

Call for participation

Medical images are produced in vast quantities everyday for clinical purposes, but they are seldom reused. This is partially due to the lack of effective and efficient routines for retrieval of similar cases given an information need in the medical domain. Few efforts have been made in benchmarking these routines for the automated **similar case retrieval in the medical domain based on multimodal data**, including medical records, volumetric radiology images and radiology reports.

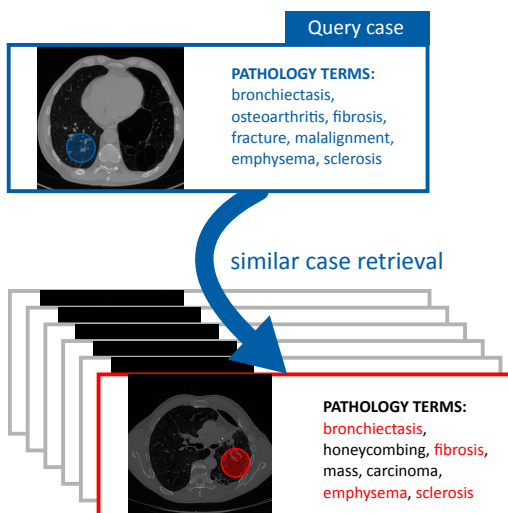
In order to gauge the current state-of-the-art in automated retrieval of similar cases, we are organizing the "VISCERAL Retrieval Benchmark". For this purpose a dataset of around **6200 CT and MR volumes**, some of which have **associated anonymised radiology reports**, will be available as part of the "VISCERAL Retrieval Benchmark".

To deal with the large amount of data that are to be processed, we will provide **data and computing resources via a decentralized ("cloud") architecture** that will provide participants with access both to image volumes and computing resources that will be used for indexing the complete dataset.

Similar case retrieval

The aim of this benchmark is, given a query volume with an anomalous-looking region marked, to find volumes that contain the same type of anomaly.

Using the provided resources, the participants index each of the 3D images contained in the dataset and train their systems for retrieving similar cases.



How the benchmark challenge will be organized

The "VISCERAL Retrieval Benchmark" addresses researchers in fields such as **medical image processing, computer vision, machine learning, image and information retrieval**. Methods employed by the participants must be able to perform the retrieval of similar cases without human interaction.

It will take place from **1 October 2014 to 15 December 2014**. Within this time window the participants can set up, optimize and train their retrieval systems. After 15 December 2014 the methods will be applied on test queries and results will be assessed in terms of their relevance to the query.

Participants in this Benchmark will be encouraged to submit papers to the Benchmark workshop describing their approaches, and these will be presented, along with a presentation summarising all results of the benchmark.

For further information see www.visceral.eu also providing updates and contact details. We kindly ask all possible participants to contact any of the organisers as early as possible.

