Abstract Submitted
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Cyto-fluid dynamics: Clarification of the cascade structure from nitrogenous base to human brain[1] KEN NAITOH, Waseda University — Nucleic acids (DNA and RNA) are only with five nitrogenous bases: two types of purines (A, G) and three types of pyrimidines (C, T, U). The size ratios of purines and pyrimidines are asymmetric around 3:2, that is, 1.5. Fluid dynamics shows a possible answer to the question of why the size ratio of purines and pyrimidines is around 1.5, because life exists when biological molecules such as nitrogenous bases are surrounded by the flow of aqua. Then, the explanation on inevitability of five bases leads to that of twenty-types of amino acids and also of complex structures of RNAs. Finally, we will show computational fluid-dynamics based on the Navier-Stokes equation simulates cerebral morphogenesis, i.e., the convexoconcave inside brain and eye balls. **References**

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[1]Waseda University

Ken Naitoh
Waseda University

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