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Verifying and Validating the Impact of Technology Transferred from Space (2)

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THE CHALLENGES, OPPORTUNITIES AND VALUE OF COMMERCIALIZING SPACE
TECHNOLOGIES

Abstract

For more than 40 years, NASA has facilitated the transfer of its technology to the private sector, benefiting global competition and the economy. There are the high profile technologies we have all seen, memory foam mattress, cordless hand tools and my favorite Tang Orange drink. Today we face global challenges in health and the economy. I would like to present three new technologies developed in collaboration with the NASA Marshall Space Flight Center in Huntsville, Alabama. The first NASA center in the United States and honored to have Dr. Werner Von Braun as its first Center Director. **Multi-Element Boundary Layer Organizer:** The first is a Multi-Element Boundary Layer Organizer that was developed through collaboration with a small business private entity partner and NASA. The challenge for NASA was to develop a lubricant to withstand the extremes of space and accomplish the established design parameters required by NASA. The commercialization of the technology has resulted in a new technology that has proven to reduce friction in transportation and our plants and factories resulting in the reduction of energy be it fossil fuel or electrical. **Ionic Liquid fuel additives:** Through the same research, a new fuel additive was developed that increases the fuel economy of combustion engines. Government mandates can require the development of trucks, automobiles, ships and planes that are more energy efficient but this technology addresses the current population of vehicles on our roads, seas and airspace. **Antibiotic resistant infections:** Antibiotic resistant infections continue to plague the global population. I am pleased to present and document a new medical technology that addresses these deadly antibiotic killers. As you will see, the contributing medical lead is a NASA researcher with a stellar history in the medical research community. Again the origin of the technology is a independent researcher and inventor. The technologies that will be presented are the result of a NASA Space Act Agreement with Chemco Technologies, Inc., a private technology development company.