

Q&A with Dr. Ken Hughes, CEO of iTP Biomedica bringing to market their Big Data Bioinformatics-Driven BladderPredict[®] Genomics Diagnostics Test predicting the trajectory of Early Stage Bladder Cancer



Dr. Ken Hughes
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Interview conducted by:
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CEOCFO: *Dr. Hughes, what is the idea behind iTP Biomedica?*

Dr. Hughes: iTP Biomedica is a big data bioinformatics-driven diagnostics and prognostics company, which uses the entire transcriptome, which is the functional expression of the human genome, in disease tissue to predict the way that a disease will progress. We use the entire genome to provide a risk score for a disease's potential trajectory to a more dangerous state. It helps to manage an individual's particular disease.

CEOCFO: *With so many possible combinations and outside factors with a disease, how are you able to do this?*

Dr. Hughes: What we do is not what other company's do, which is look towards a few individual genes that may correlate with disease progression. We actually look at the entire genome, all 20,000 genes and non-coding species. Therefore, the multiple dimensions at which we look at the genome, and the tissue itself, lead to an exquisitely accurate understanding of an individual's disease. Our accuracy in disease severity identification can far exceed those that occur with many standard microarray-type approaches that people are familiar with. We provide a true description of personalized medicine, if you like.

CEOCFO: *How can you be predictive for an individual when there are so many personalized factors?*

Dr. Hughes: We are looking at gene-expression patterns associated within an individual's disease. We correlate this with well-characterized clinical cohorts, including outcome data, and we compare to the path that previous diseases had taken. This allows us to correlate an individual who is going down a particular path with those that have happened before. Because we are looking, not just at a few genes but at the entire genome expression itself, the multi-dimensional power associated with the analysis makes the correlation very strong. The consequence of that is a very accurate risk prediction, which is shown in our first product, BladderPredict[®]. This is a prognostic test that helps delineate the clinical trajectory of a patient's early stage bladder cancer. Specifically, whether it will stay in an essentially indolent state or likely progress towards to malignant disease.

CEOCFO: *Why bladder first?*

Dr. Hughes: Happenstance, for one thing. Our CMO is a top uro-oncologist and our CSO was working in that space in his academic pursuits when we founded iTP. It was a natural fit, because there was an unmet medical need. We had the clinical and scientific expertise, and access to clinical specimens at Mount Sinai Hospital in Toronto. It was a great exemplifier of the technical approach and the scientific approach we were taking to the understanding and subsequent management of disease.