

Medicinal Drug Discovery 2020

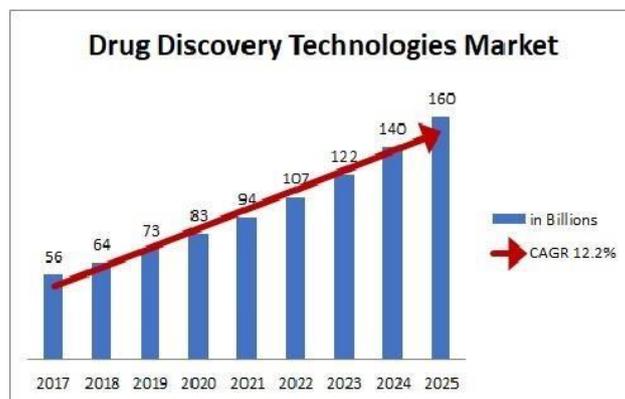
Alain L Fymat*

President/CEO and Professor\r\nInternational Institute of Medicine and Science\r\nUSA, E-mail: alain.fymat@fiimas.org

Medicinal chemistry and Drug Discovery is a stimulating field as it links many scientific disciplines and allows for collaboration with other scientists in researching and developing new drugs. Medicinal chemists apply their chemistry training to the process of synthesizing new **pharmaceuticals**. They also improve the processes by which existing pharmaceuticals are made. **Medicinal chemists** are focused on drug discovery and development and are concerned with the isolation of medicinal agents found in plants, as well as the creation of new synthetic drug compounds.

Chemistry volumes continue to rise in the U.S. and chemical market expected to contract this year—As a result, chemical industry capital spending in the U.S. surged 12.1% in 2014 and gained 21.0% in 2015, reaching \$43.58 billion and accounting for more than one-half of total construction spending by the manufacturing sector. The association representing US-based chemical producers said that US chemical production (excluding pharmaceuticals) is expected to realize the overall growth of 1.6% in 2016, followed by 4.1% growth next year, and 5.0% in 2018. Average annual gains of over 8% per year in U.S. Chemical industry capital spending are expected through 2018 with only a minor slowdown in subsequent growth expected. By 2021, ACC expects capital spending to reach \$70 billion, contributing to four consecutive years of job growth in the industry. American chemistry revenues will exceed \$1.0 trillion by 2020.

maximizing the drug delivery at the targeted site so as to increase the efficiency of drug and proposing improved patient compliance.



Chemistry Council stated that more than 275 new chemical production projects had been announced since 2010 with a total value of more than \$170 billion, with a full 49% already complete or under construction; 61% of these are the foreign direct investment. By 2021, U.S. capital spending by the chemical industry will reach \$65 billion—more than triple the level of spending at the start of this prolonged cycle in 2010. The trade surplus in chemicals (excluding pharmaceuticals) will grow to \$36 billion this year as exports rise by 2% to \$132 billion and imports hold steady at \$96 billion. Two-way trade between the U.S. and its foreign partners will reach \$227 billion this year and will grow steadily over the coming years.

The popularity of Formulation and **Drug Discovery** has increased significantly in recent years. The Drug Delivery Technology market is expected to reach USD 1,504.7 Billion by 2020 from USD 1,048.1 Billion in 2015, growing at a CAGR of 7.5% from 2015 to 2020. Drug delivery technology market offers a promising approach for the delivery of various kinds of drugs that have different **molecular formulation**. Drug delivery technology is aimed at

