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Press Release



Innovative Targeting Solutions announces a breakthrough technology that generates superior human heavy chain only antibodies (HCAb)

Burnaby, B.C., Canada. June 2nd, 2014: Innovative Targeting Solutions (ITS) today announced the HuTARG™ – HCAb platform, a breakthrough in antibody fragment technology which allows the efficient generation of high-quality fully human single domain heavy chain variable only antibodies (HCAbs) in a completely mammalian based in vitro platform that utilizes the natural V(D)J recombination process, to efficiently generate billions of unique HCAbs.

VH fragments are next-generation antibody-based therapeutic proteins that are amongst the smallest antibody fragments that retain the ability to bind antigens specifically and with high affinity allowing them to be incorporated into novel compositions including molecules with multiple specificities or functionality. Innovative Targeting Solutions HuTARG™ technology overcomes the intrinsic limitations of transgenic technologies offered by Harbour mice or Crescendo mice allowing for the isolation of the human HCAbs with superior biophysical properties that make them highly attractive drug products.

According to Mike Gallo, President of Innovative Targeting Solutions, “The new HuTARG™ HCAb platform combines all the benefits of mammalian display (no tolerance, high expression) with the excellent drug qualities of single domain heavy chain only antibody fragments. We believe this will enable rapid generation of superior therapeutic products, and fully realize the potential of HCAbs in the development of our pipeline and that of future partners.”

Key to the generation of HCAbs utilizing the HuTARG™ technology is the mammalian cell line engineered to efficiently undergo V(D)J recombination. HCAb libraries can then easily be generated using all the V- D- and J- genes, without the need of complex regulatory regions required for transgenic technologies and without immune tolerance which deletes large portions of the immune repertoire. The HuTARG™ technology also allows for CDR optimization and is the industry’s most robust affinity maturation platform. The HuTARG™ system for the first time allows for the quick isolation of antigen specific HCAbs and simultaneously, because it is a mammalian system, the selection fully-human HCAbs with superior stability, expression and solubility.

About Innovative Targeting Solutions Inc.

Founded in 2008, Innovative Targeting Solutions Inc. is a privately-held company that has developed the HuTARG™ technology a next generation protein engineering platform for the generation and maturation of fully human antibody therapeutics. The HuTARG™ technology is a fully mammalian technology that generates antibody diversity in vitro via RAG1/RAG2 mediated V(D)J recombination. For more information please visit www.innovativetargeting.com