AMYLOID-BETA SPECIFIC ANTIBODY RESPONSE AFTER LONG-TERM ADMINISTRATION OF ACTIVE IMMUNOTHERAPY CAD106 IN ALZHEIMER PATIENTS

M.-E. Riviere¹, N. Andreasen², C. Collober¹, P. Quarg¹, A. Caputo¹, B. Winblad², A. Graf¹

¹Novartis Pharma AG, Basel, Switzerland, ²Karolinska Institutet, Huddinge University Hospital, Huddinge, Sweden

Introduction: CAD106 is an active immunotherapy being developed for Alzheimers Disease (AD), comprising the amyloid (Aβ) 1-6 peptide coupled to the Qβ virus-like particle. CAD106 was associated with a reduction of amyloid accumulation in the brain of APP transgenic mice. First human study has shown that three injections of CAD106 induce an Aβ-antibody response, with injection-related reactions as main safety/tolerability findings. Antibody response lasted about six months, indicating that further immunizations are required to ensure long-term exposure to antibodies.

Aims: To determine the Aβ-antibody response to long-term administration of CAD106.

Methods: Safety, tolerability and immunogenicity of long-term administration of CAD106 was tested in open-label extensions of two Phase II studies in patients with mild AD. CAD106 150µg was administered subcutaneously at weeks 56/68/80/92 in extension of Study 1 and intramuscularly in extension of Study 2. Recruitment in the extension of Study 2 is still ongoing.

Results: A total of 33 patients have entered extensions to date; antibody titer data is available from 25 patients receiving CAD106. The mean peak Aβ IgG titers following 4th and 5th injections were of similar magnitude to those following the initial three injections, and persisted above the responder level over the 12 weeks between injections.

Conclusions: The additional two injections given within the extension studies induce a similar level of antibody response to that following the three initial injections, thus confirming that CAD106 is suitable for chronic treatment. Further study of intramuscular injections of CAD106 with the addition of adjuvants is ongoing.