## **Resource Summary Report**

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# CASPLab: Comet Assay Software Project Laboratory

RRID:SCR\_007249 Type: Tool

## **Proper Citation**

CASPLab: Comet Assay Software Project Laboratory (RRID:SCR\_007249)

## **Resource Information**

#### URL: http://casp.sourceforge.net

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Description: CASP is a tool to image analysis in comet assay. CASP has been developed to work with either color, or gray-scale images of fluorescence-stained comets saved in TIF format. In its present version CASP does not control a video or CCD camera. Comets stained with silver (dark cells on white background) must be converted into negative images in order to be analysed correctly. An unlimited number of images can be marked, CASP will load them successively into a image view window (see screenshot). Only comets oriented from left (head) to right (tail) can be analysed correctly. The user can adjust various thresholds of sensitivity and save the adjustments for future use. A measurement frame is drawn on the screen and its size adjusted. The adjustments are frozen to prevent accidental modification. The frame is moved onto a cell and measurement is activated. An intensity profile shows up on a profile window together with selected result values (right window on figure 1) and the result can be saved. In addition to such parameter as head radius, tail length etc, the program calculates the tail moment (TM) and the Olive tail moment (OTM). If several cells are present on the same picture, the user can proceed with the measurement of another cell on the same picture or can load a new picture. The saved results can be visualized during the working session in a spreadsheet in view results window. When measurements are terminated, the results can be exported into a text file and imported into a commercial spreadsheet calculation program. CASP is optimized for a 600x800 resolution. Sponsors: This work has been supported by the University of Wroclaw. Keywords: Comet, Assay, Software, Laboratory, Camera, Negative, Cell, Analysis, Image,

#### Synonyms: CASPLab

**Resource Type:** organization portal, data or information resource, portal, laboratory portal, software resource

Funding:

Resource Name: CASPLab: Comet Assay Software Project Laboratory

Resource ID: SCR\_007249

Alternate IDs: nif-0000-30299

Record Creation Time: 20220129T080240+0000

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## **Ratings and Alerts**

No rating or validation information has been found for CASPLab: Comet Assay Software Project Laboratory.

No alerts have been found for CASPLab: Comet Assay Software Project Laboratory.

## Data and Source Information

Source: SciCrunch Registry

## **Usage and Citation Metrics**

We found 33 mentions in open access literature.

Listed below are recent publications. The full list is available at FDI Lab - SciCrunch.org.

La Maestra S, et al. (2025) Evaluation of the genotoxic and transformation potential induced by asbestos compared to cleavage fragments. Scientific reports, 15(1), 3613.

Shi W, et al. (2025) Epigynum auritum-Derived Near-Infrared Carbon Dots for Bioimaging and Antimicrobial Applications. Molecules (Basel, Switzerland), 30(2).

Zhang J, et al. (2024) GATA factor TRPS1, a new DNA repair protein, cooperates with reversible PARylation to promote chemoresistance in patients with breast cancer. The Journal of biological chemistry, 300(10), 107780.

La Maestra S, et al. (2024) UVB-Aged Microplastics and Cellular Damage: An in Vitro Study. Archives of environmental contamination and toxicology, 87(1), 48.

Lu X, et al. (2024) Targeting the cGAS-STING Pathway Inhibits Peripheral T-cell Lymphoma

Progression and Enhances the Chemotherapeutic Efficacy. Advanced science (Weinheim, Baden-Wurttemberg, Germany), 11(10), e2306092.

Onji H, et al. (2024) Schlafen 11 further sensitizes BRCA-deficient cells to PARP inhibitors through single-strand DNA gap accumulation behind replication forks. Oncogene, 43(32), 2475.

Liu T, et al. (2024) Molecular basis of CX-5461-induced DNA damage response in primary vascular smooth muscle cells. Heliyon, 10(17), e37227.

Acar A, et al. (2023) Monitoring genotoxic, biochemical and morphotoxic potential of penoxsulam and the protective role of European blueberry (Vaccinium myrtillus L.) extract. Scientific reports, 13(1), 6787.

Macar O, et al. (2023) Assessing the combined toxic effects of metaldehyde mollucide. Scientific reports, 13(1), 4888.

Izumi T, et al. (2023) Copy Number Variation That Influences the Ionizing Radiation Sensitivity of Oral Squamous Cell Carcinoma. Cells, 12(20).

Tafurt-Cardona Y, et al. (2023) Toxic effects of Arianor Ebony hair dye on human cells. Brazilian journal of medical and biological research = Revista brasileira de pesquisas medicas e biologicas, 56, e12777.

Zhao R, et al. (2023) Nuclear ATR lysine-tyrosylation protects against heart failure by activating DNA damage response. Cell reports, 42(4), 112400.

Acar A, et al. (2022) Assessment of the ameliorative effect of curcumin on pendimethalininduced genetic and biochemical toxicity. Scientific reports, 12(1), 2195.

Onur B, et al. (2022) Paraquat toxicity in different cell types of Swiss albino mice. Scientific reports, 12(1), 4818.

Zhang SH, et al. (2022) Comparative Analysis of Aristolochic Acids in Aristolochia Medicinal Herbs and Evaluation of Their Toxicities. Toxins, 14(12).

Seven B, et al. (2022) Investigation of cypermethrin toxicity in Swiss albino mice with physiological, genetic and biochemical approaches. Scientific reports, 12(1), 11439.

Kudo KI, et al. (2022) ?Np63? transcriptionally represses p53 target genes involved in the radiation-induced DNA damage response : ?Np63? may cause genomic instability in epithelial stem cells. Radiation oncology (London, England), 17(1), 183.

Yang Y, et al. (2021) Targeting lactate dehydrogenase a improves radiotherapy efficacy in non-small cell lung cancer: from bedside to bench. Journal of translational medicine, 19(1), 170.

La Maestra S, et al. (2020) Attenuation of oxidative stress and chromosomal aberrations in cultured macrophages and pulmonary cells following self-sustained high temperature

synthesis of asbestos. Scientific reports, 10(1), 8581.

Zhang W, et al. (2020) A high-throughput small molecule screen identifies farrerol as a potentiator of CRISPR/Cas9-mediated genome editing. eLife, 9.