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## Kamada: An Anomaly In Israeli Biotech

### Switching to Specialty Drugs Led to Success



Kamada is a bit of an anomaly in the Israeli biotech scene. The Ness Ziona-based company wasn't founded by a scientist, (CEO David Tsur doesn't have a science background); the 220-member staff outsizes most Israeli biotechs which typically employ less than 50; and it has operated in two different bio sectors (commodities and specialty drugs). Yet with one potential blockbuster drug about to hit the market, (intravenous AAT for a \$500 million-plus respiratory disease market) and another expected to follow, (inhaled AAT), Kamada could become one of the industry's biggest success stories. The company was founded in 1991 by CEO David Tsur and Chairman of the Board Ralph Hahn. Tsur, a business administration graduate from the Hebrew University met Hahn while serving as Israel's cultural attache in Argentina where lives and works in the pharmaceutical industry in partnership with Teva. From the outset, Kamada produced products based on protein purification, starting out by using bovine raw materials in order to produce active ingredients for the drug industry and eventually becoming the producer of 80 percent of the world market for bovine raw materials products. Later on Kamada began to develop plasma-derived protein products that could be sold to pharmaceutical companies and is today one of the world leaders in large scale industrial chromatography purification of proteins from Fraction IV. In 2001 the company decided to leverage its ability to produce injectible products for prescription drugs and gradually moved from the commodity to specialty side of the pharmaceutical market. Kamada was the first IPO in the TASE in the biopharmaceutical field The company's lead specialty product is intravenous Alpha-1 Antitrypsin (AAT). The drug is used to treat individuals with low levels to completed deficiency of Alpha-1 (protein synthesized in the liver) who are at risk for severe pulmonary problems, especially emphysema. Kamada has successfully completed a Phase III trial for its AAT and is expected to launch the product in the US market during 2010. There are an estimated 100,000 patients with Alpha-1 deficiency in the US, with about 5,000 patients currently being treated by two rival products at a cost-per patient per year of \$100,000. Kamada's product, according to analyst Sigal Katz of Clal Finances, offers a number of advantages over current products and is expected to gain a significant market share. She notes in a recent report that AAT is presented in a stable, ready-to-use liquid form, has a higher level of purity and is stabilizer and preservative free She also points out that although Kamada's competitors are well-established large players with major marketing operations in place, Kamada has nurtured good relations with patient organizations whose members are eager to obtain the Kamada product. Even more promising is the company's inhaled version which has successfully completed several clinical trials. This product is expected to be more attractive to the patients' population due to the fact that it is not invasive and targets the lungs which are the target area for the drug . "By treating patients through inhalation, much smaller dosages are required and we expect to treat 4-5 times the number of patients with the same amount of active ingredient," says Tsur. He points out that while the company's current production capacity is sufficient to produce enough drug to treat ;less than 1,000 intravenous patients, the same producton capacity could serve over 4,000 patients on inhalation delivery platform.. In addition to treating patients suffering from Alpha-1 deficiency, the inhaled product also can be used to treat other respiratory conditons including cystic fibrosis, bronchiectasis, and chronic obstructive pulmonary disease. The Israeli market does not have regulatory approval for AAT yet. However, Tsur notes that the company has been able to save the life of more than one Israeli patient through special Ministry of Health permits. Major investors in Kamada include David Tsur, Ralph Hahn, Leon Recanati and the public (TASE: KMDA).