

# **Global Transfection (Gene Delivery, DNA Delivery, Protein Delivery, SiRNA Delivery) Technologies (Lipofection, Calcium Phosphate, Electroporation, Nucleofection, Magnetofection, Gene Gun, Viral) Market (2012 – 2017)**

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## **Abstracts**

Transfection is an enabler technology used for many cell based research activities with applications spanning production of recombinant proteins and recombinant cell lines, gene therapy, delivery of therapeutics and also drug discovery. This research report provides a brief description on transfection technologies, its evolution, comparative analysis, market landscape analysis, competitive scenario and emerging technology and application trends. Global research and development Network, Innovation and Spin offs have been discussed. The report tracks regional adoption and development trends, providing strategic recommendation to stay active and compete in the market space. An impact analysis of major drivers and restraints influencing the growth of the market is mapped for five year period.

### **KEY DRIVER:**

Advances in cell research and therapeutic delivery

Cell research is a major driving factor for transfection market, as more than 60% of the users are of academic institutions and researchers. Research in gene transfer is being performed in in vivo conditions for different therapeutic applications; there is a growing demand for new transfection technologies to address unmet needs for therapeutic delivery which is driving the transfection market.

### **KEY RESTRAINT:**

*Global Transfection (Gene Delivery, DNA Delivery, Protein Delivery, SiRNA Delivery) Technologies (Lipofection,...*

Home brew Reagents restricts sale of commercial kits

Home brew reagents are still the preferred choice of reagents for transfection by researchers all over the world. Most of the researchers prepare their own reagents from their laboratory to conduct their research. This is true for most of the reagent based transfection reactions. This allows them to reduce cost involved in purchasing commercial kits.

### **KEY CHALLENGE:**

New disruptive technologies required to address transfection in hard-to-transfect cells

Transfection is an enabler technology which is used in many cell research activities, however only few cell lines are majorly used in these experiments restricting the scope of the study. Transfection in hard to transfect cells is the need of hour and it is a major challenge. There are few upcoming transfection technologies like nucleofection and magnetofection – which are an off-shoot of electroporation, which have the potential to address these challenges but are currently cost prohibitive due to which the technologies may have a much slower uptake in the developing world.

The report also discusses new opportunities for investment in the upcoming areas like Gene therapy, Stem cell research and Electro-chemotherapy.

Different transfection technologies are analyzed through a multi-criteria based decision making process which provides competitive benchmarking. Further, the report analyses technology management strategies and technology road mapping for the forecast period. Profiles of over 20 Key companies in the area of Transfection technology sector have been provided. Key players include Life Technologies, Sigma Aldrich, Lonza, Promega, Qiagen, Bio-Rad, Roche, Polyplus Transfection, Mirius Bio, Maxcyte, etc.

### **SCOPE OF THE REPORT**

A comprehensive analysis of the market size and global revenue has been forecasted based on four segmentation: technology, products, applications and by geography.

On the Basis of Applications: Transfection market is segmented into three categories 1. Therapeutic delivery, 2. Bio-Medical research, 3. Protein production. A brief description of the applications and their revenue is discussed in detail in the report.

On the Basis of Product Type: They have been segmented into two types namely, Reagent and Instrument based.

On the Basis of Geography: North America, Europe, Asia-Pacific, and ROW.

On the Basis of Technology: They have been classified into three categories 1. Physical based transfection, 2. Biochemical based Transfection 3. Viral based transfection. Revenue and forecasts for the growth of these technologies has been discussed in detail.

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