Using Plants To Save Lives

(NAPSA)—Drug rationing may sound like a nightmare scenario to patients and doctors, but it could happen if manufacturing capacity can't keep up with the growing demand for a new generation of biotech drugs that have emerged in recent years. These biotech medicines—unlike synthetically-made pharmaceuticals—consist of living proteins that can effectively fight a variety of diseases such as cancer, Alzheimer's disease, heart disease, diabetes, multiple sclerosis, HIV/AIDS and arthritis.

When the first biotech medicine for rheumatoid arthritis was introduced to the market in the 1990s, it was the most successful treatment ever and was popular with doctors and patients almost immediately. The drug was so effective and sought after that demand quickly outpaced supply and patients were placed on waiting lists in order to receive treatment.

Traditionally, proteins for biotech medicines are obtained by growing cells in specially controlled stainless-steel tanks; these cells produce proteins which can be collected and then used to create medicines. The problem is, building facilities to house these vats is extremely expensive and time-consuming—on average, these facilities take three to five years, and nearly $500 million to construct. With more than 371 new biotech medicines in the pipeline today, coupled with a growing patient population, patients could quickly face another shortage of biotech medicines.

Recent advances in biotechnology have found a way around this hurdle. Scientists can use biotechnology to improve plants and turn them into factories that produce therapeutic proteins—the same proteins that are now being produced in cells and used for biotech medicines. Plants such as alfalfa, corn, potatoes, rice, safflower, soybeans and tobacco can be used to generate essential substances for life-saving drugs. This plant-made pharmaceutical technology makes it possible to produce proteins faster and cheaper than existing methods, meaning patients may not have to face another drug shortage.

A renewable resource, plant-made pharmaceuticals can save lives by increasing access to innovative treatments.

Plant-made pharmaceuticals have enormous potential to bring new, improved, and accessible treatment options to America's 43 million arthritis patients and millions of cancer, cystic fibrosis, multiple sclerosis and cancer patients. Already in clinical trials, plant-made pharmaceuticals may be only a few years away from the marketplace.

To learn more, visit the Biotechnology Industry Organization on the Web at www.bio.org.