

Resource Summary Report

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MoTrPAC Data Hub

RRID:SCR_017611

Type: Tool

Proper Citation

MoTrPAC Data Hub (RRID:SCR_017611)

Resource Information

URL: <https://motrpac-data.org/>

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Description: National research consortium designed to discover and perform preliminary characterization of range of molecular transducers that underlie effects of physical activity in humans. Used to study molecular changes that occur during and after exercise and to advance understanding of how physical activity improves and preserves health. Six year program into mechanisms of how physical activity improves health and prevents disease led by NIH Office of Strategic Coordination, National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institute of Diabetes and Digestive and Kidney Diseases, National Institute on Aging, and National Institute of Biomedical Imaging and Bioengineering.

Abbreviations: MoTrPAC Data Hub

Synonyms: Molecular Transducers of Physical Activity Consortium Data Hub

Resource Type: database, organization portal, portal, consortium, data or information resource

Keywords: Discover, preliminary, characterization, range, molecular, transducer, physical, activity, human, changes, health, prevent, disease

Funding: NIH Common Fund

Availability: Restricted

Resource Name: MoTrPAC Data Hub

Resource ID: SCR_017611

Record Creation Time: 20220129T080336+0000

Record Last Update: 20260728T043532+0000

Ratings and Alerts

No rating or validation information has been found for MoTrPAC Data Hub.

No alerts have been found for MoTrPAC Data Hub.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 9 mentions in open access literature.

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

Kelty TJ, et al. (2025) Endurance exercise drives temporal and sexual dimorphic multi-omic adaptations in liver metabolism-Findings from MoTrPAC. bioRxiv : the preprint server for biology.

Bonilauri B, et al. (2025) The Long Non-coding RNA Landscape of Endurance Exercise Training. bioRxiv : the preprint server for biology.

Lee-Ødegård S, et al. (2024) Serum proteomic profiling of physical activity reveals CD300LG as a novel exerkine with a potential causal link to glucose homeostasis. eLife, 13.

Ortlund E, et al. (2024) Endurance Exercise Training Alters Lipidomic Profiles of Plasma and Eight Tissues in Rats: a MoTrPAC study. Research square.

Nair VD, et al. (2024) Molecular adaptations in response to exercise training are associated with tissue-specific transcriptomic and epigenomic signatures. Cell genomics, 4(6), 100421.

, et al. (2024) Temporal dynamics of the multi-omic response to endurance exercise training. Nature, 629(8010), 174.

Many GM, et al. (2024) Sexual dimorphism and the multi-omic response to exercise training in rat subcutaneous white adipose tissue. Nature metabolism, 6(5), 963.

Smith GR, et al. (2023) Multiomic identification of key transcriptional regulatory programs during endurance exercise training. bioRxiv : the preprint server for biology.

Sanford JA, et al. (2020) Molecular Transducers of Physical Activity Consortium (MoTrPAC): Mapping the Dynamic Responses to Exercise. Cell, 181(7), 1464.