



CRAIG-HALLUM

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| Changes | Previous | Current |
|--------------------|----------|-----------|
| Rating: | | Buy |
| Fundamental Trend: | | Improving |
| Price Target: | | \$15.00 |
| FY13E Rev M: | | \$0.0 |
| FY14E Rev M: | | \$0.0 |
| FY15E Rev M: | | \$0.0 |
| FY13E EPS: | | (\$0.90) |
| FY14E EPS: | | (\$1.20) |
| FY15E EPS: | | (\$1.00) |

| Profile | | |
|---------------------|--------|-----------|
| Price: | | \$10.12 |
| 52 Wk Range: | \$6.56 | - \$10.32 |
| Avg Daily Vol: | | 79,000 |
| Shares Out M: | | 20.7 |
| Market Cap M: | | \$209.8 |
| Insiders Own: | | 49% |
| Short Interest (M): | | 0.10 |
| BV/Sh: | | \$1.22 |
| Est LT EPS Gr: | | 15% |
| Net Cash/Sh: | | \$2.21 |
| Debt / Capital: | | 22.2% |
| Year Ends: | | Dec. |

| Rev (M) | 2013E | 2014E | 2015E |
|---------|--------|-------|-------|
| Mar | \$0.0A | - | - |
| Jun | \$0.0 | - | - |
| Sep | \$0.0 | - | - |
| Dec | \$0.0 | - | - |
| FY | \$0.0 | \$0.0 | \$0.0 |

| EPS | 2013E | 2014E | 2015E |
|-----|-----------|----------|----------|
| Mar | (\$0.24)A | - | - |
| Jun | (\$0.25) | - | - |
| Sep | (\$0.20) | - | - |
| Dec | (\$0.22) | - | - |
| FY | (\$0.90) | (\$1.20) | (\$1.00) |

| | | | |
|---------|----|----|----|
| FY P/E | NA | NA | NA |
| FY EV/S | NA | NA | NA |

| Management | |
|------------|-------------------|
| CEO | Stephen St. Peter |
| CFO | Louise Mawhinney |

July 22, 2013
Institutional Research

ALPHA SELECT LIST

Aratana Therapeutics, Inc.

BUY

(PETX - \$10.12)

Price Target: \$15

We See A “Best In Show” Opportunity For This Emerging Pet Pharmaceuticals Player. Initiating Coverage Of PETX With A BUY Rating And \$15 Price Target.

Aratana Therapeutics licenses and develops innovative human pharmaceutical products for the companion animal therapeutics market.

OUR CALL

Valuation of early stage companies is traditionally tied to three things: size of the **Problem**, elegance of the company's **Solution**, and quality of **Management**. We believe Aratana could potentially be a very valuable company because it scores well in each category.

- **Management:** It starts here, where the picks of the litter within the ranks of the Pet Pharmaceuticals industry have assembled at Aratana to deliver success on a large scale. The executive team has extensive experience in companion animal therapeutics, and includes individuals responsible for the development and commercialization of some of the most successful companion animal therapies on the U.S. market today. Management intends to aggressively exploit an opportunity to generate “human therapeutic like” financial rewards while assuming the significantly lower risk and cost profile that's inherent to clinical development of pharmaceutical products for companion animals (dogs and cats).
- **Problem:** While over \$50B is spent annually on pets, only a small portion (\$1.6B in 2012) is for pharmaceuticals (excluding flea/tick and vaccines). This is not for lack of demand; pets are living longer and developing more chronic diseases but there simply aren't drugs available for many of these diseases or conditions. We note that just 11 novel animal therapeutics were approved by the FDA's Center for Veterinary Medicine (CVM) last year with only 6 for the ~180 million dogs and cats in the U.S. If appropriate drugs were available, we believe that pet owners would be extremely receptive and that the market can easily grow at least five-fold in size.
- **Solution:** Aratana's strategy is to in-license new and novel therapeutic compounds from the human arena that are already approved or in late stage human trials and have compelling safety data in companion animal species (i.e. already de-risked) and develop them as novel therapeutics to serve unmet needs in exactly those species. They currently have 3 proprietary compounds in development representing 6 distinct new products intended for U.S. and European market launches. These initial products target chronic pain, inappetence, and post surgical pain indications for dogs and cats and address a domestic annual sales opportunity in excess of \$300M via anticipated launches in 2016. But the longer term opportunity is obviously much larger and we believe that as a first mover, Aratana's elegant strategy puts it in the catbird seat.

