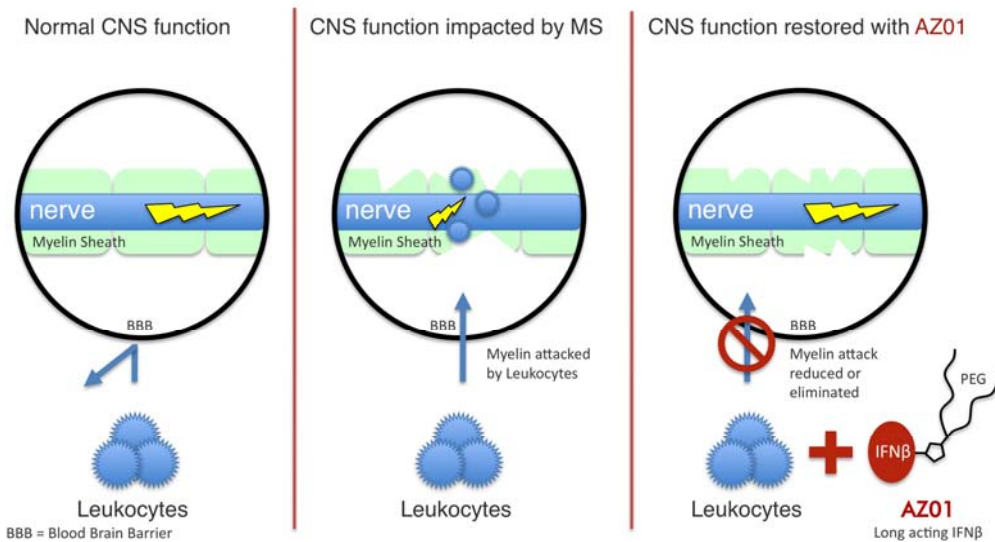


AZ01: LONG ACTING INTERFERON β FOR RELAPSING REMITTING MULTIPLE SCLEROSIS

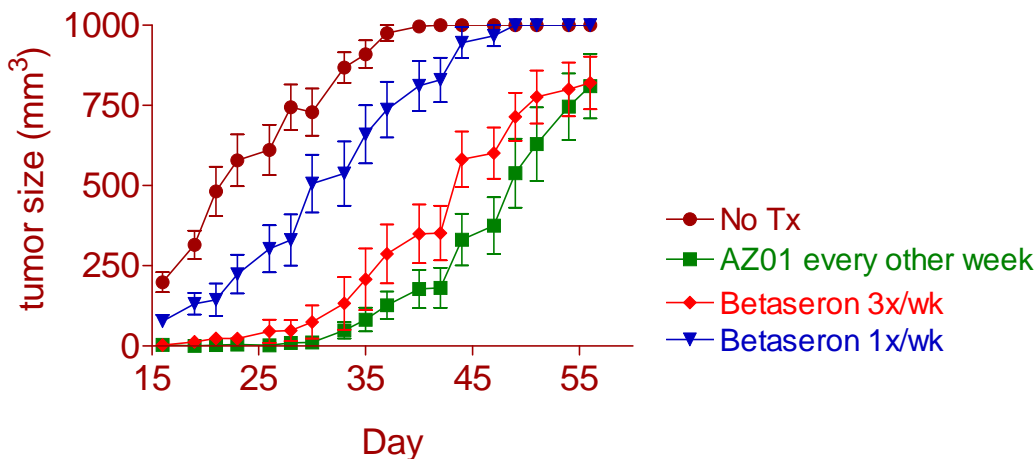
AZ01 is a long acting form of interferon β , the current gold standard therapy for multiple sclerosis patients. Construction with ALLOZYNE's, *E. coli* based, CAESAR platform allows for customization of the position, size and architecture of the conjugated polyethylene glycol (PEG) moiety, resulting in an improved half-life compared to commercially available interferon β molecules. This will result in a less frequent dosing regimen for patients, fewer side effects and likely improvement in patient compliance.

AZ01 a product of CAESAR



Preclinical *in vivo* Efficacy Data

In the below experiment, immunodeficient SCID mice were implanted with Daudi human tumor cells on day 0. Also on day 0, mice were either untreated or treated with 10mg of either Betaseron™ or AZ01. Mice were treated with AZ01 every other week (green) or with Betaseron™ either once per week (blue) or three times per week (red). The results of this study demonstrate that bimonthly administration of AZ01 results in slower tumor progression than more frequently administered Betaseron™. In addition, monkey data demonstrates an *in vivo* half life for AZ01 of 40-50 hours.



ALLOZYNE's proprietary biociphering platforms present a novel opportunity to develop next-generation therapeutics for autoimmune and CNS diseases that address areas of unmet medical need.

