



animal welfare
program

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Systematic Reviews of Preclinical Animal Research: The Need for More Ethical Practice

Public Lecture by Dr. Marc Avey

Friday November 15th, 2013

12.30pm: Woodward Building, Lecture Room 3

The ethics of human research in Canada is governed by the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS2). The TCPS2 requires that research ethics boards carefully evaluate previous animal research with a drug or other therapy prior to clinical use. However, systematic reviews of preclinical evidence have consistently found the reliance on narrative reviews of animal data to be misplaced. For instance, in 2001 Horn and colleagues systematically reviewed animal experiments on nimodipine for focal cerebral ischaemia and found no evidence to justify the start of clinical trials. In 2002 a Cochrane review found that almost six thousand five hundred patients has participated in clinical trials of nimodipine for focal cerebral ischaemia without any clinical benefit just as in the animal model. Crucially, prior publications of clinical trials often reported only a single positive animal experiment in support of the research. If the preclinical animal literature had been systematically reviewed prior to the start of clinical trails, valuable resources may have been saved and participants better protected.

For clinical trials, the TCPS 2 requires that researchers present their proposed research in the context of a systematic review to protect human participants. Dr. Avey poses the question: Are there ethical principles for both human and animal participants that conducting systematic reviews of animal research would uphold?

Dr. Avey is a CIHR-funded postdoctoral fellow (Knowledge Translation Branch) I Clinical Epidemiology Program at the Ottawa Hospital Research Institute. Dr. Avey completed his PhD in psychology at the University of Alberta where he investigated the neural basis of auditory perception I songbirds. He completed a postdoctoral fellowship with the Canadian Council on Animal Care in animal policy development, where he worked on evidence-based guidelines development for the use of animals in teaching and training. His current research includes: 1) the relationship between reporting biases and preclinical translation; 2) the use of systematic reviews and reporting guidelines in preclinical research; and 3) policy mechanisms for improving knowledge translation of preclinical animal models.