



# Affimer®

A joint venture between Avacta and Daewoong to develop the next generation of cell and gene therapies incorporating Affimer proteins

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- Avacta and Daewoong have established a joint venture based in South Korea to develop the next generation cell and gene therapies that are primed to secrete Affimers to enhance the immune-modulatory effects of the cell therapy when administered to patients, by reducing inflammatory or autoimmune responses.
- Avacta will develop Affimer proteins against several undisclosed targets which will be transferred to the joint venture to be incorporated into mesenchymal stem cells. All of Avacta's research and development costs will be paid for by the joint venture.
- Avacta retains the rights to commercialise the Affimers outside of the field of stem cell therapies.
- Daewoong will provide the joint venture with access to Daewoong's proprietary process for generating human mesenchymal stem cells.
- Avacta's shareholding in JV is 45%.



## Autoimmune and Inflammatory Diseases

Autoimmune and inflammatory diseases affect over 50 million people world-wide and this figure has risen dramatically in the last few decades creating annual healthcare costs in excess of \$150 bn



#### 🔘 Avacta

Affimer

pre | CISION<sup>™</sup>

# Suppressing Immune Responses Creates the Opportunity for New Therapies

#### Affimer<sup>®</sup> pre|CISION<sup>™</sup>

Mesenchymal stem cells (MSCs) suppress disease-causing immune responses and have promising potential for treating autoimmune and inflammatory diseases, but they have limitations



#### Limitations of MSCs

Adult-derived MSCs (e.g. from bone marrow) have to be continually regenerated from donor samples and are therefore costly and in limited supply.

MSCs also **do not counteract all immune and degenerative signals** occurring in the diseased tissues.

There is significant clinical and commercial potential for an "off-the-shelf", cost effective MSC therapeutic platform with enhanced immuno-modulatory effects



### Addressing the Limitations: Next-generation MSCs

#### Affimer<sup>®</sup> pre|CISION<sup>™</sup>

The combination of Daewoong's and Avacta's technologies addresses these limitations through development of the next generation of off-the-shelf cell therapies



Daewoong's proprietary technology permits a renewable supply of MSCs from a single donor to treat a large number of patients with "off-the-shelf" cell therapy products.



Affimer proteins produced by the engineered MSCs can modulate immune system pathways to reduce inflammatory responses.







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