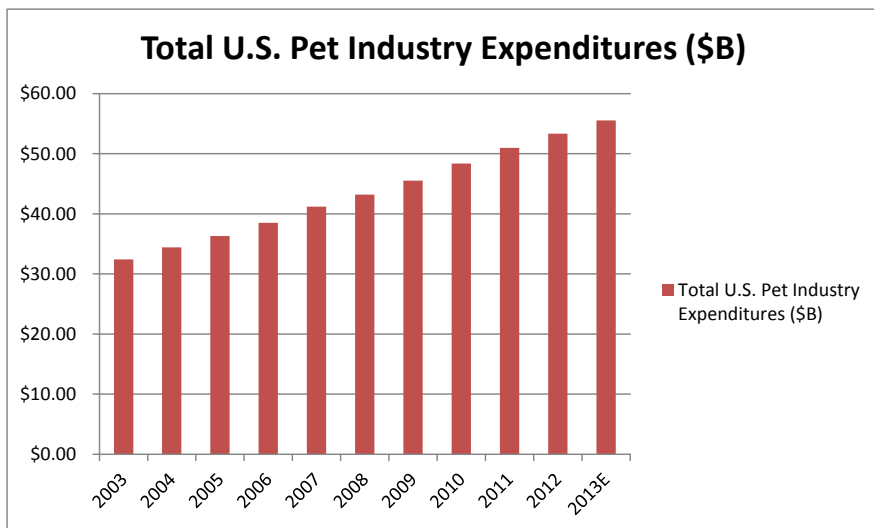
STOCK OPPORTUNITY

We believe PETX has the management team, opportunity and strategy to become a leading provider of innovative specialty pharmaceuticals within the emerging Pet Therapeutics market. We see success with these efforts dramatically improving companion animal veterinary care and driving substantial gains for the Company's shareholders. As such, we are initiating coverage of Aratana Therapeutics with a BUY rating. Our \$15 target price is a function of a long term DCF analysis (see page 16).

An Attractive But Currently Underserved Market

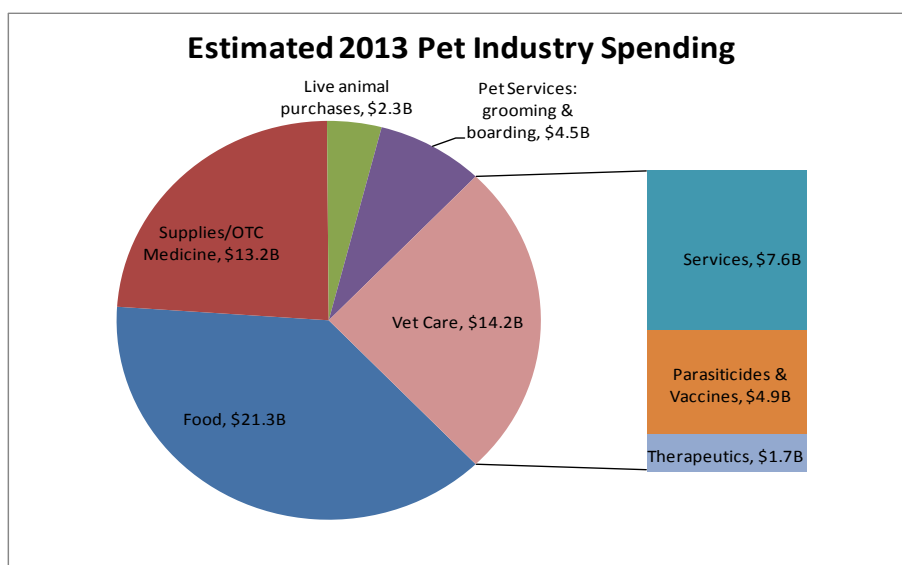
Companion Animal Market

The United States companion animal market is large and lucrative, with over 75M (~68%) American households owning a cat or dog – there are ~96M cats and ~83M dogs in the United States. Pet owners in the U.S. spend ~\$1,200 and ~\$1,500 per year on the basic needs of their cats and dogs (in 2012 U.S. pet owners spent ~\$53 billion on their pets). Consumer spending on companion animals has been relatively immune to broader economic



Source: American Pet Products Association

woes, growing every year since 2003 and is expected to surpass \$55B in 2013 (APPA estimate). Companion animals are increasingly seen and treated as part of the family. Enhanced nutrition and easier lifestyles have extended the lives of pets in North America and Europe, increasing the population of companion animals which are affected by age related disorders. Veterinary care is expected to account for roughly 25% (\$14.2B) of the \$55B in estimated companion animal expenditures in 2013. Within the veterinary care segment, it is estimated that roughly 46% (\$6.5B) will be spent on medications with the remainder spent on services. However, the lion's share of this amount (~75%) is again expected to be directed toward parasiticides and vaccines with therapeutics representing the balance. All said, the market for pet pharmaceuticals is expected to total approximately \$1.7B in 2013 (less than \$10 per pet). We believe that this market can easily grow to at least 5X this size as an increasing number of species targeted, novel therapeutics become available and grab a greater and greater share of veterinary spending.



