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With their Kuiqpick Cell and Tissue Acquisition System now on the Market and their Microdissection Instrument in Development that would be a Low Cost Alternative to The existing Laser-Based Systems, NeuroInDx is well positioned for Growth

Healthcare
Biological Sciences

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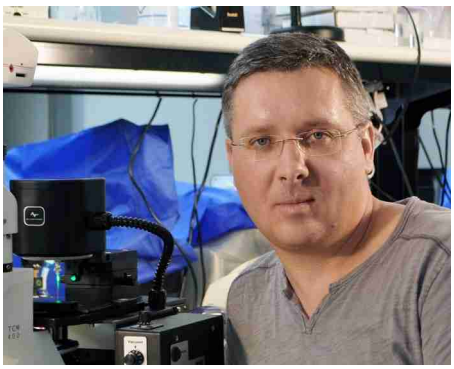

Stan Karsten
CSO

BIO:
Dr. Karsten has 20 years of experience in molecular biology, neuroscience and functional genomics. He began to work on methods development and optimization in Prof. Ulf Landegren's group (Uppsala University) in 1993 and subsequently at UCLA. He received his Ph.D. in Medical Genetics and Pathology from Uppsala University in 2000. Currently Dr. Karsten is a Chief Scientific Officer and a Chair of the Board of Directors of NeuroInDx, Inc. Prior to his position at NeuroInDx, Dr. Karsten was an Assistant Professor of Neurology, David Geffen School of Medicine at UCLA and Chief, Division of Neuroscience at Los Angeles Biomedical Research Institute at Harbor-UCLA Medical Center. His laboratory specialized in neurodegeneration and more specifically in functional genomics of neurological diseases (e.g. Alzheimer's disease, Amyotrophic Lateral Sclerosis) to identify mechanisms, biomarkers and drug targets to develop new therapeutic approaches. While at UCLA, Dr. Karsten together with Dr. Anatol Bragin developed a concept of capillary based cell and tissue acquisition system and founded NeuroInDx in 2006. Initial SBIR funding for the proof of principle and follow up R&D was received from National Institute of Health (NIGMS and NIMH) that resulted in the development of a first commercial version of Kuiqpick™ v.1.0.

About NeuroInDx, Inc.:
NeuroInDx, Inc. was founded in 2006 and focused on discovering and developing novel technologies and platforms for biological sciences. Based upon a strong team of scientists and engineers from diverse technical backgrounds, NeuroInDx has established a unique blend of capabilities. The core expertise is in engineering, methods development, neuroscience, molecular biology and bioengineering. Since the beginning of operation NeuroInDx has been committed to developing innovative instrumentation and advancing technologies in the areas of neuroscience, functional genomics, and cell and tissue specific analyses.

Interview conducted by:
Lynn Fosse, Senior Editor
CEOCFO Magazine

CEOCFO: Dr. Karsten, would you tell us the focus at NeuroInDx?
Dr. Karsten: The focus of our company is the development of new methods and instruments for biological scientists, with a focus on cell and tissue specific analyses.

CEOCFO: What are you working on now?
Dr. Karsten: Specifically, for the last several years we have been working on the development of a new tissue microdissection and cell collection system. This is an instrument that allows you to microdissect specific regions of tissues for follow up analysis such as gene or protein expression analysis and sequencing and so on. Currently, there are microdissection instruments available on the markets which are very expensive. They normally start from around one hundred thousand dollars. Our goal was to develop an instrument that would be a simple and low cost alternative to the existing laser based microdissection systems, so that more people would be able to do cell specific research.

CEOCFO: What have you figured out to allow you to make a better and cheaper product?
Dr. Karsten: The general idea is incredibly simple. It is basically the carefully controlled impulse of vac-

uum in combination with the predefined size of the capillary that allows you to collect specific areas from the tissues, or collect individual cells from cell culture dishes. This technology is pretty low cost and an efficient alternative to existing high cost laser based systems. In addition it has several unique capabilities such as dissection of thicker brain tissue sections that is important for proteomics application and acquisition of viable cells for downstream in vitro assays. We managed to create an instrument that is significantly cheaper and actually much easier to use than the available systems on the market.

CEOCFO: Where are you in the development and commercialization process?

Dr. Karsten: We just started to market the first model of our cell and tissue acquisition system. We call it Kuiqpick. Hopefully investigators in the fields of neuroscience, stem cell biology and single cell analysis will appreciate its benefits.

CEOCFO: Was the medical community aware of the development? Have people known that this was in the works, or is this really something where you are almost starting from scratch?

