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Editor's Foreword

Dear Colleagues,

We have to meet and work together, and together to believe – cry out, fall down.

Because it was we who suffered for the magic of the greeting.

The great significance of the plain shaking hands.

Hristo Fotev (1934-2002),
from "Lithurgy for the dolphins"

The Hierarchy of Data-Information-Knowledge-Wisdom as an epistemological system is usually associated with Russell Ackoff (1) although elements of it are envisaged in poetic form by T.S. Eliot in his 1934 "The Rock":

Where is the Life we have lost in living?

Where is the wisdom we have lost in knowledge?

Where is the knowledge we have lost in information?

Today we may add one more question: "Where is the intellectual humility and reciprocal respect we have lost in competition and in "publish or perish" paradigm?" Reminding Theodore Roszak who wrote in 1972: "In the conditions of spiritual disintegration in which we live, modern man is in search of a soul" (2). And inside the latter – the empathy. Indeed, *Homo economicus rather than Homo empathicus is a global psychosocial phenomenon* (3 and essays therein).

A drawing by the great Bulgarian writer Yordan Radichkov illustrates human-to-human interaction (Fig. 1). That is what I designate *Homo interactomicus* (3) - a man who *assembles* with fellow men to together build-up something good for the all, like the biomolecules which build-up our mind-and-body (Fig. 2).

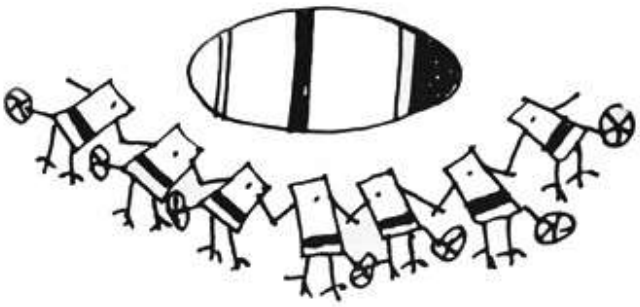

Figure 1. *A drawing by Yordan Radichkov (1929-2004) in his book* We, the Sparrows*, herein shown to illustrate the collaborative behavior of* Homo interactomicus. *It may be a Bulgarian version of African's Obonato described in (3a).*

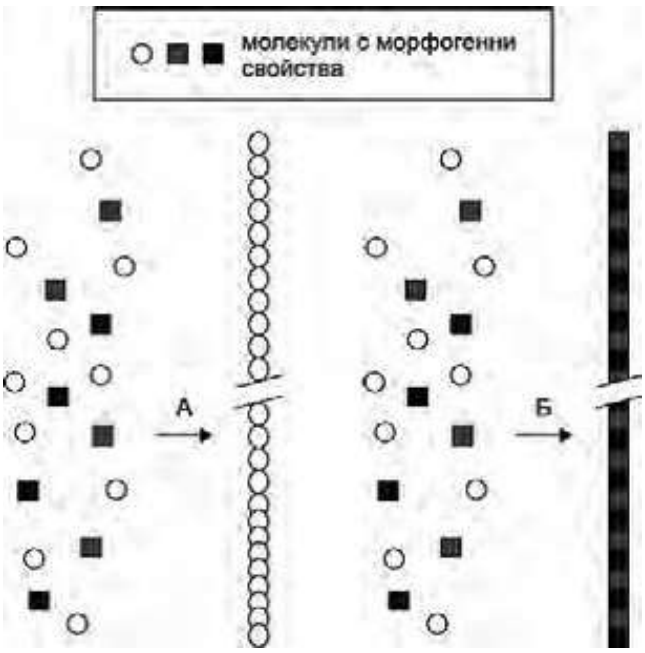

Figure 2. *Schematic representation of biomolecules that self-assemble to build-up cell structures (А, Б) working for the benefit both of the cell and the whole organism. In rectangle: molecules with morphogenic properties (in Bulgarian). From (4). A motto of this conceptual figure might be: One Man is the unity of all society working together to help each other (5).*

If the society is composed of separate individual entities called humans, where are the tight junctions and nexuses that bind them together? According to the network theory, the happiness tends to be correlated in social networks. When a person is happy, nearby friends have a 25 percent higher chance of being happy themselves. Furthermore, *people at the hub of a social network tend to become happier in the future than those at the periphery*. Something like hub proteins, which are able to form protein-protein interaction network.

As well as like in a talk between Mind and Molecule where Mind got his Eureka moment: "It is a molecule precisely because it interacts with other molecules; it is nothing on its own" (6). Even if we sometimes despair of human nature, we must admit that "one-eat-another" scenario conjured up by the phrase "survival of the fittest" does not bear much

resemblance to life as we know it. In the modern evolutionary biology, the metaphor "survival of the nicest" is becoming increasingly appreciated – it up-regulates the interaction and collaboration as natural as the competition, and altruism as natural as selfishness (7).