Source: American Pet Products Association and Craig-Hallum Estimates

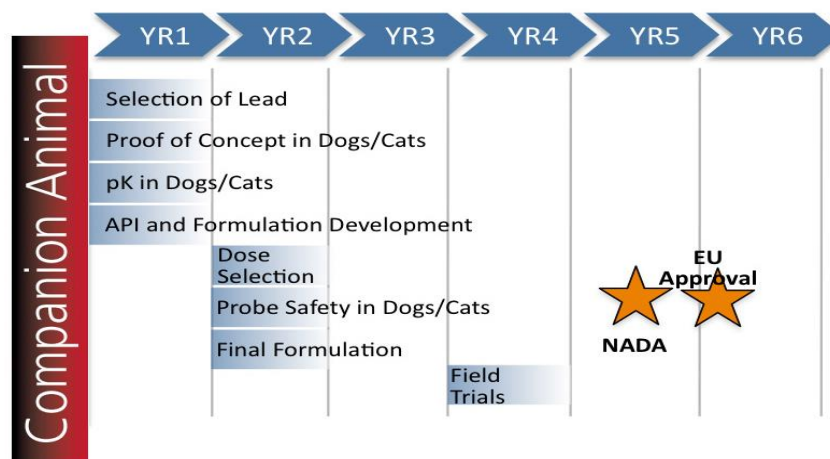
Potential Catalysts

| Schedule of Upcoming Catalysts | | | |
|--------------------------------|---------|--|----------------------|
| Program | Species | Description | Timing |
| New | Dog/Cat | Additional Product In-Licensing | ASAP |
| AT-002 | Dog | Initiation of Pivotal Field Study | 2H13 |
| AT-002 | Cat | Dose Confirmation Study Completion | Mid 2013 |
| AT-001 | Dog | Dose Confirmation Field Study Completion | Late 2013 |
| AT-003 | Dog/Cat | Initiation of Dose Confirmation Studies | Late 2013 |
| All Programs | Dog/Cat | Out-Licensing Deals | 1H14 |
| AT-002 | Dog | U.S. NADA Filed | Late 2014 |
| AT-001 | Dog/Cat | U.S. NADA Filed | 2015 |
| AT-003 | Dog/Cat | U.S. NADA Filed | 2015 |
| AT-002 | Dog | U.S. NADA Approval | Late 2015/Early 2016 |
| AT-001 | Dog | U.S. NADA Approval | 2016 |
| AT-002 | Cat | U.S. NADA Filed | 2016 |
| AT-003 | Dog/Cat | U.S. NADA Approval | 2016/2017 |

Source: Company Filings and Craig-Hallum Estimates

Lower Risk, Lower Cost Clinical Path

The regulations surrounding the development and marketing clearance of human and animal therapeutics are substantially different. Because of these differences, the path for veterinary drugs is significantly shorter and cheaper (especially when a product has moved through phase I or II human clinical trials). In fact, the products Aratana in-licenses from partners generally already have substantial accompanying safety data in one or more of the species which the Company is targeting. The existence of well developed toxicology and efficacy data as well as the favorable dynamics surrounding the clinical development protocols for pet pharmaceuticals allows the Company to significantly de-risk development projects in the early phases, prior to the majority of investment. The graphic below outlines the timeline for development of a companion animal therapeutic.



Source: Aratana Website

| | Human Health | Pet Health |
|-------------------------|-------------------------|---------------------|
| Trial Process | Multiple species steps | Direct to species |
| Approval Hurdle | Beat a standard of care | Beat a placebo |
| Generics Impact | Steep decline | Slow decline |
| Buyer Access | Difficult & Indirect | Accessible & Direct |
| Pay Economics | Payers Intermediate | Private Pay |
| Development Costs | ~ \$1.3B | < \$10M |
| Time to Market | 10+ years | <5 years |
| Risk of Market Adoption | Very High | Lower |

Source: Aratana Website

In stark contrast to human drug development, which often takes >10 years and more than \$1 billion per drug, the timeline from initiating proof of concept to gaining approval of a New Animal Drug Application (NADA) is generally around 5 years and costs approximately \$10M.

Development of pet therapeutics is significantly less onerous due to number of major factors. First, rather than a multi-species clinical trial process, veterinary drug development uses a direct species approach, where initial proof of concept and safety studies are conducted in laboratory animals of the end target species. This both significantly reduces cost and enhances visibility and confidence of trial investigators. Additionally, unlike human clinical trials where new therapies are required to show

efficacy comparable to (with improved safety) or better than the accepted standard of care, pivotal field studies in veterinary pharmaceutical trials are required to show efficacy versus placebo.

An Experienced & Accomplished Management Team

Aratana has assembled what we believe to be the premier management team in Companion Animal Therapeutics. Among the leadership are individuals who played critical roles in many of the most successful companion animal drugs launches in the U.S. market. The team's overall experience in the animal health industry is substantial and impressive with the Company's Chief Scientific Officer having been actively involved in the development of 20 approved animal health products; the Head of Drug Development having been involved in the development of 22 approved animal health products; and the Company's Chief Commercial Officer having launched >20 animal health products including 3 of the 4 largest in the industry's history (including blockbuster Rimadyl®, the long running leader in the treatment of chronic pain in dogs). In addition, the team at Aratana appears to possess a distinct entrepreneurial culture with at least three of its members having served as CEO during their careers. We believe that this leadership group has the tools, connections and strategies to be a trailblazer in developing and delivering high-octane companion animal therapeutic products, to a large and underserved market.

Large Potential Markets

AT-001

AT-001 is a prostaglandin-E receptor 4 (EP4) antagonist which has undergone two phase II human clinical trials and achieved proof of concept

for the treatment of osteoarthritis pain. The compound has demonstrated efficacy comparable to non-steroidal anti-inflammatory drugs (NSAIDs) without the associated gastrointestinal tract risks. Osteoarthritis occurs with increasing prevalence in dogs and cats over nine years old and is diagnosed by veterinarians using clinical signs and radiographs. While osteoarthritis is not curable it is often treated through proper exercise, adequate rest, weight loss and pain and anti-inflammatory medication. It is estimated that ~4M dogs per year receive 20 days of NSAID therapies – generating ~\$220M in NSAID sales in the U.S. in 2012. The leading product in this category is Rimadyl®, a COX-2 inhibitor which generated ~\$90M domestically in 2012 and holds ~40% of the total NSAID market share. We estimate that the potential revenue opportunity for AT-001 in the U.S. canine market alone is over of \$100M per year. We believe that due to the limitations of the currently available treatments (poor safety profile), a large proportion of dogs suffering from osteoarthritis pain either don't receive therapy or are being undertreated. The table below illustrates the potential opportunity for AT-001 under different market share assumptions, assuming that Osteoarthritis has a ~20% prevalence and that the average treatment course lasts 45 days.

