



## **TITLE: Rheumatoid Arthritis Therapy: An updated Overview of US FDA Status of Advances in 21<sup>st</sup> Century**

**Name:** Dr. Raj Kumar

**Affiliation:** Senior Resident in Rajendra Institute of Medical Sciences, Ranchi

**Moderator:** Prof. (Dr.) Lal Bahadur Manjhi, Rajendra Institute of Medical Sciences, Ranchi

**Country:** India

**Email ID:** drraj11081983@gmail.com

### **ABSTRACT**

Rheumatoid arthritis (RA) is a severe autoimmune disorder which might ultimately cause disability, wide complication and reduced life quality. Conventional treatment modality show several drawbacks such as high doses, frequent administration and serious side effects. To overcome these limitations, various new therapeutic options have been developed in 21<sup>st</sup> century. But till date, a limited molecule has got United States Food and Drug Administration (US FDA) clearance and entered the market for treating this devastating disease. This study highlights the updated overview of FDA status of recent advances in the treatment of RA. Anakinra (IL-1 receptor antagonist) and Abatacept (selective T cell costimulation modulator) have been approved earlier in this century to manage RA that are refractory to conventional therapy. Tumor necrosis factor (TNF) inhibitors (Etanercept, Infliximab, Adalimumab, Certolizumab pegol and Golimumab) were the first of the biological disease modifying anti-rheumatic drugs (DMARDs) to be approved for RA. One B cell depleting agent, Rituximab, available for RA was approved in 2006. The biosimilar drugs currently approved are CT-P13 and SB2, which are based on the reference product Infliximab. Approved by US FDA in

2017, Sarilumab (IL-6 receptor antagonist) is the newest biologic for RA. Other IL-6 antagonist, Tocilizumab, is also approved. These IL-6 antagonists are indicated for the treatment of moderate to severe active RA with inadequate response or tolerance to Methotrexate and can be used with or without concomitant Methotrexate. To date FDA has approved three janus kinase enzyme (JAK) inhibitors (non-biologic DMARD) for RA are Tofacitinib (2012), Baricitinib (2018) and Upadacitinib (2019). These drugs have advantage of oral administration. Recently, advancement has also been made in gene therapy and novel drug delivery systems to overcome many of the problems associated with conventional dosage form.

### **BIOGRAPHY**

Dr. Raj Kumar has completed his post graduation in the department of Orthopaedics from Ranchi university in 2018. Currently, he is pursuing Senior residency from R.I.M.S. Ranchi, Jharkhand, India which is a tertiary care centre of country. He is hard working and continuously indulge in health and betterment of patients. He has several publications in various national and international indexed journals.



**Presenter Name:** Dr. Raj Kumar  
**Mode of Presentation:** Oral  
**Contact number:** +919693696139



Upload your photo here.

