

Investigation of the internal structure and dynamics of gum cancer cells, tissues and tumors by ^{13}C -NMR spectra of DNA/RNA of gum cancer cells as an essential structural tool for integrative studies of gum cancer cells development

Alireza Heidari^{1,2*} and Ricardo Gobato³

¹Faculty of Chemistry, California South University, 14731 Comet St. Irvine, CA 92604, USA

²American International Standards Institute, Irvine, CA 3800, USA

³Green Land Landscaping and Gardening, Seedling Growth Laboratory, 86130-000, Parana, Brazil

Abstract

In the current paper, investigation of the internal structure and dynamics of gum cancer cells, tissues and tumors by ^{13}C -NMR spectra of DNA/RNA of gum cancer cells as an essential structural tool for integrative studies of gum cancer cells development are studied. Internal structure and dynamics of gum cancer cells, tissues and tumors by ^{13}C -NMR spectra of DNA/RNA of gum cancer cells as an essential structural tool for integrative studies of gum cancer cells development-based diagnostics and imaging offer many advantages over the routine clinical techniques non-invasiveness, tissue removing is not required, minimal sample processing, labeling is not required, no prior knowledge to target molecules (e.g. antibodies) is required, safety, non-ionizing electromagnetic field is used, no external dyes/contrast agents are needed to produce human organs images. The method is faster and cheaper to perform, which will result in quicker patient diagnosis, fewer time delays, less pain, and trauma of patients, less cost to the hospital. Investigation of the internal structure and dynamics of gum cancer cells, tissues and tumors by ^{13}C -NMR spectra of DNA/RNA of gum cancer cells as an essential structural tool for integrative studies of gum cancer cells development based methods with the sensitivity and specificity of over 90% for in vivo and ex vivo measurements might be applied to clinical practice with a positive economic impact due to reducing of false biopsy and risk of incomplete tumor resection.

Introduction

It has been showed that internal structure and dynamics of gum cancer cells, tissues and tumors by ^{13}C -NMR spectra of DNA/RNA of gum cancer cells as an essential structural tool for integrative studies of gum cancer cells development measurements of the biochemical mapping of human gum cancer tissues and cell cultures reveals unique internal structure and dynamics of gum cancer cells, tissues and tumors by ^{13}C -NMR spectra of DNA/RNA of gum cancer cells as an essential structural tool for integrative studies of gum cancer cells development fingerprints that discriminate normal and gum cancer cells, monitor epigenetic modifications-acetylation and methylation processes in gum cancer cells and tissues, gum cancer phenotype, angiogenesis in gum cancer, lipid reprogramming, response to drug treatment and glycome profile. Internal structure and dynamics of gum cancer cells, tissues and tumors by ^{13}C -NMR spectra of DNA/RNA of gum cancer cells as an essential structural tool for integrative studies of gum cancer cells development imaging combined with AFM shows that ontogenically transformed cells demonstrate significant specific alterations in chemical composition and nanomechanical-stiffness and adhesion features. Internal structure and dynamics of gum cancer cells, tissues and tumors by ^{13}C -NMR spectra of DNA/RNA of gum cancer cells as an essential structural tool for integrative studies of gum cancer cells development together with internal structure and dynamics of gum cancer cells, tissues and tumors by ^{13}C -NMR spectra of DNA/RNA of gum cancer cells as an essential structural tool

for integrative studies of gum cancer cells development is revealing dynamics in normal and gum cancerous cells at a new molecular level. These multidisciplinary approaches for cell cultures, ex vivo tissues, animal models can be helpful in translations of all scientific findings to oncological clinical practice [1-10].

