

A Critique of the Immune system (Revision)

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Evaluating the Immune System

The immune system generally does a great job!

Wide perimeter coverage

Quick response by innate immune system (local response, multiple battles possible)

Potent specific response by adaptive immune system (Learns from experience)

Excellent communication between innate and adaptive systems

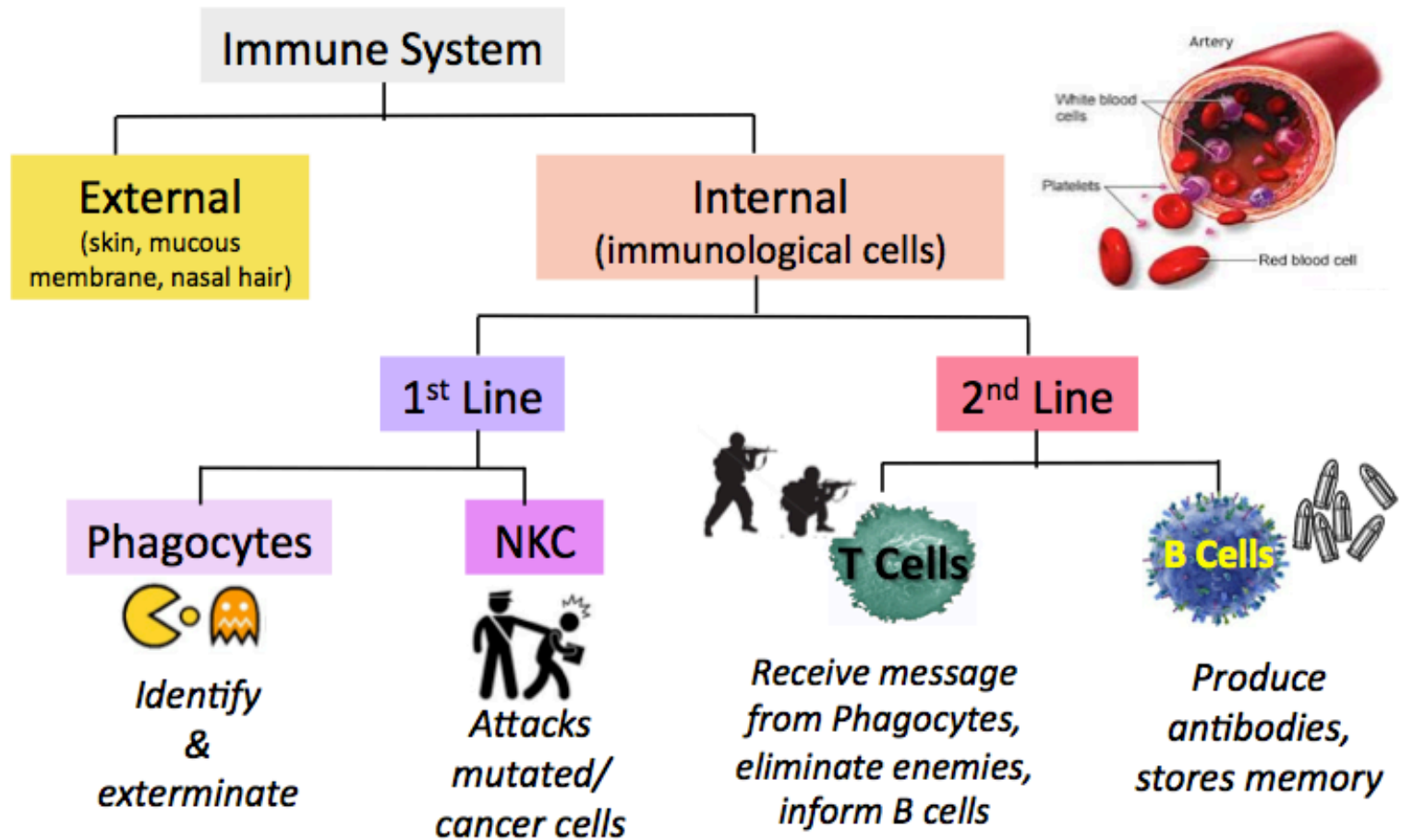
Chemokines and receptors managing an efficient trafficking system

Potent mechanisms to stop immune response when not needed

Strong ability to prevent auto-immune disease

The Immune System

Our Ultimate Line of Defence



Weaknesses of the Immune System?