Dr. Karsten: Actually, several people already purchased the prototypes of the instrument, and so far they have been quite happy with the performance. Again, I should mention that they did purchase the prototypes. Therefore, we hope that there will be a lot of interest in the fully functional commercial version of this system. Plus, it has been presented at several different scientific meetings and, in general, people have been very excited for many reasons. It is not only a low cost device; it actually has several unique properties in comparison to existing systems. For example, it can collect live cells from the tissues, which is incredibly important for stem cell research, especially when you are dealing with neural progenitors. As you might know, neural stem cells reside in very specific areas of the brain; very small areas, quite often. If you want to understand their function,, you have to somehow acquire it from the brain and make sure that the cells are still alive so that you will be able to culture them. This is the first instrument that actually allows you to dissect live tissues. In addition, it can do another unique thing. You can collect individual live cells from cultures based on their morphology or fluorescent label. Of course, there are flow sorting systems available that can sort millions of cells for you, which are incredibly expensive and fairly sophisticated. However, very often, especially now when there is so much focus on the single cell analysis, there are no instruments which will allow you to collect single specific cells from adherent cultures, based on the morphology of the cell, or some kind of genetic label. Kuiqpick can collect desired cell or cells and use them directly for gene expression studies,, or actually use it for sub culturing, to establish a new clone based only on that single cell.

"Our goal was to develop an instrument that would be a simple and low cost alternative to the existing laser based microdissection systems."- Stan Karsten

CEOCFO: What is the marketing plan? Whom are you targeting and how are you going to reach them?

Dr. Karsten: We are targeting research labs in academia and industry. How are we going to reach them? First of all, press releases, conferences, presentations, personal connections through people that I know in the field, getting in touch with people via email, advertising and so on. These are the usual kinds of tools. Another approach that we have is trying to publish some interesting data using this instrument. This is a little bit tricky in a way, because very often people see it as an advertisement. Ideally, it would be nice if the user would use the system and publish research based on the use of Kuiqpick. Of course, partial problem in biotechnology or in biomedical science is that everything takes a lot of time. This is the kind of instrument that does the very initial experiments, where you just collect the samples for further analysis. Normally, after you acquire the samples, it might take literally two or three years just to get to the point where you have publishable data. Then you have to publish the paper, so you are looking at about three years delay. We cannot really afford waiting for so long. However, of course it would be nice if people start publishing something, but we cannot control that too much.

CEOCFO: Where will the instruments be manufactured?

Dr. Karsten: We are going to manufacture it here. We will do it ourselves. Right now, we can probably produce from ten to twenty instruments a month. If there is a lot of interest and we need larger volumes, of course we can upscale. We can increase the production. That should not be a problem.

CEOCFO: Is NeuroInDx funded for the commercialization effort or will you be seeking funding?

Dr. Karsten: We have been funded by NIH for research and development, through small business grants. They usually fund the two different phases; Phase I which is a proof of principle, and Phase II, which is basically given to the organization to develop the fully commercial version, but it does not support commercialization, per se. Right now, we are at the point where we have a first commercial version of the system. We believe that we can do the commercialization ourselves. If not, we will probably look at the investors, and look at the options there. There is still a lot of room for improvement of the system by including new functionalities. For example, we are planning to develop a fully automated version that will increase market size.

CEOCFO: Will this be primarily in the United States or are you considering overseas?

Dr. Karsten: We are considering overseas, of course, definitely. However, we need to start with the United States. The main reason is that there are many countries that have very specific certifications and require-

ments, and that costs money and it takes time.

CEOCFO: In your industry everything takes time!
Dr. Karsten: Absolutely.

CEOCFO: What do you bring to the table from past experiences in the industry that has been and will continue to be most helpful at NeuroInDx?
Dr. Karsten: I come from a genomics and neuroscience field. I am together with Dr. Bragin an inventor of the system. I have done a lot of cell and tissue specific experimentation in the past and I am fully aware of the problems and challenges in this field. I was always amazed that often sophisticated systems have to be invented to perform fairly simple tasks. This is how the concept of Kuiqpick was born. I was at UCLA at that time. How it helps? First of all, we know the field very well. I know many people who work in the field, and I can contact them regarding the beta testing of the system and hopefully find the first customers who purchase the instrument.

CEOCFO: Why should investors and people in the business community pay attention to NeuroInDx?
Dr. Karsten: We have expertise in several areas of biological sciences. We have risk taking, very smart people who are willing to try new things and are not afraid to do it. That is probably the strongest side of NeuroInDx. Of course, the main challenge for us is the business side such as marketing.

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