Short Titel	ETB-2006-025 DTSH5N1
Full Title	Development of a high throughput detection system for diagnostic purposes and for screening of antiviral substances against Avian Influenza A H5N1

ERA-NET	**ERA-Net Eurotrans-Bio**

1. Project Description

At present the avian influenza A virus subtype H5N1 poses a high risk for several animal populations as well as for humans. As outlined in many scientific reports the changing epidemiology and pathogenicity of the avian influenza viruses has set the stage for a potential and particularly severe global epidemic. Therefore it will be a great need for specific and highly sensitive detection systems for the virus strain H5N1 itself and for the variants which might be used as potential vaccine strains. A rapid and sensitive screening method for antiviral substances with high specificity against Influenza A H5N1 supports the high throughput screening of pharmaceutical companies and saves time and money. It also enables in the early phase of the screening a more detailed selection of potential H5N1-specific antiviral substances.

The project has as one of its goals the generation of specific antibodies, i.e. through immunisation in animals followed by their screening and sub-cloning (i.e. monoclonal antibodies) as well as the establishment of an RT-PCR assay. With the antibodies and RT-PCR, discrimination assays will be developed to assist in distinguishing vaccinated from non-vaccinated animals. Another goal will be the development of a miniaturised cell culture assay system in vitro for Influenza A H5N1 detection in microcultures. The standardisation of the infection of the respective microcultures will be monitored at the beginning with fluorescence-labelled antibodies against the highly conserved influenza nucleoprotein. Quantification of the infection will be performed with a fluorometric assay system for microtitre plates.

2. Participating Partners

Partner	*Company / Institution*
Germany (Coordinator)	Mediagnost GmbH
Austria	ViruSure

3. Project duration	4. Total Project Cost
01.01.2007– 31.12.2008	750.000 Euro

5. Contact

Coordinator: Andrea Normann
E-mail : normann@mediagnost.de
Tel : 0049 7121 51484 0

Partner: Andrew Bailey
E-mail : Andy_Bailey@virusure.com
Tel : 0043 1 2699 120