

THE WALL STREET TRANSCRIPT

67 Wall Street, New York, NY 10005

VOICE: (212) 952-7400 FAX: (212) 668-9842; (212) 668-9858

Copyright 2006 WALL STREET TRANSCRIPT CORPORATION

All Rights Reserved

Website: <http://www.twst.com>

E-mail: transcript@twst.com

Published April 16, 2007, Volume CLXXVI, Number 3, Pages 100-104

DR. JAMES R. MUSICK

President & CEO

Vitro Diagnostics, Inc.

Dbas: Vitro Biopharma

12635 E. Montview Blvd.

Suite 218

Aurora, CO 80045

(720) 859-4120

(720) 859-4110 - FAX

www.vitrodiag.com

TWST: We'd like to begin with a brief historical sketch of Vitro and a picture of the things you are doing at the present time.

Mr. Musick: Vitro is now 21 years old, and I've been with the company since 1988. Our focus during the 1990s was on the development of niche market products for use in human diagnostics, and that included pituitary hormones and tumor markers. One of those products is a hormone called FSH — follicle stimulating hormone — that's used to treat infertility and represents an approximately \$1 billion plus annual industry that is quite vital and growing.

One of our accomplishments during the 1990s was to develop a patented method for purification of FSH. One of the problems that we encountered was related to raw material supply. FSH required a supply of human pituitary glands that were difficult to obtain in the amounts required. There were some consistency problems in terms of obtaining that material.

Since about the mid-1990s, we have been involved in research trying to find a renewable cellular source for human hormones. That led us to cell immortalization technology, and we now have a US patent on a method involving genetic engineering to immortalize pituitary hormone producing cells. We sold the diagnostic antigen business in 2000 to focus on therapeutic applications of FSH and cell line generation technology. That technology has now evolved into a position where we are engaged in adult stem cell research, with an eventual goal of developing a novel cell therapeutic approach to the treatment of diabetes, especially Type 1 diabetes.

We now have generated over 30 different adult human pancreatic stem cell lines that the company owns, solely or in combination with a potential alliance partner. These were derived from tissues and are not embryonic stem cells, which are ethically controversial and subject to restricted federal research funding. We have demonstrated self-renewal properties of these cells, or immortality. This was an extension of our earlier research in cell immortalization. We've shown that

these cells can be differentiated into cells with properties of the hormone-producing beta islet cells, including the human beta cells. These cells may have applications to the treatment of human diabetes.

Recently, a group in Canada has shown that beta cells that are contained within islets derived and purified from donated pancreas glands may be transplanted back into diabetic patients. Together with certain treatments, these transplants result in an elimination of the need for daily insulin injections and improvement in the symptoms of diabetes, especially some of the cardiovascular side-effects of Type 1 diabetes.

However, the immunosuppressive therapy necessary to prevent immune rejection of the transplanted islets tends to diminish the function of the islets. Also, there aren't enough islets available to transplant into the number of diabetic patients that exist throughout the world, which is substantial. So the goal of our research is to develop adult stem cell lines that can generate an infinite amount of fully functional human beta cells that are suitable for transplantation into diabetic patients. We are further interested in developing methodologies so that those cells are not rejected by the host's immune system through use of autologous stem cell lines, immuno-competent beta cells or other methods such as encapsulation.

The long-term goal of our research is to develop a cell therapy for diabetes involving the transplantation of functional beta cells that are not rejected by the recipient's immune system. Also, our patent-pending technology for the generation of adult stem cell lines has application to other organs besides the pancreas gland. The development of these new stem cell lines may yield other products with application to treatment of diseases or conditions that are characterized by death or functional impairment of specific cells in the body. These include but are not limited to age-related hearing loss, macular degeneration, heart attack, congestive heart failure, muscular dystrophy, Alzheimer's disease and Parkinson's disease. So there is quite an array of opportunities for stem cells, as has been pointed out by many others in the stem cell field.

TWST: In preparing for this interview, I read that adult stems cells are not as productive or as various in their applications as embryonic stem cells.

Mr. Musick: Right, they have a limited capacity to differentiate. They have multipotent differentiation capacity, as opposed to pluripotent or totipotent differentiation capacity. For example, our cells can be differentiated into endocrine cells of the human pancreas gland, but they may not be able to be differentiated into muscle cells that would be suitable for treatment of muscular dystrophy.

But there are some advantages to the use of adult stem cells too. They are partially differentiated into a particular cell lineage. So the steps necessary to induce complete differentiation are less complex than some of the differentiation methods that must be applied to embryonic stem cells that have a broader range of potential to develop into other cell types.

