Zoetis Presents New Data on Lokivetmab, a Therapeutic Antibody for Dogs with Atopic Dermatitis, at the 8th World Congress of Veterinary Dermatology

Release Date: Tuesday, May 31, 2016 8:00 am EDT

Terms:
- Companion Animals
- Corporate
- Dogs
- Events
- Dogs
- Events
- Corporate

Dateline City: BORDEAUX, FRANCE

Contacts:
Media Contacts: Elinore White 1-973-443-2835 (o) elinore.y.white@zoetis.com Anne-France Quentric +33.685539587 (m) Anne-france.quentric@zoetis.com

Zoetis scientists will present six abstracts at the 8th World Congress of Veterinary Dermatology (WCVD) that contribute to the body of evidence supporting the use of lokivetmab, an antibody designed specifically for dogs that inhibits the canine cytokine interleukin-31 (cIL-31). The data also advance scientific understanding of the role of IL-31 in canine atopic dermatitis. The WCVD takes place May 31 to June 4 in Bordeaux, France.

Data Supporting the Efficacy of Lokivetmab in Canine Atopic Dermatitis

Zoetis will present the results of a randomized, double-blind, placebo-controlled dose determination trial to evaluate efficacy of three doses of lokivetmab (0.125, 0.5 or 2.0 mg/kg) in providing relief from the clinical signs of pruritus (itching) and other clinical signs associated with atopic dermatitis in dogs. Veterinary investigators at 15 clinics enrolled 245 client-owned dogs* with chronic atopic dermatitis. Lokivetmab or a placebo was administered by subcutaneous injection on day 0, and efficacy was evaluated periodically over 56 days. Dog owners assessed their dog's pruritus using a visual analog scale (VAS), and investigators assessed the associated skin lesions using Canine Atopic Dermatitis Extent and Severity Index-03 (CADESI-03) scores.

Lokivetmab, injected once subcutaneously, provided dose-dependent improvement in owner-assessed pruritus and clinician-assessed CADESI-03 scores for four to six weeks in dogs with atopic dermatitis. For more details about results by specific doses tested, please see the presentation abstract.

Data Supporting the Safety of Lokivetmab

Zoetis will also present results of a randomized, double-blind, placebo-controlled trial to assess the safety of lokivetmab at the nominal dose tested of 1 mg/kg (range, 1-3.3 mg/kg) in the treatment of canine atopic dermatitis. Veterinarians evaluated 245 client-owned dogs* with chronic, naturally-occurring atopic dermatitis. These dogs were randomized at a 2:1 ratio to receive two monthly injections of lokivetmab (162 dogs) or placebo on days 0 and 28. No immediate hypersensitivity reactions were observed and there were no clinically important differences in clinical pathology results. No apparent adverse drug interactions were reported. Dogs studied were taking a wide variety of medications, which
is important because multimodal therapy is commonly prescribed for dogs with atopic dermatitis. Adverse events were reported at a similar frequency between the groups.

**New Scientific Insights into the Function of IL-31 in Canine Allergic Skin Diseases**

Foundational science will also be presented that provides a deeper understanding of IL-31 involvement in canine itch. Using immunohistochemical staining techniques, Zoetis scientists found the IL-31 receptor protein in skin and nerve tissues in dogs. Demonstrating the presence of IL-31 receptor in both skin and nerve tissue offers insight into how this cytokine induces pruritus in dogs. It further supports the blockade of IL-31 as a viable therapeutic approach for the treatment of pruritic skin conditions such as atopic dermatitis.

**About Lokivetmab**

Lokivetmab is an antibody designed for dogs. It specifically targets and neutralizes canine interleukin-31 (IL-31), a key cytokine (a protein important in cell to cell communication) that is associated with atopic dermatitis, including sending the itch signal to the brain. The scratching that results from itch exacerbates skin damage in atopic dogs and creates a continuous cycle of clinical disease. Zoetis has submitted an application for marketing authorisation of this product in the European Union. This caninized anti-IL-31 antibody is conditionally licensed in the United States and Canada under the name Canine Atopic Dermatitis Immunotherapeutic**.

