

2<sup>nd</sup> International Conference & Exhibition on

# Tissue preservation and Bio-banking

September 12-13, 2016 Philadelphia, USA

## Pre-analytical variables in fluid biospecimen biobanking

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Most errors in a clinical chemistry laboratory are due to preanalytical errors. Preanalytical variability of biospecimens can have significant effects on downstream analyses, and controlling such variables is therefore fundamental for the future use of biospecimens in personalized medicine for diagnostic or prognostic purposes. Currently, such preanalytical variables are not routinely documented in the biospecimen research literature. The focus of the presentation will be on preanalytical variables affecting human biospecimen integrity in biobanking, such as biological and environmental factors, collection, processing, storage, transport and retrieval. The impact of such variables on the integrity of the biospecimens as well as the interpretation of downstream analyses, costs, and FDA requirements will be discussed. It will be discussed how knowledge of preanalytical variable effects can prevent the need to waste the time and costs of repeating sample collections.

### Biography

Christina Ellervik completed her MD in 2002 and her PhD in 2007 from University of Copenhagen, Denmark, and was board certified in Clinical Biochemistry in 2009 from National Board of Health, Denmark. From 2010-2015, she was an Associate Professor at University of Copenhagen, Denmark. Currently, she is a Visiting Scientist at Boston Children's Hospital and Department of Preventive Medicine, Brigham and Women's Hospital, Boston, MA, USA. She is the Founder of the Danish General Suburban Population Study (N=21,000) with 200,000 biospecimens and Co-editor for the journal, *Clinical Chemistry*. She has supervised several MD students for their PhD and Master's Degree in Clinical Biochemistry.

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