



## Epigenetics role in cancer with considerations for regulatory reform

**Jorma A Jyrkkanen**

*UBC Zoology Grad and SFU Education, Canada*

### Abstract:

Transcriptional variability is necessary for normal gene expression but it is also a liability when the gene profiles generated are cancer profiles. This is true for DNA transcription as well as RNA translation. Methylation can interfere with transcription and alter micro RNA translation or cleave RNA. This can lead to cellular transformation and tumorigenesis as in HPV. Viral oncogene methylation can repress tumor suppressor genes. We also see epigenetic potential of known carcinogens and mutagens needs to be assessed and included in carcinogen determinations and their regulation. Generational heritability also needs assessment.

### Biography:

Jorma Jyrkkanen is a naturalist and wildlife ecologist who studied Zoology at UBC and Environmental Education at SFU. He also perused a course in Journalism from Capilano College, GIS from OUC and a Course in Human Ecology from UBC. He codiscovered with Dr. David Monroe carcinogenic 1,4-dioxane in glyphosate herbicide. Later he represented Nechako Environmental Coalition where he presented a review on the Pulp mill carcinogens and mutagens in a Televised Public Forum in Prince George. He also did a statistical assessment of lung cancer incidence in Pulp Mill School Districts and compared to no mills and found a significant increase. He gave a televised presentation on pesticide carcinogens and mutagens in the Peace River District for an Environmental Group and acted as Intervenor in the Pulp Mill Hearing in Alberta for Friends of the Athabaska at UA by presenting my report on carcinogens and mutagens in effluent and air in the bleached Kraft Mill industry. His observations that our quarks, gluons and electrons are ancient universe assembled by evolution into a primate and are now pondering it and evolution is the creator. He was also involved in implementation of the first clear cut guidelines in the Boreal Forest while working for MNR in Kenora, Ontario. Thursday. November 8, 2018.

### Publication of speakers:

1. Lehtikoinen, Pertti & Mattinen, Jorma & Lönnberg, Harri. (1986). Mechanisms for the solvolytic decompositions of nucleoside analogs. 13. Reactions of adenine nucleosides with aqueous alkalies: kinetics and mechanism. Jour-



nal of Organic Chemistry - J ORG CHEM. 51. 10.1021/jo00370a013.

2. Pihlaja, Kalevi & Mattinen, Jorma & Bernáth, Gábor & Fulop, Ferenc. (1986). Conformational analysis. XXVII—A1H and 13C NMR conformational study of cis- and trans-annelated 2-p-nitrophenyl-4,5- and -5,6-tetramethylenepiperhydro- and 2-p-chlorophenyl-4,5- and -5,6-tetramethylenedihydro-1,3-oxazines. Magnetic Resonance in Chemistry - MAGN RESON CHEM. 24. 145-149. 10.1002/mrc.1260240209.
3. P, Lehtikoinen & Mattinen, Jorma & Lönnberg, Harri. (1986). Reactions of Adenine Nucleosides with Aqueous Alkalies: Kinetics and Mechanism. The Journal of Organic Chemistry. 51. 3819-3823.
4. Pihlaja, Kalevi & Mattinen, Jorma & Kleinpeter, E. & Meusinger, Reinhard & Duscheck, Ch & Borsdorf, R.. (1985). A 1H and 13C NMR conformational study of methylsubstituted isochromanes. Magnetic Resonance in Chemistry. 23. 754 - 758. 10.1002/mrc.1260230915.

[International Conference on Clinical Microbiology | May 19-20, 2021 | Osaka Japan](#)

**Citation:** Jorma A Jyrkkanen, Epigenetics role in cancer with considerations for regulatory reform; Webinar on Gene Therapy; October 6th, 2020; London UK