Sometimes, discovering one groundbreaking treatment just isn’t enough. Dr. Alan Fogelman is dedicated not just to finding solutions, but to finding the best solutions.

First, Fogelman determined that the protein apolipoprotein A-1 (Apo A-1) serves as an anti-inflammatory agent in HDL (“good cholesterol”) function, making it a key weapon in the fight against unhealthy cholesterol. However, there was more work to be done.

Fogelman, chair of the department of medicine at UCLA and a researcher specializing in cardiovascular disease, soon recognized that as a potential therapeutic, Apo A-1 had a significant drawback – it required intravenous administration. So Fogelman and his colleague Dr. Mohamad Navab, also a cardiologist at UCLA, together with Dr. G. M. Anantharamaiah at the University of Alabama at Birmingham, began searching for an Apo A-1 mimetic peptide – a molecule that would mimic the protein but could be administered orally to patients. Their work led to D-4F, a drug that dramatically reduced arterial plaque buildup in animal studies and demonstrated significant anti-inflammatory activity. D-4F, which continues to show promise in ongoing studies, soon became a major focus of Fogelman’s research at UCLA.

Though promising, D-4F came with some major commercialization challenges. An HDL-centered strategy to fight heart disease would not necessarily be attractive to the pharmaceutical industry, the consensus being that high HDL levels in a patient did not always translate to low risk for heart disease. Fogelman determined that the best way to champion D-4F’s development was through a start-up company dedicated to and focused on the drug. In 2002, Fogelman and his friend and patient Jerry Magnin founded Bruin Pharma – named after the UCLA mascot – to spearhead the development of D-4F and significantly increase its availability.

The company’s work is based on the premise that not all HDL is equal; a patient may have high levels of HDL and still be susceptible to heart disease, so a scientific assay is necessary to detect the efficacy of the HDL in a patient’s blood. Bruin Pharma has been working on validating its assay and getting exposure that would lead to its adoption by the industry as a viable diagnostic test.

Bruin Pharma’s efforts to make D-4F a drug candidate attractive to the pharmaceutical industry have paid off. In 2004, Bruin Pharma announced a partnering deal with Novartis, a Switzerland-based company. The partnership put D-4F on the map as a promising new cardiovascular drug in what analysts believe could become the pharmaceutical industry’s most lucrative market. In 2005, human trial studies began. If Bruin Pharma’s strategy proves successful, D-4F or a similar drug could one day clear a patient’s arteries of decades’ worth of plaque buildup without the need for surgery.

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