

Resource Summary Report

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ORION

RRID:SCR_010621

Type: Tool

Proper Citation

ORION (RRID:SCR_010621)

Resource Information

URL: <https://github.com/CBL-ORION/orion>

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Description: Project to develop tools that explore single neuron function via sophisticated image analysis. ORION software bridges advanced optical imaging and compartmental modeling of neuronal function by rapidly, accurately, and robustly generating, from structural image data, a cylindrical morphology model suitable for simulating neuronal function.

Synonyms: ORION Research

Resource Type: data processing software, image analysis software, software application, software resource, source code

Keywords: structural imaging, reconstruction, simulation, functional imaging, multiphoton, confocal

Funding: University of Houston; Texas; USA ;
NIA RO1-AG027577;
NSF IIS-0431144;
NSF IIS-0638875;
NSF DMS-0915242

Availability: Free, Available for download, Freely available

Resource Name: ORION

Resource ID: SCR_010621

Alternate IDs: nlx_56302

Old URLs: <http://cbl.uh.edu/ORION/research/overview>, <http://cbl.uh.edu/ORION/>

Record Creation Time: 20220129T080259+0000

Record Last Update: 20260912T200100+0000

Ratings and Alerts

No rating or validation information has been found for ORION.

No alerts have been found for ORION.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 57 mentions in open access literature.

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

Caldaruse AM, et al. (2026) Efficient Binding Affinity Estimation for Fragment-Based Compounds Using a Separated Topologies Approach. Journal of chemical information and modeling, 66(7), 4202.

Fecho K, et al. (2026) The ROBOKOP v1.0 knowledge graph system for exploring relationships between biomedical entities. Scientific reports, 16(1).

Khan MA, et al. (2025) Machine Learning Quantification of Fluid Volume in Eyes With Retinal Vein Occlusion Treated With Aflibercept: The REVOLT Study. Journal of vitreoretinal diseases, 9(2), 174.

Shi Y, et al. (2025) Mechanisms of tumor persistence in metastatic melanoma following successful immunotherapy. bioRxiv : the preprint server for biology.

Carraturo G, et al. (2025) The Italian version of the extended Barcelona Music Reward Questionnaire (eBMRQ): a validation study and association with age, gender, and musicianship. PeerJ, 13, e18403.

Shaltout I, et al. (2024) Risk Stratification in People with Diabetes for Fasting During Ramadan: Consensus from Arabic Association for the Study of Diabetes and Metabolism. Current diabetes reviews, 20(7), e201023222409.

Katayama Y, et al. (2024) Factors associated with difficulty in hospital acceptance during the COVID-19 pandemic period in Osaka Prefecture, Japan: a population-based study. Frontiers in public health, 12, 1391519.

Strober B, et al. (2024) Long-Term Safety of Guselkumab in Patients with Psoriatic Disease: An Integrated Analysis of Eleven Phase II/III Clinical Studies in Psoriasis and Psoriatic Arthritis. Drug safety, 47(1), 39.

Kayhanian H, et al. (2024) Homopolymer switches mediate adaptive mutability in mismatch repair-deficient colorectal cancer. *Nature genetics*, 56(7), 1420.

Haun JN, et al. (2023) Traumatic Brain Injury Intensive Evaluation and Treatment Program: Protocol for a Partnered Evaluation Initiative Mixed Methods Study. *JMIR research protocols*, 12, e44776.

Girling C, et al. (2023) Protocol for the ORION trial (Radio frequency ablation for haemorrhoids): a randomised controlled trial. *Techniques in coloproctology*, 27(2), 117.

Makhmudova U, et al. (2023) High interindividual variability in LDL-cholesterol reductions after inclisiran administration in a real-world multicenter setting in Germany. *Clinical research in cardiology : official journal of the German Cardiac Society*, 112(11), 1639.

Parayil RT, et al. (2023) ZnGa₂-xAl_xO₄ (x = 0 ??? 2) spinel for persistent light emission and HER/OER bi-functional catalysis. *RSC advances*, 13(44), 31101.

Nakao S, et al. (2023) Assessing the impact of COVID-19 pandemic on ambulance transports for self-harm: a population-based study in Osaka Prefecture, Japan. *BMJ open*, 13(9), e074903.

Chen T, et al. (2023) Global translational induction during NLR-mediated immunity in plants is dynamically regulated by CDC123, an ATP-sensitive protein. *Cell host & microbe*, 31(3), 334.

Vaughan B, et al. (2023) Osteopathy Referrals to and from General Practitioners: Secondary Analysis of Practitioner Characteristics from an Australian Practice-Based Research Network. *Healthcare (Basel, Switzerland)*, 12(1).

Santurri M, et al. (2023) Automated conduction velocity estimation based on isochronal activation of heart chambers. *Journal of interventional cardiac electrophysiology : an international journal of arrhythmias and pacing*, 66(3), 647.

Katayama Y, et al. (2023) Outcome of emergency patients transported by ambulance during the COVID-19 pandemic in Osaka Prefecture, Japan: a population-based descriptive study. *Frontiers in public health*, 11, 1322236.

Desai NR, et al. (2022) Cost Effectiveness of Inclisiran in Atherosclerotic Cardiovascular Patients with Elevated Low-Density Lipoprotein Cholesterol Despite Statin Use: A Threshold Analysis. *American journal of cardiovascular drugs : drugs, devices, and other interventions*, 22(5), 545.

Malik RA, et al. (2022) Safety and Effectiveness of Insulin Glargine 300 U/mL in Participants with Type 2 Diabetes Who Fast During Ramadan in The Gulf Region: A Subgroup Analysis of the Real-World ORION Study. *Diabetes therapy : research, treatment and education of diabetes and related disorders*, 13(3), 569.