| US AT-001 Market Opportunity | | | |
|------------------------------|----------------|--------------------------------|---------------------|
| Market Share | Number of Dogs | Avg. Cost Per Treatment Course | Revenue Opportunity |
| 2.5% | 415,000 | \$56.00 | \$23,240,000 |
| 5.0% | 830,000 | \$56.00 | \$46,480,000 |
| 7.5% | 1,245,000 | \$56.00 | \$69,720,000 |
| 10.0% | 1,660,000 | \$56.00 | \$92,960,000 |
| 12.5% | 2,075,000 | \$56.00 | \$116,200,000 |
| 15.0% | 2,490,000 | \$56.00 | \$139,440,000 |
| 20% | 3,320,000 | \$56.00 | \$185,920,000 |
| 25% | 4,150,000 | \$56.00 | \$232,400,000 |

Source: Craig-Hallum Estimates

We believe that the OUS market for canine osteoarthritis is roughly equal to the U.S. market. Studies estimate that the incidence of osteoarthritis in cats is as high as 90% of cats over age 12. Given Coxibs cannot be used in cats due to harmful side effects and there is a general lack of suitable pain management therapeutics for felines, we expect the opportunity for AT-001 in cats to be meaningful to Aratana (well in excess of \$20M per year).

AT-002

AT-002 is a ghrelin agonist which has achieved proof of concept in Phase II human clinical trials for the creation of lean muscle mass. The compound mimics ghrelin and binds to growth hormone secretagogue receptor stimulating the secretion of growth hormone and appetite. The Company plans to commercialize AT-002 for the treatment of chemotherapy induced inappetance in dogs and for cats which are suffering from chronic kidney disease (CKD). Cancer affects ~2% of dogs in the U.S. (1.7M), roughly 35% of which undergo chemotherapy. We estimate that the total market for AT-002 in U.S. dogs is in excess of \$100M per year, assuming an average length of treatment of ~100 days. Chronic kidney disease has an incidence of 1.6% in cats (~1.5M U.S. cats), roughly 30% of which suffer from inappetance. Given an expected average treatment length of 90 days we estimate that the potential opportunity for AT-002 in cats is over \$30M per year.

AT-003

AT-003 is a bupivacaine liposom solution, a novel presentation of bupivacaine which uses Pacira's novel DepoFoam, a microscopic, spherical multivesicular liposomes drug delivery system to extend the duration of the diffusion of the active agent (bupivacaine) lengthening the pain relieving effect of the product from ~8 hours for normal bupivacaine to 3 days. There are ~19M surgical procedures on dogs and ~14M surgical procedures on cats done in the US annually. These include spays and neuters, declaws, soft tissue repair, fracture repair, and cancer surgeries. Spays and neuters account for over half of the ~33M dog and cat surgeries each year. Treatment of post-operative pain varies widely by individual veterinarian and procedure. Given the dynamics of this market place, we believe that initially the product will predominantly be adopted in complex procedures and those perceived by veterinarians to be especially painful, and thus we estimate that the initial potential market for AT-003 will be roughly \$50M per year.

Conclusion

We believe that Aratana is extremely well positioned as first mover with a differentiated strategy to bring novel and specifically targeted specialty pharmaceuticals for companion animals to the veterinary market. A premier management team lead by CEO Steve St. Peter has assembled at Aratana, and contains industry leading scientific and commercial talent focused on capturing the large opportunity in companion animal therapeutics. The Company has taken a novel approach to the development of animal therapeutics, licensing cutting edge human medicines that have shown signs of safety and efficacy in preliminary animal work, in order to deliver top notch therapeutic products to the companion animal market. With three compounds already in development representing over \$300M of potential annual domestic revenue, the prospects for significant additions to the portfolio that could accelerate the timeline to first commercial revenue, and a truly differentiated strategy to be the first mover pure play provider of novel, species targeted therapeutics for companion animals, we believe Aratana represents a high reward opportunity for emerging growth stock investors.

