

inner world discovery

with Dr. Phil Silverstein

The **HUMAN BODY** is incredible. It operates much like a **MODEL DEFENSE SYSTEM**. This guide and the Inner World Discovery presentation will help you understand how the Immune System works. There are two main categories of battle field assets known respectively as T and B cells. There are several good scientific reasons for this stratification, but it is convenient to conceptualize the B cell as a producer of bombs, good bombs and great bombs; and the T cell as a high tech cell whose function is command and control operations.

Battlefield Assets of the Immune System A Glossary of Terms and Characters



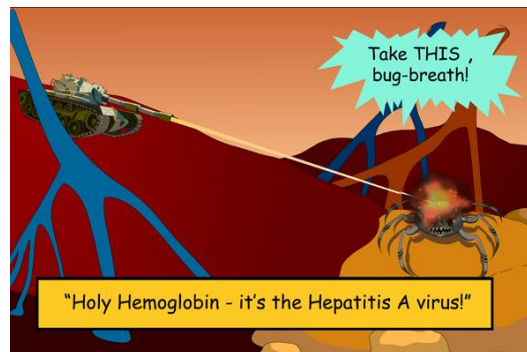
CAPTAIN MAC

CAPTAIN MAC represents a **MACROPHAGE**, a special white blood cell that acts like a Special Forces soldier on reconnaissance. The **MACROPHAGE** gathers intelligence and relays it to its general (in our story, that's **GENERAL T-4**). Intelligence gathering should be the first phase of any well-designed battle plan, as is the case with the Immune System.



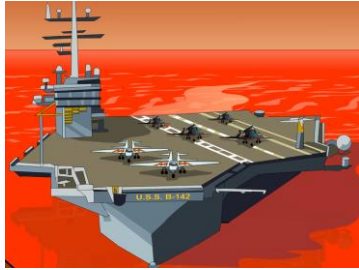
GENERAL T-4

GENERAL T-4 represents a **T-4 HELPER CELL**, another special type of white blood cell. It is the commander of the Immune System's force. This cell receives information gathered by the **MACROPHAGE**, reconfirms the data and then orders its battlefield assets into action. The **T-4 HELPER CELL** produces a chemical in order to accomplish this task called **INTERLEUKIN-2**. This chemical, made in large quantities on the surface of the **T-4 CELL**, signals other cells to go into action.



TOX TANKS

TOX TANKS represent **CYTOTOXIC T CELLS**, also known as killer cells. They are often the first battlefield assets ordered into battle by the **T-4 HELPER CELL**. They will use chemical agents contained in packets or granules produced and stored within their cell membranes to destroy their enemy. They must, however, be in close proximity to an enemy to be effective.



USS-B142 FIGHTER- M AND FIGHTER- G

The **USS B-142** represents the **B-CELL**, another type of white blood cell. When the **T-4 HELPER CELL** commands it into action, the **B-CELL** produces two proteins that are launched from its surface. These proteins, called **ANTIBODIES**, act like fighter jets and can find their designated targets from great distances away.



THE T4 HELPER CELL and HIV

The **T4 HELPER CELL** is the most important cell in the Immune System Forces. It is the leader upon which all battlefield assets depend upon for direction. Its loss would be like a classroom without a teacher or football team without a quarterback. The **HUMAN IMMUNODEFICIENCY VIRUS (HIV)** attacks the **T-4 HELPER CELL**, making it a potentially devastating infection. It is important to know that without the **T-4 HELPER CELL**, the Immune System is critically compromised and unable to fight infections effectively.