a statistically significant difference in rates of hypoglycemic episodes between the regular insulin and insulin lispro groups. It is difficult to extrapolate from their findings because patients used continuous insulin infusion technology and intensive assessment.

The strength of a meta-analysis depends on the strength of the trials on which it is based. The primary problem in the insulin lispro literature lies in determining the strength of the individual trials. The meta-analysis by Davey and colleagues, for example, included 8 unpublished trials involving 2500 patients and 3 published trials involving 30 patients.[5] An additional problem is that the published trials are methodologically weak. The meta-analysis by Brunelle et al,[6] which at the time was not available to us or to Puttagunta and Toth when they wrote their article, was based on open trials. Accepting or rejecting its conclusions, which showed a decrease in the number of severe hypoglycemic episodes (1.3% absolute difference) in favour of insulin lispro but no benefit for insulin lispro with respect to hemoglobin A_{1c}, must await full publication of valid, randomized blinded studies.

Loren Grossman lists 4 additional references to defend his statement that "more recent studies … have demonstrated the ability of insulin lispro to provide for a lower hemoglobin A_{1c} level with fewer hypoglycemic episodes." However, the studies by Ebeling and colleagues[7] and Ronnemaa and colleagues[8] rank among case series, the methodologically weakest form of evidence. They are trials of switching from regular insulin to insulin lispro therapy. Ebeling and colleagues showed an 0.8% reduction in hemoglobin A_{1c} levels and no difference in hypoglycemic events. Ronnemaa and colleagues found no difference in hemoglobin A_{1c} or hypoglycemic events until they looked at a subset of patients. As Ebeling and colleagues correctly state, "it is not possible to estimate how much of the improvement in glycemia and HbA_{1c} was due to insulin lispro … or how much is due to the intensive attention the patients were given during the study." Grossman's last 2 references are to abstracts, and 1 of these describes research involving only 6 patients.

It is important to reiterate that our original letter was meant to criticize *CMAJ*'s decision to publish Puttagunta and Toth's article as much as it was intended to question the value of insulin lispro itself. The article was neither systematic in its data gathering nor scientific in its appraisal of the evidence. Systematic review and critical appraisal methodology is now widely known and vigorously endorsed by medical educators and health care administrators. Publishing methodologically weak systematic review articles such as this one significantly undermines these collective efforts. Although selective reporting of data and references to trials that are not well designed can often appear to be "evidence based," closer examination often reveals that the emperor has no clothes.

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Adjudicating ethics in research

Miriam Shuchman[1] indicates that a national body should have been available to investigate, evaluate and adjudicate the issues raised by the controversy surrounding Dr. Nancy Olivieri and The Hospital for Sick Children.

The National Council on Ethics in Human Research is a multidisciplinary organization with a mandate to advance the protection and promotion of the well-being of human participants in research and to foster high ethical standards for the conduct of research involving humans. The council has the responsibility to assist research ethics boards in interpreting and implementing the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans* (1998). The council has established an ongoing mechanism to assess the functions of research ethics boards

Pour écrire à la rédaction

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and has the capability and expertise to address substantive and procedural issues, and it will respond to questions coming from research ethics boards and from organizations such as granting councils or professional organizations.

I am surprised that the ethics director of the Medical Research Council of Canada (MRC), Dr. Francis Rolleston, did not point out that the National Council on Ethics in Human Research is the natural place to refer all issues, contentious or otherwise, that have to do with human participation in research. Canada does have the ability to conduct independent, competent reviews of controversial ethical issues involving human research.

Gordon Crelinsten, MD
Montreal, Que.

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I am quite disturbed by Dr. Francis Rolleston's statement, quoted in Miriam Shuchman's article,[1] in which he comments on the ethical responsibilities of the MRC: "These [issues] are institutional responsibilities. If you have big brother in Ottawa looking after these things, that's not healthy." I think it is generally accepted that activities under the liberal laissez-faire theory in business must be supervised and to varying degrees regulated by governments and their agencies. I think also that the MRC has unjustifiably abdicated its responsibility to the public to regulate medical research in abandoning individual researchers such as Dr. Olivieri to potentially unscrupulous industrial supporters of their research. The pharmaceutical industry has an obvious vested interest in outcomes to its liking. Somebody, if not the MRC, must set up national rules spelling out appropriate freedoms of enquiry and publication for research supported by industry that are not at the mercy of self-interest or of the "intellectual property" bugbear.

J.V. Frei, MD, PhD
Toronto, Ont.

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[Dr. Rolleston responds:]

The quotation in Miriam Shuchman's article[1] was accurate but incomplete. My view is that conflicts between researchers, institutions and companies should be resolved by the protagonists, not by national organizations such as the MRC or the National Council on Ethics in Human Research (NCEHR). However, as Gordon Crelinsten and J.V. Frei point out, the MRC and the NCEHR can, should and do help to set standards. Further, the NCEHR, which was founded and is mainly funded by the MRC, is playing a vital role in supporting research ethics boards and institutions in implementing the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans*.

Frei's antipathy to industry disturbs me. Industry is essential to health and health care. Effective collaboration between industry and academe is of great advantage to both and to the health of Canadians. Should we not work together so that, despite different subobjectives, we achieve our common long-term goals of helping patients while maintaining our principles?

Since the publication of the Tri-Council policy statement I have visited all 16 Canadian medical schools to discuss issues and concerns surrounding processes for research ethics. Interactions with industry were frequently raised. I also established a task force on research ethics boards and clinical trials to address issues that inhibit collaboration between industry and academe.

At a recent workshop entitled "Research Ethics: Maximizing Effectiveness," the almost 100 participants from industry and academe strongly supported the already initiated Working Group on Best Practices in Industry–Academe Interactions. This working group will help to develop principles and approaches with respect to such issues as consent forms, the submission of protocols for ethics review, fees, incentives, compensation, liability and publication. In this way, and through the active, collaborative implementation of the Tri-Council policy statement, the MRC will continue to promote the highest standards of ethics by all involved.

Francis Rolleston, DPhil
Director, Ethics and International Relations
Medical Research Council of Canada

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Chiropractic and orthodoxy

The article by Terry Johnson concerning the affiliation of the Canadian Memorial Chiropractic College (CMCC) with York University was particularly biased.[1] The "academic nuptials" of these 2 institutions would not make York University a "laughingstock within the world's science community," as Michael De Robertis is reported to have said, but rather would enhance York's reputation in the scientific and health fields.

Johnson writes that the article by Balon et al[2] "marked the first time a leading journal has published a study by chiropractic researchers." In 1985 *Canadian Family Physician* published an article coauthored by J.D. Cassidy,[3] a chiropractor. The *British Medical Journal*, *Spine* and other "leading" journals have also published articles by chiropractors. Johnson could have also reviewed the *Journal of Manipulative and Physiological Therapeutics*, a peer-reviewed, not "unrecognized," journal where scientists, physicians and chiropractors have written quality articles through the years.

De Robertis is reported as having said that chiropractic "metaphysical doctrines" and "unorthodox practices" are not well known. After reviewing the literature and the profession's guidelines[4] he would probably not call chiropractic a "metaphysical doctrine" (a list of references is available from cagkiro@infonet.ca). The effectiveness of spinal manipulation therapy, the