



## Personalized and Precision Medicine as a Unique Healthcare Model to Be Developed Via Re-Arming by Biodesign, Bioengineering and Translational Applications

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### Abstract:

A new systems approach to diseased states and wellness result in a new branch in the healthcare services, namely, personalized and precision medicine (PPM). To achieve the implementation of PPM concept, it is necessary to create a fundamentally new strategy based upon the sub-clinical recognition of biomarkers of hidden abnormalities long before the disease clinically manifests itself. Each decision-maker values the impact of their decision to use PPM on their own budget and well-being, which may not necessarily be optimal for society as a whole. It would be extremely useful to integrate data harvesting from different databanks for applications such as prediction and personalization of further treatment to thus provide more tailored measures for the patients resulting in improved patient outcomes, reduced adverse events, and more cost effective use of the latest health care resources including diagnostic (companion ones), preventive and therapeutic (targeted molecular and cellular) etc. A lack of medical guidelines has been identified by responders as the predominant barrier for adoption, indicating a need for the development of best practices and guidelines to support the implementation of PPM! Implementation of PPM requires a lot before the current model “physician-patient” could be gradually displaced by a new model “medical advisor-healthy person-at-risk”. This is the reason for developing global scientific, clinical, social, and educational projects in the area of PPM to elicit the content of the new branch.

### Biography:

Sergey Suchkov was born in the City of Astrakhan, Russia, in a family of dynasty medical doctors. In 1980, graduated from Astrakhan State Medical University and was awarded with MD. In 1985, Suchkov maintained his PhD as a PhD student of the I.M. Sechenov Moscow



Medical Academy and Institute of Medical Enzymology. In 2001, Suchkov maintained his Doctor Degree at the National Institute of Immunology, Russia. From 1989 through 1995, Suchkov was being a Head of the Lab of Clinical Immunology, Helmholtz Eye Research Institute in Moscow. From 1995 through 2004 - a Chair of the Dept for Clinical Immunology, Moscow Clinical Research Institute (MONIKI). In 1993-1996, Suchkov was a Secretary-in-Chief of the Editorial Board, Biomedical Science, an international journal published jointly by the USSR Academy of Sciences and the Royal Society of Chemistry, UK. At present, Sergey Suchkov is Professor, Director, Center for Personalized Medicine, I.M. Sechenov First Moscow State Medical University and Dept of Clinical Immunology, A.I. Evdokimov Moscow State Medical and Dental University.

### Recent Publications:

1. Sergey Suchkov, et al Biomed Res Int, 2020.
2. Sergey Suchkov, et al Mol Ther, 2018.
3. Sergey Suchkov, et al Opt Lett, 2017.
4. Sergey Suchkov, et al J Am Heart Assoc, 2016.
5. Sergey Suchkov, et al Opt Lett, 2015.

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