TWST: Can you explain the differences between situations where autologous stem cells are used and the non-autologous?

Mr. Musick: It's related to the question of immune rejection. The autologous cells are generally not rejected by the immune system of the recipient, whereas non-autologous are, unless various intervention strategies are taken. So there's an advantage to autologous stem cell transplants. For example, the so-called Edmonton Protocol, an experimental method used to treat diabetics now requires immunosuppressive therapy, because, in part, the islets are derived from non-autologous sources — other organ donors rather than the patient themselves. Our technology has the potential to excise tissue from the patients themselves and generate autologous cell lines from those cells, which then can be transplanted back into the patient. However, autoimmune-based disorders such as Type 1

diabetes present additional rejection issues since the recipient's immune system rejects even autologous pancreatic beta cells.

TWST: What are the immediate steps that you will be taking over the next couple of years?

Mr. Musick: We are interested in the completion of a pre-clinical study program that would lead to the issuance an IND from the FDA. That is an investigational new drug application that would be a stepping-stone to enter into clinical trials. But there's quite a bit of work to be done in the pre-clinical research stages in order to generate the data necessary for issuance of the IND by the FDA. Our immediate goal right now is the demonstration of the capacity of our stem cell lines to differentiate into functional human beta cells. We have a basically pragmatic approach from our 10 years plus experience in cell line generation and characterization. For example, we are now controlling the environment in which the cells are cultured to mimic the conditions that exist within the human body.

We are presently control the physical attributes of the environment, such as the levels of oxygen, carbon dioxide and nitrogen, the biophysical attributes of the environment such as the extracellular matrix material within which the cells live, and the biochemistry of the environment, including the liquid culture medium that promotes the viability of the cells and provides biochemical triggers for differentiation. We use various well-defined end points to determine the effects of different experimental variables on the differentiation process.

Given that we can demonstrate the capacity for differentiation, we believe that we can then attract funding to complete our pre-clinical development program and possibly establish key strategic alliances to commercialize the technology. A stem cell therapeutic product for diabetes is likely to take five to 10 years in development and could cost approximately \$1 billion. Our strategy thus includes the development of other products for research and drug discovery applications and animal therapeutic applications as well, as a means to provide us with revenue during that period of time. A key part of our strategy is the establishment of strategic alliances to support the clinical development program, which is quite lengthy and expensive.

One of the other things that we are involved with at this particular point is an M & A initiative. Our longer-term development goals will require a significant amount of time to reach the market and revenues. While we have some internal strategies to bridge the gap between now and then in terms of revenues, another aspect of this is to identify target candidates that may be suitable for merger or acquisition by the company. In particular, we are interested in those businesses with which we could establish a mutually synergistic business combination. For example, we have some early stage discussions going now with a private entity that could facilitate the commercialization of our fertility drug technology and also afford the company access to process control technology leading to optimization of stem cell culture. This technology may enable more rapid scale up to manufacturing levels and full GMP compliance, which would be necessary for the clinical development aspects of this project.

We are quite small, and collaborations with others have been very important to us. For example, we now have collaboration with scientists at the University of Colorado Health Sciences Center to investigate proteomic issues relevant to our stem cell lines and we've also collaborated with scientists at Harvard to study genomic aspects of our stem cell lines.

TWST: Regarding M&A activity, which would be more useful to you — merging with smaller companies or larger companies?

Mr. Musick: At this point, we're predominantly interested in smaller, later stage companies that have product development activities that are fairly advanced and near or at the marketplace with

revenue and earnings potential. Obviously, earnings is an important issue for all concerned with a public entity, and we are particularly interested in smaller firms with synergistic technology to our product/technology base to support further development while providing revenue and earnings for the public company.

TWST: How would you describe the particular strengths that you would bring to a merger?

Mr. Musick: First, we have a great deal of expertise in operating a public company. I have nearly 20 years of experience with the company, and we have expertise in terms of commercialization of products and technology that a target candidate might have. We have industrial contacts that could support the stakeholders of the combined entity and benefit all concerned. There are several advantages to being public including access to capital, opportunities for acquisitions, improved valuations and merger or acquisition by Vitro may provide an alternative for a private entity to an IPO as far as becoming public.

TWST: Among your own products, which ones are the most likely to be commercialized?

Mr. Musick: We have some that are commercialized right now for research purposes, and we're looking to add to that product mix by utilizing the stem cell technology that I mentioned earlier to develop fully functional stem cell-derived human pancreatic beta cells. Given that we are successful, we then plan to take that product to the marketplace for research and drug discovery applications.

