

Resource Summary Report

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TARQUIN

RRID:SCR_002598

Type: Tool

Proper Citation

TARQUIN (RRID:SCR_002598)

Resource Information

URL: <http://tarquin.sourceforge.net/>

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Description: An analysis tool for automatically determining the quantities of molecules present in NMR spectroscopic data. The intended purpose of TARQUIN is to aid the characterisation of pathologies, in particular brain tumours, both non-invasively with in-vivo ¹H MRS and ex-vivo with ¹H HR-MAS. TARQUIN has the following features: * Free to use and modify under the GPL licence. * Based on a flexible time-domain fitting routine designed to give accurate rapid and automated quantitation for routine analysis. * Cross platform, works on Windows, Linux and OSX. * Comes packaged with a quantum mechanically based metabolite simulator to allow basis set construction optimised for the investigation of particular pathologies sequence parameters. * Includes both GUI and command line interface for one-off and batch analyses.

Abbreviations: TARQUIN

Synonyms: TARQUIN MRS analysis package

Resource Type: software resource, software application

Defining Citation: [PMID:20878762](#)

Keywords: magnetic resonance, mrs, mas, molecule, nmr spectroscopy

Availability: Free, Available for download, Freely available

Resource Name: TARQUIN

Resource ID: SCR_002598

Alternate IDs: nlx_156002

Alternate URLs: <http://www.nitrc.org/projects/tarquin>

License: GNU General Public License

Record Creation Time: 20220129T080214+0000

Record Last Update: 20260731T042641+0000

Ratings and Alerts

No rating or validation information has been found for TARQUIN.

No alerts have been found for TARQUIN.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 58 mentions in open access literature.

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

LaMaster J, et al. (2025) MRS-Sim: Open-Source Framework for Simulating In Vivo-Like Magnetic Resonance Spectra. NMR in biomedicine, 38(10), e70130.

Ackermann L, et al. (2025) Effect of Repetitive Transcranial Magnetic Stimulation on the Symptoms and Brain Imaging in Patients with Fibromyalgia Syndrome: A Randomized Controlled Pilot Trial. Pain and therapy.

Pant R, et al. (2025) Altered visual cortex excitatory/inhibitory ratio following transient congenital visual deprivation in humans. eLife, 13.

Delang N, et al. (2025) The Acute Effects of Non-concussive Head Impacts on Brain Microstructure, Chemistry and Function in Male Soccer Players: A Pilot Randomised Controlled Trial. Sports medicine - open, 11(1), 77.

Si Q, et al. (2025) Effects of modifying the pulse width on cognitive side effects with electroconvulsive therapy for schizophrenia. Schizophrenia research. Cognition, 41, 100369.

Pratt J, et al. (2025) Intra- and inter-session reliability and repeatability of 1H magnetic resonance spectroscopy for determining total creatine concentrations in multiple brain regions. Experimental physiology, 110(3), 464.

Dai F, et al. (2025) Lack of association between pretreatment glutamate/GABA and major depressive disorder treatment response. Translational psychiatry, 15(1), 71.

Cardoso Delgado T, et al. (2025) Metabolic dysfunction-associated steatotic liver disease alters brain function and behavior: Insights from liver-targeted siRNA therapy. Science advances, 11(43), eady9758.

- Revie L, et al. (2024) Age-related fornix decline predicts conservative response strategy-based slowing in perceptual decision-making. *Aging brain*, 5, 100106.
- Gordji-Nejad A, et al. (2024) Single dose creatine improves cognitive performance and induces changes in cerebral high energy phosphates during sleep deprivation. *Scientific reports*, 14(1), 4937.
- Tzanetakos D, et al. (2023) Early metabolic alterations in the normal-appearing grey and white matter of patients with clinically isolated syndrome suggestive of multiple sclerosis: A proton MR spectroscopic study. *Experimental and therapeutic medicine*, 26(1), 349.
- Christidi F, et al. (2023) Hippocampal Metabolic Alterations in Amyotrophic Lateral Sclerosis: A Magnetic Resonance Spectroscopy Study. *Life (Basel, Switzerland)*, 13(2).
- Harvey-Jones K, et al. (2023) Early assessment of injury with optical markers in a piglet model of neonatal encephalopathy. *Pediatric research*, 94(5), 1675.
- Rustamzadeh A, et al. (2023) Neurochemical Ameliorating of the Hippocampus in Dyslipidemic Alzheimer Patients Following Silymarin; a Double-Blind Placebo-Controlled Randomized Clinical Trial. *Medical journal of the Islamic Republic of Iran*, 37, 123.
- Wang X, et al. (2023) Reduced GABA concentration in patients with white matter hyperintensities. *Frontiers in neuroscience*, 17, 1320247.
- Yu M, et al. (2023) Changes in aspartate metabolism in the medial-prefrontal cortex of nicotine addicts based on J-edited magnetic resonance spectroscopy. *Human brain mapping*, 44(18), 6429.
- Candiota AP, et al. (2022) Establishing Imaging Biomarkers of Host Immune System Efficacy during Glioblastoma Therapy Response: Challenges, Obstacles and Future Perspectives. *Metabolites*, 12(3).
- Pang R, et al. (2021) Melatonin and/or erythropoietin combined with hypothermia in a piglet model of perinatal asphyxia. *Brain communications*, 3(1), fcaa211.
- Wang Z, et al. (2021) Female mice lacking ER α display excitatory/inhibitory synaptic imbalance to drive the pathogenesis of temporal lobe epilepsy. *Theranostics*, 11(12), 6074.
- Robertson NJ, et al. (2021) Human umbilical cord mesenchymal stromal cells as an adjunct therapy with therapeutic hypothermia in a piglet model of perinatal asphyxia. *Cytotherapy*, 23(6), 521.