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Aratana Therapeutics, Inc. (Nasdaq/PETX/Not Rated/$5.10)

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Advaxis, Inc. (Nasdaq/ADXS/Not Rated/$9.05)

A new era is underway in companion animal therapeutics and more specifically in the blending of companion animal, comparative biology/oncology and human health. This week, news from Aratana, the veterinary biotech company who is developing human-based therapeutics for companion animals, coincided with news from Advaxis, who has partnered with Aratana to bring its novel human immune-oncology products to companion animals. This relationship and the news announced by both companies presents a real world example of the merging of human and animal health. The news from these "sisters" was received positively by investors, with Aratana rising 15% from Friday's levels, continuing an uptrend that began the second week of February. Advaxis also climbed nearly 15% from Friday's close to achieve its best close yesterday since January 5, 2016.

1) Aratana (Nasdaq/PETX/Not Rated/$5.10) –Aratana reported on Monday that the Center for Veterinary Medicine (CVM) division of the FDA approved its first regulated product, **Galliprant**®. Galliprant is a novel non-opioid, non-NSAID, first-in-class, EP4 protaglandin receptor antagonist that blocks the EP4 pain receptor, thus alleviating pain and inflammation. Importantly, long-term administration canine studies confirmed there were no effects on liver, kidney or signs of GI ulceration which typically occur with NSAIDs. Galliprant is indicated to treat the pain associated with osteoarthritis (OA) in dogs and is being positioned to compete head-to-head with Rimadyl. Rimadyl, a COX-2 selective NSAID (ibuprofen is a non-selective NSAID and very dangerous to dogs and cats) was a breakthrough treatment for canine OA, but tolerability has been a continuing and major concern as Rimadyl has set a record in the number of adverse event reports for a pet drug, according to data from the CVM. Despite its adverse event profile, since 2000, more than 4 million pets have been treated with Rimadyl or other COX2-selective NSAIDs because of the lack of safer alternatives. Aratana estimates the US market for Rimadyl and similar compounds is now approximately $300 million per year. Galliprant is Aratana's first product to complete full FDA review and the Company expects to commercially launch the product in the fall of 2016.

Yesterday, Aratana followed up the Galliprant news with the announcement of the submission of the NADA (New Animal Drug Application) for **ENTYCE**®, the Company's novel ghrelin agonist to stimulate a companion animal's (dog or cat) appetite. Loss of appetite may be one of the first signs of a disease condition or pain in an animal. Ghrelin is a well-known peptide hormone that is a key factor in the neuroendocrine control of nutrient metabolism. Ghrelin is secreted primarily by the stomach and reaches peak plasma levels in anticipation of a meal. It is a potent stimulant of food intake and nutrient storage. ENTYCE will be a first-in-

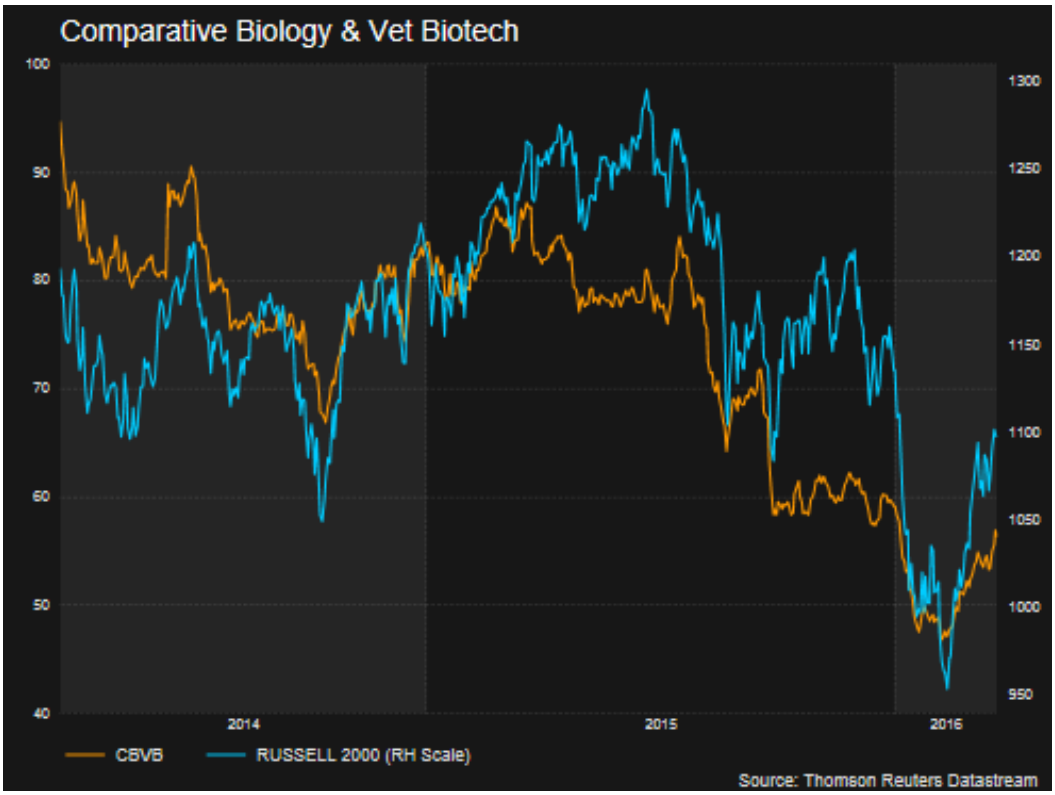
class and only therapeutic for companion animal inappetence. The ADUFA (Animal Drug User Fee Act) date is May 21, 2016, which will allow Aratana to launch the product to the veterinary community near yearend 2016.

