therapies.

The region also boasts a broad industry base of more than 400 existing companies, employing more than 15,000 individuals. The region is home to several large industry players such as Steris, Invacare, Philips Medical, Boehringer Ingelheim, Hitachi Medical, and SourceOne Healthcare (recently acquired) that have attracted and developed top talent. The region also has a number of mid- and small-sized healthcare businesses

across the spectrum of medical devices, healthcare services and biopharmaceuticals (see *Figure 2*).

Despite the rich asset base, Cleveland had historically lacked a stream of venture-oriented start-ups emerging from these institutions, companies and individuals. From the period 1998–2002, Cleveland companies attracted on average only US\$30 million in investment capital in aggregate each year, with only a few companies receiving investment in any year. While there have been notable start-up successes such as Steris, Hitachi Medical of America, or Acromed, their success did not result in a broad pipeline of progeny prior to 2002.

Follow the Money – A Market-back Model for Success

Facing a broader regional economic transition and realising the healthcare industry's potential in Cleveland, community leaders initiated a comprehensive, collaborative and connected effort to create and accelerate venture-oriented start-ups in 2002.

In this respect, Cleveland is not unlike any other region in the world that is positioning for a share of the bioscience industry growth. However, the difference is in the scale and breadth of the efforts, the laser-like focus on a singular metric of success and, perhaps most notably, Cleveland's success in such a short period of time. The results have been impressive both in terms of the numbers of companies attracting financing and the overall amount of financing, demonstrating a breadth and depth of venture pipeline that is starting to reflect the region's rich asset base (see *Figure 3*).

Cleveland has approached start-up creation and acceleration from a 'market back' perspective, and the 'market' for start-ups is ultimately defined by the national investment firms and the markets in which they plan to sell their investments. This is distinctly different to most bioscience industry building efforts which are 'asset forward'. For example, most venture firms currently are unwilling to fund pre-clinical bio-

technology ventures. Despite this reality, most regions are still promoting discovery stage breakthroughs.

Understanding the market's interests and intersecting those with regional strengths has resulted in Cleveland shifting its efforts to favoured areas, such as neurostimulation and CV devices. The venture market's interest must be constantly assessed as 'hot' areas can drop from favour rapidly (e.g. note the change in interest in new artificial spinal discs from the venture community). To be successful, start-up accelerators must constantly be aware of their 'customer's' (venture firm's) preferences.

Comprehensive and Connected Community Actions

To build a high-quality pipeline of venture-backable companies, Cleveland has taken a comprehensive and co-ordinated approach to improving each element required to start bioscience companies, with an eye at all times to what the market demands. For a region to become a centre for sustainable new industry growth, several things must be present:

- pipeline of world-class business ideas;
- professional management and business infrastructure to support company growth;
- expert clinical collaborators willing to work with novel discoveries; and
- funding sources to develop businesses.

Pipeline of World-class Ideas

Cleveland's institutions and intermediaries have made significant efforts to build a high-quality pipeline of opportunities to accelerate. Many opportunities need to be evaluated to discover those with the potential to attract venture funding. To build the pipeline, Cleveland's leaders have created a culture of innovation and entrepreneurship in the regional research and healthcare institutions, connected to proven regional entrepreneurs with growth ideas, comprehensively identified regional small businesses with strong growth potential through either venture or private-equity based approaches, and launched a successful foreign start-up recruitment effort with key geographies such as Israel and the former Soviet Union. The results are that in 2005, the community's technology offices and lead bioscience accelerator evaluated nearly 300 invention disclosures and an additional 150 business opportunities. The pipeline is screened using the market-back approach previously discussed to select those opportunities that most closely match the current interests of national venture funds.

