Issuer Free Writing Prospectus dated October 7, 2010
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(Relating to the Preliminary Prospectus Supplement dated October 7, 2010
and the Prospectus dated February 11, 2009)

We have filed a registration statement (including a prospectus) and a preliminary prospectus supplement with the Securities and Exchange Commission, or SEC, for the offering to which this communication relates. Before you invest, you should read the prospectus in that registration statement, the preliminary prospectus supplement and other documents we have filed with the SEC for more complete information about us and this offering. You may obtain these documents for free by visiting EDGAR on the SEC Web site at www.sec.gov. Alternatively, we or the underwriter for this offering will arrange to send you the prospectus if you request it by calling the underwriter toll-free at 877-547-6340.

The following information includes an interview with our Chief Financial Officer, Mark Saad, contained in an article from CFO.com, dated October 6, 2010. This article includes forward-looking statements regarding future events, including, but not limited to statements about our industry, our potential commercial opportunities and future placements, use and selling prices of our products. These forward-looking statements involve risks and uncertainties, many of which are beyond our control, including risks and uncertainties relating to transitioning from a research and development-stage company to a commercial-stage organization, funding multiple clinical trials, our history of operating losses, regulatory uncertainty, dependence on third party performance and maintaining sufficient capital resources. The foregoing list sets forth some, but not all, of the factors that could affect our ability to achieve results described in any forward-looking statements. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date on which they were made. All forward-looking statements are qualified in their entirety by this cautionary statement, and we undertake no obligation and expressly disclaim any duty to revise or update any forward-looking statements to reflect events or circumstances after the date of this communication. There is no guarantee we can achieve these results and actual results and timing of events may differ materially from the forward-looking statements set forth in the article. Please refer to and carefully review the section titled “Risk Factors” in our preliminary prospectus supplement filed with the SEC which may be accessed by clicking on the following link, http://www.sec.gov/Archives/edgar/data/1095981/000119312510225853/d424b5.htm, including the risk factors entitled “We have never been profitable on an operational basis and expect significant operating losses for the next few years”, “Our business strategy is high-risk”, “We have a limited operating history; operating results and stock price can be volatile like many life science companies”, “We are vulnerable to competition and technological change, and also to physicians’ inertia”, “Most potential applications of our technology are pre-commercialization, which subjects us to development and marketing risks”, “We may not be able to protect our proprietary rights”, “We may not be able to protect our intellectual property in countries outside the United States” and “We may experience difficulty or delays in obtaining market acceptance of our products”. The article is also based on certain estimates and assumptions, including the assumption that we could place 18,000 of our machines in hospitals and clinics and each hospital and clinic would use one single-use cartridge per day, and the estimate of the time it would take to understand underlying technology, complete testing and gain regulatory approvals to compete in our market. These assumptions and estimates are based on information available to our management on the date the statements were made and our management’s own judgments. We cannot guarantee that such estimates or assumptions will be accurate or consistent with actual future results.

A CFO Pleads His Case in Stem Cell Debate

Faulty perceptions of the specialized medical field hinder dialogue with investors and customers, a device maker's finance chief claims.

David McCann, CFO.com | US
October 6, 2010

A recent court ruling that briefly halted federal funding for embryonic stem cell research is the kind of external, uncontrollable event that can induce heartburn in a CFO in the regenerative-medicine industry.

Cytori Therapeutics, which sells a device that gathers stem cells from human fat tissue for use in cosmetic and reconstructive surgery, is fortunate in that it works with adult stem cells rather than embryonic ones. Further, the company has gathered most of its funding from traditional debt and equity sources as well as corporate partnerships, and relatively little from federal grants.

Still, Cytori finance chief Mark Saad is wary of fallout from disputes involving embryonic stem cells. The Obama Administration, relying on a 1999 ruling by the Department of Health and Human Services, had reversed the policy of the previous administration and allowed the National Institutes of Health to approve $131 million in grants this year for embryonic stem cell research. But in August a federal judge struck down the 1999 ruling and declared that the NIH had violated a 1996 law prohibiting federal funding for studies in which human embryos are destroyed. The day after that decision, Cytori's stock dropped by 6% — even though the company has nothing to do with embryonic stem cells. (An appeals court recently stayed the ban on federally funded stem cell research.)

The problem for Cytori, says Saad, is that the public paints the topic of stem cell research with a broad brush. Other companies in the field were similarly affected by the August court decision. Cytori's stock has since recovered, but the public's perception of the matter is still an issue for the company.

