

International Conference and Exhibition on **Tissue Preservation & Bio-banking**

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International biobanking of human biospecimens for precision medicine

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Human biospecimens are the foundation for the development of the precision medicine, including effective translational medical research, discovery of new drugs and novel biomarkers and development of personalized molecular diagnostics. Modern biomedical research requires continuous supply of legally and ethically acquired high quality human biospecimens and associated clinical and molecular data. Various important topics of human tissues research will be discussed:

- Preservation of pre-analytical biospecimen variables, significantly confounding research of the disease biomarkers and development of modern diagnostics. Pre-analytical aspects of human biospecimen procurement: tissue collection specifications, processing materials and methods, storage and shipping procedures, and analyte preparation techniques.
- Collection of biospecimens using standard protocols versus custom protocols and effective use of currently available biorepositories for future studies on the indicated subject.
- Clinical data collection and management. HIPPA Privacy Rules for research specimens.
- Regulatory and legal issues on human tissue procurement for research purposes, including international disparities in regulations on use of human materials for biomedical research.
- The cost of biobanking, available resources, and strategies for creating a self-sustaining biorepository.
- Effective utilization of human biospecimens in modern biomedical research: The Cancer Genome Atlas as modern approach to genomics cancer research. A successful international project by the NCI (NIH, USA).
- Useful resources: ISBER, CAP, AACR, NCI, etc.

Biography

Olga Potapova is a life sciences executive with extensive scientific and project management expertise in translational oncology, diagnostics and laboratory medicine. She worked on development of targeted therapies (SUTENT) and human prenatal diagnostic tests (Cystic Fibrosis); coordinated major international collaboration projects with an emphasis on RTK signal transduction research, human biospecimen procurement, preclinical and early clinical development. Currently she leads Cureline, a Human Biospecimen CRO providing services for drug discovery, biomarker research and companion diagnostics development. Olga received multiple AACR/AFLAC awards, NIH and NATO fellowships, and has published multiple scientific papers in peer-reviewed journals. Since 2010, she has been a Principal Investigator for The Cancer Genome Atlas (TCGA) program. She has advanced degrees in Physics and in Molecular Genetics/Biochemistry.

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