

# International Conference on **Cytopathology**

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## **Personalized medicine: Diagnostics, companion diagnostics and complications in implementing them into clinical practice**

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**P**ersonalized medicine attempts to identify tailored treatment based on the susceptibility profile of each individual. Although this approach has generated much excitement, few personalized-medicine therapies have achieved high levels of clinical adoption. To personalized medicine, one needs robust diagnostics and a clear understanding of disease patho mechanism. We have observed four main obstacles to the advancement of personalized medicine: Scientific challenges (a poor understanding of molecular mechanisms or a lack of molecular markers associated with some diseases for instance), economic challenges (poorly aligned incentives and high cost of new medications), lack of outcome based data (a comprehensive study of cost effectiveness/health benefit of personalized medicine) and operational issues. Although economic challenges remain the scientific shortcomings and operational issues now seem to be the biggest hurdle. Diagnostics/companion diagnostics is the key to personalized medicine, yet it is hard to identify which tests truly save costs and select effective responders. On the other hand experimental testing leads to fears that although individual tests may not be very expensive, the overall eventual costs could be unjustifiably high. A third concern is the difficulty of enforcing standard protocols to ensure that physicians follow through with appropriate patient care based on test results. Fourth, test information could be misused, particularly in the early stages of investigation and development which could harm patients and payers. Finally, there is no longitudinal accounting which would enable payers to capture long-term cost savings from near-term testing. Even if operational issues get resolved within a particular stakeholder group, overcoming the scientific burden and correcting the incentive structure and modifying the relationships between stakeholders could be more complex.

### **Biography**

Gayane Badalian-Very is a leading Physician of the world and a Top Doctor. She has obtained her Medical degree from Semmelweis University and attended Harvard Medical School for a fellowship. During her Fellowship Training, along with her collaborators at Dana Farber Cancer Institute and Harvard Medical School, she had a breakthrough when they demonstrated that Langerhans cell histiocytosis-an orphan childhood disease which had an unknown etiology for the past two centuries since the disease was defined by Langerhans is a neoplasia. Currently the primary research focuses of her are secondary hepatic tumors where lack of effective treatment gets manifested in 6-12 months of overall survival of affected individuals. She is a prominent speaker in international meetings and conferences and she serves as Board Member in several scientific societies. She has also received several awards and recognitions from international societies such as Histiocytosis Association, Leading Physician of the World, National Association of Distinguished Professionals, Executive of the Year and Who's Who in America. She is the Founder of Gaia Medical Diagnostics and Intervention (GMDI), where she serves as Chief Executive Officer. GMDI focuses on personalized medicine and companion diagnostics to promote the medicine of future.

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