Resource Summary Report

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Rosalind

RRID:SCR_006233
Type: Tool

Proper Citation

Rosalind (RRID:SCR_006233)

Resource Information

URL: http://rosalind.info/

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Description: A software infrastructure, course and tool set for teaching bioinformatics, and biology through the use of models. This platform for learning bioinformatics through problem solving aims to make learning bioinformatics fun and easy. Learning bioinformatics usually requires solving computational problems of varying difficulty that are extracted from real challenges of molecular biology. Rosalind offers an array of intellectually stimulating problems that grow in biological and computational complexity; each problem is checked automatically, so that the only resource required to learn bioinformatics is an internet connection. Rosalind also promises to facilitate improvements in standard bioinformatics education by providing a vital teaching aid and a central homework resource. Rosalind is inspired by Project Euler, Google Code Jam, and the ever growing movement of free online courses. The project''s name commemorates Rosalind Franklin, whose X-ray crystallography with Raymond Gosling facilitated the discovery of the DNA double helix by Watson and Crick. We hope that Rosalind will inspire a new generation of bioinformatics students by attracting biologists who want to develop vital programming skills at their own pace in a unique environment as well as programmers who have never been exposed to some of the stimulating computational problems generated by molecular biology.

Abbreviations: Rosalind

Resource Type: online course, open course, training resource

Keywords: bioinformatics, biology, model, programming, teaching, course, problem solving, python, algorithm, molecular biology

Funding: Howard Hughes Medical Institute ;
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Megagrant

Resource Name: Rosalind

Resource ID: SCR_006233

Alternate IDs: nlx_151793, OMICS_01709

Record Creation Time: 20220129T080235+0000

Record Last Update: 20260905T133034+0000

Ratings and Alerts

No rating or validation information has been found for Rosalind.

No alerts have been found for Rosalind.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 39 mentions in open access literature.

Listed below are recent publications. The full list is available at Kravitz .

Hladik C, et al. (2026) Nanoluciferase-CD63 labeling reveals extracellular vesicle kinetics in a mouse intraductal model of ductal carcinoma in situ. Breast cancer research : BCR, 28(1).

Baumer Y, et al. (2026) Neighborhood socioeconomic deprivation and physical activity associate with extracellular vesicle size and cargo in a community-based cohort of women. Scientific reports, 16(1).

Bogdani M, et al. (2026) Mutation-specific neuropathologic signatures in MAPT-associated frontotemporal lobar degeneration. Acta neuropathologica, 152(1).

Steinbuck MP, et al. (2026) Lymph node-targeted DNA engages TBK1/IFN-I-driven innate immunity to induce potent T cell responses and durable memory in mice and NHPs. Science advances, 12(22), eaec1416.

Morales Rivera AG, et al. (2026) Characterization of a novel cell wall-associated nucleotidase of Enterococcus faecalis that degrades extracellular c-di-AMP. PLoS pathogens, 22(5), e1014206.

Sharma A, et al. (2025) Subtype- and race-specific variations in the immune landscape of breast cancer: therapeutic implications. NPJ breast cancer, 11(1), 78.

Giovannetti F, et al. (2025) Conjunctival MicroRNA Expression Signature in Primary Sjögren's Syndrome Dry Eye: A NanoString-Based Bioinformatic Analysis. Investigative

ophthalmology & visual science, 66(4), 80.

Elayapillai SP, et al. (2025) Oklahoma nitrone-007 is an effective anticancer therapeutic agent targeting inflammatory and immune metabolism pathways in endometrial cancer. The Journal of pharmacology and experimental therapeutics, 392(1), 100004.

Edatt L, et al. (2025) Isolation Methods of Tumor Endothelial Cells Impact AngiomiR Profiles. bioRxiv : the preprint server for biology.

Mann AP, et al. (2025) A neuroprotective tetrapeptide for treatment of acute traumatic brain injury. EMBO molecular medicine, 17(11), 3021.

Jocher G, et al. (2025) The late-onset Alzheimer's disease risk factor RHBDF2 is a modifier of microglial TREM2 proteolysis. Life science alliance, 8(5).

Rajesh V, et al. (2025) Out-of-the-box bioinformatics capabilities of large language models (LLMs). bioRxiv : the preprint server for biology.

Agarwal P, et al. (2025) A Phase II Study of Neoadjuvant GVAX and Cyclophosphamide Combined with Nivolumab and SBRT Followed by Surgery in Borderline Resectable Pancreatic Adenocarcinoma. Clinical cancer research : an official journal of the American Association for Cancer Research, 31(15), 3205.

Morais M, et al. (2024) Silver Nanoparticles (AgNPs) Uptake by Caveolae-Dependent Endocytosis is Responsible for Their Selective Effect Towards Castration Resistant Prostate Cancer. International journal of nanomedicine, 19, 9091.

Zelus EI, et al. (2024) Immunomodulatory extracellular matrix hydrogel induces tissue regeneration in a model of partial glossectomy. Bioactive materials, 38, 528.

Starr H, et al. (2024) Microarray Gene Expression Analysis of Lesional Skin in Canine Pemphigus Foliaceus. Veterinary sciences, 11(2).

Solstad AD, et al. (2024) IFN-? uniquely promotes CD8 T cell immunity against SARS-CoV-2 relative to type I IFN. JCI insight, 9(13).

Rucker AJ, et al. (2024) Necroptosis stimulates interferon-mediated protective anti-tumor immunity. Cell death & disease, 15(6), 403.

Mortan LF, et al. (2024) Implication of fibroblast growth factor 7 in ovarian cancer metastases and patient survival. Frontiers in oncology, 14, 1524606.

Drakes DJ, et al. (2024) Lymph Node-Targeted Vaccine Boosting of TCR T-cell Therapy Enhances Antitumor Function and Eradicates Solid Tumors. Cancer immunology research, 12(2), 214.