



## Focusing on Biophysical Approaches to Identifying Small Molecules, Alion is Developing their Own Therapeutic Pipeline for High Value Targets such as Glioma and Alzheimer's disease and offering a "fee for service" CRO Program

Healthcare  
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### About Alion:

Alion is developing our own therapeutics pipeline. Emphasis will be placed on therapeutic indications of high value. Partnering opportunities will be considered at all stages of development. Programs may be licensed at any stage deemed of value to Alion. No program will extend beyond a Phase II clinical trial before licensing. We will seek to "recycle" existing therapeutics for new indications wherever possible. Alion offers a "fee for service" (CRO) program to other companies to identify potential thera-

peutics to feed into late stage CRO companies. We currently know of no company offering a full spectrum of early stage drug discovery services such as can be offered by Alion.

Interview conducted by:  
Lynn Fosse, Senior Editor  
CEOCFO Magazine

**CEOCFO:** What is the focus at Alion today?

**Dr. Bates:** We focus on either modulated of ion channels or modulating protein/protein interactions. Those two programs allow us to tackle a number of different diseases. We started out to work on nervous system diseases. I was particularly interested in Alzheimer's, my partner was interested in oncology, so in order to focus on CNS, we decided to work on glioma, which is a brain cancer, as well as Alzheimer's disease.

The Alzheimer's disease project involves modulation of protein/protein interactions. The brain cancer program focuses on modulation of ion channels. We chose our targets, particularly in the case of the brain cancer program, in such a way that we had applications to other cancers if we could find small molecules that modulated the primary target for glioma. This was proven to be a correct assumption because we now have molecules that modulate not only our target for glioma but also for lung cancer and pancreatic cancers.

**CEOCFO:** How does your approach differ from the way these conditions are treated traditionally?

**Dr. Bates:** We focus on biophysical approaches to identifying small mole-

cules. We do very little in the way of biology, only some basic cell based screening. We employ our own computational chemistry approach and then we follow those approaches with a series of biophysical assays that tell us whether our molecules are modulating our target of interest. Once we have shown that our molecules are binding to and interacting with our target of interest, then we can proceed to biological assays. Many other people would approach it from the basis of simply throwing molecules into a biological assay and then trying to work backwards.

**CEOCFO:** Where are you in the process?

**Dr. Bates:** We are actually fairly early stage, but we within one year we were able to complete our computational chemistry program and show conclusively that our small molecules were modulating our targets of interest for both the Alzheimer's and the cancer program. That was twelve months to find very active compounds. We have now moved to the point where we are about to start animal studies. We do not do any biology ourselves, so we partner the biological programs with academic labs and we are just starting the first programs in animals. The targets of interest, particularly for the glioma program, predict that we could modulate other indications besides glioma, so we are now going to start testing in an epilepsy model. We are now also starting animal studies for glioma and lung cancer.

**CEOCFO:** It seems Alion is involved on many fronts!

**Dr. Bates:** It seems like it is wide range, in reality it is actually quite fo-

cused because it is all target-based decisions and once you can modulate one target of interest, then you can essentially move horizontally instead of vertically in terms of choosing which therapeutic indication to go after, which one target, one molecule, multiple indications.

**CEO CFO:** Would you tell us about your CRO activities?

**Dr. Bates:** We decided that we would collaborate with other companies to offer contract research particularly in the field of ion channels. We feel that our computational model is extremely accurate and predictive and it is something entirely proprietary to us. Once again, in order to push the programs forward quickly, we thought that we would need to partner with a chemistry company, as well as with an ion channel screening technology company. The two companies are Aurora Biomed for the physical screening against ion channels and Specs for the chemistry.

**CEO CFO:** Development is always expensive; how far will your current funding take Alion?

**Dr. Bates:** At the moment, we are able to start out early-stage animal studies without further fundraising, although as with any small startup company, we always have to look for additional funding. We are about to start presentations to groups in Phoenix, Arizona that are interested in funding our glioma and lung cancer studies and hopefully those programs will move forward with a lot of encouragement from their local oncology community. Our oncology program has identified potent compounds with the potential to treat glioma, pancreatic, lung and skin (melanoma) cancers. The Alzheimer's program has stalled a little bit because the next stage for the de-

velopment is to utilize very specific transgenic animal models and developed at either Duke or NYU and those are expensive studies. We are fundraising for those studies currently. We are trying to stay as far away as we can from venture capital, because we know how expensive that is going to be. We would like to get our preliminary animal studies completed before we start looking for extensive funding. We now have our first partnerships with other companies to take our pipeline development forward for both the oncology and Alzheimer's programs.

**CEO CFO:** Are the people who should know about what your programs, aware of Alion?

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**Dr. Bates:** I rather doubt it because we have been flying under the radar screen from the beginning. It took a long time to convince anybody that our theory was correct. Essentially, when we started, all we had were a number of computations and predictions but nothing to verify that our theories were correct. The fact that we were able to get very active molecules within twelve months for both programs, I think is verification alone that our projects are working. In the case of a proprietary technology specifically for our own channels, we have developed algorithms that allow us to find active molecules against

specific ion channel targets in the absence of any knowledge of the structure of the ion channel itself. This is something that nobody else has been able to do at least not to our knowledge. Verification of our approach seems to be that we have found active molecules against our therapeutic targets and achieved this very quickly.

**CEO CFO:** Why should people pay attention to Alion?

**Dr. Bates:** With respect to pharmaceutical companies, we all know that their pipelines are not exactly robust, so perhaps partnering at early-stage with a small company like Alion, where we can efficiently identify small

molecule, leads against certain targets, is appropriate. Partnering early stage therapeutics programs with a company such as Alion, is efficient as far as pharmaceutical company is concerned and the costs are minimal. With respect to investors, we find that some are interested as a consequence of a certain disease in their family. In terms of an investor wanting to make money, that is very much dependent on following progress of a company and making bet on the success.

We are looking mostly for partnerships with established companies at this point in order to take our programs forward and we have just now secured our first partnerships.

**CEO CFO:** What should people remember most about Alion?

**Dr. Bates:** The speed and the efficiency with which we have achieved our programs and the novel approaches that we have taken to a very rapidly identify small molecules against particular targets with multiple therapeutic applications.