Datasheet of the IKTA4/101 project

I. *Development of medical decision support systembased on picture processing*

Project start: January 15, 2002, duration: 20 months.

Amount of support: KHUF 30 900, total project cost: KHUF 62 200.

Project leader: ***Hoffman Zoltán***
Bay Zoltán Alkalmazott Kutatási Alapítvány Logisztikai és Gyártástechnikai Intézet
H-3519 Miskolctapolca, Iglói u. 2.
<***http://hoffman@bzlogi.hu***>, phone: +36 (46) 560-116

Project URL: <***http://www.bzlogi.hu***>

II. Consortium members (number of members = **2**, the first member is the project co-ordinator)

no	*name*	*support*	*total cost*
1.	Bay Zoltán Foundation for Applied Research, Institute for Logistics and Productions Systems	KHUF 21 400	KHUF 42 800
2.	International Medical Center Ltd.	KHUF 9 500	KHUF 19 400

III. Public presentations

No presentation is available.

IV. Goals of the project

The goals of the proposal are:

to develop a medical decision support and archiving system based on image processing, which intends to make use of the results of research on artificial intelligence in the early detecting and differentiating of breast cancer and in the monitoring of treatment results, and

to create a medical (pathological) data warehouse.

Both the system and the data bank are absolutely new and unique in Hungarian pathology and are still in the phase of research/development in the advanced countries of the world, too.

The decision supporting system to be developed will be suitable for application not only in the early detection of breast cancers, but - with some small adaptations in the frame system - it is going to serve as an effective decision supporting tool in other medical fields, too.

Consequently, the aim of the project is to develop such a pathological medical archiving and decision supporting system - based on artificial intelligence -, and to create such a data warehouse, which - based on state-of-the-art solutions of information technology - can integrate all available professional information and reveal not yet detected correlation. Thus they offer an absolutely new means of early detection of breast cancers and more effective monitoring of treatment results.

The point of the planned system is to make it possible to integrate the visual data with all the other available information concerning each patient, by information technological processing of the available tissue sectional images. Processing of the resulting database (data bank) by data mining methods may reveal such unknown correlation, handling of which by means of artificial intelligence helps creating a decision supporting diagnostic tool.

The system offers possibilities for further development, since its methods may be extended to the evaluation of further picture processing results (ultrasonic, mammography, CT), and can be a strong base for the services included tele-pathological services of a Pathological Center is planned to set up in the near future.

V. Project results (in case of finished projects)

The project is not finished.

VI. Data on consortium members (number of members = **2**)

1. ***Bay Zoltán Foundation for Applied Research, Institute for Logistics and Productions Systems*** (co-ordinator)

   URL: <***http://www.euromedic-group.com***>

   Support for the co-ordinator: KHUF 21 400, and its total cost: KHUF 42 800.
   Contract number: .

   Team leader: ***Hoffman Zoltán***
   Bay Zoltán Alkalmazott Kutatási Alapítvány Logisztikai és Gyártástechnikai Intézet
   H-3519 Miskolctapolca, Iglói u. 2.
   <***http://hoffman@bzlogi.hu***>, phone: +36 (46) 560-116

2. ***International Medical Center Ltd.***

   URL: <***http://www.bzlogi.hu***>

   Support for the consortium member: KHUF 9 500, and its total cost: KHUF 19 400.
   Contract number: .

   Team leader: ***Katona Zoltán Dr.***
   Nemzetközi Egészségügyi Központ Kft.
   H-1051 Budapest, Vörösmarty tér 1.
   <***http://zoltan.katona@euromedic-group.com***>, phone: +36 (1) 327-4345