

PRECISE4Q



PREDICTIVE MODELLING IN STROKE

The following table lists all literature published by the Precise4Q consortium during the course of the project.

Title	Main Author	Journal	DOI
Subacute stroke physical rehabilitation evidence in activities of daily living outcomes	Alejandro García-Rudolph	Medicine	10.1097/md.00000000000014501
Stroke Survivors on Twitter: Sentiment and Topic Analysis From a Gender Perspective	Alejandro Garcia-Rudolph	Journal of Medical Internet Research	10.2196/14077
The Ethics of AI in Biomedical Research, Patient Care and Public Health	Alessandro Blasimme	Oxford Handbook of Ethics of Artificial Intelligence	
Big Data, precision medicine and private insurance: A delicate balancing act	Alessandro Blasimme	Big Data & Society	10.1177/2053951719830111
Machine learning in medicine: Addressing ethical challenges	Effy Vayena	PLOS Medicine	10.1371/journal.pmed.1002689
Integrated experimental-computational analysis of a HepaRG liver-islet microphysiological system for human-centric diabetes research	Belén Casas	PLoS Comput Biol.	10.1371/journal.pcbi.1010587

A precision medicine framework for personalized simulation of hemodynamics in cerebrovascular disease.	Dietmar Frey	BioMed Eng OnLine	10.1186/s12938-021-00880-w
A systems biology analysis of adrenergically stimulated adiponectin exocytosis in white adipocytes	William Lövfors Gunnar Cedersund	J. Biol. Chem.	10.1016/j.jbc.2021.101221
Toward Sharing Brain Images: Differentially Private TOF-MRA Images With Segmentation Labels Using Generative Adversarial Networks	Tabea Kossen	Front Artif Intell.	10.3389/frai.2022.813842
Assessing Trustworthy AI in times of COVID-19. Deep Learning for predicting a multi-regional score conveying the degree of lung compromise in COVID-19 patients	Alessandro Blasimme	IEEE Trans Technol Soc.	10.1109/tts.2022.3195114
Comparing Poor and Favorable Outcome Prediction With Machine Learning After Mechanical Thrombectomy in Acute Ischemic Stroke	Mathias A. Mutke	Front Neurol.	10.3389/fneur.2022.737667
The impact of coronavirus disease 2019 on emotional and behavioral stress of informal family caregivers of individuals with stroke or traumatic brain injury at chronic phase living in a Mediterranean setting	Alejandro Garcia Rudolph	Brain Behav.	10.1002/brb3.2440

A systems biology analysis of lipolysis and fatty acid release from adipocytes in vitro and from adipose tissue in vivo	William Lövfors	PLoS ONE 16	10.1371/journal.pone.0261681
Digital twin predicting diet response before and after long-term fasting	Oscar Silfvergren	PLoS Comput Biol.	10.1371/journal.pcbi.1010469
The impact of COVID-19 on home, social, and productivity integration of people with chronic traumatic brain injury or stroke living in the community	Alejandro García-Rudolph	Medicine	10.1097/md.00000000000028695
To explain or not to explain? – Artificial intelligence explainability in clinical decision support systems	Amann, Julia	PLOS Digital Health, 1 (2)	10.3929/ethz-b-000533181
Anatomical labeling of intracranial arteries with deep learning in patients with cerebrovascular disease	Adam Hilbert	Frontiers in Neurology	10.3389/fneur.2022.1000914
Predictive Models for Independence After Stroke Rehabilitation: Mageri External Validation and Development of a New Model	Alejandro García-Rudolph	NeuroRehabilitation	10.3233/nre-201619
An evaluation of performance measures for arterial brain vessel segmentation	Orhun Utku Aydin	BMC Med Imaging	10.1186/s12880-021-00644-x
The impact of Body Mass Index on functional rehabilitation outcomes of working-age	Alejandro Garcia Rudolph	Eur J Phys Rehabil Med	10.23736/s1973-9087.20.06411-4