CFO recently interviewed Saad about the challenge of getting investors to properly understand Cytori's business - a critical issue for a company that has yet to turn a profit in its short existence. The following is an edited transcript of the interview.

"We hope the debate over the ethical side of embryonic research increases awareness that there are noncontroversial companies that could be good candidates for funding."

MARK SAAD
CFO,
CYTORI THERAPEUTICS

How did the August court ruling on embryonic stem cell research affect you as the CFO of a company in the adult stem cell business?
The media and the investment community often take a 30,000-foot look at sectors. If you do that here, the first thing you'd see is that there's a federal judge making a negative ruling. The debate that continues out there typically involves embryonic research, but it still comes across as a negative headline for us.

There is a special opportunity for a number of companies on the adult stem cell side not only to generate very meaningful revenues but also to affect medicine and humanity in a positive way. But here we go again with a sweeping generalization about a sector that doesn't really dig into the core issue.

Some of the parties to the lawsuit against the NIH were scientists in the adult stem cell field who felt at a disadvantage in competing for government funding. Is that a fair point?
Yes, if you put yourself in the minds of those scientists. The competition is intense, though we're not in that environment. Of the $250 million we've raised, $247 million has come from corporate partners and investors. But we hope the debate over the ethical side of embryonic research increases awareness that there are noncontroversial companies that could be good candidates for funding.

Since Cytori has been able to generate so much funding on its own, why does the "sweeping generalization" about stem cell research matter?
If the world's view of what you do is a mischaracterization, the reaction you get from potential investors or partners or customers is, "Oh, you're in that controversial area." If those people understand that regenerative

medicine is an extraordinary opportunity and that much of it is not controversial, it's a very different conversation with them than if you have to spend the first 20 minutes explaining why all the things they've read don't apply to us.

What is that message you want to get to?
In contrast to the field, which mostly uses cells from the body to create drugs, we invented and validated a medical device that separates regenerative cells from your own fat tissue and makes them available to physicians at the point of care. The heavily engineered drugs that make up the lion's share of the stem cell industry can cost $80,000 or even $100,000 per treatment. We're $2,000 to $10,000 per treatment, depending on the application.

There are big opportunities to restore the function of damaged organs and tissues, and companies with products that health systems around the world can afford are going to be the winners.

What is your daily life like as the CFO of that kind of company?
Our products have been approved mostly in Europe, so our sales force is over there, and I get up at 6:00 a.m. to talk to them. And that's the end of the work day in Japan, where we have corporate partners and also sell our products. And when the day ends here, Japan is just getting going, so I'm on the phone with them again. It's really a labor of love.

But I'm just one of 120 employees here. The special opportunity we have, I think, attracts motivated individuals who are not here just because they're making the most money for every hour they're working. They are drawn to being part of something important. It helps offset what might otherwise be an unacceptable work-life balance. Otherwise, for a small company to achieve what we've set out to achieve would be virtually impossible.

Cytori has been losing $25 million to $30 million a year for several years. What's it like having such a long path to profitability?
It takes time to validate your technology and product, but that's also a plus. If it takes 7 to 10 years to understand the underlying biology, invent the device, get the testing done, get the approvals around the world, and bring it to market, you have a complex barrier-to-entry profile, which consists of not only patents but also all sorts of trade secrets, exclusivities, and clinical and preclinical data. It's not that easy for someone to come up from behind and knock you off.

What are the corporate partnerships you referred to?
The biggest one is with Olympus, which you may recognize as a camera company but is also the biggest medical-device company in Japan. They own 4 million shares of our stock and also have licensed our manufacturing rights through a joint venture. They valued those rights pretty significantly — we received about $23 million in the license deal.

Every time a machine is used, it consumes a single-use cartridge. We estimate we could put 18,000 machines out there in hospitals and clinics. If all were used once a day, that's 6.5 million consumables per year at $2,000 to $10,000 per consumable.

What's your biggest concern?
The regenerative cells that come out of fat are powerful for a host of different wound environments. So the challenge is maintaining our focus on the areas where we have made the most progress and not getting caught up in funding studies in too many other areas. Our focus is on the cosmetic and reconstructive market as a first entry point, and acute heart attack as a second focus area.

You try to find the most direct path to success and not get diverted by things that are very promising, but would extend the time for turning the corner to profitability.