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**Sudden and unique mass social bio-mathematical self-similarity between nano and human scales: molecular and textual viruses as collaborating and competing T-strings.**

**S**tatement of the Problem: Even after the invention of the light microscope and the telescope, until very recently humans were conscious of only a very narrow world. In the beginning of the 20th century still unaware of the existence of, for example, galaxies and the “molecules of life”, ignoring the nanoworld, which its greatest minds thus could not consider until a few decades ago.

This talk is based on definition and detection of temporal T-patterns, hierarchical patterns repeated with significant translation symmetry and discovered in the temporal structure of neuronal, animal, and human behavior and interactions as well as in T-patterned material strings, T-strings, found in information molecules and texts.

After billions of years of evolution of unicellular, multicellular, and mass-social life, unique self-similarity suddenly appeared between protein and human mass-societies. What was new?

**Methodology & Theoretical Orientation:** This project began in the early 1970's much inspired by N. Tinbergen, K. Lorenz, and K. von Frisch's research on animal and human social behavior winning the Nobel Prize in Physiology or Medicine in 1973, the first in Ethology. With insects as smallest animals studied, none were components of others, no nanoscale actors, and no self-similarity.

Billions of years ago, the RNA world invented extra individual purely informational T-strings, DNA, and soon there was only the DNA-based world of (intra-cellular) mass-social proteins. Billions of years later, as the first in the unicellular and multicellular world, humans suddenly invented such T-strings, TEXT, and now nearly all human life is TEXT-based having allowed in an eye blink the advent of modern knowledge, science, and technology.

**Conclusion & Significance:** The structural and functional analogies between molecular and textual T-strings in protein and human mass-societies, now draws special attention to complex collaborations and competitions among powerful T-strings, across >9 orders of size: molecular and textual viruses.

## **Biography**

Magnus S. Magnusson, PhD, Emeritus Research Professor, founder, and director of the Human Behavior Laboratory (hbl.hi.is), School of Health Sciences, University of Iceland. Author of the T-system, detection algorithms and software THEMETM (PatternVision.com), initially focusing on real-time organization of behavior. Co-directed of two-year project "DNA analysis with Theme". Keynotes in biology, neuroscience, mathematics, science of religion, proteomics, A.I., robotics and nanoscience. Associate Professor and Deputy Director 1983-1988 in the Museum of Mankind of the French National Museum of Natural History, Paris. Repeatedly, invited Professor at the University of Paris V, VIII & XIII. Now works in formal collaboration between 32 European and American universities initiated 1995 at the University Rene Descartes of Paris V, Sorbonne, based on "Magnusson's analytical model". Dr. Adiguzel served his directorate of Graduate School of Natural and Applied Sciences, Firat University, in 1999-2004. He received a certificate awarded to him and his experimental group in recognition of significant contribution of 2 patterns to the Powder Diffraction File – Release 2000. The ICDD (International Centre for Diffraction Data) also appreciates cooperation of his group and interest in Powder Diffraction File.