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Vivalis was founded in 1999 with the aim to better understand the extraordinary biological properties of embryonic stem (ES) cells and to use this knowledge for practical applications in human and animal health. ES cells are very unique in that they can self-renew indefinitely in vitro while maintaining a stable chromosomal content, and have unlimited regenerative capacity in vivo. Today, the huge therapeutic and industrial potential of ES cells is widely acknowledged but still mostly untapped. Several years of research investments have made of Vivalis a world leader in ES cells. In particular, the company's distinctive expertise in the field of avian ES cells has led to the development and successful commercialization of its proprietary EB66® platform, a series of documented cell lines derived from chicken and duck ES cells.

Vivalis proprietary EB66® cell lines display unique biological and industrial properties: (1) they grow in suspension in serum-free medium; (2) they reach high cell densities (over 107 cells/ml) in batch and fed-batch bioreactors; (3) they are highly susceptible to most viruses currently produced on chicken eggs or fibroblasts, including human and avian influenza viruses or modern recombinant viruses such as poxviruses; (4) they are immortal, yet genetically stable. Given such remarkable features, EB66® cell line constitutes an innovative, safe and cost-effective production platform that has the potential to rapidly evolve as an industry standard for the manufacture of human and animal vaccines currently produced on the old-fashioned and cumbersome embryonated egg production platform. In addition, avian EB66® cells were demonstrated to be amenable to easy genetic modifications and to produce monoclonal antibodies with favorable glycosylation profiles and enhanced therapeutic profiles.

Vivalis has already granted more than 30 research and commercial licenses of its EB66® technology to pharmaceutical and biotech companies to produce vaccines and therapeutic proteins, of which 20 commercial licenses. Commercial licenses include an upfront payment on signing followed by "milestone", payments at defined points in the development and registration process, and finally, payments of a percentage royalty on future sales of product. Vivalis also helps its clients on a case by case basis for the development of processes in the frame of service agreements.

Vivalis' know-how and proprietary technologies are commercially exploited in three main areas:

1 - Development and commercialization of the EB66® technology to

□ manufacture viral vaccines

Vivalis grants commercial licenses to its proprietary EB66® cells to pharmaceutical and biotechnology companies active in the viral vaccine business. In addition, the Company offers a full manufacturing process development to its clients, including the production of clinical batches in its state of the art cGMP facility. The vaccine market was worth over 20 billion \$ in 2009.

□ manufacture therapeutic proteins and monoclonal antibodies

Vivalis grants commercial licenses of its proprietary EB66® cells as a new cellular platform for the production of recombinant proteins, specifically antibodies having an enhanced cytotoxic activity. A significant fraction of the monoclonal antibodies currently on the market or under development for the treatment of cancers or auto-inflammatory diseases, act via antibody dependent cell cytotoxicity (ADCC) mechanisms. Vivalis proprietary avian EB66® cell lines can be efficiently engineered to produce antibodies with a naturally reduced fucose content and consequently an enhanced therapeutic activity.

Furthermore, EB66® cell lines present attractive industrial and regulatory characteristics, in particular

cell growth to high cell densities (> 10 millions cells/ml) in suspension in serum free medium.

The Company also offers a full manufacturing process development to its clients for the production of their protein of interest, including the production of preclinical and clinical batches. The protein market was worth 100 billion \$ in 2008, of which \$ 32 billion for monoclonal antibodies.

2- Development and commercialization of the VIVA|Screen™ technology for the identification of novel fully human monoclonal antibodies

Vivalis commercializes the VIVA|Screen™ platform for the discovery of high quality fully human monoclonal antibodies from individuals having been exposed or exposed to a targeted pathology. Vivalis proposes a comprehensive offer of services and products that includes the identification of antibodies, the development of production process on the EB66® or CHO cell lines and a GMP production capacity for pre-clinical or clinical batches. The monoclonal antibody market was worth \$ 32 billion in 2008.

3 - Build-up of a proprietary portfolio of monoclonal antibodies

Vivalis intends to leverage its EB66® technology platform, its VIVA|Screen™ platform and its manufacturing facilities in order to build a proprietary portfolio of products and access therefore a higher profit share on future product sales.

Vivalis intends to apply its VIVA|Screen™ technology to selected therapeutic areas with unmet medical needs in order to identify novel fully human monoclonal antibodies and build its own proprietary portfolio of antibodies. These monoclonal antibodies will then be produced in Vivalis own GMP manufacturing facility.