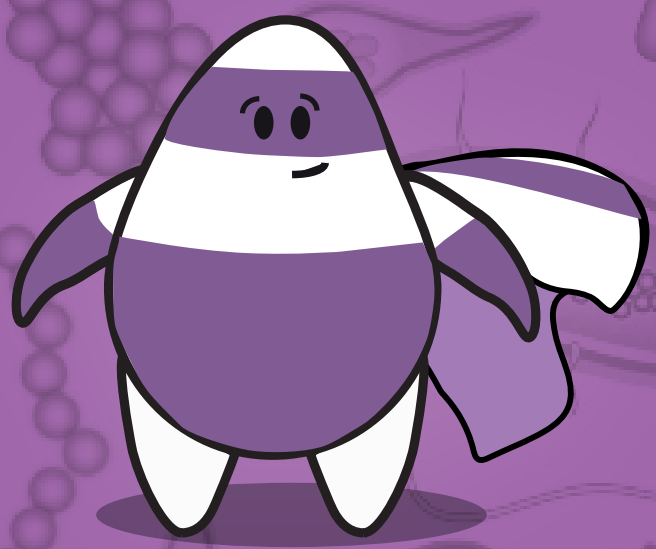

Illustrations © CellCartoons.net
IMMUNE
WARRIORS
LEUKOS
AID

HELPER [CD4+] T CELL

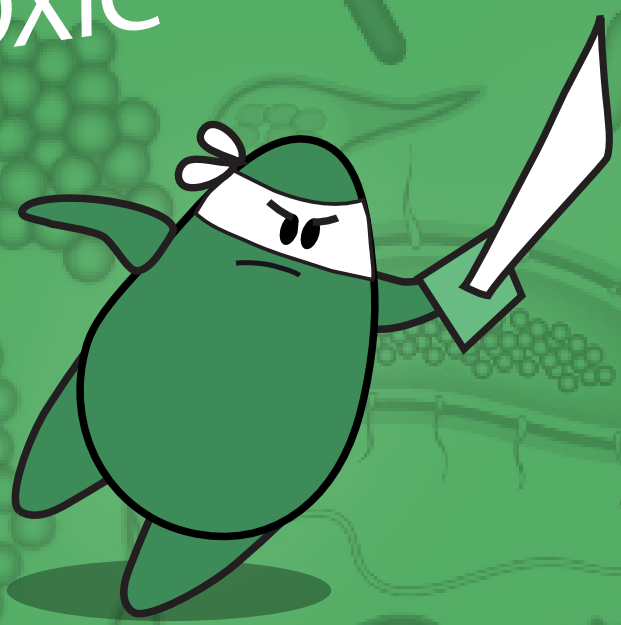


SPEED OF ACTIVATION	35
LENGTH OF RESPONSE	15
POWER OF ATTRACTION	25
PATHOGEN KILLING POWER	14
STRENGTH OF 2ND RESPONSE	18
OVERALL IMMUNE POWER	150

LEUKOS AID FACT FILE

Highly specific cells that are activated when they recognise their antigen. Helper cells produce cytokines that coordinate the adaptive immune response. Type I helper cells respond to bacterial and viral infections and type II helper cells are more important in response to parasites.

CYTOTOXIC [CD8+] T CELL

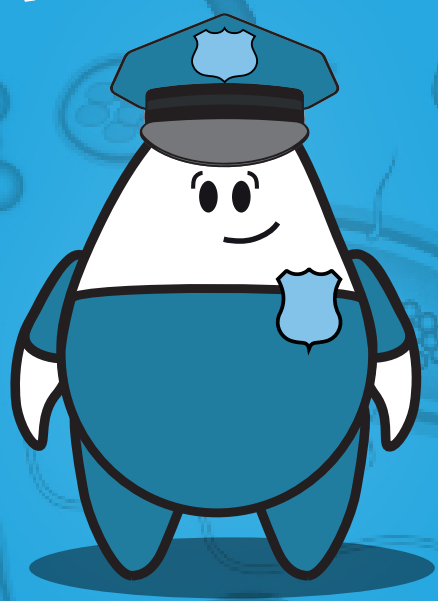


SPEED OF ACTIVATION	30
LENGTH OF RESPONSE	14
POWER OF ATTRACTION	23
PATHOGEN KILLING POWER	98
STRENGTH OF 2ND RESPONSE	18
OVERALL IMMUNE POWER	129

LEUKOS AID FACT FILE

In addition to recognising their antigen these cells require CD4 T cell 'help' to become fully activated. Cytotoxic T cells can produce factors named granzyme and perforin that can 'pop' other cells. This process does not damage the cytotoxic T cell allowing them to kill multiple targets.

