

Summary of Current Biological Therapies for the Treatment of Moderate to Severe Psoriasis and Psoriatic Arthritis

<i>Drug</i>	<i>Treatment</i>	<i>Mechanism of Action</i>	<i>Efficacy</i>	<i>Safety</i>
Anti-TNF				
<i>Adalimumab</i>	PsA 40 mg SC every other week, psoriasis 80 mg SC at week 0; 40 mg SC every other week thereafter ¹	Fully human monoclonal antibody	PASI-75 achieved in 71% of psoriasis and 59% of PsA patients. PsA ACR20 achieved in 58% ¹	Association with increased prevalence of bacterial, viral, and fungal infections. Reactivation of hepatitis B. Increased tuberculosis recurrence, ^{1,2}
<i>Etanercept</i>	PsA 25 mg SC twice a week. Psoriasis 50 mg SC twice weekly for 3 months, 50 mg/week thereafter ¹	Fusion protein to link TNF receptor to the Fc component of human IgG	PASI-75 achieved in 49% of psoriasis and 26% of PsA patients. PsA ACR20 achieved in 59% ¹	
<i>Golimumab</i>	PsA 50 mg SC every month ¹	Human monoclonal antibody (2-week half-life) Phase II trials for psoriasis	PASI-75 achieved in 58% of psoriasis and 58% of PsA patients. PsA ACR20 achieved in 51% ¹	
<i>Infliximab</i>	PsA and psoriasis 5 mg/kg at weeks 0, 2, and 6, and at every 8 weeks thereafter ¹	Chimeric (mouse-human) monoclonal antibody	PASI-75 achieved in 80% of psoriasis and 68% of PsA patients. PsA ACR20 achieved in 58% ¹	
Anti-IL-17				
<i>Brodalumab</i>	Subcutaneous injection	Anti-IL-17 receptor monoclonal antibody	PASI-75 achieved in up to 82% of PsA patients at 12 weeks (placebo, 0%) ⁵	AE reported include nasopharyngitis, injection, nausea, and arthralgia ⁵
<i>Ixekizumab</i>	Subcutaneous injection	Monoclonal anti-IL-17 antibody	Up to 82% PASI-75 improvement at 12 weeks (placebo 7.7%) ³	AE include infections, headaches, and nasopharyngitis ³
<i>Secukinumab</i>	Subcutaneous injection	Monoclonal anti-IL-17 antibody	81.5% achieved PASI-75 (150 mg) at 12 weeks (placebo, 9.1%) ⁴	AE include pharyngitis, fatigue, and peripheral edema ⁴
Anti-IL-12/ IL-23				
<i>Briakinumab</i>	Subcutaneous injection	Human monoclonal antibody anti-p40 subunit	Up to 82% achieved PASI 75 (placebo 6%–7%) ^{7,8}	AE include nasopharyngitis headache and infections ^{7,8}
<i>Ustekinumab</i>	Subcutaneous injection	Human monoclonal antibody anti-p40 subunit	Up to 67% achieved PASI-75 (placebo 3.1%) ⁶	AE include headache, myocardial infarction, and stroke. Potential increase of latent infection ^{1,6}
Anti-T cell activation				
<i>Abatacept</i>	Subcutaneous injection	Fully human CTLA-4-IgG 1 fusion protein that binds CD80/CD86	Up to 48% of PsA patients achieved ACR20 in Phase II trial (placebo, 19%) ¹	AE include dizziness, headache, and hypertension. Increased risk of infection ¹
<i>Alefacept</i>	Intramuscular injection 15 mg once weekly for 12 weeks ^{2,9}	Inhibits T cell activation and proliferation	Phase III trial; 33% achieved PASI-75 versus with 13% placebo. PsA (plus MTX) 54% ACR20 versus MTX alone ^{2,9}	No increased incidence for infections ²

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