

28 August 2007



TheraKine's quarterly newsletter for investors, advisors, and interested parties.

Looking to the future

Collaboration

Scott Hampton, C.E.O.

First, some history: Dr. Reiff and I created TheraKine in 2004 to develop OptiKine, an intra-vitreous biologic treatment for serious inflammatory and diabetic eye diseases. Since then, we have added a unique topical treatment for corneal diseases and control of refractive surgery outcomes, called EpiKine. Drs. Reiff & Buscemi will elaborate on the next pages - including exciting results from animal trials.

We are very happy that we have found talented and motivated institutions that share our vision of what can be accomplished. This is a principle that Dr. Reiff and I agree on: Our success depends on the quality of our partners and how well we integrate them. Over the next few months we look forward to announcing several important collaboration agreements.

There is one that we can tell you about now: TheraKine has signed an agreement with Capsulation NanoScience AG (Berlin, Germany) to develop nanotechnology delivery system for sustained release of biologics.

Their website can be found at <http://www.capsulation.de>. Capsulation is a spin-off from the Max Planck Institutes and has an unsurpassed combination of vision and expertise in drug delivery.

This is the first edition of VISIONS, our newsletter for friends and supporters. We hope that you find this short missive interesting. Your suggestions and comments are valued, please email them to me at visions@therakine.com.

Science Update

Andreas Reiff, MD, C.S.O.

OptiKine

Optikine is an intraocular implant to deliver biologic agents for the treatment of chronic inflammatory & diabetic eye diseases. This phase of development is funded by a group of angel investors. We have been able to hire a talented grant writer with extensive experience. She has authored many NIH grants and has been involved in clinical protocol development in the profit and non-profit sector.

“ Capsulation has already shown feasibility and is continuing development of the delivery system.”

To accelerate progress we are planning to submit a fast track NEI application for OptiKine in December of this year. The first draft of the grant for the NEI is being completed. We are working closely with the program manager at the NEI who was enthusiastic about our project.

The Wellcome Trust, in England, has expressed interest in funding our work, and we have been invited to present to their investor group in London in late August. In addition, I met with our collaborating partner Capsulation during a recent exposition in Long Beach, CA. Capsulation has already shown feasibility and is continuing development of the delivery system. We hope to start initial animal studies within the next 3 -4 months.

EpiKine

Our grant writer is currently assembling the necessary paperwork for a grant submission for animal trials of EpiKine in collaboration with the United States Air Force (USAF). We continue research protocol development with our partners at Wilford Hall (Lackland AFB) in Texas. It turns out that our grant writer has extensive experience with grant writing for the military and also has contacts to the Department of Defense, which will be helpful in the near future. We anticipate the first animal studies will start in September at Wilford Hall.

Topical Excitement

Phillip Buscemi, OD

One of the leading causes of blindness and reduced vision is the inability to control corneal wound healing from trauma, infection, and surgery. Steroids and other traditionally employed agents have not been effective in preventing scarring and other manifestations of aggressive wound healing. Steroids frequently induce glaucoma and cataracts, both vision threatening side effects.

A new category of biologic agents now has the promise of controlling this healing response. Traditionally these have been used systemically, but the levels required for therapeutic dosage also caused significant side effects and are extremely expensive. Our IP includes methods for topically applying these agents.

“Initial animal trials in Greece have conclusively demonstrated that EpiKine works.”

This allows a far lower dosage, delivered where it is needed, promises no systemic side effects, and dramatically reduces the cost of the therapeutic agent. There are numerous disease applications for EpiKine including corneal ulcers, corneal transplants, and treatment of corneal trauma. One of the most promising is in controlling the healing response after refractive surgery.

Most LASIK patients have some degree of corneal scarring, commonly known as haze. While this will substantially disappear after several months, the impact on vision can be long lasting due to secondary effects that affect the quality of the corneal optics. Sometimes this requires a second treatment or "enhancement." Refractive surgery has reached the apex of improvement available in its algorithms and hardware. Most of the variation in outcomes now comes from differences in wound healing, and from changes in corneal biomechanics due to the surgery - which are also likely affected by wound healing.

Because the demographics of candidates for refractive surgery have changed, there is an expectation by patients of perfect outcomes. By

controlling the wound healing response, EpiKine will dramatically reduce the variability and will likely be used prophylactically in all procedures. Initial animal trials in Greece have conclusively demonstrated that EpiKine works. Fortunately, of Therakine's potential products, EpiKine has the fastest route to market and lends itself well to licensing to a large player in the refractive surgery field. Conversations with likely out-license partners are ongoing.

Biz Spotlight

Jerry Seelig

The Management Team has been on the phone and on the road making presentations to potential partners and investors. In our effort to locate at a place that will best support our

research and commercialization efforts, we have traveled to and met with the leaders of three of America's finest eye Institutes: Cole Eye Institute at the Cleveland Clinic, Wilmer Eye Institute at Johns Hopkins University, and Casey Eye Institute at the Oregon Health and Sciences University (OHSU).

In Cleveland, the Baltimore-DC area, and Portland we met with the leaders of the eye institute, research faculty, business development specialists and medical school administrators. Although we sought the academic and research excellence of these institutions, we were also attracted to the significant amount of investment capital and in-kind support (professional salaries, office and lab space and other grants) available to companies associating with them.

News from London

Scott Hampton

Dr. Reiff, Mr. Seelig, and I were in London the week of August 20th. There we presented OptiKine to the Wellcome Trust. Dr. Andreas Voight (founder) and Dr. Marc Nolte (senior scientist) of Capsulation presented with us and then we had a great planning meeting. Dr. Voight has expressed strong interest in broadening the relationship with Therakine and assisting in significant fund raising for our projects.

The truly exciting news is that The Wellcome Trust has asked us to apply for project funding. An important factor for this invitation is that we presented the status of the delivery system for OptiKine to Wellcome. The complexation process is working well, in some cases very near the theoretical limit. The table below shows payload of various ratios of polymers (A, B, and C) to antibody. With these results we are very confident that we have solved one of the key problems with local delivery of biologics - we have a system which compounds our antibody, which is biocompatible, and which will enable sustained release.

We are now that much closer to realizing the dream.