REGULATORY [CD25+] T CELL



SPEED OF ACTIVATION	33
LENGTH OF RESPONSE	16
POWER OF ATTRACTION	22
PATHOGEN KILLING POWER	1
STRENGTH OF 2ND RESPONSE	1
OVERALL IMMUNE POWER	88

LEUKOS AID FACT FILE

Prevents the immune system responding to non-dangerous molecules (usually our own tissues) and helps dampen the immune response once pathogens have been eradicated. Regulatory T cells can be co-opted by tumours to protect them from destruction by the immune system.

B CELL

SPEED OF ACTIVATION	15
LENGTH OF RESPONSE	13
POWER OF ATTRACTION	18
PATHOGEN KILLING POWER	63
STRENGTH OF 2ND RESPONSE	20
OVERALL IMMUNE POWER	138

LEUKOS AID FACT FILE

Produce highly specific antibodies that can bind pathogens and tag them for destruction. Antibodies can be extremely long-lived and are important contributors to immunological memory.

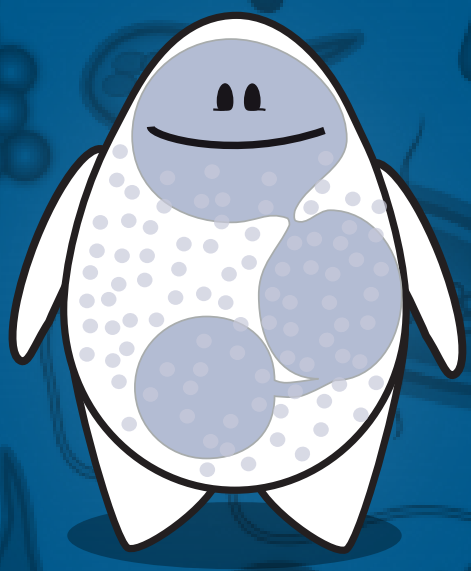
DENDRITIC CELL

SPEED OF ACTIVATION	75
LENGTH OF RESPONSE	5
POWER OF ATTRACTION	20
PATHOGEN KILLING POWER	5
STRENGTH OF 2ND RESPONSE	4
OVERALL IMMUNE POWER	99

LEUKOS AID FACT FILE

Often known as antigen presenting cells, Dendritic cells move around the body sampling extracellular fluid in the tissues. Peptides are routinely processed and mounted on the cell surface where they can be seen by T cells. Dendritic cells play a key role in bridging the innate and adaptive immune response.

NEUTROPHIL

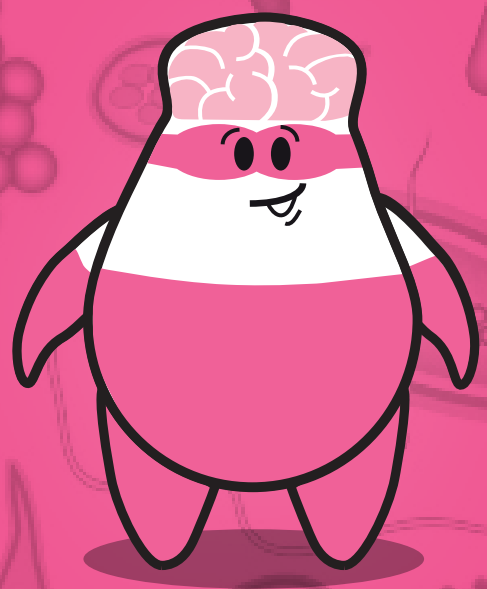


SPEED OF ACTIVATION	95
LENGTH OF RESPONSE	1
POWER OF ATTRACTION	5
PATHOGEN KILLING POWER	60
STRENGTH OF 2ND RESPONSE	0
OVERALL IMMUNE POWER	48

LEUKOS AID FACT FILE

One of the earliest immune responders to infection. Can take up microorganisms by phagocytosis and destroy them in intracellular compartments filled with enzymes.

