

Critical Health Innovation in Retinal Disease Management at EURETINA'11

Critical Health's RetmarkerDR Allows Prediction of Diabetic Retinopathy Progression.

Recent results presented at EURETINA corroborate previous findings on the Microaneurysm Turnover biomarker.

Coimbra, Portugal, May 23rd, 2011 – Critical Health, a provider of innovative Ophthalmology-specific software solutions for Clinical Decision Support and Electronic Medical Record, will be at the 11th EURETINA Congress (Booth 509, Level 5) to showcase its latest innovations in retinal disease management to Ophthalmologists worldwide.

At the EURETINA exhibition, taking place in London (Queen Elizabeth II Conference Centre) from 26th to 29th May, Critical Health will be showcasing the Retmarker suite, a certified Medical Device software solution (CE0197) and recipient of an European IT Excellence Award. On the spotlight at Critical Health's booth will be the RetmarkerDR software solution, a breakthrough in predicting Diabetic Retinopathy progression from a Nonproliferative stage to Clinically Significant Macular Edema (CSME), a sight-threatening stage.

The Retmarker suite, developed in partnership with the leading research institute AIBILI (Association for Biomedical Research and Innovation in Light and Image), is based on the latest research on Microaneurysm Turnover, a new biomarker for Diabetic Retinopathy progression.

Based on the worldwide increasing need for Diabetic Retinopathy Screening Programs, Critical Health and Digital Healthcare, the leading supplier of software to support population based Diabetic Retinal Screening Programmes, are exploring how RetmarkerDR's ability to automatically detect Diabetic Retinopathy Progression can assist diabetic retinopathy screening and management.

"Digital Healthcare has successfully deployed 43 operational Diabetic Retinopathy Screening programmes in the UK which collectively manage the care of 1.4 Million diabetic patients. Critical Health's software solution is a powerful decision support tool in monitoring progression in the early stages of retinal disease" stated Kevin McDonnell, Managing Director at Digital Healthcare. "We are keen to explore ways in which the detection of Diabetic Retinopathy Progression can support Ophthalmologists in Diabetic Retinopathy Screening".

"The RetmarkerDR software solution enables Ophthalmologists to improve the quality of diagnosis and care delivery in predicting progression and managing Diabetic Retinopathy, while increasing healthcare provider productivity and security. In the context of Diabetic Retinopathy Screening Programmes, the Retmarker DR technology has the potential to

reduce significantly the total healthcare spending. Early prediction and better disease management allow for early treatments and better preventive care.” adds Mr. Ricardo Cunha-Vaz, Critical Health’s CEO.

The **RetmarkerDR** is able to calculate and provide important ratios regarding Microaneurysm Turnover (formation and disappearance rates) which are key indicators of the progression of retinal diseases like Diabetic Retinopathy. The solution uses an advanced proprietary co-registration algorithm which allows practitioners to correctly overlap the colour fundus photographs and complements it with a state-of-the-art Microaneurysm detector to calculate the referred ratios.

The **RetmarkerDR** solution underlying concepts are backed by leading edge research being presented at the most important scientific forums. At EURETINA, Professor Michael Ulbig from the University Eye Hospital of the Ludwig Maximilians University (LMU), will be presenting new research results that corroborate this breakthrough in predicting Diabetic Retinopathy progression on Saturday, 28th, in Main Session 9.

Also to be showcased at EURETINA are the RetmarkerAMD Research and RetmarkerC solutions. The later enables the detection of changes in the retina over time which can be due to several pathologies (eg. Diabetic Retinopathy and Age-related Macular Degeneration). The Retmarker AMD Research is a new solution being developed in order to enable computer-assisted marking of digital images from patients with age-related macular degeneration (AMD).

At the booth, practitioners will be able to access, download and experience a trial version of the RetmarkerDR.

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About Critical Health

*Critical Health (www.critical-health.com) is a leading provider of innovative products that help prevent the loss of vision, mobility and cognitive skills in an ageing population. Critical Health provides Ophthalmology-specific solutions for Clinical Decision Support and Electronic Medical Record. Critical Health’s first commercial product is the Retmarker, available in several versions. **RetmarkerC** provides a quick assessment of retinal changes over time and **RetmarkerDR** enables ophthalmologists to manage diabetic retinopathy progression. In partnership with Medisoft (www.medisoft.co.uk), Critical Health is also adapting Medisoft Ophthalmology, a specialized Electronic Medical Record, to the Portuguese, Spanish and Latin American markets. Critical Health is a spin-off of Critical Software’s healthcare technology division. Critical Software (www.critical-software.com) is a successful European IT services company specializing in business and mission critical systems for defense, aerospace and telecommunications with solid reputation for software reliability (CMMI-5, ISO9001 Tick-It, Spice). Critical Health innovative solutions are driven by key partnerships with prestigious universities, hospitals and scientific institutions. For more information: info-cht@critical-health.com*

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