

# Institutional Investor

## Waiting for the Game Changer?

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One of Kleiner Perkins' more successful investments was not in an Amazon or Yahoo but in little-known Picturetel, a technology company that went public prematurely and ran out of financing options.

As institutional investors and limited partners seek to extract higher returns from their investments in alternative assets, they might well take a look at the public markets and at other Picturetels, small "seduced and abandoned" companies in need of long term investors and patient capital. Manish Singh's ImmunoCellular Therapeutics may well be another Picturetel.

As a venture capitalist Manish Singh was responsible for investing in early-stage life science companies, nurturing them to exits and creating wealth for their backers. But Singh, a recovering scientist as he sometimes refers to himself, with a PhD, a MBA and a string of R&D jobs at various successful biotech companies, quickly recognized the paradox of VCs investing en masse in the life sciences.

The early success of Genentech, Hybritech, Genzyme and Amgen convinced investors that money could be made in the life sciences. Game-changing discoveries such as Watson & Crick's double helix and Craig Venter's genomes primed the pump even more. Investor capital poured in and venture funds focusing on the life sciences became fatter and fatter – and less and less adventurous. In the 1980s a typical VC fund managed \$50-100 million dollars and invested in 15-20 early stage companies. By the year 2000 that amount ballooned to \$400-600 million dollars invested in the same number of companies. Suddenly, investing anything less than \$15-30 million in a deal became unattractive because it didn't push returns. By 2006, Singh – along with others – recognized the biotech investing model was broken.

Singh became convinced that VCs need to turn the clock back, make portfolio companies more efficient users of capital, invest smaller amounts of capital in a company – no more than \$30 million dollars collectively - so that one could make the five to ten times returns that made venture investing attractive.

With that insight, Singh joined an early stage biotech company, ImmunoCellular Therapeutics, as its first employee and CEO, convinced he could deploy his capital efficient model on the drug development process. Together with John Yu and Keith Black, two noted LA neurosurgeons, Singh felt that new drugs and therapies developed in entrepreneurial settings could be more market-oriented and developed efficiently to the value inflection point.

ImmunoCellular's work is based on the discovery that cancer cells are composed of a heterogeneous cell population with a small number of stem cells which drive the tumor growth. The standard treatments today primarily kill cancer daughter cells but have no effect on cancer stem cells – leaving the roots behind for the cancer to re-occur. So the company is developing a vaccine that works by eliciting an immune response against cancer stem cells as well as multiple cancer cell targets in a single shot, delay recurrence of cancers and increase overall survival.

A clinical trial begun in 2007 with 21 patients with glioblastoma or aggressive brain tumor demonstrated that patients given Immunocellular's ICT 107 vaccine had a two year survival of 80%, three times the historical survival of 26% with the standard of care. The median progression free survival time was 17.7 months, 11 months longer than the historical progression free survival time for glioblastoma patients of 6.9 months. In addition to the significant improvement in median progression free survival time, seven of the 16 newly diagnosed patients involved in the trial continue to show no signs of tumor recurrence, while three have gone more than two years with no disease progression.

The idea of cancer vaccines is still an iffy proposition, but it received validation in April when the FDA approved Provenge, a prostate cancer vaccine developed by Seattle's Dendreon Corp. Dendreon, whose stock was selling at \$3 in the beginning of 2009 has seen its stock price rise to \$40 and it has a market cap of nearly \$6 billion.

ImmunoCellular is no Dendreon. But Singh says that ImmunoCellular's technology is based on more recent state-of-the-art research such as targeting cancer stem cells, roots of the cancer, compared to Dendreon's, which started in early 1990's. More important, ImmunoCellular – even in the few years of its operation – has done everything it said it would do. It has raised \$14 million dollars so far, out of which it still has \$7.5 million in cash and is starting a large randomized phase II clinical trial for brain cancers. Positive results could create a large partnering opportunity with big pharma and create the exit that Singh envisioned -- at a fraction of the cost of its VC backed rivals.

So why is ImmunoCellular trading at 1.05, with a market cap of \$22 million – a fraction of Dendreon's and significantly lower-valued than many similar companies such as Antigenics (ANGN), Celldex (CLDX) and Geron (GERN)?

The situation that ImmunoCellular faces typifies the capital market conditions that innovative companies are confronted with. ImmunoCellular is too small a public company to attract the attention of bankers and their research because it is not targeting \$30-40 million dollars – an amount that generates hefty fees for the banks. And because it is public, many venture capitalists will not touch it. Still, at a time when many venture capital firms are sitting with overvalued cash-guzzling companies, small public companies such as ImmunoCellular may be the perfect vehicles for investors looking to make VC like returns.