CD8+ MEMORY T CELL



SPEED OF ACTIVATION	68
LENGTH OF RESPONSE	8
POWER OF ATTRACTION	11
PATHOGEN KILLING POWER	99
STRENGTH OF 2ND RESPONSE	19
OVERALL IMMUNE POWER	131

LEUKOS AID FACT FILE

A key player in Immunological memory. CD8+ memory cells are long-lived T cells that can rapidly produce a response when they encounter their antigen. This allows a much quicker resolution
to a pathogen encountered for the second time.

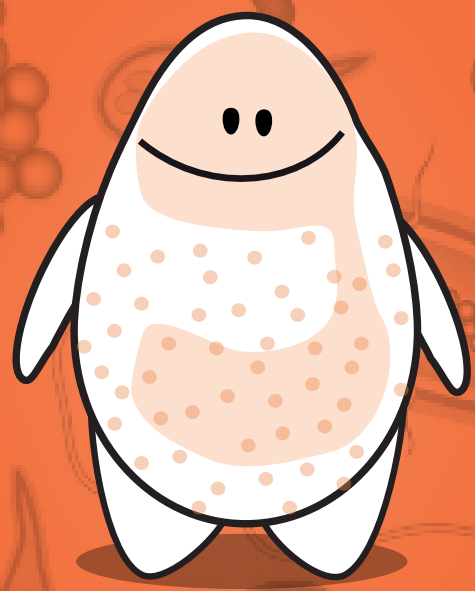
MACROPHAGE

SPEED OF ACTIVATION	100
LENGTH OF RESPONSE	4
POWER OF ATTRACTION	30
PATHOGEN KILLING POWER	3
STRENGTH OF 2ND RESPONSE	3
OVERALL IMMUNE POWER	72

LEUKOS AID FACT FILE

Tissue-resident phagocytes that monitor the surrounding area for pathogens. Play a key role in raising the alarm when pathogens are detected and in recruiting other immune cells to the area.

EOSINOPHIL

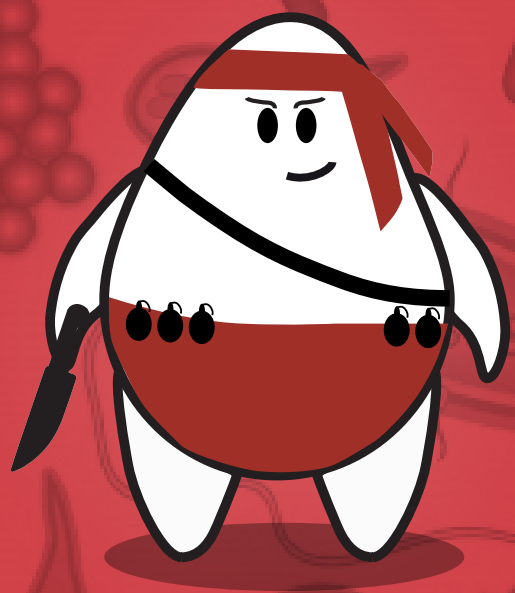


SPEED OF ACTIVATION	80
LENGTH OF RESPONSE	2
POWER OF ATTRACTION	3
PATHOGEN KILLING POWER	45
STRENGTH OF 2ND RESPONSE	0
OVERALL IMMUNE POWER	40

LEUKOS AID FACT FILE

An innate immune cell containing granules filled with enzymes and toxic proteins that can be released when these cells are activated. Thought to play a role in the phagocytosis of parasites.

NATURAL KILLER CELL



SPEED OF ACTIVATION	74
LENGTH OF RESPONSE	3
POWER OF ATTRACTION	15
PATHOGEN KILLING POWER	100
STRENGTH OF 2ND RESPONSE	1
OVERALL IMMUNE POWER	125

LEUKOS AID FACT FILE

An innate cell with in-built receptors that recognise pathogens directly and target infected cells for killing with granzyme B and perforin. NK cells also play an important role in recognising damaged cells and removing them before they can develop into
a tumour.