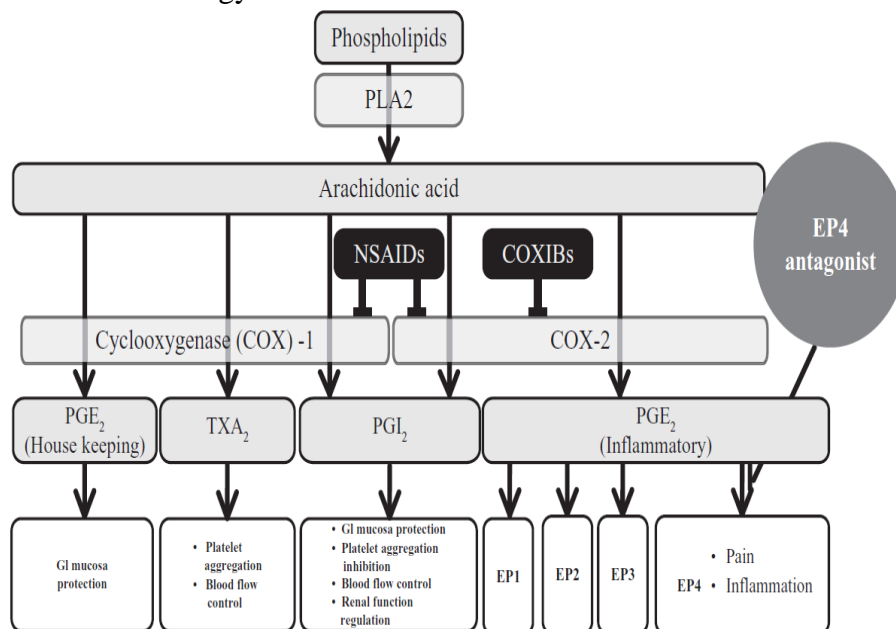
WHAT DO THEY DO

Aratana Therapeutics in-licenses the world-wide animal health market rights to compounds which have demonstrated safety and effectiveness in multiple species and completed at least Phase I or Phase II human clinical trials. The Company seeks to leverage the clinical work being done in the human pharmaceutical industry in order to bring regulatory-approved products to veterinary therapeutics market quickly, efficiently, and with reduced risk. Aratana evaluates and pursues compounds in more than 20 attractive pet therapeutic areas which overlap with human development. The Company's team of in-house pet health experts evaluates potential candidates and the Company then seeks to in-license the exclusive worldwide animal health rights to the compounds it has identified as attractive potential therapeutics.

The Company currently has 3 compounds in development representing 6 distinct potential product opportunities for both U.S. and European markets:

- **AT-001** was in-licensed from RaQualia Pharmaceuticals, a spin-out from Pfizer. The product achieved proof of concept in two phase II human clinical trials for the treatment of osteoarthritis pain. The compound, which is a selective prostaglandin-E receptor 4 (EP4) antagonist, has been shown to have equivalent effect on pain as non-steroidal anti-inflammatory drugs (NSAIDs) with fewer gastrointestinal tract side effects than NSAIDs. Currently approved products for the treatment of osteoarthritis pain and inflammation in dogs belong to a class of NSAIDs known as cyclooxygenase (COX) inhibitors or Coxibs. The leading product in the category, Rimadyl®, is a COX-2 inhibitor which is approved for oral and subcutaneous use in dogs (but it is not approved nor is it safe for use in cats). COX-2 initiates the synthesis of Prostaglandin-I₂ (PGI₂) which affects gastrointestinal mucosa, kidney function, and blood flow, and Prostaglandin-E₂ (PGE₂) which affects gastrointestinal mucosa and is an important mediator of pain and inflammation. Unlike Coxibs, EP4 is a G-protein coupled PGE₂ receptor (one of four) which is

AT-001 Biology:



Source: Aratana Filings

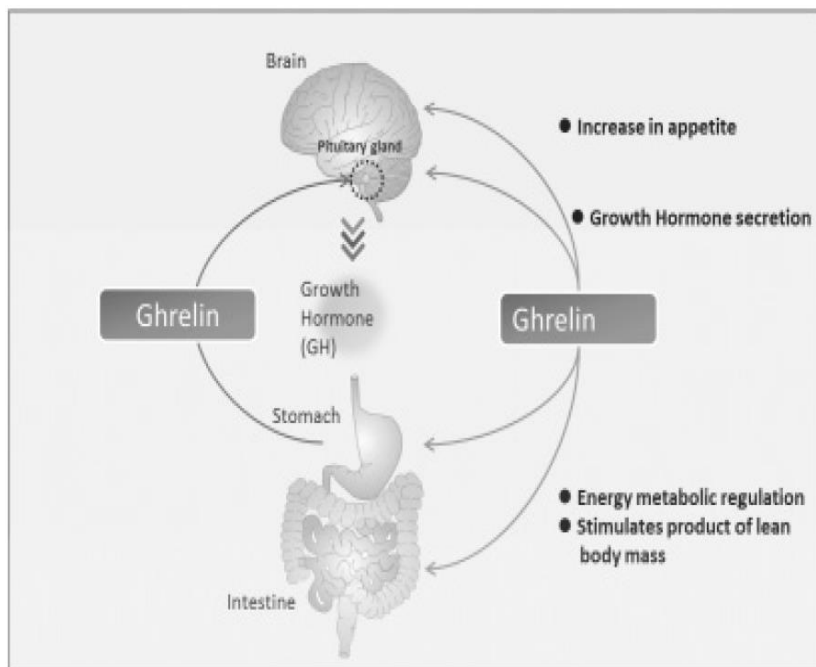
located on the membrane of various mammalian cells. The EP4 receptor mediates PGE₂-elicited sensitization and has been shown to be a major receptor mediating pain associated with arthritis inflammation. AT-001 binds with the EP4 receptor thereby blocking PGE₂-mediated pain and inflammation. Unlike the mechanism taking place with Coxibs, blocking the EP4 receptor does not affect prostaglandin biosynthesis, and thus does not affect gastrointestinal mucosa and renal function.

- **Dogs** - The Company should be able to effectively leverage the toxicology program which was conducted by RaQualia, a nine-month GLP toxicology study in which 36 dogs (4 dosage groups) were orally administered AT-001 daily for 9 months. AT-001 performed extremely well in the toxicology study with the only noticeable side effects being loose stool and a temporary decrease in mean serum albumin in the highest dosage group. Aratana has completed a proof of concept study in laboratory dogs which led the Company to launch a multi-site, randomized, blinded field study to confirm dosing. The study launched in February, it will

enroll 300 dogs into 4 treatment arms (3 AT-001 treatments and a placebo) and should be completed by the end of 2013. The Company has engaged contract manufacturer's for both the API and the formulated product. The company expects to receive approval for its NADA in 2016.

- **Cats** – AT-001 has undergone a 28 day laboratory safety probe in cats and was well tolerated at very high dosage levels. The Company will need to conduct additional safety studies in cats and outline a development plan to test the efficacy of the product to be reviewed by the CVM.

