**Unit 3 outcome 2**

Acetylcholine

Action potential

Allergen

Allergy

Antibody

antibiotics

Antidiuretic hormone(ADH)

Antigen

Apoptosis

Autoimmune disease

autocrine

Autonomic nervous system

Auxins

axon

Basophil

B-cell

bacteria

Cell-mediated immunity

chitin

Clotting

Connective neurone

Complement protein

Cytotoxic T cell

Cytokine

cytotoxins

Dendrite

Dormancy

Effector

Endocrine

Endoparasite

Ectoparasite

Exotoxin

Factor VIII

Fibrin

fungi

Fibrinogen

First messenger

Geotropism

Gibberellin

Glucagon

Growth regulator

Helper T Cell

Histamine

host

Homeostasis

Hormone

Humoral Immunity

Hypersensitivity

Hypothalamus

hypoglycaemic

interceptor

immune

Immunoglobulin

Immunosuppresent drugs

Inflammatory response

infectious

Insulin

Interferon

Intermediate host

innate

Killer T cell

Leukocytes

Lymphocyte

Lymphatic system

lysis

Mast cell

Macrophage

monocyte

Motor neurone

Memory cell

Mutualism

MHC

MHC restriction

Myelin sheath

Natural killer (NK) cell

Neuron

Neurotransmitter

Negative feedback

Non-specific defence mechanism

Non-self

neutrophil

Oedema

Parasite

paracrine

Pathogen

Phagocyte

Pheromone

Photoperiodism

Phototropism

Plasma cells

Platelets

protists

Positive feedback

Primary host

Prion

Receptor

Reflex arc

Rhesus factor

Resting potential

Respnse

resistance

Second messenger

self

Sensory neurone

Signal amplification

stimulus

Signal transduction

Signalling molecule

Specific immunity

synapse

Synaptic vesicle

Synaptic cleft

T-cell receptor

Thigmotropism

Toxin

Vaccination

Vector

Viroid

Virus

**Why is homeostasis important for cell function?**

**Complete the following stimulus response in the shaded(blue boxes), use a word to describe what is happening. In each box state what is happening**

**What is a receptor?**

**What do the following receptors detect?**

Chemoreceptor

Mechanoreceptors

Photoreceptors

Thermoreceptor

**For each of the above receptors, name a location they would be found and what they would detect.**

**Match the definitions listed below.**

* Hormones (endocrine signal)
* Neurotransmitter (paracrine signal)
* Cytokines (paracrine and autocrine)
* Neurohormones (between endocrine and paracrine)
* Pheromons

**Definition**

* + Neurons to the adjacent target cell
	+ Neurosecretary cells secrete for targets near by but not adjacent
	+ Secreterd by another organism
	+ Secreted by and for the immune system
	+ Is the target cell, as well as the signal producer

**Endocrine system**

**What is a hormone?**

**What are the main organs/glands in the human body?**

**Chemical signals**

**Match the name to the definition**

* Endocrine -
* Paracrine -
* Autocrine -

**Definition**

* + Target cell is next door
	+ Is the target cell, as well as the signal producer
	+ Target cell in another part of the body

**What is the difference between positive and negative feedback?**

**Label the following diagram for the cell transduction**



**What kind of cellular response could this produce?**

**There are two types of hormones that produce signal transduction, what are they?**

**How are the two types of hormones different?**

**How is there transduction different?**

**What is a second messenger? Why is it important?**

**Use the following diagram to explain what would happen if there is high carbon dioxide levels in the body.**

**Show how blood glucose are maintained in the human body(high blood sugar and low blood sugars)**

**Plant hormones**

|  |  |
| --- | --- |
| Hormone | Effect |
| Auxin |  |
| Gibberellins |  |
| Cytokinins |  |
| Abscisic acid |  |
| ethylene |  |

**Plant responses**

|  |  |
| --- | --- |
| Response | Effect |
| Phototropism |  |
| Geotropism (negative) |  |
| Geotropism (positive) |  |
| photperiodism |  |
| heliotropism |  |

**Nervous system**

**Explain the nervous system role in the body**

**Complete the following diagram**

Nervous system

Spinal cord

Brain

**What is the difference between somatic and autonomic nervous system?**

**Label this diagram and name it.**



**There are three types of neurons, name them, draw a diagram of each of the three types and explain their role in the body.**

**Label the following diagram**



**How does a nerve impulse travel through the body? Use the diagram below to help with your explanation.**

**Label each step**



What is the role of the myelin sheath?

What happens if the myelin sheath isn’t working?

Draw a flow diagram to show the reflex arc

List three involuntary responses your body does.

**Complete the following table**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Reflex arc | Voluntary response | Involuntary response |
| Receptors involved |  |  |  |
| Transmission to CNS |  |  |  |
| CNS involved |  |  |  |
| Transmission from CNS |  |  |  |

**Immune system**

**What is a parasite?**

**What is a pathogen?**

**What is a disease?**

**What is our first line of defence?**

**Complete the table**

|  |  |  |  |
| --- | --- | --- | --- |
| **Organism or agent** | **Structure** | **Mode of transmissiom** | **Disease example** |
| Prion |  |  |  |
| Viroid |  |  |  |
| Virus |  |  |  |
| Bacteria |  |  |  |
| Fungi |  |  |  |
| Protozoa |  |  |  |
| worms |  |  |  |

**How do plants defend themselves?**

**Barriers**

 **-**

 **-**

 **-**

**Secondary defence**

 **-**

 **-**

 **-**

 **-**

 **-**

**Name the key components of the human immune system**

**What makes up the non-specific immune system?**

**What makes up the specific immune system?**

**How does the specific and non-specific immune system differ?**

**What is cytokine and why is it important?**

**What is an antibody?**

**What is an antigen?**

**Who makes antibodies?**

**What is MHC and how does it play a role in our immune system?**

**What is meant by a self -marker?**

**What is humoral immunity?**

**What is cell- mediated immunity?**

**Why do we have vaccines?**

**What is active immunity? And what are the two types? Explain the two types**

**What is passive immunity and what are the two types? Explain the two types**

**What is an autoimmune disease?**

**What is an allergy and how does it work in the body?**

**What is the rhesus factor and how does effect human life?**

**What is the inflammation response?**

**Why does our body form blood clots?**

**Why is the measles not as big an issue as they were 50 years ago?**

**Summary of the immune response**



**Complete the Venn diagram**