



Press Release

Archivel secures funding to bring the antituberculosis therapeutic vaccine RUTI[®] to market

- **TGT, an industrial group from Barcelona, Spain, has facilitated the exit of the financial investor pool and will inject up to 15M€ over the next four years to help RUTI to reach the market in its first indications.**
- **In a phase II clinical trial in South Africa RUTI[®] showed a bell-shaped immunological response to structural and secreted antigens of *M. tuberculosis*, with optimal safety, tolerability and immunogenicity responses at a single dose in combination with antibiotic therapy both in HIV- and in HIV+ individuals with latent tuberculosis infection.**
- **The company will start phase III in 2013, aiming to reduce the incidence of active tuberculosis in HIV+ individuals with latent tuberculosis infection treated with standard chemotherapy. If successful, the therapeutic vaccine has the potential to become the first to reach the market almost 100 years after the first BCG treatment, the only immunological approach currently available in tuberculosis.**

Barcelona, January 15th 2012.- After the corporate operation, TGT and Archivel Technologies will each own 49,2% of the company, with Laboratorios Reig Jofre from Barcelona retaining the remaining participation as industrial partner. The new CEO of the company will be Mrs. Olga Rue, who retains her previous CFO role, whereas former interim CEO Luis Ruiz-Avila (from Janus Developments) will stay as VP of Business Development. Prof. Pere Joan-Cardona, one of the inventors of RUTI[®], will add Chief Medical Officer responsibilities to its current Chief Scientific Officer role. Isabel Amat, co-inventor of the vaccine, will serve as COO and Ramon Bosser, from Janus Developments, former Project Director, will support operations as an advisor to the CEO. The financial partners that supported the company in successive rounds since 2005 exited the company with an upside.

Archivel Farma presented the first analysis of the results of the phase II clinical trial run from June 2010 to June 2011 in three clinical sites in South Africa at the 7th European Congress on Tropical Medicine & International Health in Barcelona. The trial involved 96 individuals with latent tuberculosis infection (LTBI), half of them with concomitant HIV infection.

The primary goal was to evaluate the safety, tolerability and immunogenicity of RUTI[®], Archivel's proprietary therapeutic vaccine made with detoxified cellular fragments from *Mycobacterium tuberculosis*, the causal agent of tuberculosis. RUTI[®] elicited a bell-shaped, poly-antigenic response against secreted (ESAT-6, Ag85B) and structural (16 kDa, 38 kDa) antigens that were



stimulated in the three doses tested. A single inoculation of the 25 ug dose showed the best safety, tolerability and immunogenicity profiles. At this dose RUTI[®] elicited also a long term memory response (evaluated by a validated WHO test), compatible with a prophylactic effect.

The results of the trial were reviewed at the end of July by an independent Advisory Board that concluded that the results allowed proceeding to phase III. On the basis of the results, Archivel Farma plans to start a phase III clinical trial in around 1300 HIV+ individuals with latent tuberculosis infection, who are at serious risk to develop active tuberculosis if left unattended. Archivel aims to show a significant reduction of the incidence of active tuberculosis in this target population over a period of two years after injection of a single dose of RUTI[®] in combination with standard chemotherapy.

Archivel Farma manufactures and releases RUTI[®] from its own manufacturing facilities, located in Badalona, close to Barcelona. The plant obtained the Spanish GMP certification in March 2010. It has a built-in P3 lab that enables the culture and processing of the tuberculosis bacillus (and other pathogenic agents) in order to produce the final sterile, lyophilized preparation. Current manufacturing capabilities allow delivering more than a million treatments per year, with a full scalable modular process that may facilitate the access to the vaccine of neglected areas. In its final pharmaceutical form RUTI[®] is stable at room temperature, adding to its attributes of a logistics-friendly product.

The company aims to clear regulatory permits in South Africa by the first quarter of 2013. The first indication (prevention of active tuberculosis in HIV+, LTBI individuals) may be commercially available by 2016. Other indications, as prevention of active tuberculosis relapse after standard chemotherapy, may be pursued with the help of appropriate partners in different territories.

There are near 100 million new cases of latent tuberculosis infection every year. The latent infection can persist for years, which explains why LTBI is estimated to affect to a third of human kind (more than 2.5 billion people). Progression towards active tuberculosis (TB) (from 5 to 25% of infected people over lifetime) is relatively low, although even this low percentage represents the induction of 9 million new TB cases every year. Standard treatment for LTBI requires the administration of isoniazid, a drug with reported hepatotoxicity, for between 6 and 9 months, which results in important compliance problems. Low compliance, which may lead to resistance, is the main reason why health systems are reluctant to provide LTBI treatment except in those countries that want to maintain their current low incidence of TB or in the case of HIV co-infection. A shorter non-toxic treatment combined with prevention of reinfection in high prevalence territories is therefore crucial to generalize LTBI control and to promote a global decrease in TB incidence.

The therapeutic vaccine RUTI was invented by Prof. Pere Joan Cardona of Hospital Trias i Pujol, a leading research hospital in infectious diseases in Badalona, Spain. In preclinical models RUTI helps the elimination of latent tuberculosis bacilli reducing dramatically the time required to treat with the standard antibiotic combinations and adding a prophylactic component to the standard and reduced therapy. As prevention of infection, increasing compliance and reducing the treatment



duration is one of the clearly identified unmet needs in the fight against tuberculosis as reported by WHO. RUTI represents a unique opportunity to make an impact in the management of the disease not only in high prevalence countries (where antibiotic therapy to LTBI is of little use due to the high probability of reinfection) but also in the low-prevalence countries, most of them in the western world, where the migratory flows, HIV infection and certain immunosuppressant therapies (anti-TNF for example) favour the recurrence of active TB from the LTBI reservoir.

About Archivel Farma (www.archivelfarma.com)

Archivel Farma was spun off Archivel Technologies in 2005. José Martínez, current Archivel's co-Director and a successful spanish entrepreneur, founded Archivel Technologies back in 1998 to help finding solutions to unmet needs in the industry and in the society in general. Archivel's mission is to discover and develop new biopharmaceutical agents for preventing and treating tuberculosis and other diseases susceptible to immunomodulatory interventions. The business strategy consists in advancing proprietary developments up to relevant clinical proof of principle, and look for development and marketing partners to secure reaching out the maximum number of people able to benefit from Archivel's discoveries. The company's lead compound is RUTI[®], to treat LTBI, which the company expects to be in the market in 2016. Prevention of active tuberculosis in individuals at risk treated with chemotherapy and other indications non related to tuberculosis are part of the potential therapeutic use of RUTI[®]. The company has invested so far 12M€ in the development of RUTI[®]. Around of 3M€ of them were contributed as long term loans by spanish institutions like Genoma España, CDTI or ENISA.

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