AT-002 Biology:



Source: Aratana Filings

- **AT-002**, which was also licensed from RaQualia Pharmaceuticals, established proof of concept as an appetite stimulant in phase II human clinical trials. AT-002 (capromorelin) is a selective ghrelin agonist: causing appetite stimulation and growth hormone secretion. Ghrelin is an amino acid peptide hormone produced mainly in the stomach. AT-002 mimics ghrelin and binds to growth hormone secretagogue receptors. There are currently no approved appetite stimulant products on the market for cats and dogs. Currently marketed human therapies for inappetence are targeted at the central nervous system and thus have limited effectiveness in other species.

- **Dogs** - The Company will be using results from a 12 month toxicology study which was conducted as part of the pivotal safety data for the human trial. The study administered AT-002 to 32 dogs (4 dosage groups) daily for 12 months. There were several minor treatment-related adverse events in the high dosage groups, which were limited to the gastrointestinal, cardiovascular, and hepatic systems and were largely temporary in nature. The Company expects that the final product could have a safety margin as high as 10x and noted that the product has been well tolerated in canines. Aratana has conducted a multi-center blinded pilot field study which evaluated appetite score and body weight gain in 30 dogs (17 treatment, 13 placebo) which were treated once daily for 7 days. AT-002 showed statistically significant improvements in appetite scores and weight gain versus the placebo. The Company plans to conduct a pivotal field effectiveness study in the second half of 2013. The



Company is working with established animal health specialty contract manufacturers for API and formulation and expects the first batch of cGMP formulated product will be used in the pivotal trial later this year. Aratana expects to receive NADA approval in late 2015 or early 2016.

- **Cats** – The Company conducted a safety study of AT-002 in a model of kidney compromised laboratory cats to augment the 2 week safety data which had already been conducted as part of the original pre-human work. Both studies showed good tolerance with no treatment related side effects, and the Company expects to generate solid safety margins in their pivotal safety study. Several lab studies from the licensed data package supported AT-002's effectiveness in increasing food intake and weight gain and these results were supported by a 10 day lab study conducted by Aratana. The Company is currently conducting an ongoing dose confirmation study. The study began in January and should be completed by mid-2013. Aratana expects to submit an NADA for cats in by the beginning of 2016 and receive approval within a year of submission.
- **AT-003** is licensed from Pacira Pharmaceuticals and was approved for humans in 2011 as EXPAREL. It is indicated as a local post operative analgesic. AT-003 is a bupivacaine liposome injectable suspension which the Company intends to develop for post-operative pain in cats and dogs. Bupivacaine is a local anesthetic that prevents the both generation and conduction of nerve impulses. Bupivacaine has a long history of pharmaceutical use in both humans and animals in the U.S. and there is a large amount of information on the toxicology and pharmacology of bupivacaine in lab animals. AT-003 is a 1.3% bupivacaine liposome injectable suspension; the novelty of the product is Pacira's proprietary DepoFoam drug delivery system which is made up of microscopic, spherical multivesicular liposomes. The DepoFoam particles significantly extend the duration of the diffusion of the bupivacaine, extending post-operative pain relief from eight hours to three days. The currently approved treatments for post-operative pain in cats and dogs are Coxib NSAIDs and Fentanyl. Fentanyl is a controlled narcotic which is normally dispensed via a patch (the patch is currently not approved for veterinary use). Nexcyon, a transdermal fentanyl solution, was approved earlier this year. We believe that bupivacaine liposome has inherent advantages over NSAIDs which have GI, cardiovascular and renal side effects and the narcotic fentanyl which is a controlled substance that often extends the hospital stay of the patient.
 - **Dogs** – The Company intends to utilize the extensive toxicology data which was collected during Pacira's development of EXPAREL. Aratana has access to seven canine studies that can be used to support their application. The Company expects to use a four week long twice weekly

toxicity study which examined 60 dogs (5 dosing groups: 3 EXPAREL, 1 bupivacaine HCl and 1 saline) which was conducted as part of the Pacira's human development program, as their pivotal safety study. The Company expects to undergo dosing confirmation studies later this year after which they will submit pivotal study protocols to the CVM. The Company will use the same product that was approved by the FDA and expects to receive a CMC technical section complete letter based on the same data that was included in the NDA submission for EXPAREL. Aratana anticipates filing their NADA in 2015 and expects to receive approval in 2016 or 2017.

- **Cats** – The Company plans to submit pivotal protocol for a safety study in cats in the near future and expects to submit its completed NADA application in 2015.

Sales & Marketing Strategies

The Company plans to commercialize its products in the United States through a direct sales force, augmented by distributor relationships. Aratana's products have the potential to substantially enhance the income of veterinary practices, who often act as both doctor and pharmacist for their animal patients. The recent increase of internet based sales of flea and tick products has compromised a meaningful portion of veterinary office revenue. The Company intends to focus its initial pharmaceutical sales efforts on high return geographies built around major animal hospital customers. PETX plans to market its products directly to both consumers and veterinarians in the U.S. We accordingly see the build-out of a 25 to 50 person direct domestic sales force, nicely complemented by strategic relationships with established vet market distributors (with the 3 large players each covering the landscape with hundreds of field and telesales reps), as logical initial big steps for Aratana.

Internationally the Company intends to go to market via commercial partnerships with large multinational partners. Management is also planning to pursue registrations for their products in Europe and expects they can be completed roughly a year following U.S. approvals. We anticipate that the Company may attempt to generate additional cash (and potential downstream royalties) through out-licensing deals for certain international markets for its current programs. We believe that it is possible that the company could receive an additional \$20M through this strategy but have not included any contribution from out-licensing deals to our income statement forecasts.