A summary of abstract presentations at the 8th WCVD follows.

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>Date/Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>A blinded, randomized, placebo-controlled trial investigating three dose levels of lokivetmab (ZTS-00103289), a caninized anti-canine-IL-31 monoclonal antibody (mAb), for the reduction of pruritus and associated skin lesions in dogs with atopic dermatitis</td>
<td>G. Michels</td>
<td>Friday, June 3 14:10</td>
<td>Rohan B, Pullman</td>
</tr>
<tr>
<td>A minimally restricted blinded, randomized, placebo-controlled trial of the safety of lokivetmab (ZTS-00103289), a caninized anti-canine-IL-31 monoclonal antibody, in client-owned dogs with atopic dermatitis (US Field Safety /1107)</td>
<td>G. Michels</td>
<td>Friday, June 3 14:20</td>
<td>Rohan B, Pullman</td>
</tr>
<tr>
<td>T-cell Dependent Antibody Responses in dogs administered lokivetmab (ZTS- 00103289), a caninized, anti-canine IL-31 monoclonal antibody</td>
<td>M. Krautmann</td>
<td>Friday, June 3 15:10 h</td>
<td>Rohan B, Pullman</td>
</tr>
<tr>
<td>Immunohistochemical evaluation of IL-31 receptor A localization in neuronal and cutaneous tissues of Beagle dogs</td>
<td>G. Bammert and C. Rugg</td>
<td>Saturday, June 4 10:25-10:55</td>
<td>Mezzanine</td>
</tr>
</tbody>
</table>

*Note: The asterisk next to Lokivetmab indicates that it is under conditional licensing in the US and Canada.*
Long-term laboratory safety study of lokivetmab (ZTS-00103289), a caninized, anti-canine IL-31 monoclonal antibody, in normal dogs

M. Krautmann
Saturday, June 4
10:25-10:55 CEDT
Exhibit Hall
Poster Presentation (P024)

Comparison of effects of lokivetmab versus prednisolone on intradermal testing in Dermatophagoides farinae-sensitized beagles

S. Dunham and M. Aleo
Saturday, June 4
10:25-10:55 CEDT
Exhibit Hall
Poster Presentation (P038)

About Zoetis

Zoetis (zô-EH-tis) is the leading animal health company, dedicated to supporting its customers and their businesses. Building on more than 60 years of experience in animal health, Zoetis discovers, develops, manufactures and markets veterinary vaccines and medicines, complemented by diagnostic products and genetic tests and supported by a range of services. Zoetis serves veterinarians, livestock producers and people who raise and care for farm and companion animals with sales of its products in more than 100 countries. In 2015, the company generated annual revenue of $4.8 billion with approximately 9,000 employees. For more information, visit www.zoetis.com.

DISCLOSURE NOTICES

Forward-Looking Statements: This press release contains forward-looking statements, which reflect the current views of Zoetis with respect to business plans or prospects, future operating or financial performance, future guidance, future operating models, expectations regarding products, future use of cash and dividend payments, tax rate and tax regimes, changes in the tax regimes and laws in other jurisdictions, and other future events. These statements are not guarantees of future performance or actions. Forward-looking statements are subject to risks and uncertainties. If one or more of these risks or uncertainties materialize, or if management's underlying assumptions prove to be incorrect, actual results may differ materially from those contemplated by a forward-looking statement. Forward-looking statements speak only as of the date on which they are made. Zoetis expressly disclaims any obligation to update or revise any forward-looking statement, whether as a result of new information, future events or otherwise. A further list and description of risks, uncertainties and other matters can be found in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015, including in the sections thereof captioned “Forward-Looking Information and Factors That May Affect Future Results” and “Item 1A. Risk Factors,” in our Quarterly Reports on Form 10-Q and in our Current Reports on Form 8-K. These filings and subsequent filings are available online at www.sec.gov, www.zoetis.com, or on request from Zoetis.

*Dogs owned by and living at home with a family.

**This product license is conditional. Efficacy and potency test studies are in progress.

###

Language: English