

# CHLORIDE CHANNELS

## OBJECTIVES

1. Diversity, molecular structure and function of Cl<sup>-</sup> channels.
2. Example of channels function in epithelial cells
3. Example of functional unit involving channels and transporters.
4. Cl<sup>-</sup>-dependent myotonia

## REFERENCES

### Review

1. Ashcroft, F.M. 2000. Ion channels and disease. Toronto. Academic Press.
2. Jentsch et AL. 2002. Molecular structure and physiological function of chloride channels. *Physiol. Rev.* 82:503-568.

### Articles

1. Fahlke and Rudel. 1995. Chloride currents across the membrane of mammalian skeletal muscle fibres. *J. Physiol.* 184:355-368.
2. Bennetts et al. 2005. Cytoplasmic ATP-sensing domains regulate gating of skeletal muscle CLC-1 chloride channels. *J.B.C.* 280:32452-32458.
3. Pusch et al. 1995. Mutations in dominant human myotonia congenita drastically alter the voltage dependence of the CLC-1 chloride channel. *Neuron* 15:1455-1463.