The Competitive Landscape

There are a number of entities which currently develop and commercialize pet therapeutics. Major pharmaceutical, biotechnology and specialty animal health companies all participate in the pet therapeutics market. There are also extensive financial and research resources invested in the discovery and development of new therapeutic products. We expect Aratana will compete with large animal health companies such as Merck Animal Health (Merck),

Merial (Sanofi), Elanco (Eli Lilly), Bayer Animal Health (Bayer), Novartis Animal Health (Novartis), Boehringer Ingelheim Animal Health (Boehringer Ingelheim), and Zoetis (recent spin off from Pfizer). Most of the large animal health companies which compete with Aratana are primarily focused on creating products for production animal markets. The Company also may see competition from several sizeable animal health companies based in Europe (including Virbac Group, Ceva Animal Health and Dechra Pharmaceuticals) as well as a number of small, early stage companies developing products for use as pet therapeutics.

Aratana's current product portfolio has broad IP protection which stretches well into the next decade. We expect AT-001 to compete with existing products Rimadyl®, Deramaxx, Previcox and Metacam. We are currently not aware of any direct competitor for AT-002. AT-003 will compete with non-steroidal anti-inflammatory drugs from the class of cyclooxygenase inhibitors and injectable anesthetics, such as bupivacaine, and the narcotic Fentanyl. We expect Aratana will also see competition from generic therapeutics and products which have been approved for use in humans but are being used off label on pets.

MANAGEMENT

We believe a group of top notch senior managers with deep roots in numerous historical successes within the companion animal therapeutics industry has gathered at Aratana. The team includes:

Steven St. Peter, MD - President and Chief Executive Officer

Dr. St. Peter is one of the founders of Aratana and has served as President and CEO of the Company since September 2012. Dr. St. Peter served as Chairman of the board of directors from December 2010 to September 2012. Prior to joining the Company, Dr. St. Peter spent over 8 years as a managing director of MPM Asset Management, where he focused on both venture and M&A investments in the pharmaceuticals and medical technology industries. He has previously been employed by private equity firms Apax Partners and The Carlyle Group. Dr. St. Peter received his M.D. from Washington University, completed his residency and fellowship at the Hospital of the University of Pennsylvania, and was an assistant clinical professor of medicine at Columbia University. Prior to his medical training, Dr. St. Peter was an investment banker at Merrill Lynch and he holds an M.B.A. from the Wharton School of Business. He is on the board of PharmAthene, Inc. and the New England Venture Capital Association, and his previous board experience includes Omrix Biopharmaceuticals, Inc., Helicos Biosciences Corporation, MPM Acquisition Corp., Proteon Therapeutics, Inc. and Rhythm Pharmaceuticals, Inc.

Julia A. Stephanus - Chief Commercial Officer

Ms. Stephanus joined Aratana as CCO in January 2013. Previously, she spent over 2 years as the director of the global pet franchise for Ceva Animal Health where she oversaw the commercial development of new products and global marketing of strategic pet products. In 2006, Ms. Stephanus founded Summit VetPharm, the developer of Vectra, a pet parasiticide product line,

and served as President and CEO until it was acquired by Ceva Animal Health in 2010. Prior to 2006, Ms. Stephanus worked in various sales and marketing positions for Pfizer Inc. and its legacy companies. At Pfizer, Ms. Stephanus had commercial responsibility for the development and global launch of two highly-profitable pet products: Rimadyl®, the first NSAID approved for osteoarthritis in dogs, and Revolution, the first topical endectocide for heartworm and fleas in cats and dogs.

Ernst Heinen, D.V.M., Ph.D. - Head of Drug Evaluation & Development

Dr. Heinen has served as Head of Drug Evaluation and Development at Aratana since June 2012. Prior to joining the Company, Dr. Heinen spent 22 years at Bayer Animal Health, the animal health division of Bayer AG, working in positions of increasing responsibility. Ultimately he served as vice president of research & development and veterinary technical services, Pets. Dr. Heinen previously served on the boards of the Kansas City Area Development Council and the Center for Animal Health Innovation. Dr. Heinen received a veterinary degree and a D.V.M. in veterinary microbiology from the Justus-Liebig-University of Giessen Veterinary School in Germany, and is a certified specialist in veterinary microbiology.

Dr. Linda Rhodes V.M.D., Ph.D. – Chief Scientific Officer

Dr. Rhodes, has served as CSO of Aratana since September 2012 and as a member of the board of directors since February 2011. Dr. Rhodes served as CEO from February 2011 to September 2012. Dr. Rhodes was a founding partner of AlcheraBio LLC, an animal health consulting and contract research firm, in 2001. AlcheraBio was acquired in the fall of 2008 by Argenta, a New Zealand animal health formulations and contract manufacturing organization, where she served as VP of clinical development until February 2011. Dr. Rhodes is an adjunct professor for the Graduate School of Animal Science at Rutgers University. She has been a member of the board of directors of ImmuCell Corporation since 2000. From 1998 to 2001, Dr. Rhodes was a director of production animal development projects and new technology assessment at Merial Ltd. Prior to that, she held various research positions at Merck Research Laboratories and Sterling Winthrop Drug Company. Dr. Rhodes earned her Ph.D. in Physiology/Immunology from Cornell University and her V.M.D. from the University of Pennsylvania School of Veterinary Medicine.

