



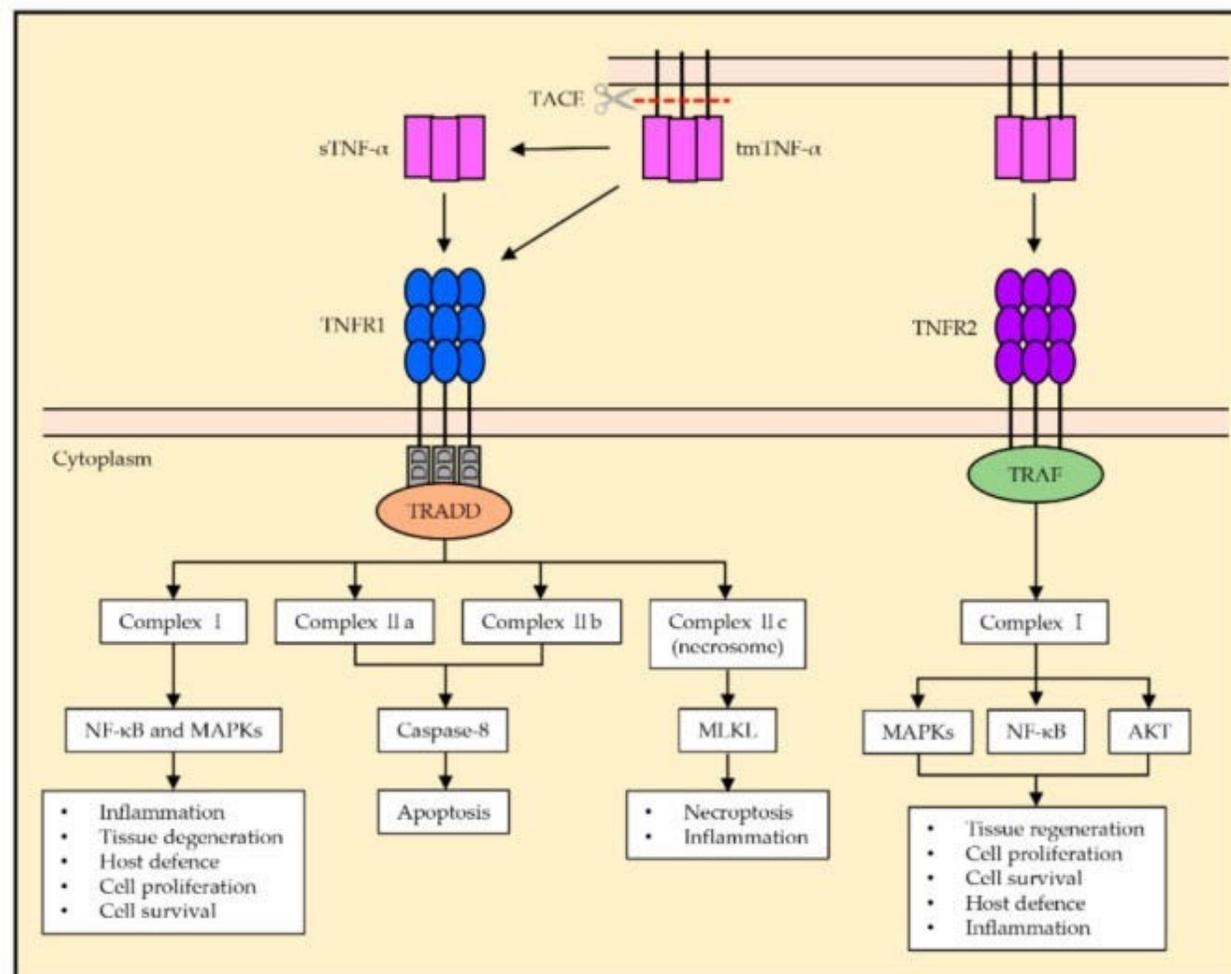
Whole Body Health

WITH DR. SALEEBY

FLCCC
ALLIANCE

www.flccc.net/wholebodyhealth

TNF- α Inhibitors And mAB



Not intended as
Medical Advice

- This lecture is informational only and not intended to diagnose or suggest treatments to any individual listening to this lecture.
- We advise you to seek medical direction with your licensed primary care provider.