Figure 1: Cleveland's Healthcare Venture Record

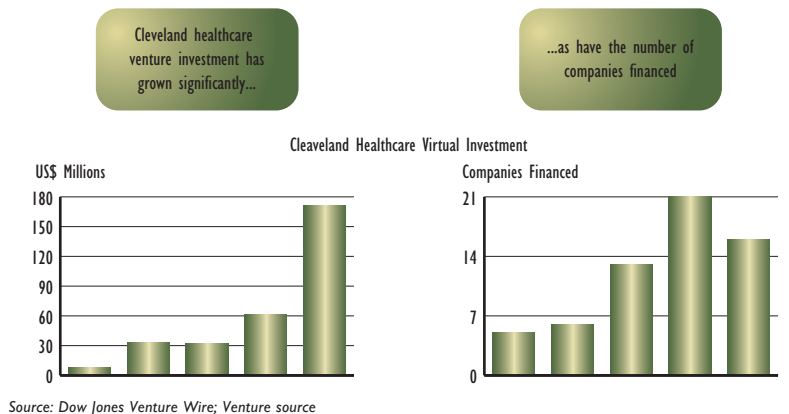


Figure 2: Cleveland's Rich Asset Base

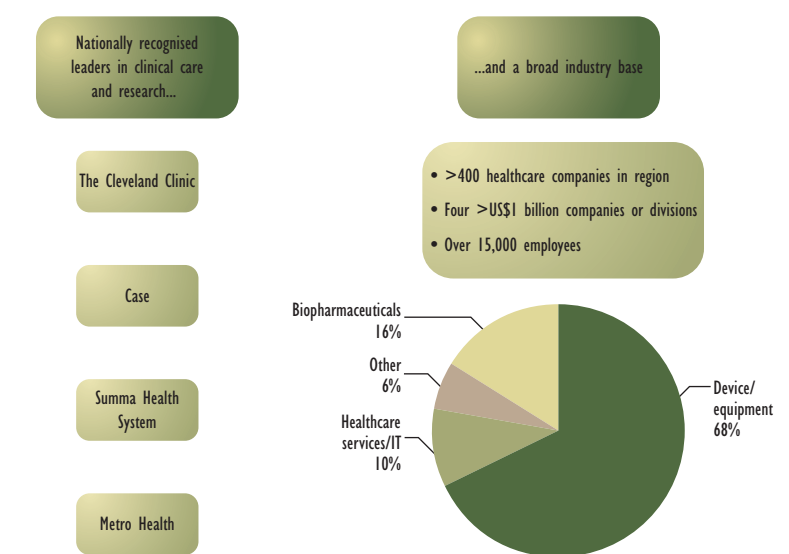
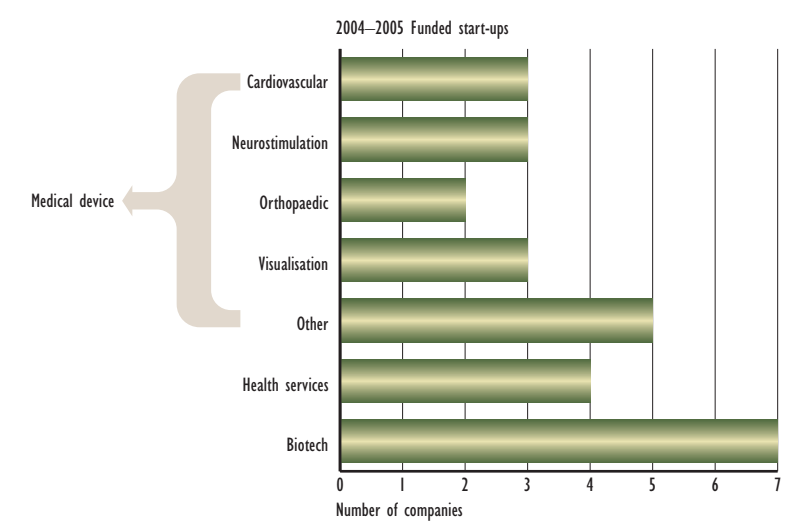


Figure 3: Cleveland's Funded Healthcare Ventures by Area



Professional Management and Business Infrastructure

To complement the selected opportunities, community accelerators and technology offices help connect entrepreneur/researchers with the proven