inpatients with stroke			
Validation-based model selection for 13C metabolic flux analysis with uncertain measurement errors	Nicolas Sundqvist	PLoS Comput Biol.	10.1371/journal.pcbi.1009999
The impact of educational level on cognitive assessments in young patients admitted to rehabilitation after ischaemic stroke	A. García-Rudolph	Rehabilitacion vol. 56	10.1016/j.rh.2021.09.005
Simulating Delay in Seeking Treatment for Stroke Due to COVID-19 Concerns with a Hybrid Agent-Based and Equation-Based Model	Elizabeth Hunter	Advances in Social Simulation.	10.1007/978-3-030-92843-8_29
Explainability for artificial intelligence in healthcare: a multidisciplinary perspective	Julia Amman	BMC Medical Informatics and Decision Making, 20	10.3929/ethz-b-000453945
Predicting length of stay in patients admitted to stroke rehabilitation with severe and moderate levels of functional impairments.	Alejandro García-Rudolph	Medicine	10.1097/md.00000000000022423
Towards Personalized Web-based Cognitive Rehabilitation for Patients with Ischemic Stroke: An Elo Rating Approach	Alejandro Garcia Rudolph	JMIR Med Inform	10.2196/28090
Understanding and Predicting Cognitive Improvement of Young Adults in Ischemic Stroke	Helard Becerra Martinez	Front. Neurol. 13	10.3389/fneur.2022.886477

Rehabilitation Therapy			
Age Specific Models to Capture the Change in Risk Factor Contribution by Age to Short Term Primary Ischemic Stroke Risk	Elizabeth Hunter	Frontiers in neurology vol. 13	10.3389/fneur.2022.803749
An Updated Organ-Based Multi-Level Model for Glucose Homeostasis: Organ Distributions, Timing, and Impact of Blood Flow	Tilda Herrgårdh	Front. Physiol. 12	10.3389/fphys.2021.619254
Timing the Ischemic Stroke by Multiparametric Quantitative Magnetic Resonance Imaging	Bryony L. McGarry	Stroke	10.36255/exonpublications.stroke.timingischemicstroke.2021
Outcome prediction in aneurysmal subarachnoid hemorrhage: a comparison of machine learning methods and established clinico-radiological scores	Nora F. Dengla	Neurosurgical Review	10.1007/s10143-020-01453-6
Moving Toward Explainable Decisions of Artificial Intelligence Models for the Prediction of Functional Outcomes of Ischemic Stroke Patients	Esra Zihni	Digital Health	10.36255/exon-publications-digital-health-explainable-decisions
Discovering the Context of People with Disabilities: Semantic Categorization Test and Environmental Factors Mapping of	Alejandro Garcia-Rudolph	JMIR Med Inform.	10.2196/17903

Word Embeddings from Reddit			
On Assessing Trustworthy AI in Healthcare: Machine Learning as a Supportive Tool to Recognize Cardiac Arrest in Emergency Calls	Roberto V. Zicari	Frontiers in Human Dynamics, 3	10.3929/ethz-b-000500065
Evidence of chronic stroke rehabilitation interventions in activities and participation outcomes: systematic review of meta-analyses of randomized controlled trials	Alejandro GARCÍA-RUDOLPH	Eur J Phys Rehabil Med.	10.23736/s1973-9087.19.05814-3
Hybrid modelling for stroke care: Review and suggestions of new approaches for risk assessment and simulation of scenarios.	Tilda Herrgårdh	Neuroimage Clin.	10.1016/j.nicl.2021.102694
Neuropsychological Assessments of Patients with Acquired Brain Injury: A Cluster Analysis Approach to Address Heterogeneity in Web-Based Cognitive Rehabilitation	Alejandro García-Rudolph	Front. Neurol. 12	10.3389/fneur.2021.701946
Machine learning in stroke medicine: Opportunities and challenges for risk prediction and prevention	Julia Amann	Artificial Intelligence in Brain and Mental Health: Philosophical, Ethical & Policy Issues	10.1007/978-3-030-74188-4_5