Results and discussion

Currently, internal structure and dynamics of gum cancer cells, tissues and tumors by ^{13}C -NMR spectra of DNA/RNA of gum cancer cells as an essential structural tool for integrative studies of gum cancer cells development of linear and non-linear optical methods for gum cancer detection provides a valuable tool to improve sensitivity and specificity. One of the main reasons for insufficient progress in gum cancer diagnostics is related to the fact that most gum cancer types are not only heterogeneous in their genetic composition but also reside

***Correspondence to:** Alireza Heidari, Faculty of Chemistry, California South University, 14731 Comet St. Irvine, CA 92604; American International Standards Institute, Irvine, CA 3800, USA, E-mail: Scholar.Researcher.Scientist@gmail.com; Alireza.Heidari@calsu.us; Central@aisi-usa.org

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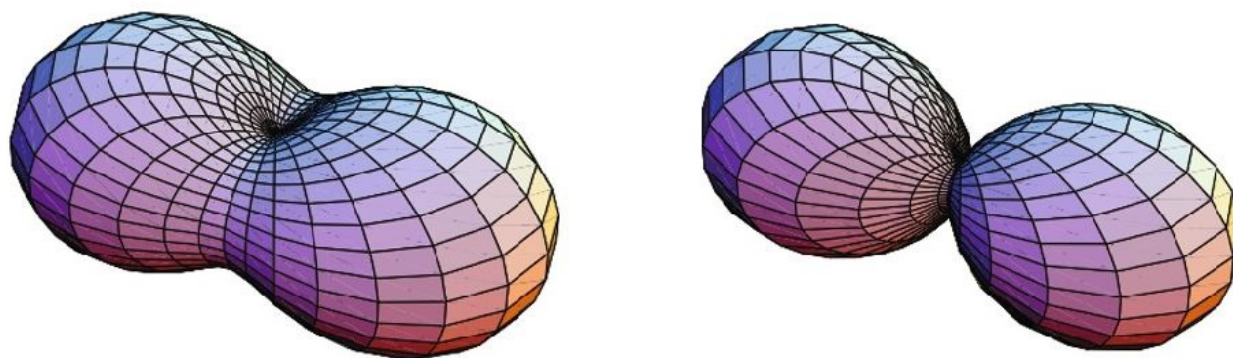


Figure 1. Internal structure and dynamics of gum cancer cells, tissues and tumors by ^{13}C -NMR spectra of DNA/RNA of gum cancer cells

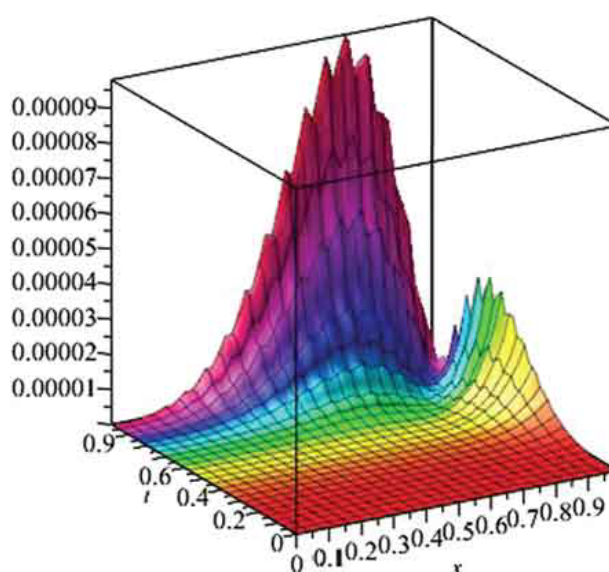


Figure 2. External structure and dynamics of gum cancer cells, tissues and tumors by ^{13}C -NMR spectra of DNA/RNA of gum cancer cells

in varying microenvironments and interact with different cell types. Until now, no technology has been fully proven for effective detecting of invasive gum cancer, which infiltrating the extracellular matrix (Figures 1 and 2).

Conclusion

This review investigates the current status of internal structure and dynamics of gum cancer cells, tissues and tumors by ^{13}C -NMR spectra of DNA/RNA of gum cancer cells as an essential structural tool for integrative studies of gum cancer cells development and internal structure and dynamics of gum cancer cells, tissues and tumors by ^{13}C -NMR spectra of DNA/RNA of gum cancer cells as an essential structural tool for integrative studies of gum cancer cells development for gum cancer diagnostics. Moreover, the review provides a comprehensive overview of the applicability of internal structure and dynamics of gum cancer cells, tissues and tumors by ^{13}C -NMR spectra of DNA/RNA of gum cancer cells as an essential structural tool for integrative studies of gum cancer cells development, linear and non-linear optics in gum cancer research as a gateway to tumor cell identity.

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