

Resource Summary Report

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ALEA

RRID:SCR_006417

Type: Tool

Proper Citation

ALEA (RRID:SCR_006417)

Resource Information

URL: <http://www.bcgsc.ca/platform/bioinfo/software/alea>

Proper Citation: ALEA (RRID:SCR_006417)

Description: A computational software toolbox for allele-specific (AS) epigenomics analysis. It incorporates allelic variation data within existing resources, allowing for the identification of significant associations between epigenetic modifications and specific allelic variants in human and mouse cells. It provides a customizable pipeline of command line tools for AS analysis of next-generation sequencing data (ChIP-seq, RNA-seq, etc.) that takes the raw sequencing data and produces separate allelic tracks ready to be viewed on genome browsers. ALEA takes advantage of the available genomic resources for human (The 1000 Genomes Project Consortium) and mouse (The Mouse Genome Project) to reconstruct diploid in-silico genomes for human or hybrid mice under study. Then, for each accompanying ChIP-seq or RNA-seq dataset, it generates two Wiggle track format (WIG) files from short reads aligned differentially to each haplotype.

Abbreviations: ALEA

Resource Type: software resource, software toolkit

Defining Citation: [PMID:24371156](#)

Keywords: allele, epigenomics, analysis, chip-seq, rna-seq, allelic variation, next-generation sequencing

Availability: Academic Free License

Resource Name: ALEA

Resource ID: SCR_006417

Alternate IDs: OMICS_02193

Record Creation Time: 20220129T080236+0000

Ratings and Alerts

No rating or validation information has been found for ALEA.

No alerts have been found for ALEA.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 95 mentions in open access literature.

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

Bakker WM, et al. (2025) Rationale and design of the Renal Lifecycle trial assessing the effect of dapagliflozin on cardiorenal outcomes in severe chronic kidney disease. Nephrology, dialysis, transplantation : official publication of the European Dialysis and Transplant Association - European Renal Association, 40(9), 1746.

Emmel C, et al. (2025) Feasibility of an unsupervised aerobic exercise training program for participants with persistent symptoms after SARS-CoV-2 infection. Scientific reports, 15(1), 28827.

Fraterman I, et al. (2025) Exploring the Impact of the Multimodal CAPABLE eHealth Intervention on Health-Related Quality of Life in Patients With Melanoma Undergoing Immune-Checkpoint Inhibition: Prospective Pilot Study. JMIR cancer, 11, e58938.

Helsby N, et al. (2025) A thymine-challenge test to prospectively evaluate dihydropyrimidine dehydrogenase activity for risk of severe 5-fluorouracil-induced gastrointestinal toxicity. Cancer chemotherapy and pharmacology, 95(1), 81.

, et al. (2025) Appendicectomy plus standard medical therapy versus standard medical therapy alone for maintenance of remission in ulcerative colitis (ACCURE): a pragmatic, open-label, international, randomised trial. The lancet. Gastroenterology & hepatology, 10(6), 550.

Neeter LMFH, et al. (2024) Contrast-enhanced mammography versus conventional imaging in women recalled from breast cancer screening (RACER trial): a multicentre, open-label, randomised controlled clinical trial. The Lancet regional health. Europe, 44, 100987.

Dixon F, et al. (2024) Robotic assisted surgery reduces ergonomic risk during minimally invasive colorectal resection: the VOLCANO randomised controlled trial. Langenbeck's archives of surgery, 409(1), 142.

Heemskerk SCM, et al. (2024) Sacral Neuromodulation Versus Conservative Treatment for Refractory Idiopathic Slow-transit Constipation: The Randomized Clinical No.2-Trial. *Annals of surgery*, 279(5), 746.

Klaver KM, et al. (2024) Internet-based cognitive rehabilitation for working cancer survivors: results of a multicenter randomized controlled trial. *JNCI cancer spectrum*, 8(1).

Rozeman EA, et al. (2023) IMPemBra: a phase 2 study comparing pembrolizumab with intermittent/short-term dual MAPK pathway inhibition plus pembrolizumab in patients with melanoma harboring the BRAFV600 mutation. *Journal for immunotherapy of cancer*, 11(7).

Hermans K, et al. (2023) Effectiveness and cost-effectiveness of combined asynchronous telemonitoring and patient-initiated care for spondyloarthritis: protocol for a pragmatic multicentre randomised controlled trial (TeleSpA Study). *BMJ open*, 13(2), e067445.

Reijers ILM, et al. (2023) IFN- γ signature enables selection of neoadjuvant treatment in patients with stage III melanoma. *The Journal of experimental medicine*, 220(5).

van den Bosch CH, et al. (2023) CATERPILLAR-study protocol: an assessor-blinded randomised controlled trial comparing taurolidine-citrate-heparin to heparin-only lock solutions for the prevention of central line-associated bloodstream infections in paediatric oncology patients. *BMJ open*, 13(3), e069760.

Geubels BM, et al. (2023) Optimisation of Organ Preservation treatment strategies in patients with rectal cancer with a good clinical response after neoadjuvant (chemo)radiotherapy: Additional contact X-ray brachytherapy versus eXtending the observation period and local excision (OPAXX) - protocol for two multicentre, parallel, single-arm, phase II studies. *BMJ open*, 13(12), e076866.

Rodriguez-Wallberg KA, et al. (2023) ProFertil study protocol for the investigation of gonadotropin-releasing hormone agonists (GnRHa) during chemotherapy aiming at fertility protection of young women and teenagers with cancer in Sweden-a phase III randomised double-blinded placebo-controlled study. *BMJ open*, 13(12), e078023.

Quint EE, et al. (2023) PREhabilitation of CAndidates for REnal Transplantation (PreCareTx) study: protocol for a hybrid type I, mixed method, randomised controlled trial. *BMJ open*, 13(7), e072805.

Fraterman I, et al. (2023) An eHealth App (CAPABLE) Providing Symptom Monitoring, Well-Being Interventions, and Educational Material for Patients With Melanoma Treated With Immune Checkpoint Inhibitors: Protocol for an Exploratory Intervention Trial. *JMIR research protocols*, 12, e49252.

Fennell D, et al. (2023) Evaluating niraparib versus active symptom control in patients with previously treated mesothelioma (NERO): a study protocol for a multicentre, randomised, two-arm, open-label phase II trial in UK secondary care centres. *BMJ open*, 13(11), e073120.

Dushianthan A, et al. (2023) A randomized controlled trial of nebulized surfactant for the treatment of severe COVID-19 in adults (COVSurf trial). *Scientific reports*, 13(1), 20946.

Neuhann JM, et al. (2022) A multinational, phase 2, randomised, adaptive protocol to evaluate immunogenicity and reactogenicity of different COVID-19 vaccines in adults ?75 already vaccinated against SARS-CoV-2 (EU-COVAT-1-AGED): a trial conducted within the VACCELERATE network. *Trials*, 23(1), 865.