Foundation for Research and Technology - Hellas, Institute of Computer Science
Computational BioMedicine Laboratory
Center for eHealth Applications and Services

Collaboration Platform for Pathology (COPPA)

Overview

The advent of digital scanners for microscopy slides, and the ability to exchange scanned pathology images through a digital network make **remote reviewing** a reality which the Collaboration Platform for Pathology (COPPA) aims to address.

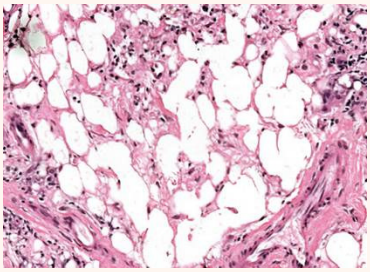
The collaboration capabilities offered by COPPA help pathologists to **share knowledge** and to **work together** towards a common goal. The overall aim is to help them derive correct conclusions from data regarding patients participating in a clinical trial.

COPPA provides to the stakeholders all the necessary tools & functionality in order to have images reviewed by multiple reviewers and to manage and log the entire procedure. It also provides collaboration capabilities such as messaging, scheduling, definition of multiple user roles & groups, as also configurable core elements such as mechanisms for custom review protocol definition schemas and an expandable business workflow.

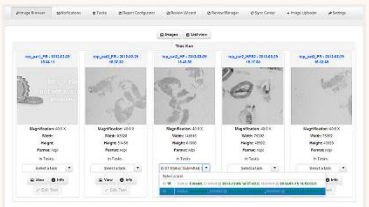
Data quality is a central concern in clinical trials because poor data quality can lead to biased estimates of important clinical parameters and compromise the validity of the studies. In particular, inter-observer variability can be a powerful confounder that invalidates the conclusion of the analyses.

COPPA is aiming to help in data quality assurance by implementing support for central review of pathology data, where a panel of expert pathologists (or groups of pathologists located in different organizations) is nominated and they review & annotate the same set of samples together.

***COPPA** is Part of the Integrated Care Solutions (ICS) Software Suite Covering the Areas of Primary Care, Secondary and Tertiary Care, Emergency Care, Welfare* and *Citizen self-management*



Snapshot from a digital pathology slide



The image browser showing five digital slides and the tasks assigned to them

Target Domains

COPPA targets at group(s) of pathologists (or other clinical users) collaborating on specific sets of digital pathology data, primarily in a clinical trial environment. Alternatively, it can be easily converted to be used as a repository of digital pathology images in a laboratory.

Description

COPPA is a cloud based automated and centralized system for defining and conducting **review protocols for digital pathology images** among multiple reviewers.

COPPA is an integrated solution based on users' needs through a highly customizable architecture. The organizational and functional structure of COPPA, creates communities of users with specific capabilities. **Key features** and tools (collaboration, knowledge sharing, etc.) are:

- Virtual microscope functionality (image viewer)
- Annotation tools, for user-defined regions of interest
- Automated reporting forms, for reviewing slide images
- An automated procedure for conducting the review
- A wizard that assists the resolution of conflicting reviews.
- Custom & reusable review protocol schemas, using user defined parameter sets (e.g. ER analysis, PgR Analysis)
- Multiple specialists participate in the review process
- Improvement of the qualitative results through the utilization of knowledge sharing tools
- Significant time reduction of a review process
- The review results are stored in a central repository

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EuroRec Level 2

EuroREC EHR Quality Seal Level 2

Additional Information

The ICS suite follows high quality international trends regarding both the structure of the Electronic Health Record (EHR), as well as integration with third party systems through the use of internationally acclaimed communication standards and protocols (like HL7, DICOM, etc.). The Nursing and Medical Applications (ICS-M) family of ICS is certified with the Seal of Quality Electronic Health Record (EHR) Level 2 by the European Institute for Health Records EuroRec. The testing took place in 2011 and proved compliance with all 50 Seal-2 criteria. Other products of the nursing and medical applications family (ICS-M) of ICS include applications for Ward Management (WM), Supply Management (SM), Outpatient Clinic (OC), Emergency Department (ED), Radiology Information System (RIS), Computerized Medical Record (CMR), Electronic Health Record for medical specialties: e.g. Pathology, Cardiology, Pediatrics, Orthopedics, Intensive Care Unit (EHR), Collaboration Platform for Pathology (COPPA), Electronic Prescription (EP) and Hospital IT Department (M-ITD).

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