

Absence of Deoxyuridine and 5-Hydroxymethyldeoxyuridine in the DNA from Three Tissues of Mice of Various Ages.

Mech Ageing Dev. 1986 Jun;35(1):71-7.

Kirsh ME, Cutler RG, Hartman PE.

For audio transcript :

<http://www.scivee.tv/node/6956>

Mutational damage to DNA may modulate the aging process as well as contribute to the high incidence of cancer in older animals. Uracil (Ura) is the deamination product of cytosine and hydroxymethyluracil (HMU) is an oxidation product of thymine. Ura, when generated from cytosine, induces mutations by mispairing with adenine. Both HMU and Ura are known to be excised from DNA by glycosylases that cleave the respective N-glycosidic bonds. This hydrolysis leaves apyrimidinic sites which are subsequently repaired by excision repair. In this report a sensitive method to detect these altered bases of HPLC separation of the components of DNA hydrolysates is described. Neither deoxyuridine (dU) nor 5-hydroxymethyldeoxyuridine (dHMU) were found in hydrolysates of DNA samples from brain, liver or small intestinal mucosa of mice of different ages.

PMID: 2426529 [PubMed - indexed for MEDLINE]

Deoxyuridine in the DNA of tissues of mice of various ages. For audio link see:

<http://www.scivee.tv/node/6956>

This work, the assessment of uridine levels in tissues, was completed in 1986 as a part of the dissertation research for the PhD in biochemistry.

In this podcast I hope to establish a more general concept of the working of inheritance in that it is a component of all facts of the world as a fact of the uniqueness of path, distinct occupation of time in all processes. In the following transcript, employing the concept of paradox and divide (the inversion) as ubiquitous to all of space, I elucidate a potential meaning for and origin of DNA, memory as path, DNA as a physical universal of path from matter energy conversions that proceed from transmissions of energy from a theoretical ultimate highest potential to near ground, zero level such that its path would bear the facets of all paths.

Deoxyuridine, a molecule assigned as a component of a genetic language that is normally absent in DNA, a normal component of RNA, subsequently inherently implied to have some relevant, important function with respect to transient in contrast and discrimination with long term memory is thus suggested to have a prominent position in the described scheme of the evolution of memory from the energy of a universal path, accomplished travel of space. If one reflects on the dichotomy of vastness and smallness, the cell, the nucleus, the vast potential energy of the world to that of the cell, DNA, deoxyuridine, viewed a bridge between the genetically transient and the genetically enduring, in its metabolic role seems to mimic in analogy, this same outlined scheme of the crossing of a divide to yield an entity that is associated with record keeping/memory. If one consequently considers biological transmissions to be composed of a four letter code, two distinct but overlapping four letter codes, one might speculate on the nature of the energy/path from which it is postulated to have emerged. At first inspection it appears to have two potential (energy) categories purine associated potentials and pyrimidine associated potentials, or recombinant potentials as masses. Of this description, indicating a unique specific initial arrangement of energies with respect to the divide/inversion of space into RNA and DNA-i.e.-two values (pyrimidine and purine) one with two classes adenosine and guanosine, and one with three classes cytosine, thymine, and uracil that lend a total of three distinct divide types in terms of potential base pairs that are distributed into an arrangement of one existing divide (RNA verses DNA) verses a potential distribution into two

distinct arrangements (DNA with A/T and RNA with A/U or DNA with A/U, RNA with A/T). Assuming the inversion has two faces, DNA two strands, a resulting potential emergence of two possibilities from initial arrangement involving five nominals , a class of two (purines) and a class of three (pyrimidines), and three inversion/divide type substrates (A/T, A/U, and G/C) three faces, represented potentially as two paths (face 1 to near ground, face 2 to near ground) and an emerged branch from either one or the other. If one considers the most likely emergence from a consideration of proximal verses distal, transient verses long life time, it is easier to accommodate conceptually the G/C divide originating as face 1, the A/T or U divide as face 2 with a branch to produce the arrangements of DNA and RNA, though this scheme seems to suggest an initial divide of two faces for which only one is represented an embodied to living entities as A/T's and G/C's are not distinct originating sets but distributed into a string/lingual like genetic class of nucleic acids with two members whose emergence and functional interrelationship is suggested to have a common denominator not as a base pairing divide/inversion. In the enclosed manuscript I have attempted to demonstrate that nominals as members of witness pairs are unique that way from their emergence/conception such that A/T or A/U for example cannot originate as either the nominal DNA inversion path or RNA inversion path respectively but only one or the other and are not suited in description for as beginning divisions for emergence into the classes of nucleic acids. We are thus left with a dilemma, either the basic inversion from which all is derived is related to the base pair or to the string sequence that resembles a lengthy inversion surface that one might intuitively make a comparison with the vastness of space and an inversion that divides it, if one wishes to maintain an important universal significance to the divide DNA/RNA. At first glance one might seek to find a physical/conceptual symmetry in all nucleic acids with respect to the nominals of base pairing. However it is memory and path that is the topic, a single base pair, even a short sequence cannot transmit a significant amount of genetic information and has no functional correlate with the phenomenon of memory discussed. It is thus the base pairs in sequence, in two classes, RNA and DNA that are significant. It is also important to consider the vast geometrical size differences between an inversion suggested to encompass all of space and the actual size and dimensions of nucleic acids. It is suggested that at the consumption of energy to produce matter in the form of metabolizing physical path (nucleic acids) the resultant product is arranged and

patterned after the initial inversion of space in that all that components are adjacent to one another along an inversion that is still as proximal associations must suggest, if conceptualizations are correct, actual maximal potentials and distances such that apparent physical proximity is actual physical distality along the dividing inversion. Activity at active sites, enzymatic activity, then proceeds by means of a force that is variable with respect to an absolute physical distance along a transparent surface/inversion. This is thus a first principle that functioning is only apparent with respect to interpretation based on observed physical structure. Second in principle is the notion in the enclosed manuscript that two energies are in all processes:

1) the energy/forces of emergence of the nominals perceived, in this case DNA, RNA, cells etc. related to energy to matter conversion to bring about energetically funded structure and homeostatic maintenance of identity

2) A tangential energy that fuels organizational/structural maintenance and metabolism at all levels-i.e. matter to energy conversion from the ingestion of food.

It is thus suggested that the energy parent of living things is related in form only to the functioning of nucleic acids and that an observed language is only an apparent visual product

of very distal associations that arise from a facet of energy to matter conversion, a vast existing energy potential between proximally appearing elements., a single sided surface of interaction/communication indicative of all the potentially existing nominals of space and not the five nominals of cytosine, guanosine, thymidine and uracil that somehow surface from the conversion as an emerged transparent difference between the inversion energy of the total of space less that which is expended/utilized to create the mass of DNA. It is thus suggestive that some mathematical operation on the physical dimensions of bases/base/pairs and DNA to result in maximal separations from maximal proximities would produce structures/forms of birthing divides/inversions with a language of association/divide relations more likely interpretable as some function of temporarily variable/differential distances along an identifying inversion in association with a tangential interesting maintenance energy-i.e. heat , light, sound energies rather than the food ingested by organisms for

maintenance. Thus the genetic language observed is only a result of the necessity of perception, of the existence of perception for the existence of two surfaces that is actually one plus a transparent distance/potential of separation. The only pertinent fact remaining is not the existence of a genetic language but of a transparent divide that births an apparent divide in an apparent language. The pertinent fact to the existence of biological life, path, memory, perception, cognition is the existence of an apparent physical inversion (nucleic acids) and a transparent energy, energy to matter conversion. The existence of two apparent classes of nucleic acids might not be designated to a transparent distance/potential along a parent inversion that delineates the short lived verse the long lived in analogy to DNA verses the expanse of space but as a consequence of metabolic event(s) involving a tangential maintenance energy to produce a net of two branches in processes

- a) The branch of nucleic acids, from a transparent inversion potential into RNA and DNA
- b) The branch of a nucleotide precursor as a transparent inversion involving the existence of an apparent language and to both thymidine and uracil containing nucleic acids

An apparent physical distance that has in correlation no transparent associatable inversion length/potential/common apparent origin is postulated to have effected the emergence of the two classes of nucleic acid; and is a potentially blinding deception to the functionings of nature in light of the representation of nucleic acids as a piece of physical path in that the route to a state of matter referred to as living entities from an origin is a fact of intersecting energies paths and a potential coincidence of length/size factors involving both types of energies, of identity- homeostasis and metabolic fueling energies. This coincidence is suggested as :

1: RNA and DNA (are assumed) must be of the same class of origin

2: The transparent language assigned to them has one branch rather than two as suggested two types of sets of two classes equals four possible emergences rather than the two observed.

3) there are only two possible interpretations of distance –an actual physical distance and an apparent relational distance along and inversion.

4) If an actual physical distance exists in all aspects but a transparent relational distance is present with respect to only the nominal entity, e.g. DNA/RNA thymidine/uracil an actual apparent physical distance is indicated to be at the seeds of emergence, self generating and reproducing if life is self generating and reproducing. As an example a very long wavelength for an energy that has a potential existence physically as a length can be conceived to fit both the apparent and some facet of the transparent distances involved in the conversion of energy to matter and maintenance proximal in distance tangential energies: a coincidence length of reach of maintenance requirements to length of actual potential associations along an inversion.

It is thus suggested from these considerations that deoxyuridine could not have a natural role in mutagenesis- its biological significance would preclude its inclusion totally within a category of mechanisms of random genetic variability as its presence with respect to its function appears to be ubiquitous/universal-i.e constant like.

It is suggested that the origin of uracil in RNA may be intimately connected with a basic property of the universe involving strict ruler like distances that have to be gauged differently in dissections of enzymatic function and metabolism of nucleic acids. In this respect the velocity of light cannot be viewed in terms of absolute values but in terms of

change, differentials and relations. The 3-D egg plot included with this video is

accomplished with Δc (transparent velocities energies) that fall into the range of possible

empirically observed values for velocity that are within construable ranges for the values

of ordinary perceivable, humanly witness-able velocities, v .

It is not impossible that living entities might be discriminated from the inert in terms of

a motion lended to it by the means of numerical coincidences of the differentially changing

at intersections of a physical/tangible proximal/appropriate with a transparent

inappropriate to the present, distal.