

**MED DISCOVERY:  
NEW TREATMENT FOR PROSTATE CANCER**



**Problem – Challenge**

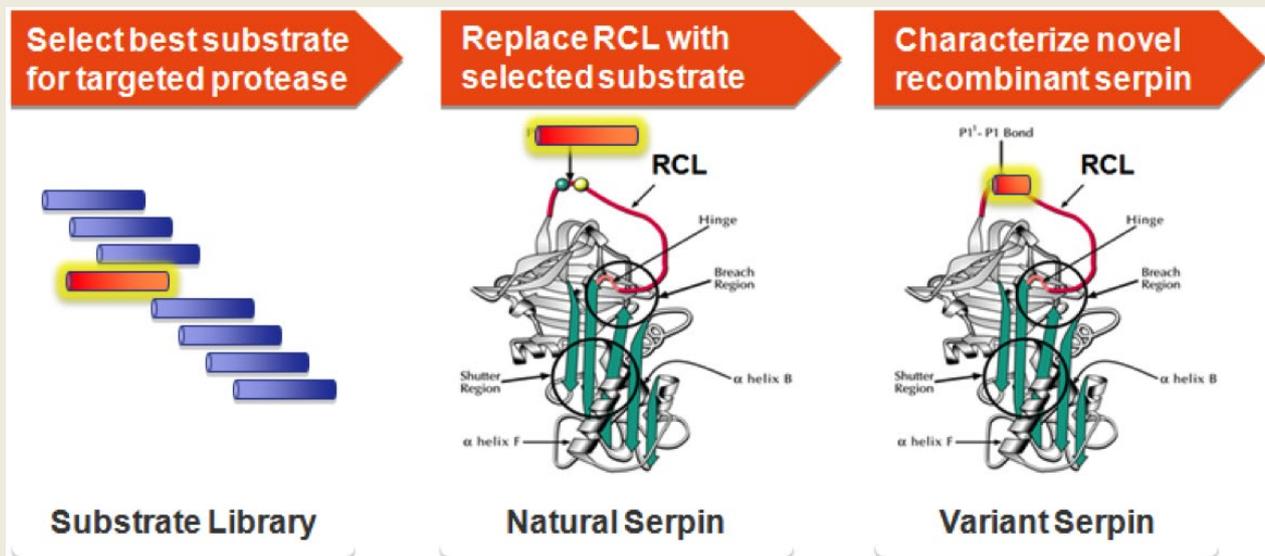
Prostate cancer is the most common male cancer and the second most frequent cause of cancer mortality among male patients. Despite some recent advances in prostate cancer treatment, every sixth fatality related to cancer is due to prostate cancer. Furthermore, this form of tumor disease presents a still growing problem in healthcare policy due to demographic trends and the increasing life expectancy. The segment of the male population that falls within the risk group will increase by 40% over the next 15 years.

The currently available treatment options are associated with multiple and often very serious side effects and urologists are awaiting safe and efficient drugs to treat prostate cancer patients at early as well as advanced stages of the disease.

**Solution**

Med Discovery is a biopharmaceutical company founded in 2002 as a spin-off of the CHUV in Lausanne. The company is dedicated to the discovery and the development of highly specific treatments for uro-genital cancers. Its approach is to develop protein drugs based on the optimization of natural proteins involved in the regulation of biological pathways.

Med Discovery is leveraging a unique in-house expertise in kallikreins, the biggest class of human proteases, which are involved in prostate physiology as well as prostate cancer. The lead prostate cancer drug candidate is originating from a proprietary technology platform, which allows the production of protease inhibitors and to target diseases where there is a lack of specific treatments. The inhibitor has shown high potential and a very good safety profile during its preclinical testing. Currently, the development of the drug is moving into its clinical phase within a CTI backed program uniting Med Discovery with its academic partner CHUV.



Med Discovery's protease inhibitor platform: In a first step preferred substrates for a target protease are selected from a large library of short peptides using a phage display technique. Target protease specific peptide sequences are then introduced into natural protease inhibitors of serpin type. Finally, modified inhibitors are screened in vitro for desired inhibition profiles. This approach allows the creation of proteins blocking specific disease associated proteases while retaining the backbone and 99% of structure of a natural human inhibitors.