



tic approach to health care by integrating the body, mind and spirit into their diagnostic and treatment systems. The therapeutic tools used within these systems are currently being evaluated.³ Many oriental herbs have been shown to be active as biological response modifiers when tested in the laboratory. They may be useful as adjunctive therapies for both the treatment of cancer and the reduction of side effects from chemotherapy and radiotherapy.⁴ Acupuncture has been shown to modulate neurophysiologic responses and neuropeptide levels and may be useful for both symptom control and manipulation of endocrine status, cytokine production and immunocompetence.⁵ The science of psychoneuroimmunology is revealing that psychological techniques, such as meditation, can modulate the immune system and levels of hormones such as melatonin (which can inhibit the division of prostate and breast cancer cells *in vitro* and *in vivo*).⁶ I believe that the scientific evaluation of these alternative health care systems, including their

interaction at the molecular level, is a challenge and a responsibility that should be met with enthusiasm and not shunned by physicians.⁷

To use Drs. Tannock and Warr's metaphor, patients with cancer *do* see the earth as flat, their perception clouded by the immediacy of their impending death. A holistic approach to their care is more likely to persuade them that the earth is round.

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Competing interests: None declared.

References

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[The authors respond:]

Dr. Sagar is concerned that our editorial may be viewed as "unsympathetic to the educational needs of both health care professionals and patients with cancer." This criticism is ill-founded — our concluding paragraph stated that the series provided useful background information for physicians.¹ Education, however, should be based on facts. Although the series gave the appearance of an evidence-based review, it did not use conventional rules



Research Initiative. Unconventional therapies for cancer: 4. Hydrazine sulfate. *CMAJ* 1998;158(10):1327-30.

Corrections

A recent *CMAJ* supplement¹ contained an incorrect statement of competing interests for Dr. George Fodor. The statement should have read: "Dr. Fodor has received educational grants and speaker's fees from various pharmaceutical companies."

Reference

1. Fodor JG, Whitmore B, Leenen F, Larochelle P. Lifestyle modifications to prevent and control hypertension: 5. Recommendations on dietary salt. *CMAJ* 1999;160(9 Suppl):S29-S34.

A recent letter by Dr. Terry Polevoy¹ contained an error. It was a young woman from the Saskatoon area, not Regina, who died.

Reference

1. Polevoy T. The Internet and chiropractic. *CMAJ* 1999;160(9):1288.

for ranking evidence. In the case of hydrazine sulfate, the highest quality data consisted of 3 negative double-blind randomized trials published in a peer-reviewed journal.² If this was an anti-neoplastic drug developed along traditional lines, there would be only one reasonable verdict: ineffective. Dr. Elizabeth Kaegi, however, concluded that the effects of hydrazine sulfate on tumour shrinkage and survival were "uncertain" and that more trials are necessary. Ill-founded conclusions considerably weaken the educational value of any article, especially one also intended for the lay public.

Patients use alternative cancer therapies to improve their chance of survival. Life-prolonging anticancer therapies developed by nontraditional means *could* exist. However, we lack a logical framework for deciding which of the endless alternative approaches should be evaluated. The evaluation of interventions that receive vocal support (laetrile, vitamin C, hydrazine sulfate)

has yielded entirely negative results, yet their use persists. How will we answer the inevitable comments on trial design when the intervention is a "holistic approach" with enormous variability in delivery? The expected 1 in 20 false-positive studies will be forever touted as evidence of efficacy and subsequent negative trials will be attributed to inadequate methodology.

The scientific community has a responsibility to use wisely the money generously donated by the Canadian public to the Canadian Cancer Society.

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2. Kaegi E, on behalf of the Task Force on Alternative Therapies of the Canadian Breast Cancer