Hes·so
Haute Ecole Spécialisée de Suisse occidentale
Fachhochschule Westschweiz
University of Applied Sciences Western Switzerland

Projet FP7 – DEBUGIT

Nom du projet	Detecting and eliminating bacteria using information technologies – DEBUGIT
Call	ICT-2007-5.2
Type de projet	Collaborative project
Rôle de la HES-SO	Participant
Chercheur impliqué	Patrick Ruch (HEG-GE)
Participants	Agfa Healthcare N.V (Belgium) – coordinateur ; Empirica Gesellschaft für Kommunikations- und Technologieforschung mbh (Germany) ; Gama/Sofia ltd (Bulgaria) ; Hôpitaux universitaires de Genève (Switzerland), Université de Genève (Switzerland) ; Linkopings Universitet (Sweden) ; Technologiko Ekpedeftiko Idrima Lamias (Greece), Universitaetsklinikum Freiburg (Germany) ; Institut national de la santé et de la recherche médicale (Inserm) (France) ; IZIP a.s. (Czech republic) ; University College London (United Kingdom) ; Haute Ecole Spécialisée de Suisse occidentale (Switzerland).
Budget global	8.36 millions euro / financement UE : 6.41 millions euro
Durée	48 mois, début le 1.1.2008

Résumé

In about half a century of antibiotic use, unexpected new challenges have come to light: fast emergence of resistances among pathogens, misuse and overuse of antibiotics; direct and indirect related costs. Antimicrobial resistance results in escalating healthcare costs, increased morbidity and mortality and the emergence or reemergence of potentially untreatable pathogens. In this context of infectious diseases we will (1) detect patient safety issues, (2) learn how to prevent them and (3) actually prevent them in clinical cases. We will detect harmful patterns and trends using clinical and operational information from Clinical Information Systems (CIS). This will be done through the 'view' of a virtualised Clinical Data Re-pository (CDR), featuring, transparent access to the original CIS and/or collection and aggregation of data in a local store. Text, image and structured data mining on individual patients as well as on populations will learn us informational and temporal patterns of patient harm.

This knowledge will be fed into a Medical Knowledge Repository and mixed with knowledge coming from external sources (for example guidelines and evidences). After editing and validating, this knowledge will be used by a decision support and monitoring tool in the clinical environment to prevent patient safety issues and report on it.

Outcomes and benefits, both clinical and economical will be measured and reported on. Innovation within this project lays in the virtualisation of Clinical Data Repository through ontology mediation, the advanced mining techniques,

SIÈGE HES-SO
RUE DE LA JEUNESSE 1 / CASE POSTALE 452 / 2800 DELÉMONT 1
TÉL. : 032 424 49 00 / FAX 032 424 49 01
INFO@HES-SO.CH

WWW.HES-SO.CH

the reasoning engine and the consolidation of all these techniques in a comprehensive but open framework. This framework will be implemented, focused on infectious diseases, but will be applicable for all sorts of clinical cases in the future.

Lien http://www.debugit.eu