



SHORT COMMUNICATION

Open Access

Use of Mathematical Methods in Oncology

Aleksandr Tsybin

Philadelphia, Pennsylvania, United States

ABSTRACT

Solitons are non-linear oscillations that exist in a number of objects, including those in DNA. They appear there because histone tails oscillate with great frequency. Solitons arise as a result of the rapid fluctuation of histone tails in the DNA of any biological object, be it an animal or a person. Up to a certain age, these fluctuations are useful for a given biological object, but with age they begin to harm it, which can lead, in particular, to cancer. These oscillations are described by the nonlinear equation Cartwe de la Friese, which in the literature is abbreviated as: K.D.F. IN article, the author made an attempt to prove that the energy of these fluctuations contributes to the fact that a mutation occurs in the genes Sonic Hedgehog, a mutation in terms of physics, as E. Schrodinger, this is the transition of a substance from one state of aggregation into another. This transition in nature is carried out due to absorption or release of energy. If in any way not give energy to these genes, then such a mutation cannot be realized and no neoplasms will arise, and this may become one of the real ways to fight skin cancer. Basic ratios.

ARTICLE HISTORY

Received February 23, 2024

Accepted February 26, 2024

Published March 28, 2024

Description

The last 25 years have been marked by truly revolutionary events in fundamental oncology. The rapid development of molecular genetics, in particular the discovery of oncogenes and anti-oncogenes, has radically changed the understanding of the mechanisms of the occurrence of neoplasms. Nevertheless, it is generally accepted that progress in the theoretical field has had virtually no effect on the state of affairs in clinical oncology. The contents of this publication are intended to demonstrate the inconsistency of such statements.

Indeed, if the 70s and 80s. The 20th century was characterized by progress mainly in the experimental field; the symbol of the last decade was the practical achievements of molecular oncology. To date, molecular genetic approaches are routinely used at all stages of cancer care, i.e. in prevention, diagnosis, treatment and monitoring of patients. The most notable successes have been noted in the development of laboratory methods for identifying cancer risk groups, the search for diagnostic and prognostic markers of neoplasms, the development of pathogenetically based approaches to chemoprevention and chemotherapy of neoplasms, and, finally, in cancer gene therapy.

I sent to prof. Imyanitov E.N.

Dear prof Imyanitov E.N., I want to remind you about myself once again. I am Alexander Markovich Tsybin, born on May 23, 1937 in Leningrad. There he became a Doctor of Technical Sciences and worked for 38 years at the All-Russian Research Institute

of Hydraulic Engineering, studying applied mathematics. Since 2000, I have been living permanently in Philadelphia, USA. There, a graduate of Moscow University, V. M. Studitsky, attracted me to topics related to Oncology.

Solitons are nonlinear vibrations that exist in a number of objects, including DNA. They appear because the histone tails oscillate at high frequencies. This occurs in the DNA of any biological entity, be it animal or human. Up to a certain age, these fluctuations are useful for a given biological object, but with age (the concept of age for histone tails can be associated with their rheological characteristics, which change over time and include, for example, the creep of histone tails and an experiment is needed to evaluate this) they begin cause harm, which can lead, in particular, to cancer. These oscillations are described by the nonlinear Cartve de la Friese equation, which in the literature is abbreviated as K.D.F. The author believes that the energy of these vibrations contributes to the fact that mutation occurs in genes, but mutation from the point of view of physics, as Erwin Schrödinger believed, is the transition of a substance from one state of aggregation to another. This transition in nature is carried out due to the absorption or release of energy. If you somehow don't give energy to these genes, then such a mutation cannot be realized and no tumors will arise, and this could be one of the real ways to fight cancer. It is not clear how to do this. It is known that animals such as naked mole rats somehow know how to do this. I heard about this earlier and told Vasily Studitsky and Gerd Langovsky, but it remained at the level of talk. Gerd Langovsky died, and Vasily Studitsky obeys his superiors and is focused on cancer statistics. Due to my age, I have long been a pensioner

Contact Aleksandr Tsybin, Philadelphia, Pennsylvania, United States.

and I only have theoretical considerations left, and the advice that I share with you, you once promised to think about. It seems to me advisable to study experimentally the rate of vibration of histone tails and determine the dependence of this rate on the age of biological objects.