Figure 4: Sources of Funding

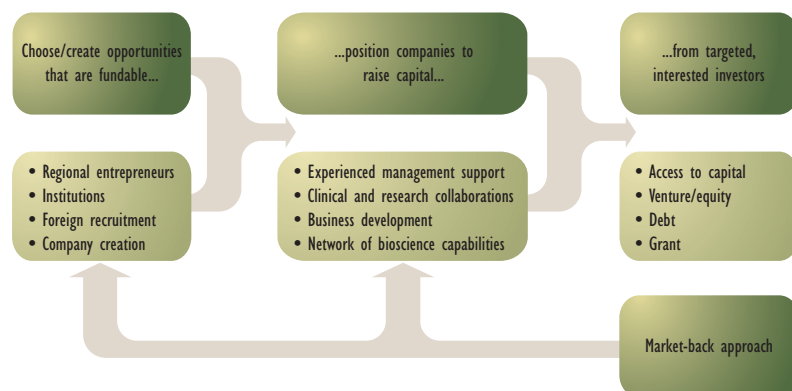
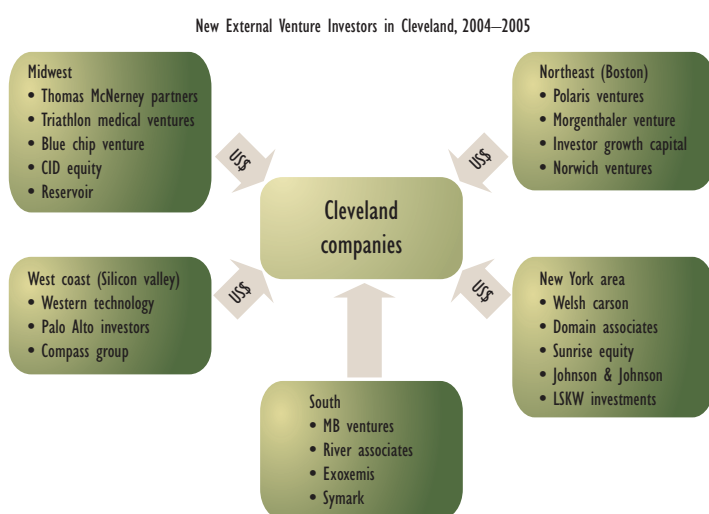


Figure 5: Sources of Funding



management and industry resources that will be required to accelerate companies and to attract funding. Often, these managers and resources are not located in the Cleveland region and must be found externally. For promising CV opportunities, management and industry resources have been recruited from other CV-rich regions, such as Minneapolis and Boston. Currently, nearly one-third of the region's promising start-ups have commuting C-level executives.

Expert Clinical Collaborators

Bioscience opportunities require clinical collaborators at all stages of product development – design, refinement, proof-of-concept and clinical validation and approval. The challenge for start-ups is finding institutions that are willing to invest time and resources in relatively unproven products. Large institutions are notorious at rejecting start-ups in favour of working with well-funded, large companies. Cleveland is fortunate to have world-class institutions and researchers that are willing to take the risk of working with start-ups to push the frontiers of medical knowledge and care. Almost all

Cleveland-area start-ups have clinical relationships with The Cleveland Clinic, University Hospitals of Cleveland, Case or Summa Health System.

Funding Sources

Finally, and as important to succeed, a region's start-ups need access to growth funding. Cleveland's community has benefited from a number of initiatives to expand the base of angel, seed, and early venture fund in the area. In 2001, only eight funds in the state of Ohio existed that had healthcare as an area of interest. Currently, over 20 investment funds, four seed funds, and five new professional angel groups exist in Ohio to fill the early funding needs of bioscience companies. In addition, the state has created a US\$1.6 billion programme to invest in areas of distinctive research and commercialisation in Ohio. The growth has been driven through progressive public policy, philanthropy and recognition of the regional deal flow.

More importantly, national venture firms from both coasts have started investing in Cleveland companies and are staying closely connected to regional deal sources. As an example, Cleveland's acceleration initiative maintains an active connection to more than 120 investment funds nationally and more than a dozen boutique investment banks. Through this conduit, national firms can efficiently access Cleveland's rich deal flow, spending their time only reviewing those opportunities that match their stated areas of interest.

The fruits of this network are apparent in the sources of funding being attracted to finance Cleveland-area companies (see Figure 4). More than 80% of the funding in 2005 has come from such national investors as Polaris Ventures, Welsh Carson, Investor Growth Capital, Domain and Palo Alto Investors.

Future Outlook

Cleveland's continued success in accelerating start-ups will create a vibrant, bioscience cluster that is similar in scale and regional impact to that of Minneapolis or Research Triangle. Based on typical venture portfolio odds, several of these companies have the potential to become blockbuster successes, either as an independent public company, or growing to become a division of a larger public company. The long-term impact of a thriving bioscience cluster is thousands of direct and indirect regional jobs and a national reputation of Cleveland as a world-class healthcare innovation centre. ■