

# ABSTRACT

INTRODUCTION - QUANTITATIVE IMAGE ANALYSIS IN HISTOLOGY

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Quantitative image analysis plays an increasingly important role in quantitative analysis of histological tissue sections in both research such as drug discovery, and toxicology and clinical diagnostic applications. With growing demands for high quality histology based end points the need for easy-to-set up and efficient image analysis tools is evident.

Topics of the presentation will include:

- The fundamentals of a digital image
- Color models (RGB, chromaticity, color deconvolution)
- Workflow with batch processing and result review (run an APP in the Visiopharm software)
- Design APPs
  - Analysis magnification
  - Preprocessing - filters
  - Pixel classification methods
  - Post processing clean-up steps
  - End point calculations
- Applications examples:
  - Tissue detection
  - Tumor/stroma differentiation
  - Nuclear detection