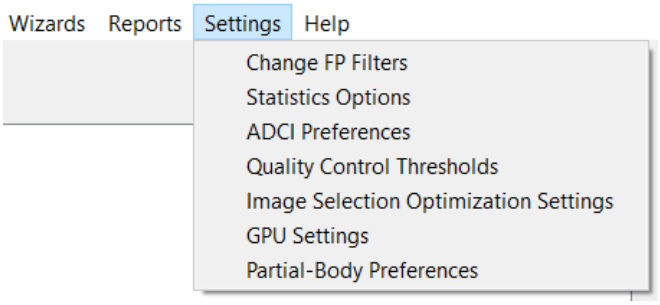
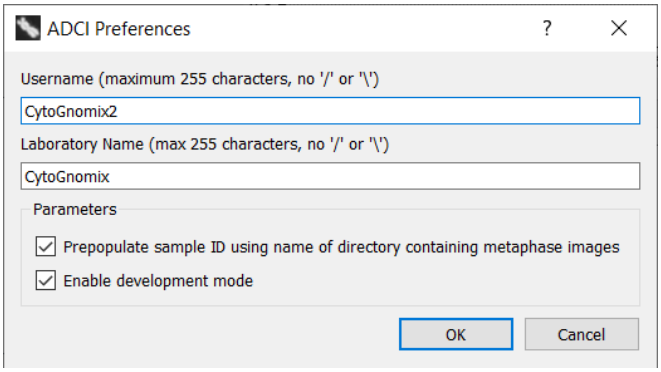
# Settings and Preferences

## Settings Menu

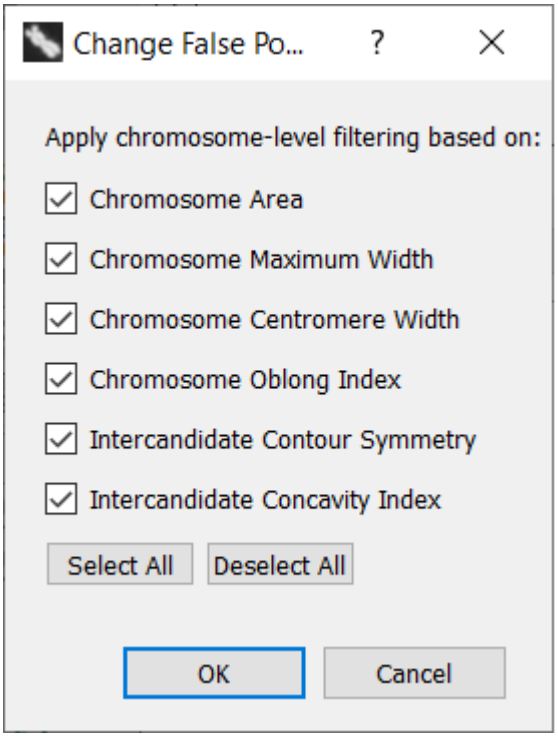
Access settings dialogs for many aspects of ADCI in the settings menu, located at the top of the main GUI.



