NEURONS – ANIMATED CONCEPTS: THE NEXT GENERATION

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Events in neuronal function have been animated and combined with explanatory text as a learning tool for first year medical students. An early iteration of the program was presented at SOL in 2004. The current iteration incorporates suggestions made by slice members and by student usability focus groups. The program is of interest to medical and neuroscience students and to neuroscience teachers.

The movement of ions, operation of ion channels and release, binding and effects of neurotransmitters continue to be challenging for medical students without a background in physiology. Furthermore, dynamic events such as axonal transport readily lend themselves to animation. *Neurons – Animated Concepts* breaks neuronal functions down into discrete events and shows them as simplified animations accompanied by text. Where appropriate, effects of neurotoxins have been included. The program was designed to supplement introductory courses in medical neuroscience. It was authored in Macromedia Flash MX 2004 (Macromedia Inc., 1993-2004) for distribution on the Internet. The program can be accessed at
http://www.surg.med.utoronto.ca/~teddy/neurons.swf

Early feedback from users suggested that the addition of narrated descriptions would facilitate learning and would accommodate auditory learners and the vision impaired. Audio files were added and combined with a continuous play-through of all the animations in each chapter. Subsequent student feedback strongly supports the inclusion of audio, but made it clear that control of the narrated play-through must be in the hands of the users. A Library of downloadable individual animations was added in response to requests from faculty members who wish to include them in lectures.