



***The European Patent Office issued the decision to grant to Molmed a new patent on CAR technology.***

***The technology, already applied by MolMed in its proprietary CAR-T CD44v6, is related to an innovative spacer incorporated in the CAR protein.***

Milan (Italy), May 24th 2019 – MolMed S.p.A. (MLMD.MI), a biotechnology company focused on research, development, production and clinical validation of gene and cell therapies for the treatment of cancer and rare diseases, announces that the European Patent Office (EPO) informed today on the decision to grant the patent EP3194434 entitled “Chimeric Antigen Receptors” related to an innovative structural component applicable to the CAR technology and already applied in the proprietary product CAR-T CD44v6, developed by the Company for the treatment of liquid and solid tumors.

The grant of the patent will take effect on the date of publication in the European Patent Bulletin, set for the 19 June 2019, and is due to expire in 2035, giving market exclusivity in all the Countries where it will be validated, up to a maximum of 38 countries adhering to the European Patent Convention (EPC). Equivalent patent applications have been filled by the Company in the US, Japan and in major emerging markets.

The EP3194434 patent is part of a large patent family owned by MolMed and protects the chimeric receptors used in CARs containing a particular spacer between the outer and the inner part of the protein, i.e. between the portion targeted to the antigen and the portion responsible for the signal activation. This spacer structure derives from the human *Low Nerve Growth Factor Receptor* (LNGFR) and gives the advantage of selecting CAR cells without the need for a separate marker gene, as well as to trace cells *in vivo* once infused. Furthermore, CARs containing the LNGFR-derived spacer, offer the additional advantage of not being recognized by the cells of the innate immune system (such as macrophages and NK cells) and, consequently, show a longer *in vivo* survival compared to CARs with different kind of spacers.

The patent allows MolMed to obtain market exclusivity not only on the technology applied to its proprietary CAR-T CD44v6, but also in case of application of the LNGFR spacer to any CAR molecule - regardless of the target antigen or of the signal activation domain structure.

Riccardo Palmisano, MolMed's CEO, commented: "*This patent represents another important element of differentiation of MolMed's proprietary CAR-T CD44v6, which recently has been authorized to enter the clinical stage from AIFA: in addition to the original target CD44v6, expressed in both hematological and solid tumors, and to the high promise of safety given by the presence of the suicide gene, this new technology on the spacer structure represents a further innovation introduced by MolMed in its product, able to find large application also in the field of CARs, one of the most promising therapies available today in the fight against many tumors*".

***About MolMed***

MolMed S.p.A. is a clinical stage biotech company focused on research, development, manufacturing and clinical validation of innovative therapies. MolMed's product portfolio includes proprietary anti-tumor therapies in both clinical and preclinical development: Zalmoxis® (TK) is a cell therapy based on donor T cells genetically



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engineered to enable bone marrow transplants from partially compatible donors for patients with high-risk hematological malignancies, eliminating post-transplant immunosuppression prophylaxis and inducing a rapid immune reconstitution. Zalmoxis®, that received orphan drug designation and is currently in Phase III in a high-risk population of acute leukemia patients, but has already obtained a Conditional Marketing Authorization by the European Commission in the second half of 2016 as well as reimbursement conditions in Italy and in Germany at the beginning of 2018. Still focusing on this cell & gene technology, the Company is developing a new therapeutic platform based on Chimeric Antigen Receptor (CAR), both autologous and allogeneic; the most advanced product, CAR-T CD44v6, which on March 2019 received the authorization to start human clinical trials in onco-hematologic indications (AML and MM), following an extensive pre-clinical phase; the product is potentially effective also in several epithelial solid tumors. With regards to allogeneic CARs, MolMed is developing a pipeline based on NK (Natural Killer) cells, following a research agreement signed in 2018 with Glycostem. MolMed is also the first company in Europe to have obtained the GMP manufacturing authorization for cell & gene therapies for its proprietary products (Zalmoxis®) as well as for third parties and/or in partnership (Strimvelis, an Orchard gene therapy for the ADA-SCID). With reference to GMP development and manufacturing activities for third parties, MolMed signed numerous partnership agreements with leading European and US companies. In the field of innovative oncological therapies MolMed pipeline also includes NGR-hTFN, a therapeutic agent for the treatment of solid tumors. MolMed, founded in 1996 as an academic spin-off of the San Raffaele Scientific Institute, is listed on the main market (MTA) of the Milan stock exchange managed by Borsa Italiana since March 2008. MolMed is headquartered and based in Milan, at the San Raffaele Biotechnology Department (DIBIT) and has an operating unit at OpenZone in Bresso.

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