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: training resource, online course, open course

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

Funding: Howard Hughes Medical Institute ;

Ministry of Education and Science of the Russian Federation ;
Megagrant

Resource Name: Rosalind

Resource ID: SCR_006233

Alternate IDs: nlx_151793, OMICS_01709

Record Creation Time: 20220129T080235+0000

Record Last Update: 20250521T061100+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 25 mentions in open access literature.

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

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).

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.

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

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

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.

Mortan LF, et al. (2024) Implication of fibroblast growth factor 7 in ovarian cancer metastases

and patient survival. Frontiers in oncology, 14, 1524606.

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

Ferreira JN, et al. (2024) Unveiling senescence-associated ocular pathogenesis via lacrimal gland organoid magnetic bioassembly platform and HMGB1-Box A gene therapy. Scientific reports, 14(1), 21784.

Henry RJ, et al. (2024) Interaction of high-fat diet and brain trauma alters adipose tissue macrophages and brain microglia associated with exacerbated cognitive dysfunction. Journal of neuroinflammation, 21(1), 113.

Montoya M, et al. (2024) IRF8-driven reprogramming of the immune microenvironment enhances anti-tumor adaptive immunity and reduces immunosuppression in murine glioblastoma. bioRxiv : the preprint server for biology.

Johnson BS, et al. (2024) Targeted degradation of extracellular mitochondrial aspartyl-tRNA synthetase modulates immune responses. Nature communications, 15(1), 6172.

Nielsen AJ, et al. (2024) DNA-PK inhibition enhances neoantigen diversity and increases T cell responses to immunoresistant tumors. The Journal of clinical investigation, 134(24).

Elsaid KA, et al. (2024) Proteoglycan 4 (Lubricin) and regulation of xanthine oxidase in synovial macrophage as a mechanism of controlling synovitis. Arthritis research & therapy, 26(1), 214.

Choi Y, et al. (2023) Hepatitis B vaccine delivered by microneedle patch: Immunogenicity in mice and rhesus macaques. Vaccine, 41(24), 3663.

Mathiesen A, et al. (2023) Adipose Tissue-Derived Extracellular Vesicles Contribute to Phenotypic Plasticity of Prostate Cancer Cells. International journal of molecular sciences, 24(2).

Henry RJ, et al. (2023) Interaction of high-fat diet and brain trauma alters adipose tissue macrophages and brain microglia associated with exacerbated cognitive dysfunction. bioRxiv : the preprint server for biology.

Turchi R, et al. (2023) Butyrate prevents visceral adipose tissue inflammation and metabolic alterations in a Friedreich's ataxia mouse model. iScience, 26(10), 107713.

Lovewell RR, et al. (2023) LAIR-1 agonism as a therapy for acute myeloid leukemia. The Journal of clinical investigation, 133(22).

Whittaker DS, et al. (2023) Circadian modulation by time-restricted feeding rescues brain pathology and improves memory in mouse models of Alzheimer's disease. Cell metabolism, 35(10), 1704.

Carroll J, et al. (2022) High intensity focused ultrasound for the treatment of solid tumors: a pilot study in canine cancer patients. International journal of hyperthermia : the official journal

of European Society for Hyperthermic Oncology, North American Hyperthermia Group, 39(1), 855.