

PROFILE



REMOVING HARMFUL ANTIBODIES

RemAb Therapeutics SL is a biopharmaceutical company. RemAb's technical developments are mainly based on the identification and validation of harmful antibodies in a certain condition or disease, followed by the design and synthesis of safe polymeric conjugates that specifically inhibit and eliminate these harmful antibodies that mediate the pathological condition. Company by the end 2021 has a team with majority PhDs, and medical and business profiles; and has won several national and international grants.

SPEAKER

Dr. Mañez has focused his research on the role of antibodies in transplantation and in the development of infection diseases. He obtained his M.D. and Ph.D. degrees (1981 and 1990, respectively) in the University Autònoma of Barcelona. Since 2003 he is the Director of Intensive Care Medicine at Bellvitge University Hospital. Dr. Mañez holds two patents and is the author of 164 PubMed referenced articles, with an H-index of 42.

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PRODUCT

Platform of polymeric glycoconjugates for removing harmful antibodies (HART-Technology)

MECHANISM OF ACTION

We develop and optimize a platform of novel and safe synthetic polymeric glycoconjugates with high capacity to inhibit and remove harmful antibodies in humans.

We have identified some specific anti-glycan antibodies that mediate pathological conditions in humans. Based on that RemAb has optimized the design of non-immunogenic core structures to which antigenic determinants (of such deleterious antibodies) are conjugated.

The resulting glycoconjugates safely bind and remove the harmful circulating antibody involved in the onset and/or progression of the pathological condition. The resulting immunocomplexes are rapidly cleared from the circulation delivering long-lasting therapeutic benefits for the patients.

TARGET INDICATIONS

Infectious diseases. Allergic conditions. ABO incompatibility. Viral vector efficacy (modulation of immune response)

CURRENT STATUS

- RemAb successfully completed preclinical regulatory studies in Cynomolgus monkeys (finished last august).
- Mechanism of action (selective intracorporeal removal of anti-Gal) demonstrated in preclinical regulatory studies in Cynomolgus monkeys.
- RemAb is already under conversation with AEMPS to agree about the design of FIH.
- FTO completed: there is not any patent in force or any patent application under examination that could raise any risk of patent infringement for the manufacture, marketing and/or offering of glycoconjugate for the intended uses in Europe or in USA.

- New international patent (under PCT) claiming different compounds structures (and their manufacturing process) to treat several allergic conditions mediated by anti-Gal IgE.
- Set of mimetic compounds to inhibit and remove blood groups antibodies. Under patentability assessment and manufacturing process ongoing.

INNOVATIVE ASPECTS

- Novel technology based on the selective intracorporeal removal of specific harmful antibodies with polymeric glycoconjugates.
- Synthetic compounds, CMC at relevant scale feasible.
- Preclinical regulatory studies recently completed in Cynomolgus monkey with excellent results for our most advanced indication: Non immunogenic (no complement, cytokine and WBC activation); Excellent safety profile (no toxicity associated to the compound); Rapid PK: the compound is quickly cleared from bloodstream, no accumulation in secondary tissues, metabolized and excreted in hours; Mechanism of action (MoA): proved in primates.
- Preclinical studies also supported the valorization for the rest of indication (scale-up potential) since core structure is not toxic and it's maintained for the rest of compounds in our platform. Also, MoA (intracorporeal removal of Abs) was already demonstrated in primates.

IPR

Program RA0127: International patent family already granted in several jurisdictions. WO2016026981- *Methods and reagents for prevention and/or treatment of infection* (priority 22th august 2014). FTO already completed (no risk of patent infringement).

Program RA0118: New international patent (under PCT)- *New glycoconjugates and medical uses thereof* (priority sept 2020).

PARTNERING OPPORTUNITIES

Investment: RemAb is starting this Oct 2021 an investment round to finance phase 1 (expected starting date 1H-2022)

Scientific collaboration and partnering in new indications.