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A New Innovative Technology ”Smart Optic Capillaroscopy” as a Mutual Intellectual Product

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For 1999-2010 a team of scientists from various scientific institutions has developed a new medical technology for lifetime imaging of the smallest vessels in the human body - capillaries.

This technology is unique because professes fundamentally new approach - a combination of technical devices, modern scientific knowledge on microcirculation, hemodynamics, angioarchitectonics in a single diagnostic complex. The technology implies the life-time method for obtaining capillary images from a nail bed of patients, displaying on a screen, monitoring the blood movement in the capillaries, archiving of static and dynamic images with the possibility of consultation of doctors to discuss a particular case.

Application of the capillaroscopy with computer image processing meets basic requirements of:

A clinician (simplicity in work, noninvasiveness, data of high quality, practical exclusion of determination of wrong diagnosis, high predictability of consequences of disease development, qualitative and quantitative estimation of effectiveness of performed therapy, possibility to receive unique microcirculatory changes for prediction of sub- and decompensated patients' conditions);

An administration of medical institutions (reduction of prices per diagnosis procedures, absence of consumables, exclusion of patient infection);

An administration of insurance companies (reduction of prices of diagnosis procedures, absence of consumables, improving of the diagnosis, comfort and painless analysis);

Patients (painless, comfort, cheap analysis, its duration - not more 1.5 min., possibility of observation in the disease dynamics, high clearness of performed investigations)