The adaptive immune system reacts relatively slowly to attacks.

Why? How can we make the response faster? At what cost??

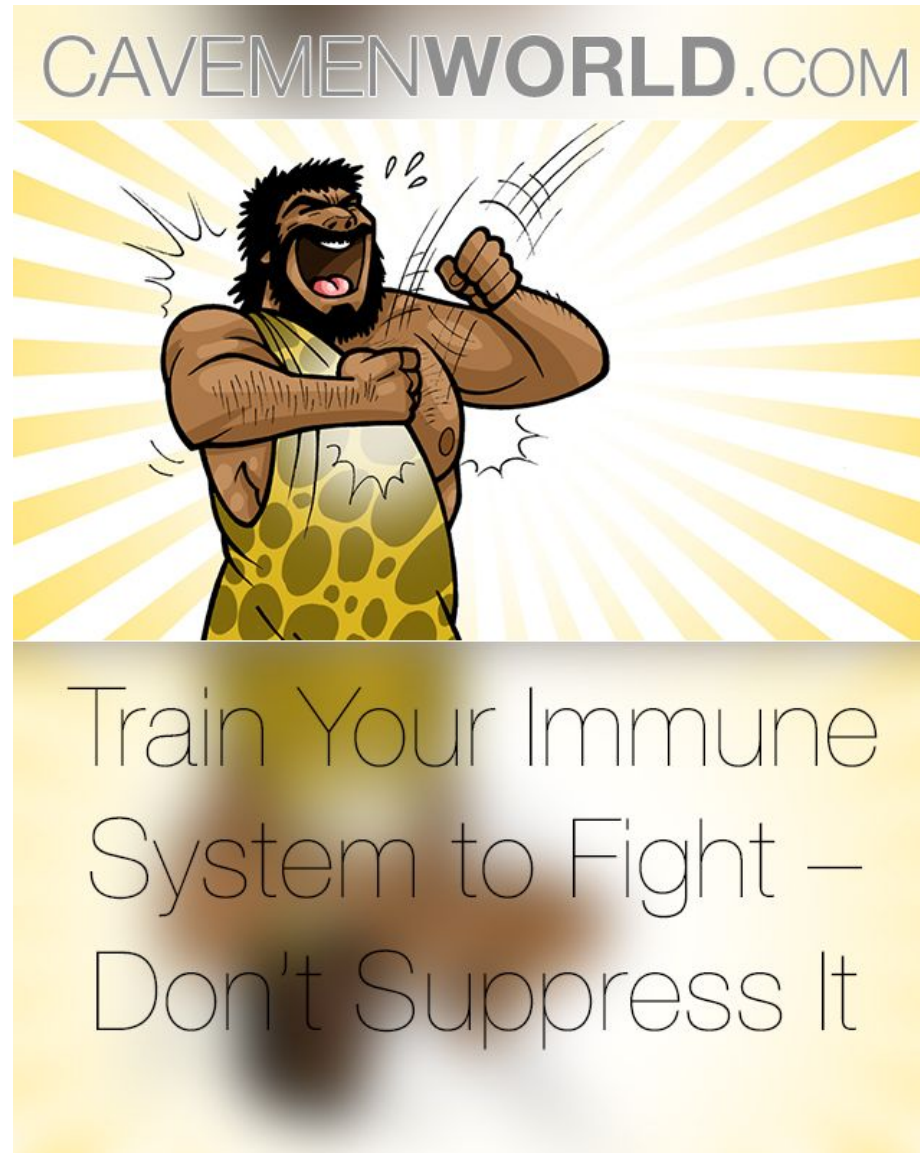
Allergies??

Conflict between protecting us from autoimmunity and Cancer?

How come?

Immune system goes weaker with age?

Immune system designed for a Caveman



Questions?????