TWST: Looking ahead, what challenges could arise for you?

Mr. Musick: When one is involved in a new technology such as stem cell technology, the unknown can be an obstacle, which is part of the reason why we're interested in bolstering our opportunities by combination with suitable M&A candidates. Certainly, there are regulatory hurdles to be overcome, and there are obviously ethical issues associated with the use of embryonic stem cells and the destruction of embryos. We think that we have distanced ourselves from those particular issues by being involved in the adult stem cell arena.

TWST: What would you reasonably expect the company to look like in about three years?

Mr. Musick: I would expect that our revenue base would have been established and that we would be in a position to report earnings. At the same time, we hope to have some key strategic alliances in place to further commercialize our technology portfolio, affording the investor both an opportunity for return on investment through current earnings, as well as a pipeline of products that afford opportunities for the future.

TWST: What is your personal view on the ethics of the use of embryonic stem cells, apart from the different things that other people might be saying?

Mr. Musick: I do see the problem of sacrificing embryos. However, I would mention that the reproductive industry referred to as Assisted Reproductive Technologies or ART has arisen over the past thirty some years. We've gotten somewhat involved in that business with the manufacture of FSH, a commonly used fertility drug. The way the industry operates now involves the generation of numerous human embryos that are discarded. A typical cycle of IVF will involve the implantation of a few embryos, usually more than one, which contributes to multiple births in IVF. Also, IVF procedures result in the generation excess embryos. These are frozen down for use in the event that the IVF cycle is not successful and the patients want to repeat another cycle. There are many excess embryos that are typically discarded on a routine basis.

I personally share the view of the United States Congress on the stem cell initiative that was started by one of our Congress members from Colorado, Diana DeGette. I think it is reasonable, with appropriate controls and procedures, to use that source of embryos, which are presently being discarded, to advance embryonic stem cell research. The field of stem cell research is very much in its infancy, and there is a great deal that is unknown. The more that we can learn and the more information we can garner through our research efforts, the better for the well being of the human population. The potential for this technology is substantial, and it has the potential to revolutionize medicine. I think that we should utilize all resources to determine the practical applications of the technology.

TWST: Why is the term “immortal cells” used?

Mr. Musick: There’s a scientific definition for immortal cells. Cells in the body usually have a finite lifetime and will survive through a particular period of time. Usually this reflects about 50 population doublings — they will divide 50 times and thereafter enter what’s called senescence, without further cell division. Dr. Len Hayflick discovered this several years ago. Scientifically, immortal cells are those that survive significantly beyond that limit. If a cell line expands through 100 or 200 population doublings, those are landmark demonstrations of immortality. But researchers don’t rigorously determine that these cell lines are immortal, meaning that they will survive forever. There’s an industry standard that’s used to define immortality in this context.

TWST: Regarding Type 1 diabetes, could you give us your own personal insight into future dimensions of this?

Mr. Musick: It’s obviously a very major global health problem, for both Type 1 and Type 2 diabetes. Recently there was some evidence that came out of Barbara Davis Diabetes Research center at the University of Colorado; our facility is located close to the University of Colorado in a biotechnology incubator facility. While it is well known that the incidence of Type 2 diabetes is rapidly increasing globally, the Colorado study showed that the incidence of Type 1 diabetes is also increasing at 2.3% per year with the highest rate of incident increase in infants and young children up to four years of age. So the problem is a very significant health issue that is increasing in magnitude. The standard therapy of insulin injections (or pumps), glucose monitoring and lifestyle changes hasn’t really changed for sometime now.

What I see as a strong opportunity for stem cell research in the development of technology resulting in a new cell therapy to treat Type 1 diabetes, eliminating the need for insulin injection and thus many of the side effects that occur from the standard insulin therapies such as cardiovascular disease, diabetic retinopathy and other effects that diminish the life span of Type 1 diabetics. An advantage for stem cell therapy of diabetes is the commonly performed beta islet transplant procedure (The Edmonton protocol) that provides a comparative procedure for clinical studies of efficacy and safety. This comparative standard allows direct measurement of stem cell therapy by well-defined endpoints and provides distinct advantages to regulatory assessment of candidate products.

TWST: For the benefit of the potential investor, what might be some year-by-year milestones that Vitro might be passing over the next few years?

Mr. Musick: Some of the objectives I pointed out earlier are key milestones for an investor to look at. Demonstration of differentiation capacity of our stem cell lines is currently being pursued and success is important to the stem cell program directed to applications in diabetes research and treatment. The establishment of a significant strategic alliance with regard to our stem cell program is also an important goal as is the issuance of an IND from the FDA. The completion of a significant

business combination that provides synergistic support to the company and its target merger or acquisition candidate is another milestone.