The hope is that there is still much to be learned from prairie voles *(Microtus ochrogaster)* - oxytocin, vasopressin and other molecules of love and social bonding work perfectly with them (8). Also form brain-and-heart friend/ship (BHF) (Fig. 3).

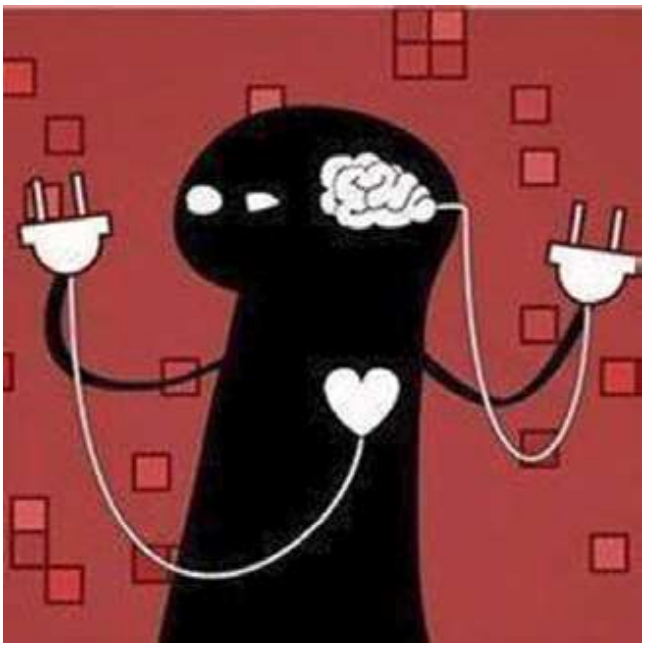

Figure 3 (from Wikipedia)**.** *Let brain-and-heart friendship be switched on forever.*

Sharing the importance of *the joy of doing science* (9), the Editors and the Members of the Editorial Board hope that the articles published in *Biomedical Reviews (BMR)* will foster the interaction between scientists and clinicians. And that they will convey to the reader some of the excitement that ensues from the current progress in translational cell biology.

In our search for authors, we have always been pursuing those brain-and-heart scientists (10) who can contribute to state-of-the-science (SOS) of reviews, Dance round and research articles in *BMR.*

Furthermore, we appreciate the diffusion of knowledge (DOK) [sounds like DOI - diffusion of innovations (11)] as being one the major tasks of *BMR.* Thus the *Journal* will continue the efforts to keep readers' scientific fire for learning and curiosity alive and tuned – *the great significance of the* open brains-and-hearts.

George N. Chaldakov, BHF, MD, PhD, FIACS

1. Ackoff RL. From data to wisdom. *J Applied Syst Analysis* 1989; 16**:** 3-9.
2. Roszak T. Science: a technocratic trap. In: T. Roszak*,* editor. *Where the Wasteland Ends.* Faber and Faber Ltd, London, UK.1972.
3. Chaldakov GN. In: *Homo Janus Bulgaricus*. Psychology and Psychopathology (not only) of Bulgarians. Publissays and science-in-fiction. Second revised and enlarged edition. 2017. Morski svyat, Varna, Bulgaria. pp 441-444 (in Bulgraian), 445-448 (in English).

3a. Ibidem. pp 37-40 (in Bulgarian), 41-43 (in English).

4. Chaldakov GN. *Cell Biology textbook* (In Bulgarian). Second edition, 2014. University Press, Medical University, Varna, Bulgaria
5. *The American Scholar* was the title of lecture delivered by Ralph W. Emerson in 1837 to the Phi Beta Kappa Society. From Greek, ΦΒΚ stands for Φιλοσοφία Βίου Κυβερνήτης or *philosophia biou kybernētēs*, meaning "Love of learning is the guide of life."
6. Noble D. Prologue. Mind over molecules: activating biological demons. *Ann NY Acad Sci* 2008; 1123: xi-xix.
7. Axelrod R, Hamilton W. The evolution of cooperation. *Science* 1981; 211:1390-1396.
8. McGraw LA, Young LJ. The prairie vole: an emerging model organism for understanding the social brain. *Trends Neurosci* 2010; 33: 103. DOI:10.1016/j.tins.2009.11.006
9. "The joy of doing science and developing scientific understanding greatly exceeds the importance of being first, or even of always being right." In: Anfinsen, *et al*. *Trends Biochem Sci* 1993; 18:364-365.
10. It has been said that "some scientists would rather exchange each other's tooth brushes than their hypotheses and results". We are keeping at a distance from such"toothbrush" scholars, indeed. Because among many –omics sciences we do prefer the friendomics (philomics).
11. That is a theory introduced in 1962 by Everett Rogers (1931-2004) in his book *Diffusion of Innovations*, its fifth edition being released in 2003. Rogers attempts to explain how, why, and at what rate new ideas spread. The origins of DOI theory are varied and span multiple disciplines (see, for example, about diffusion theory in cell biology in Denys Wheatley's *Eureka review* published in this volume of *BMR*).