

# 4<sup>th</sup> World Congress on Cancer Science & Therapy

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## Preclinical testing of naturally-sourced bioactive compounds for protection against chemotherapy-induced mucositis

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This lecture will address a variety of topics related to the use of rodent models for pre-clinical development of candidate naturally-sourced bioactive compounds (nutraceuticals) to protect the alimentary tract against chemotherapy-induced intestinal mucositis. It will include discussion of: strategies underlying the selection of animal models for studies of mucositis; the development of plant-sourced bioactives (including grape seed extracts); the development of animal-sourced compounds (including whey-derived products and Emu Oil); the development of new probiotics and prebiotics; novel combination therapies and also the application of new non-invasive breath-testing techniques to monitor the impact of chemotherapy and the subsequent effects of the new bioactive agents on a range of gastrointestinal functions. In addition to these subjects, attendees of this lecture will be familiarized with the need for rigorous and stringent testing of candidate therapeutics, so that only the most promising therapies are advanced to clinical trial evaluation of efficacy in cancer patients undergoing chemotherapy.

### Biography

Gordon S Howarth has studied chemotherapy-induced mucositis and new therapeutic approaches for 20+ years, during which time he has authored more than 130 peer-reviewed research papers and review articles. He serves on the editorial boards for the *Journal of Nutrition and Inflammation & Allergy*. He is currently the Editor in Chief for the *Journal of Veterinary Science*. Professor Howarth is a Fellow of the American Gastroenterology Association and a member of the Royal College of Pathologists of Australasia. He is also an international assessor of Research Programs for the: (i) Ontario Ministry of Agriculture, Food and Rural Affairs; (ii) European Science Foundation; (iii) Netherlands Organization for Health Research and Development; and (iv) Singapore Health and Medical Research Council.

## Prognostic features of renal sarcomas

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**Objective:** The aim of the present study was to evaluate the prognostic features of primary sarcomas of the kidney.

**Material and methods:** A literature review was conducted in various databases, including Medline (PubMed) and Scopus for articles published between January 1992 and December 2013. Among the articles published in English, those describing prognostic features in primary sarcomas of the kidney were recorded. The electronic search was limited to the following keywords: *sarcoma, renal sarcoma, prognosis, diagnosis, immunohistochemistry, genetic, and survey*. There were no review articles and/or meta-analyses related to the prognosis of primary sarcoma of the kidney. A total of 31 articles related to case reports, case series, and overall prognosis of urological soft tissue sarcomas were reviewed.

**Results:** Primary sarcoma of the kidney has a poor prognosis compared to other sarcomas of the urogenital system. Other than surgical excision of the renal sarcomas, pathological, molecular, and genetic prognostic factors are also considered to exist. There are no studies randomizing the prognostic features due to the small number of cases. The elucidation of the so-called "chaotic" genetic and molecular basis of the tumor will help to predict the prognosis.

**Conclusion:** Surgical excision is the most significant parameter determining the prognosis in the sarcomas of the kidney. However, sarcomas have prognostic features based on their pathological, genetic, and molecular basis. The current study suggests that other factors could also be important in predicting the prognosis, and clinicians should plan treatment and follow-up according to these factors.