



# LUCIA

## Comet Assay™

LUCIA Comet Assay™ is a powerful software specialized in image analysis during genotoxicity testing and evaluation of DNA repair. The software is a perfect tool for:

- Image capturing by digital camera
- Image archiving
- performing of routine measurements
- performing of scientific experiments

Jenoptik camera, Nikon Ni microscope

### Supports Wide Range of Motorized Microscopes, Digital Cameras and Accessories

A high-quality digital camera, carefully selected in order to meet the clients requirements, is delivered along with LUCIA Comet Assay™. There is a number of motorized microscopes and other accessories which can be connected to the software and controlled right from the screen, too.

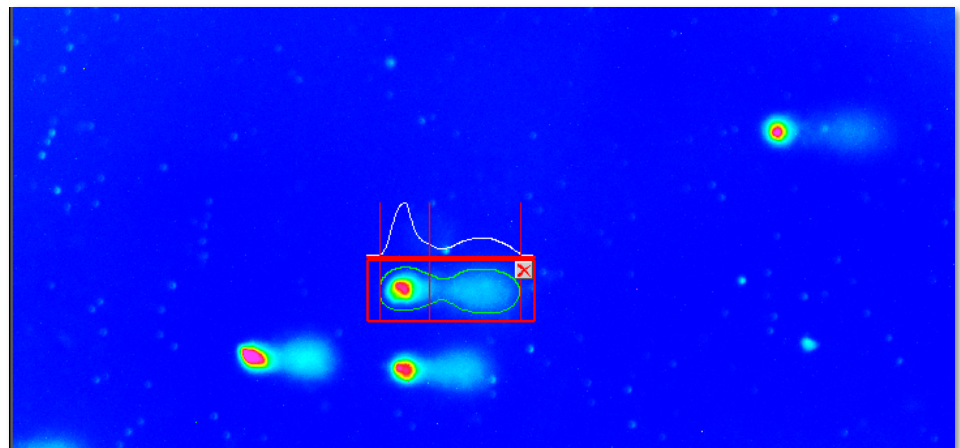
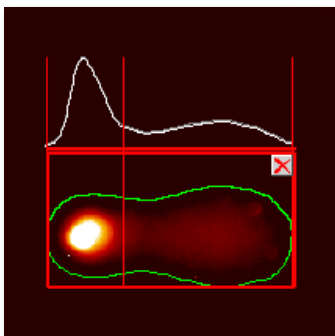


### The LUTs function Enhances the Image

The LUTs (look-up tables) function ensures that the image displayed on screen has the right brightness and contrast while the image data being acquired are not modified. This way you can change appearance during acquisition without affecting measurement results. Also, this powerful tool enables you to display the live camera image in the color of the probe used or in any other color scheme.

Comets displayed in an arbitrary color scheme

Measuring a comet



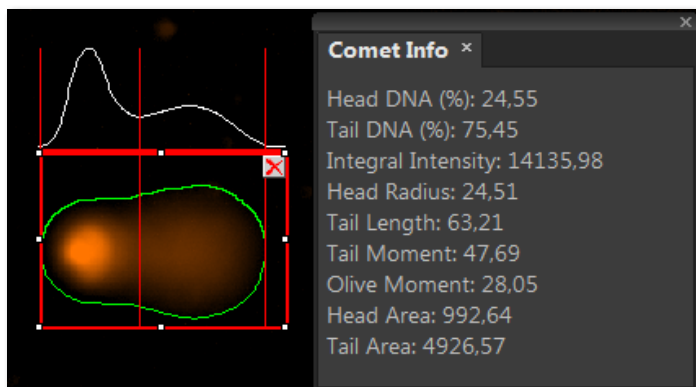
## Automatic Detection and Measurements

Information about the selected comet in the Comet Info panel ▼

Select one of the three available measurement methods. You can measure the live image without acquiring the image data or saved images.

### Fully automated measurement

All detected objects in the image are analysed based on user-defined morphological features. Only objects which comply with the defined conditions are selected for measurement. This method eliminates objects which e.g. have inhomogeneous image background, overlapping comets, partly acquired comets, etc. Images in one directory can be analysed automatically, too.



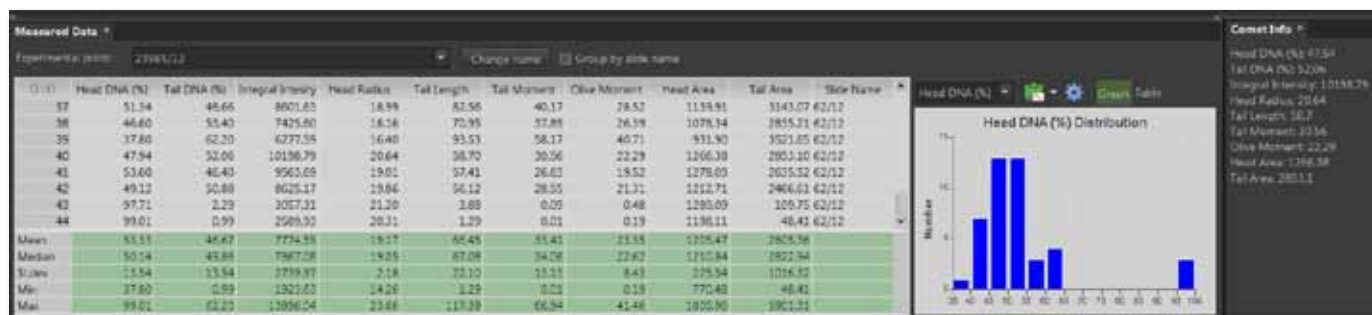
### Semi-automatic measurement

Comets to be measured are picked by user manually followed automatic analysis.

### Manual measurement

A fully manual method where the user defines rectangular area within the image. The analysis is performed inside the selected areas without any preprocessing.

The results table and the graph ▼



## Simple Data Management

- Analysis results of the selected comet (% of DNA in the head and tail, length, area...) are displayed in the "Comet Info" panel.
- Overall results are displayed in a table at the bottom of the screen.
- Any of the measured features can be displayed in a graph.
- Exporting of the measured data to an external spreadsheet has never been so easy.

## Automated Scanning of Comets.

If the Automated Scanning Module is added to the main LUCIA Comet Assay™ software and a multi-slide XYstage is used, you get a perfect comet-assay solution for your laboratory.