LETTER TO THE EDITOR

The following comments by Dr. White propose novel and provocative ideas concerning the origin and biology of cancer. It was not subjected to peer review and thus should not be considered as representing the opinions of the Editorial Board of EBM or the Society. Comments on the ideas expressed in this letter are welcome and will be considered for publication.

A. Bartke, Editor-in-Chief

MILTON W. WHITE¹

3120 Carpenter Street, Detroit, Michigan 48212

There is a very provocative and challenging revelation that needs to be espoused in regards to the exact reason for cancer's origin, it's growth, spread, and pathological consequences. My studies have shown the malignant mammalian cancer cell respires and metabolizes *anaerobically*. This is in consequence to the initial presence of an intracellular invasive "microbe." The subsequent biologically induced process, arising with the support of the compatible flow of blood, is the factor leading to the blending of the nucleic elements of the host with those of the invasive asexual spore, the "seed" part of a member of the ascomycete family of fungi.

The conjugation of the nucleic elements produces a new "transformed" micrococcus. The latter now with a genetic makeup not seen as such in either parent.

It is this "conjugant" along with the circulating flow of blood that is the biological basis for the initial onset of cancer's origin, its type of growth, the circumferential spread, the lymph node involvement, the metastases, and the pathological pleural or abdominal ascitic effusions that can develop in various patients with cancer.

The anaerobiotic respiratory and metabolic physiology has been documented in medical literature as being present in cancer tissue. In 1930, Dr. Otto Warburg claimed this finding. He also stated lactic acid was present to indicate a glycolysis impeded anaerobic metabolism (1). There were others who followed (2–4). He and others, however, could not state why such an abnormal physiology existed.

My studies with exciting photographic evidence demonstrated clearly the anaerobic respiratory and metabolic status existed within the cancerous growth. The anaerobic reducing effect was pictorially demonstrated by the Toluidine Blue dye experimental project (5, 6).

In a study using an electrical probe with an oxygen detecting capability when inserted into the cancerous tissue

of a living mouse, indicated there was none or minimal amount of oxygen. This same probe, however, when inserted in areas with no cancer revealed the adequate amount of oxygen. This piece of equipment containing an oxygen electrode is manufactured by the Diamond General Corporation in Ann Arbor, Michigan, USA. The equipment utilized is labeled as a chemical microsensor. It measures the partial pressure of dissolved oxygen (PO2) in living cells, fluids or gases. Two separate procedures were performed, at different intervals on two different living mice with a cancer lesion. This procedure was done by two different chemists with an electrochemical background (7).

The answer as to why anaerobiosis and the "conjugant" is a cancer problem has been ascertained by our studies. Vivid photographic images taken of cancer cells immediately after removal and studied as a cytobiological wet smear clearly demonstrates the presence of these oval to spheroidal shaped "spore" unicells. Laboratory studies and findings have justified our claim that these cells are micrococci (6, 8).

My latest published article titled, "The Role of Oxygen in Fungal Induced Carcinogenesis," outlines in detail why the oxygen molecule within the cancer cell functions reversibly. The conjugant, still lying within the cell wall, with its potent nonmetal electronegative complex, alternately releases the oxygen molecules, while accepting the hydrogen molecules (9). The presence of the nonmetal electronegative chemical complex has been identified in cancer tissue. This has been published in articles in medical literature (10–11).

The presence of anaerobiosis, the spore, the nucleic elements, in cancer tissue, although significant can only be assumed to be the etiological entity. Therefore cancer being a chronic infectious growth disorder plus an induced chronic biological inducement must meet the requirements of origin. Thus acceptance of the factual etiology of cancer, in regard to the "germ," Koch's postulate must be followed. In biology elimination of anaerobiosis with the ultimate treatment leading to the nontoxic disappearance of the disease is the other requirement.

My very challenging and provocative original concept for cancer's origin is my proposal to indicate that cancer

M^{*}

1535-3702//-0432\$15.00

Copyright © 2002 by the Society for Experimental Biology and Medicine

¹ To whom requests for reprints should be addressed E-mail: cancer.conquest@att.net

should be recognized as a chronic intracellular infectious disease due to a biological transformation of an asexual invasive ascomycete (fungus) spore to form a new conjugated malignantly activated micrococcus.

This biologically combined micrococcus, which I have proposed to name as a conjugant, is the source for cancer's origin, its type of growth, spread, lymph node involvement, and explains rationally the various pathological consequences as seen in the varied cancer patients. I expect research, which is ongoing at a major facility, will support the conclusions in this letter. I look forward to comments on the ideas expressed in this letter. The conquest of cancer can become a reality but only if the abnormal biological and physiological findings, as presented are open-mindly evaluated.

I am hopeful that this challenging letter to the editor will stimulate controversy.

It will be in the manner where the truth can ultimately fall in place, and a final solution to the cancer disease can follow.

- Birch TW, Harris LJ, Ray SN. A Micro-chemical method for determining the hexuronic acid vitamin (c) content of foodstuffs, etc. Biochem J 27:590, 1933.
- 3. Boyland E. A note on glutathione and vitamin C in tumor tissue. Biochem J 27:802, 1933.
- Mitold WA. A note on the producing activity of the tissues of normal and tumor bearing mice. Biochem J 28:811-814, 1934.
- 5. White MW. The reducing activity of cancerous tissue and its apparent significance. J Abdom Surg 15:212-226, 1973.
- White MW. Metabolism of the malignant cell, the role of bacterial spores, and a pictorial presentation to substantiate the latter's presence as an etiological factor in carcinogenesis. Med Hypotheses 39:95–109, 1992.
- White MW. Pathway to carcinogenesis. The role of bacterial spores. Med Hypotheses 35:279-287, 1991.
- 8. White MW. Metabolism of the malignant cell, in vivo, is anaerobic and significantly places a factor in the pathway to carcinogenesis. Med Hypotheses 39:323-333, 1992.
- White MW. The Role of Oxygen in Fungal Induced Carcinogenesis. Med Hypotheses 55(4):302-305, 2000.
- Slater EC, Colpa-Boonstra JP, Links J. The oxidation of Qinols by mitochondral preparations. Ciba Foundation. London: Churchill p187, 1961.
- Green DE. Coenzyme Q and electron transport. Ciba Foundation Symposium, Ed. Wolstenholme, GEW and O'Connor CM. London: Churchill pp131–159, 1961

Warburg HO. Metabolism of tumors. London: Arnold Constable, 1930