

ending, recognise and bind to receptors

molecules, released

from the nerve

Figure 11 The processes occurring at a dendrite of a nerve which is at rest.

[Na<sup>+</sup>] low

low

high

[CI<sup>-</sup>]

[K<sup>+</sup>]

[Na<sup>+</sup>] high

high

low

[Cl-]

[K<sup>+</sup>]

Figure 10 Signals pass from neuron to neuron by neurotransmitters released at the synapse.

## **A2 LEVEL**



Figure 12 The establishment of a potential difference across the cell membrane of a nerve cell which is at rest.

**A2 LEVEL** 

Figure 13 A nerve cell 'fires' when sodium ions flood in through open sodium ion channels.

Figure 14 Chloride ion channels in a cell membrane.



an asthma patient

Figure 18 Asthma patients become short of breath because of narrowing of the airways in the lungs.





*Figure 26 A representation of the structure proposed for the ACE/angiotensin I complex.* 



Figure 28 A representation of captopril in the ACE active site (the —SH and —COOH groups on captopril are ionised in the form of the compound which interacts with the enzyme).





Penicillin V; R = O-CH<sub>2</sub>

Figure 33 Structure of a penicillin – all penicillins have the same basic structure, only the R group varies.



Figure 34 Preparation of a semi-synthetic penicillin.

## **A2 LEVEL**