Predictive, preventive and personalized medicine (PPPM) as an upgraded model of national and international healthcare services to secure a future of clinical research and practice: How to promote the higher medical education

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Predictive, Preventive and Personalized Medicine (PPPM) as the healthcare model of the near future and its tool, i.e., Translational Medicine (TraMed), represent an innovative model of healthcare services to consolidate advanced healthcare and robust platform for relevant branches of predictive diagnostics, personalized therapeutics and preventive drugs. To achieve the implementation of PPPM concept into practice, it is necessary to create a new strategy based upon the sub-clinical recognition of biomarkers long before the disease clinically manifests itself. This strategy would secure preventive measures whose personalization could have a significant influence on demographics! Meanwhile, penetration of new technologies into the market would demand the reforms not only in the area of healthcare but in medical education as well. Therefore, the problem of the preparation of specialists of the newest generation to secure priority in growing up medical doctors as creative artists is becoming particularly urgent and would require significant revision of training programs and curricula of the higher education as applicable to the medical schools. Modernization and integration of widely accepted medical and teaching standards require consolidation of both the life sciences and medicine that may become the conceptual basis for the medical curricula. The main goal of this training is not to achieve advanced training and expansion of technological skills but to provide development of novel multifaceted approaches to build academic schools of the newest generations and to outline curricula and courses to suit markets of the newest medical platforms. PPPM consists of a wide variety of tests and tools including so much complicated areas as networking, mathematic modeling, nanotools and nanotechnologies, cloudy and mobile technologies to suit the requests and standards of the new healthcare model. Coordinated measures to optimize the progress should be well-focused on solving the accumulating problems in healthcare and the concomitant economic burden that societies across the globe are facing more and more. Taking into consideration the current trends and personal experience, we have made first steps towards direct involvement in the modernization of the healthcare model. Guided by the above-mentioned facts, a non-canonical approach has become setting up under the aegis of EPMA (Brussels, EU), PMC (Washington, DC, USA) and ISPM (Tokyo, Japan) a unique team of medical students, young researchers, entrepreneurs in drug designing, clinicians and administrators of the future to come. Used as an educational-methodical kernel is a three-level basic education system (undergraduate, graduate, and postgraduate) to suit the continuing education. Group and individual vectors as part of the basic inventory are represented by translational medicine, bioinformatics, drug design, translational tools, regulatory courses, etc. The model for accelerated development of continuous vocational education (CVE) in PPPM and TraMed is based on the combinatorial approaches (competence, module-type approach, personal activity, program-design and problem-oriented) to the elucidation of innovative processes of modernization of the existing educational model. The application of the model for development of CVE has required a new type of the infrastructure of the curricula. PPPM whilst secured by the upgraded educational system would offer great and real promise for the future. And the 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

Irina V Zhegalova is a Member of Young Research Team under the aegis of EPMA, Brussels, EU and ISPM, Tokyo, Japan. She is a participant and speaker at international congresses in predictive preventive and personalized medicine worldwide. She is an author of several articles in application of bioinformatics in personalized medicine. Presently she is performing research in genomics and clinical bioinformatics and interested in e-Health.

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