



NOBEL SYMPOSIA

Report from the lecture presented by Roderick MacKinnon

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The following questions were put forward after the most interesting lecture of Professor Roderick MacKinnon.

Question. How come the voltage pulse can remain stable over such long distances?

MacKinnon's reply: The slow inactivation of the Na^+ and K^+ channels and the refractory period makes the pulse stable and also prevents it going backwards.

Question. How can you compare a transistor and an ion channel?

MacKinnon's reply: They're both voltage dependent and switch between two states. They work in a completely different way though. Ion channels are in a sense "wet transistors" and work in a liquid crystal environment. Also, they are orders of magnitude slower than electronic transistors. But they're admirably suited for their biological task.