

The Technology Innovation Created from United States Universities

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Abstract

The scientific and technological innovations created by universities and research institutes have driven local, regional and global economies for the past fifty years. The United States Government has funded medical research at a comparable level to that of the industry sector. However, less than 5% of this government-funded research has created successful consumer products. Gene Therapy agents have yet to demonstrate either pharmacological active clinical therapies or financially successful products. Why is this commercialization rate so inadequate? The mixing of innovative science with good business strategies is a high-risk venture for most early stage companies to make marketable products.

Validation of these novel concepts into viable products is a time consuming and a costly experience. The innovative entrepreneur must be more knowledgeable in commercializing their patented ideas. The pre-venture capital community (angel investor) provides opportunities for entrepreneurs to be mentored and funded. These investors have played an important role in the deal flow of bringing technology concepts forward into products. The angel investors can enhance the rate of success by supplying funding for testing these concepts, determining the feasibility of manufacturing the product and carefully defining the customer/market. The Tech Coast Angels of Southern California (www.techcoastangels.com) have especially demonstrated their success by helping limit the number of common business mistakes by the entrepreneurs. The venture capital

community then has the ability to partner with these start-up companies to effectively launch the product into the market. The business process of creating a profitable enterprise will thus benefit all the participants involved.

How can we make this process more efficient? The next generation of entrepreneurs must be educated in the understanding of these new dynamics of commercialization. In fact, the major universities in Europe, Asia and the North America are playing vital roles in educating and supporting their entrepreneurs. The Tech Coast Angels are one of the largest organizations in the United States and most imitated models for supporting start-up companies. Their track record for profitably launching start-up companies and reducing the risk of transforming novel concepts into commercial products is copied globally.

We live in a digital world of instant information exchange; there is no longer a time lag to acquire the latest scientific information or obtain access to a current web cast of scientific medical conference. Thus, a collaborative network between the university, government and the investment community is vital for supporting entrepreneurs and a strong economy. These novel medical products may have a similar impact on the global health system, as antibiotics did on infectious diseases in the 1950's. Where will the next advances in gene therapy treatments of cancer be made?