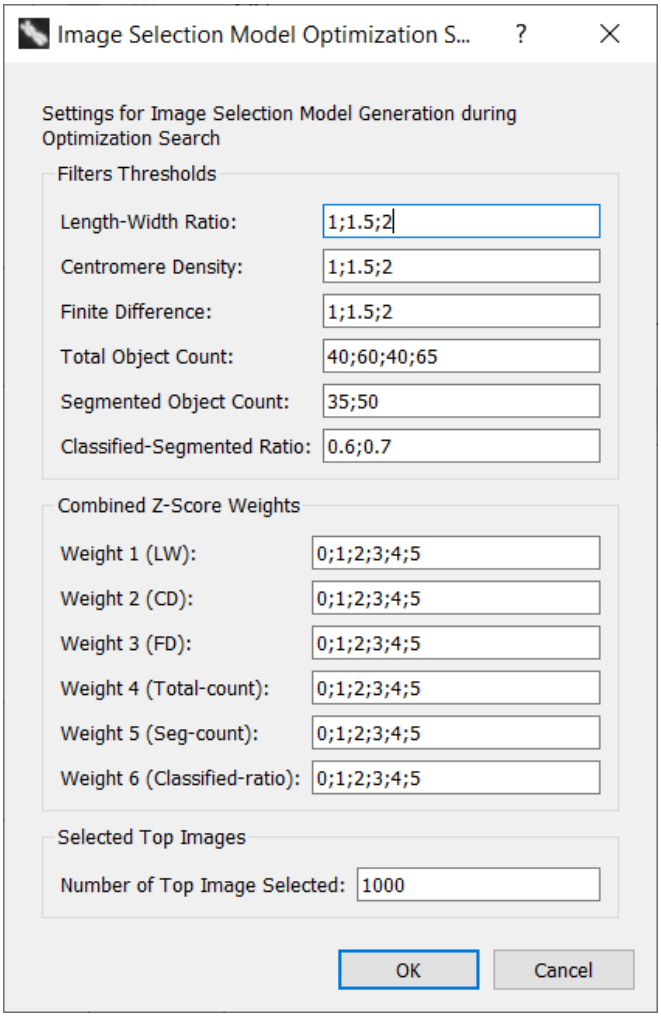

## ADCI preferences



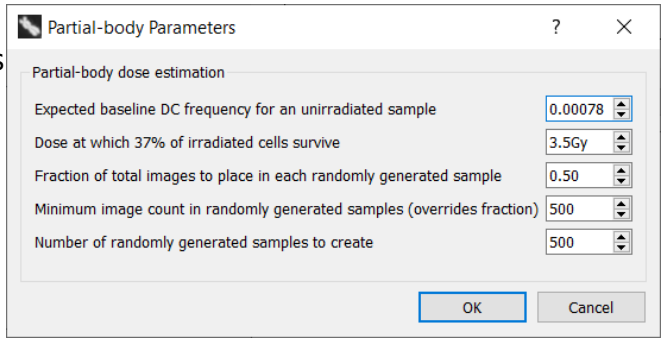

## False positive filters




## Image selection model optimization




# Partial-body

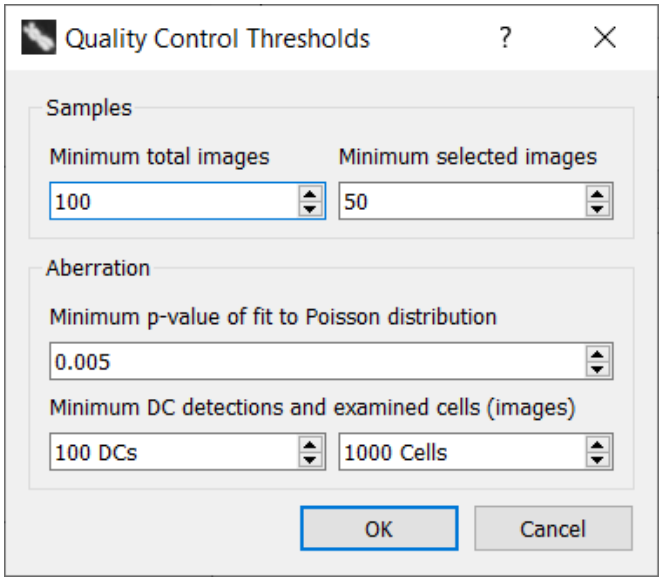



- **Expected baseline DC frequency for an unirradiated sample**
  Baseline DC frequency in unirradiated cells varies between studies, reported to range from 0.00009 to 0.00299 [1]. Baseline DC frequencies may vary between laboratories. Keep in mind this value does not reflect the DC frequency reported by ADCI for an unirradiated sample, instead it is the DC frequency for an unirradiated sample scored by an expert. We have selected a default baseline DC frequency of 0.00078 based on Lloyd et al. 1980 [2].
- **Dose at which 37% of irradiated cells survive**
  Corresponds to the term $D_0$ in the Contaminated poisson method as described within the IAEA manual in section 9.7.4.3 [3] and varies based on the type of radiation to which a individual was exposed. The default value for this

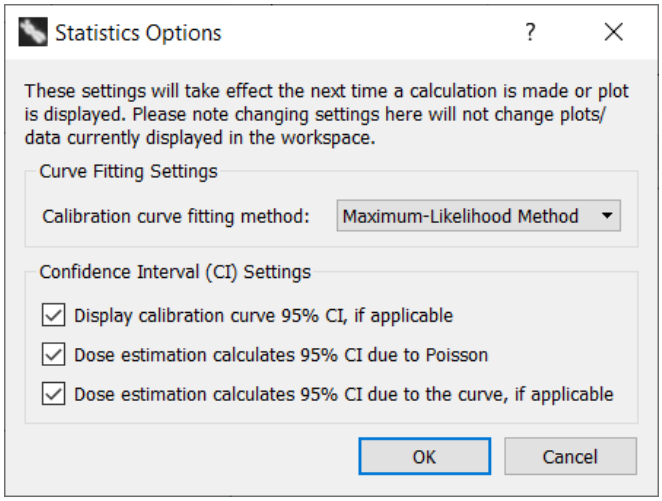
parameter is 3.5Gy.

- **Fraction of total images to place in each randomly generated sample**
  Random subsets of images from an unirradiated sample are derived in order to determine an expected minimum number of DCs. A fraction of 0.5 means each randomly selected subset contains 50% of the images found in the original unirradiated sample. The default value for this parameter is 0.5.
- **Minimum image count in randomly generated samples (overrides fraction)**
  A minimum image count for each randomly generated subset. For example, if a 0Gy calibration sample contains 1000 images and a fraction of 0.4 is applied, 400 images will be present in each subset. Then, if the minimum image count specified here is higher than 400, the minimum image count will override the fraction and each randomly generated subset will contain the minimum image count. Additionally, if the minimum image count is higher than the number of images in the 0Gy calibration sample, dose estimation will be aborted. The default value for this parameter is 500.
- **Number of randomly generated samples to create**
  Count of randomly generated subsets to create. A higher number will increase dose estimation consistency but will require more computation time. The default value for this parameter is 500.

# Quality Control




# Statistics




1)
Romm H, Oestreicher U, Kulka U. Cytogenetic damage analysed by the dicentric assay. Annali Dell'istituto Superiore di Sanita. 2009 ;45(3):251-259.
2)
Lloyd DC, Purrott RJ, Reeder EJ. The incidence of unstable chromosome aberrations in peripheral blood lymphocytes from unirradiated and occupationally exposed people. Mutat Res. 1980;72(3):523-532. doi:10.1016/0027-5107(80)90123-2
3)
https://www-pub.iaea.org/MTCD/Publications/PDF/EPR-Biodosimetry%202011_web.pdf