

# **Fc Fusion Protein Market by Target Indications (Neutropenia, Graft Versus Host Disease, Breast Cancer, Rheumatoid Arthritis, Non-Small Cell Lung Cancer, Neovascular (Wet) Age-related Macular Degeneration (AMD), Hemophilia A, Neuromyelitis Optica Spectrum Disorders and Systemic Lupus Erythematosus), Type of Fusion Molecule (Antibody, Cytokine, Growth Factor, Receptor ECD and Others), Route of Administration (Subcutaneous, Intravenous and Intravitreal) and Key Geographical Regions (North America, Europe, Asia-Pacific and Rest of the World): Industry Trends and Global Forecasts, 2021-2035**

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## **Abstracts**

The projected value of Fc fusion protein market is expected to be valued at USD 15,500 million in 2022 and is anticipated to grow at a CAGR of 10% during the forecast period.

Since the approval of Enbrel® in 1998, marking a significant milestone in the treatment of rheumatoid arthritis, the landscape of therapeutic interventions has evolved with the emergence of Fc fusion therapies. This category, exemplified by a recombinant human tumor necrosis factor (TNF) receptor-Fc fusion protein, has grown substantially. Presently, there are 13 commercially available Fc fusion drugs, and the developmental pipeline boasts approximately 50 molecules addressing a diverse range of disease indications. Noteworthy recent approvals, including Arcalyst® (for recurrent pericarditis in March 2021), Reblozyl® (for beta-thalassemia in September 2020), and Eylea® (for

diabetic retinopathy in May 2019), underscore the expanding therapeutic relevance of Fc fusion therapies.

These innovative Fc fusion molecules harness the advantageous pharmacological properties of biologically active ligands in tandem with the crystallizable fragment (Fc) domain of immunoglobulin G (IgG). A distinctive feature of these advanced immunoglobulin-derived therapeutics is their protection from lysosomal degradation upon endothelial cell uptake. The Fc-fragment engages with FcRn receptors in endosomes, facilitating the release of molecules back into the bloodstream. This unique mechanism extends the exposure of pharmacologically active moieties to target tissues, thereby augmenting therapeutic efficacy.

The capacity of Fc fusion therapies to prolong the serum half-life of biologically active proteins has found applications across diverse therapeutic areas, encompassing oncology, neurology, respiratory disorders, and rare genetic disorders. Ongoing research endeavors in this field concentrate on refining the stability and solubility of pharmacologically active moieties to enhance therapeutic potential.

The development of novel Fc fusion therapies has garnered active participation from numerous drug developers, including major pharmaceutical entities that are allocating significant time and capital to advance in the Fc fusion protein market. The sector's vibrancy has attracted attention from both private and public sector investors, as well as investment funds, providing substantial financial support to proficient developer companies. Furthermore, the industry's dynamism is underscored by considerable partnership activity in recent years. With continuous efforts and promising clinical trial outcomes, the Fc fusion therapies market is poised for robust growth as more drug candidates receive approval and enter the market over the forecast period.

## Research Coverage

An introduction to Fc fusion therapeutics is presented, covering components, mechanisms of action, and types. Emphasis is placed on applications, emerging trends, and the anticipated evolution of this research field.

Details on over 110 Fc fusion therapeutic programs, analyzing their development stages, molecule types, target genes, therapeutic areas, and more. Information on drug developers is also provided.

Detailed profiles of stakeholders involved in Fc fusion therapeutic development,

including overviews, financial information, product portfolios, recent developments, and future outlooks.

A comprehensive analysis of completed, ongoing, and planned clinical studies is presented, considering various parameters such as trial phase, study design, and regional distribution.

An analysis of more than 200 grants awarded to research institutes engaged in Fc fusion therapeutics projects, highlighting key parameters and influential entities.

Over 1,100 research articles related to Fc fusion therapeutics, considering parameters like publication year, focus areas, authors, and key journals.

An overview of patents filed/granted related to Fc fusion therapeutics since 2018, including information on publication year, patent type, geographic location, and leading players.

An analysis of collaborations and partnerships within the Fc fusion therapeutics domain, covering parameters such as partnership type, leading players, and regional distribution.

A detailed market forecast analysis for Fc fusion therapeutics until 2035, considering target indications, molecule types, route of administration, and geographical regions.

A case study on Fc protein engineered and glycoengineered antibodies, detailing development parameters, impact, and key players.

## Key Market Companies

Alphamab Oncology

Amgen

Accelaron Pharmaceuticals

Bristol Myers Squibb

Sanofi

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