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PPPM (predictive, preventive and personalized medicine) as a new model of healthcare services to secure better survival of cardiac patients and biosafety of the human society as a whole

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The medicine and cardiology, in particular, is undergoing a paradigm shift to strive from the diagnosis and treatment for prediction and prevention. A new systems approach to disease to pay its crucial attention on the trend would result in predictive, preventive and personalized medicine (PPPM) which is defined as: "...the capacity to predict disease development and influence decisions about lifestyle choices or to tailor medical practice to an individual."

To achieve the implementation of PPPM concept into a practice of cardiologists, it is necessary to create a new strategy based upon the subclinical recognition of cardiac biomarkers long before the heart disease clinically manifests itself. This strategy would secure preventive measures whose personalization could have a significant influence on atherosclerotic vascular disease statistics.

The first discriminatory step illustrating the PPPM-oriented survey is based on omics- and stem cell-technologies to let a person-at-risk or a cardiac patient a way to become a data carrier. Individuals pre-selected undergo the second step using phenotypic cardiac biomarkers. Among the best-validated predictive and predictive biomarkers are heart-related ones are broadly known. A combination of genomic and proteomic cardiac simple and combinatorial biomarkers are becoming of great significance to predict risks of chronification of the disease, and thus disabling and lethality since most of the ischemic diseases are preceded by a long subclinical (symptom-free) phase in which the patients can be identified by the presence of specific biomarkers.

PPPM whilst utilizing a promising concept of biomarkers would offer a real challenge for the future, and next generations will speak about the XXI century as a time, when healthcare services became predictive and preventive, and its outcomes – secured and guaranteed.

Biography

Sergey Suchkov, MD, PhD, Professor in Immunology & Medicine. Personal: Born 11 January 1957, Astrakhan, Russia. Education: MD, Astrakhan State Medical University, Russia, 1980; PhD, Institute of Medical Enzymology, USSR Academy of Medical Sciences, 1985; Doctor Degree, Nat Institute of Immunology, Russia, 2001. Positions held: Post Doc Res Associate, Institute of Medical Enzymology, 1985-87; Senior Research Associate, Koltzov Institute of Developmental Biology, USSR Academy of Sciences, 1987-89; Head of Lab of Immunology, Helmholtz Eye Research Institute in Moscow, 1989-95; Trainee, Lab of Immunology, NEI, NIH, USA, and Lab of Immunology, Wills Eye Hospital, PA, USA; Head, Department for Immunology, Moscow Clinical Research Institute, Moscow Regional Ministry of Health, 1995-2004; Executive Secretary-in-Chief of the Editorial Board, Biomedical Science, 1993-1996; Professor in Medicine and Immunology, I.M. Sechenov First Moscow Medical University and Faculty Chairman & Director of the Department of Preventive, Personalized and Translational Medicine, A.I.Evdokimov Moscow State University of Medicine & Dentistry. Honours: Secretary General, UCC, Cambridge, UK. Memberships: NY Academy of Sciences, USA; EPMA, Brussels, EU; ARVO (USA); ISER (USA); EPMA J., Personalized Medicine Universe, Open J.Autoimmunity and American J.Cardiovascular Res. Editorial Boards: Russian Biochemical and Immunological Society. Address: Apt 17, 10-3 Yaroslavskaya Str, POB 129366, Moscow, Russia.

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