Company name: Pangea Biomed * Website: www.pangeabiomed.com *

CEO name: Tuvik Beker

- **Title of the Presentation:**
  ENLIGHT-DP: Predicting cancer treatment response from histopathology images through imputed transcriptomics
- **Executive Summary / Investment Rational**
  Pangea Biomed's ENLIGHT-DP is a pan-cancer computational platform that predicts individual response to multiple targeted and immunotherapies from H&E-slides, without training on any treatment-response data. Unlike approaches that predict response by training on slides matched with response data, ENLIGHT-DP uses our existing ENLIGHT platform for predicting response based on genome-wide expression patterns, combining it with a deep-learning framework for inferring the expression directly from slide images.
  In tests on 16 cancer types, ENLIGHT-DP's expression inference layer surpassed state of the art algorithms for inferring expression from slides. Moreover, ENLIGHT-DP successfully predicted response in five independent patient cohorts involving four different treatments and six cancer types, with an overall odds ratio of 2.28. Response rate among predicted responders was 40% higher than the baseline. ENLIGHT-DP was predictive of response in a blind retrospective study of 50 cases of metastatic NSCLC patients treated with first-line PD-1 inhibitors, with higher PPV than both TMB and PD-L1 expression. ENLIGHT-DP was also able to identify responders among patients with PD-L1 < 1% (ROC AUC = 0.8, p = 0.03).
- **Business strategy**
  Pangea collaborates with biotech and pharma companies, big and small, harnessing the predictive power of ENLIGHT to improve clinical programs and bring better drugs to the market faster. In parallel, the company collaborates with leading clinical centers such as the NCI in the US and Hadassah in Israel, to validate the clinical utility of the platform in preparation for releasing ENLIGHT-based in vitro diagnostic tests. Pangea's management team comprises highly experienced executives from the biotech, AI and computational biology fields.
- **Core Technology**
  ENLIGHT is a pan-cancer, pan-treatment response prediction platform that relieves the dependence on rarely available clinical response data in the development of predictive biomarkers. ENLIGHT-DP combines ENLIGHT with a deep learning layer that infers gene expression from H&E slides, to predict response directly from slide images.