In 2014, Aratana exclusively licensed Advaxis's novel HER2/Neu immunotherapy (AT-014, ADXS-cHER2) for canine osteosarcoma as well as three other immunotherapeutic candidates. Approximately 10,000 dogs are diagnosed with osteosarcoma each year. The standard of care is limb amputation and radiation, sometimes followed by chemotherapy. Favorable preliminary results of the Phase I AT-014 canine osteosarcoma trial were reported in June 2015. Following the results reported below by Advaxis, Aratana is anticipating the receipt of a conditional USDA license to market and sell AT-014 by yearend 2016. This would be the 4th product for Aratana to achieve commercial status in 2016. *SG*

2) Advaxis (Nasdaq/ADXS/Not Rated/$9.05) –Advaxis announced on Monday the results of the dose escalation study of ADXS-cHER2 (AT-014) and the publication of the data in a peer-reviewed journal article in ***Clinical Cancer Research*** online on March 18th. ADXS-cHER2 is a fusion protein consisting of an attenuated, recombinant *Listeria monocytogenes (Lm)* bacterium transformed with HER2/Neu. HER2/Neu is highly expressed in both canine and pediatric osteosarcomas (OSA), pulmonary metastatic disease and several other solid tumors, including breast cancer. Despite aggressive treatment, 30-40% of pediatric OSA patients develop metastatic disease for which there are no effective treatments and these patients typically die within 5 years of diagnosis. Controlling metastatic disease is essential for the longer term survival of these patients.

The dosing study was conducted at the University of Pennsylvania's School of Veterinary Medicine and evaluated a 4-dose escalation protocol in 18 dogs with surgically treated osteosarcoma. Fifteen of the 18 dogs responded to AT-014 by generating antigen-specific T-cell response to the HER2/Neu within six months of surgery and adjuvant chemotherapy. The median survival time for treated dogs was 956 days vs. the median survival time of the historical control group of 423 days. The reported p value was p=0.014 with a Hazard Ratio of 0.33; 95% CI. The statistically significant median survival time for canines could be a positive harbinger of the immunotherapy treatment's efficacy in pediatric patients. Advaxis is presenting the data at a Company-sponsored Research Reception on April 18, 2016, in conjunction with the American Association for Clinical Research (AACR) annual meeting to be held in New Orleans. *SG*

Comparative Biology and Vet Biotech Sector Performance



We continue to observe that our Comparative Biology/Vet Biotech sector is the most closely market-matching of our industry sub-segments. We attribute the relatively strong positive performance to a number of factors. There is an increased visibility directed towards investors searching for value as noted by the industry's coverage by Credit Suisse, BAC/Merrill Lynch, Jefferies and others. In addition we believe investors are beginning to understand the transition and evolution of animal health as generic, low value products to veterinary high value, biotech-based products with pricing power and lastly, investors are looking for ways to invest in healthcare while reducing some of the risks associated with the current and upcoming changes in FDA regulations and CMS reimbursement/cost containment. Finally, there is a plethora of newsflow: a number of leaders in the space are slated to have meaningful and commercially-relevant news events and milestones during 2016.

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Market Perform (Neutral)	8	33%	6	75%
Market Underperform (Sell)	0	0%	0	0%
Total	24	100%	16	67%

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