ONCOhabitats

https://www.oncohabitats.upv.es/

ONCOhabitats want to help health professionals, researchers, and companies discover the potential of artificial intelligence.

The Biomedical Data Science Lab (BDSLab) is an interdisciplinary research line of the ITACA Institute at Universitat Politècnica de Valencia (UPV) committed to biomedical computer science since its creation in 2000. With more than 13 years of experience, the BDSLab focuses its research on fundamental problems in biomedical data mining by means of the advanced pattern recognition and machine learning techniques, computational prediction, and the development of tools to support healthcare professionals and their patients.

The services have been retrospectively evaluated in hospitals in Spain, Italy, Belgium, and Norway in the NCT03439332 Clinical Study. Robust association between vascular habitats and patient prognosis in glioblastoma: An international multicenter study [1)].

see Glioblastoma pathology.

see Vascular habitats

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ONCOhabitats have been carried out within the ALBATROSS (PID2019-104978RB-I00) and SINUE (INNEST/2022/87) projects.

Currently, ONCOhabitats is being validadated by the clinical study “Evaluación de la viabilidad de ONCOhabitats para ayudar a la planificación de la cirugía y el tratamiento en pacientes con Glioblastoma, tipo IDH-wild (INNEST/2022/87)”. This clinical validation has been funded by ALBATROSS project (PID2019-104978RB-100 – Agencia Estatal de Investigación) and SINUÉ project (INNEST/2022/87 – Agencia Valenciana de la Innovación).

Segmentation services

MRI preprocessing in combination with automated segmentation of enhancing tumor, necrotic core, and edema based on Convolutional Neural Networks.

Biomarker quantification services

Functional assessment of biological imaging markers from perfusion and diffusion magnetic resonance sequences for the quantitative evaluation of tumor physiological features.

Vascular Heterogeneity Assessment

Delineation of functional habitats within the glioblastoma that describe the biomarker heterogeneity of the tumor. Includes all the modules of the Anatomical service

ONCOhabitats is totally FREE

[1)]
Alvarez-Torres, Maria del Mar. et al. (2020) 'Robust association between vascular habitats and patient prognosis in glioblastoma: An international multicenter study', Journal of Magnetic Resonance Imaging, 51(5), pp. 1478–1486. Available at: https://doi.org/10.1002/jmri.26958.