Seek care with qualified practitioners if you suffer from autoimmune disorders requiring TNF-a blockers

Learning Objectives:

- What is a TNF- α blocker drugs and mABs (monoclonal antibodies)
- Uses
- Alternatives
- Adverse Side Effects (ASE) and dangers of biologics

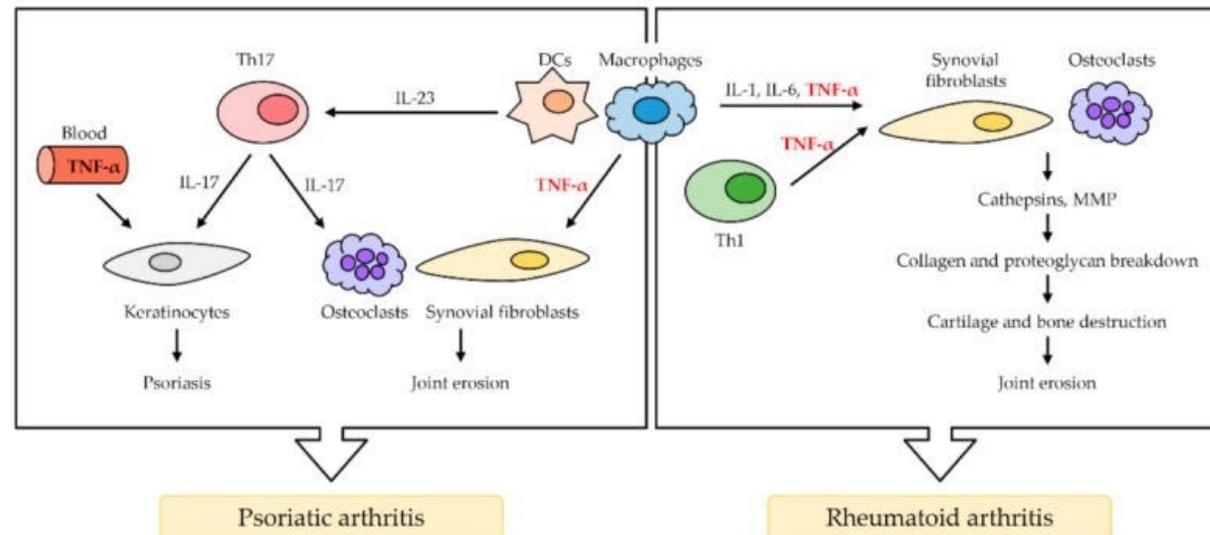
Why I am weary of mABs

Some are too New, not enough safety data

Oh, and all those side effects

Due to the involvement of TNF- α in the pathogenesis of autoimmune diseases, TNF- α inhibitors have been created for the treatment of autoimmune diseases such as Crohn's disease (CD) and Rheumatoid Arthritis (RA).

Therapeutic drugs act as antagonists by blocking the interaction of TNF- α with TNFR1/2 or, in some cases, as agonists by stimulating reverse signaling, causing the apoptosis of TNF- α producing immune cells. Several TNF- α inhibitors have been approved by the FDA for clinical use: **etanercept, infliximab, adalimumab, golimumab, and certolizumab are examples.**



Examples of drugs on the market:

- Remicade (infliximab)
- Enbrel (etanercept)
- Humira (adalimumab)*
- Cimzia (certolizumab pegol)
- Simponi (golimumab)

The **first** licensed **monoclonal antibody** was Orthoclone OKT3 (muromonab-CD3) which was approved in **1986** for use in preventing kidney transplant rejection. **Humira** was a **late-1990's** agent created by BASF Pharma.

Other drugs with activity against TNF- α include:

- Thalidomide (not used very often due to birth defects, but making a comeback)
- Sulfasalazine
- Pentoxifylline
- Bupropion

Colchicine is effective as a TNF-alpha inhibitor (maybe safer short term, old drug w/ new uses)

Anti-TNF biologics are given by injection. They can sometimes cause injection site reactions or infusion reactions. They should be avoided in patients with severe heart failure.

The main risk of anti-TNF therapy is reduced immunity to bacterial, fungal, viral, and parasitic infections, including:

Tuberculosis

Histoplasmosis

Coccidioidomycosis

Blastomycosis.

They may also increase the risk of developing **cancers** including and **autoimmune diseases, including demyelinating conditions.**

Anti-TNF drugs can cause dermatological side effects alone, such as:

Palmoplantar pustulosis

Various forms of psoriasis

Eczema

Lupus erythematosus

Morphoea

Alopecia areata

Drug-induced vitiligo

Granuloma annulare

Sarcoidosis

Erythema multiforme

Vasculitis

Stevens-Johnson syndrome — toxic epidermal necrolysis (TEN)

Drug-induced nummular dermatitis

Natural Alternatives

Natural compounds acting against TNF- α include:

- ***Catechins***. Catechins are a type of phenolic compound found in berries, tea, and cocoa
- ***Curcumin***. Turmeric's active ingredient
- ***Cannabinoids***. CBD and hemp extracts
- ***Echinacea purpurea***. Not all echinacea is alike, choose wisely

References:

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