AZ01 Overview

- ❖ Long acting Interferon β for treatment of relapsing remitting multiple sclerosis
- ❖ Currently in Phase I trials
- ❖ Preclinical animal studies show likely bimonthly dosing with once monthly potential
- ❖ A product of the CAESAR biociphering platform
- ❖ High yield manufacturing in *E. coli* drives competitive cost of goods

Company Overview

ALLOZYNE was founded to commercialize proprietary biociphering technology. Since its formation in ALLOZYNE has rapidly progressed to becoming a clinical stage biotech focused on CNS and autoimmune diseases.

Company Highlights

- ❖ Established in late 2005 as a spinout from CalTech
- ❖ Raised \$39M to date led by MPM, Arch, OVP and Amgen Ventures
- ❖ Based in Seattle's biotech and high tech innovation corridor

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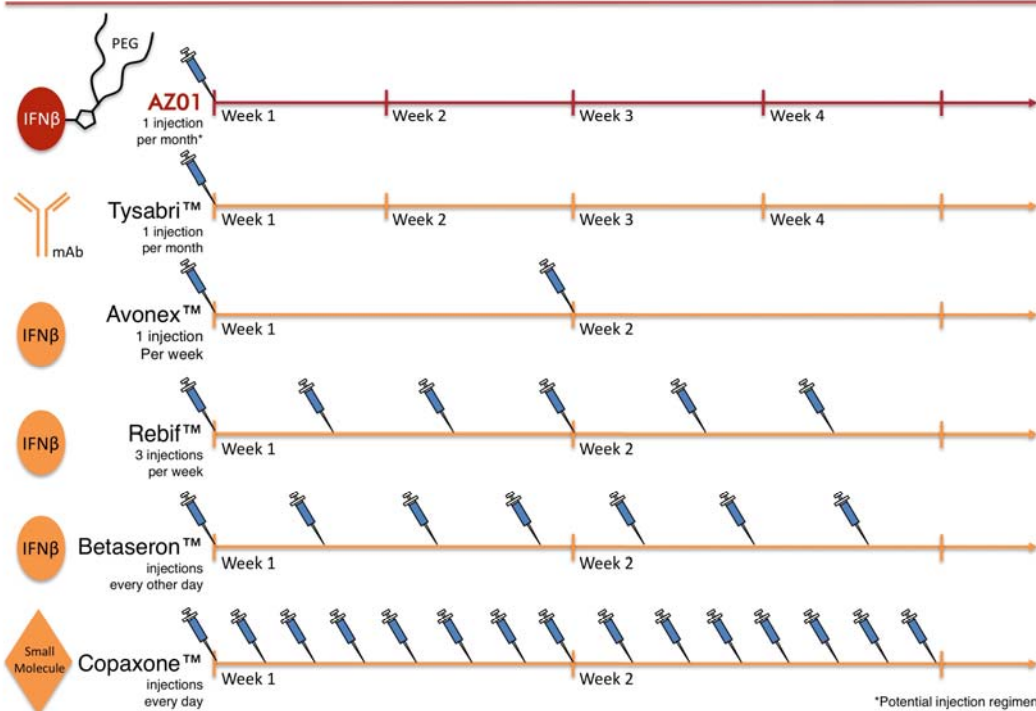
Therapeutic Focus

ALLOZYNE has created **AZ01** which is a PEGylated interferon β for the treatment of multiple sclerosis (MS), a chronic disease characterized by demyelination of nerve fibers, which leads to severe nerve damage. MS symptoms include fatigue as well as cognitive and visual impairment. There is no cure for MS which affects approximately 400,000 people in the US and 2.5 million people worldwide. Six drugs currently are approved for treating MS, including three brands of interferon β . These three interferon β s (AvonexTM, RebifTM and BetaseronTM) in addition to glatimer acetate (CopaxoneTM) hold nearly 95% of the market with a combined annual sales of \$8.59B and an annual growth rate of 12.3% in 2009. Despite their long standing commercial success, which has been built through stellar safety profiles, these therapies have significant limitations which lead to significant patient non compliance within the first 12 months of treatment. Dosing for these drugs is at least once weekly and can require up to seven injections per week. In addition, tolerability of these agents is somewhat limited due to formulation which can induce significant levels of injection site reactions. In addition, the interferon β s have been reported to induce flu like symptoms in as many as 50% of patients.

Leading MS clinicians believe there is significant need for new therapies that can offer improved efficacy and side effect profiles. In addition, there is a clear unmet medical need for more convenient dosing regimens and improved tolerability of these agents. Considering the hypercompetitive arena that exists for long-acting formulations of IFN β , we believe that **AZ01** has several competitive advantages, including:

- Improved pharmacokinetic, safety and tolerability profile compared with currently available interferon β products approved for treatment of MS
- Significant dosing convenience through a potential monthly dosing regimen
- Expression in *E. coli* enables high yields and competitive cost of goods at commercial scale

AZ01 Injection Frequency Compared to Approved MS Therapies



Key Opinion Leaders * IFN Advisory Board

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