TWST: What is the long-term picture that you expect to see in five or 10 years?

Mr. Musick: It's hard to predict what's going to be happening in five or 10 years. One of the things on my wish list is to be involved in other applications of adult stem cell technology besides diabetes.

TWST: Would you tell us a little bit about your own background and expertise, and the same for one or two of your colleagues?

Mr. Musick: I have a PhD from Northwestern University in Evanston, Illinois and academic experience at the University of Utah School of Medicine, where I was involved in neurophysiological research and teaching. I have 24 years of industrial experience in R&D, manufacturing and marketing. I have developed and sold a business in medical diagnostics. I am the inventor or co-inventor of a series of patents both issued and pending. I have a considerable amount of expertise in running a public company in terms of SEC compliance, financial reporting, strategic alliance formation and various aspects of what's involved from the perspective of the "trenches".

Eric Van Horn is our Vice President of Research, and he has a background in biotechnology through an engineering degree that he received at the University of Colorado. He has approximately 20 years of experience in industry, both with the early stages of Vitro and the development of the diagnostic antigen product line that I mentioned earlier. More recently, he is a Production Supervisor at Amgen and is involved in the operation of GMP-compliant manufacturing of anemia products such as EPOGEN and Aranesp, which are significant products for Amgen. He has considerable expertise in biotechnological manufacturing and molecular biology research.

TWST: Will you be taking any steps to improve the company's capital structure?

Mr. Musick: I think an appropriate business combination with another entity has the potential for capital structure alterations and enhanced revenue/earnings opportunities to support the growth of the company. It's hard to predict exactly how things might change, but I'm now the major shareholder of the company and it's Chief Executive. I intend to take appropriate actions that provide optimal returns to the Company and its shareholders.

TWST: What would be the two or three best reasons for the long-term investor to look closely at Vitro Diagnostics?

Mr. Musick: We now have an opportunity to realize a proprietary position in stem cell therapy for diabetes with application to drug discovery and cell therapy especially of Type 1 diabetes that is a major global health care issue that is increasing in incidence. Our adult stem cell technology has potential application to research and treatment in other disease areas representing substantial markets. Our development strategy involves a short-term focus on revenue and earnings while expanding our technology base to provide a significant product pipeline for the future.

TWST: What inspired you to follow this path?

Mr. Musick: I became interested in cell physiology through my scientific research in neuroscience and endocrinology. I see degenerative diseases as a major health issue, including Alzheimer's disease, diabetes, cardiovascular diseases, various types of age-related degeneration, hearing loss, and loss of vision, etc. I think that my background and path that I have chosen for my career allows me to contribute to the development of stem cell therapies for these disorders.

TWST: Is there anything you would like to add, especially regarding strategies and long-term objectives?

Mr. Musick: We are focused on a pragmatic, practical method to conclusively determine the potential of our stem cell lines as a new cell therapy for diabetes. The effectiveness of any stem cell

therapy requires rigorous demonstration of differentiation of progenitor cells into functional target cells such as beta cells of the pancreas gland. This then leads to extensive studies of safety and efficacy sufficient to support a pre-clinical research program resulting in issuance of an IND by the FDA which is our current objective. We have a novel method of generation of adult stem cells with potential application to many previously untreatable or under-treated disorders

TWST: Thank you. (MC)

BIOGRAPHICAL SKETCH

James R. Musick, Ph.D., President, Chairman of the Board of Directors and Chief Executive Officer

Dr. Musick founded the Company in its present form and has served in various management capacities since joining the Company in 1988. He earned a Ph.D. degree in biological sciences with a specialty in neuroscience from Northwestern University and completed post-doctoral work at the University of Utah. His academic career included the position of Assistant Professor of Physiology at the University of Utah, School of Medicine.

He joined Vitro Diagnostics in 1988 and directed all operations involved in the establishment of a diagnostic product line that included about 30 different purified antigen products. His direct responsibilities included research & development, manufacturing, intellectual property development and maintenance, marketing and sales. He was also responsible for the development & initial commercialization of the fertility drug VITROPIN™ as well as the cell immortalization program of the Company. He is an inventor or co-inventor of all issued and pending patents owned by the Company.

In 2000, he orchestrated the successful divestiture of the diagnostic operating division allowing the Company to focus on development of its core technology of stem cell line generation and characterization while establishing and commercializing the VITROCELL™ product line.