

Resource Summary Report

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Morpheus

RRID:SCR_014975

Type: Tool

Proper Citation

Morpheus (RRID:SCR_014975)

Resource Information

URL: <https://morpheus.gitlab.io/>

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Description: Modeling and simulation environment for study of multi scale and multicellular systems. Users can construct and simulate models of gene regulation, signaling pathways, tissue patterning and morphogenesis and explore the effects of multiscale feedbacks between these processes. Morpheus can render 2D and 3D models using graphical user interface.

Resource Type: 3d visualization software, data processing software, data visualization software, simulation software, software application, software resource

Defining Citation: [PMID:24443380](#)

Keywords: simulation, modeling, multicellular, systems biology, cell-based models, data visualization, differential equations, reaction-diffusion systems, bio.tools

Funding: BMBF 0315734;
BMBF 0316169;
DFG

Availability: Free, Available for download, Freely available

Resource Name: Morpheus

Resource ID: SCR_014975

Alternate IDs: biotools:morpheus-framework

Alternate URLs: <https://gitlab.com/morpheus.lab/morpheus>, <https://bio.tools/morpheus-framework>

Old URLs: <https://imc.zih.tu-dresden.de/wiki/morpheus>

Record Creation Time: 20220129T080323+0000

Record Last Update: 20260821T194032+0000

Ratings and Alerts

No rating or validation information has been found for Morpheus.

No alerts have been found for Morpheus.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 754 mentions in open access literature.

Listed below are recent publications. The full list is available at [NIF](#) .

Brown JR, et al. (2026) Prednisolone modulates CD8⁺ and regulatory T-cell activity to dampen response to immune checkpoint inhibitor therapy in melanoma. *Oncoimmunology*, 15(1), 2643494.

Han X, et al. (2026) Impaired nitrogenous waste clearance promotes hepatocellular carcinoma. *Science advances*, 12(2), eaec0766.

Xu ZH, et al. (2026) ERR α -KDM5C restrains STING enhancer activity to modulate type I interferon signaling in breast cancer progression. *Cell death & disease*, 17(1), 228.

Sattler AL, et al. (2026) Sympathetic nerve-fibroblast crosstalk drives nerve injury, fibroblast activation, and matrix remodeling in pancreatic cancer. *JCI insight*, 11(7).

Trivedi R, et al. (2026) Annexin A2-dependent extracellular vesicle proteome modulates pre-metastatic stromal fibroblast behavior in triple-negative breast cancer. *Cell communication and signaling : CCS*, 24(1).

Brooke GN, et al. (2026) Disruption of androgen receptor-cofactor interactions by the RNA-binding protein FUS/TLS alters androgen signalling in prostate cancer. *Oncogene*, 45(8), 757.

Achudhan D, et al. (2026) MicroRNA networks associated with skeletal aging and WNT pathway modulation. *Calcified tissue international*, 117(1).

Contino KF, et al. (2026) The contribution of stem cell factor and its receptor c-Kit to cancer-induced bone pain. *JCI insight*, 11(12).

Singh H, et al. (2026) Edge-Hosted LLM-Assisted NICU Discharge Summary Generation: Field-Level Evaluation Using a Clinician-Defined Rubric. *Healthcare (Basel, Switzerland)*, 14(11).

Kelly B, et al. (2026) Sulfur partitioning from cysteine controls T cell proliferation and effector function. *Cell*, 189(12), 3669.

Vishnoi M, et al. (2026) A prognostic matrix gene expression signature defines functional glioblastoma phenotypes and niches. *Communications biology*, 9(1), 18.

Coulombe-Huntington J, et al. (2026) A Chemical-Genetic Interaction Matrix Reveals Drug Mechanism and Genetic Architecture. *bioRxiv : the preprint server for biology*.

Banjanac T, et al. (2026) Heterogeneity of iridoid biosynthesis in catmints: Molecular background in a phylogenetic context. *Journal of integrative plant biology*, 68(3), 694.

Lin P, et al. (2026) CD70-Targeting CAR NK Cells Overcome BCMA Downregulation and Improve Survival in High-risk Multiple Myeloma Models. *Blood cancer discovery*, 7(2), 234.

Urbauer E, et al. (2026) Reduced Intestinal GLP-1+ Cell Numbers Are Associated With an Inflammation-related Epithelial Metabolic Signature. *Cellular and molecular gastroenterology and hepatology*, 20(2), 101656.

Jacobs F, et al. (2026) Unraveling lung cancer dynamics: a new metabolic signature improving the prediction of recurrence in resected lung adenocarcinoma. *Journal of translational medicine*, 24(1).

Cuttano R, et al. (2026) Functional analysis of the human miRNome in non-small cell lung cancer unveils a novel miR-92b-3p/NOTCH3 axis that drives tumor progression. *Cell death & disease*, 17(1).

Gašić U, et al. (2026) Towards Understanding the Bioactive Potential of Two Intriguing *Nepeta* Species: Metabolomic and Phylogenetic Perspectives. *Plants (Basel, Switzerland)*, 15(12).

Jayaraman V, et al. (2026) CD163 and Tim-4 identify resident intestinal macrophages that are spatially regulated by TGF- β . *The Journal of experimental medicine*, 223(5).

Gou X, et al. (2026) Identification of a Two-Gene Biomarker Correlated with Sensitivity to Combined PARP7 Inhibition and AHR Activation in Cancer Cells. *Cancer research communications*, 6(1), 5.