Louise Mawhinney - Chief Financial Officer

Ms. Mawhinney has served as CFO of the Company since September 2012. Prior to joining Aratana, Ms. Mawhinney spent over 4 years as CFO of medical device and diagnostic company Ikonisys Inc. From September 2006 to March 2008, she served as SVP and CFO of Helicos BioSciences Corp. Prior to her tenure at Helicos, Ms. Mawhinney was CFO of ArQule, Inc., a publicly-traded biotech company, and worked in the tax department of KPMG LLP in Boston. Ms. Mawhinney holds a Master's degree from the University of St. Andrews and is a Certified Public Accountant.

FINANCIAL PERFORMANCE & OUTLOOK

Fiscal Year 2012

For the year which ended in December, Aratana spent \$7.3M in Research and Development associated with development activities surrounding its 3 currently disclosed compounds. The Company operations utilized \$7.8M in cash flow during 2012. GAAP net loss attributable to common shares was \$13.6M for FY12, compared to a loss of \$4.6M in FY11.

Second Quarter Fiscal Year 2013 (June)

In Q2, we estimate Aratana's cash burn to be \$3.6M. We expect that the Company's investments in its development programs will remain stable sequentially in Q2 (\$2.1M vs. \$2.1M in Q1'13) and that PETX will incur additional G&A costs associated with its initial public offering. On the bottom line we estimate the Company's net loss will be \$3.6M or (\$0.25) per diluted share.

Outlook

We believe that Aratana has significantly de-risked its 3 lead development programs. Consistent with the Company's planned development and commercialization schedule, we expect Aratana to receive initial NADA approvals and begin selling its products in 2016. The Company's products are likely to carry gross margins similar to those of other highly profitable specialty pharmaceuticals, 60-75% before royalties. However, there will be an anticipatory ramp of significance to commercial infrastructure and we are accordingly forecasting net losses in FY13 of \$16.4M followed by \$25.1M in FY14 and \$20.9M in FY15. Importantly, we believe we've taken a relatively conservative approach with our assumptions regarding total cash burn and revenue generation over the next several years. Therefore, we concede the likelihood of significantly better financial performance than is currently reflected in our DCF analysis. We also note that additional product in-licensing agreements could meaningfully accelerate the timeline to initial commercial revenue.

Balance Sheet

PETX's balance sheet at the end of Q1 featured \$25.6M in cash and \$4.9M of debt. We expect that following Aratana's June 2013 IPO, and likely cash use of \$3.6M in Q2, it will have ~\$51M in net cash. We anticipate that the Company will utilize a substantial portion of this cash position continuing development and garnering regulatory approval for its currently disclosed product pipeline. Aratana does expect to raise additional funds for the full blown commercialization efforts around these launches. However, we believe that opportunities for non-dilutive financing (such as out-licensing specific geographic or alternate species rights in exchange for meaningful upfront cash payments and royalties) are likely to be present for PETX.

RISKS

We believe an investment in Aratana involves the following risks:

- **Government Regulation**
The Animal Therapeutic industry is highly regulated by the Center for Veterinary Medicine at both the state and federal level. Changes to existing regulation or new legislation could have a material adverse effect on the PETX's business and financial performance.
- **Dependence On Suppliers**
The Company's business model relies on third parties to manufacture its products. Any malfunctions in the manufacturing processes of its suppliers or other sources of interruption to the supply of products could have an adverse impact on the Company's financial results.
- **Generic Products**
Generic products may be viewed as more cost effective than branded therapeutics. While the Company's IP should protect its products from generic entry in the near term, substantially cheaper generic versions of competing products, even if they are less efficacious, may represent a challenge to the commercialization of the Company's products.
- **Intellectual Property And Trade Secrets**
The Company's financial success is in part dependent on its ability to secure and enforce its substantial intellectual property. If PETX is forced to defend its intellectual property through litigation or if it is unable to maintain propriety of its trade secrets, the Company may incur extra expenses and financial results may be adversely affected.
- **Ongoing Need To Finance Growth**
While the Company currently has ~\$51M (post over allotment) in net cash on its balance sheet and estimates that its current capital is sufficient to fund its operations for over 2 years, the Company may need to seek additional capital in order to continue to fund its operations in the future. Such financing could be dilutive to stockholders or impose debt covenants and obligations.

CRAIG-HALLUM ALPHA SELECT LIST

The Alpha Select list is an actively researched collection of small, under-followed public companies that we believe have the potential to become much larger. An "acorn" list of sorts, The Alpha Select List will typically consist of sub-\$250M market cap companies with attractive business models, above average growth trends, favorable macro/secular themes and management teams that we believe have the ability to take the business to the next level.

Financials

Aratana Therapeutics, Inc. Financial Model FISCAL YEAR ENDS DECEMBER

| (\$ thousands) | Fiscal 2011A | Fiscal 2012A | Mar Q1-13A | Jun Q2-13E | Sep Q3-13E | Dec Q4-13E | Fiscal 2013E | Fiscal 2014E | Fiscal 2015E | Fiscal 2016E | Fiscal 2017E |
|--|-----------------|-----------------|---------------|---------------|---------------|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Total Revenue | - | - | - | - | - | - | - | - | - | 13,250 | 39,000 |
| Cost of Sales | - | - | - | - | - | - | - | - | - | 7,011 | 18,143 |
| Total Gross Margin | - | - | - | - | - | - | - | - | - | 6,239 | 20,857 |
| Operating Expenses | | | | | | | | | | | |
| Research and Development | 2,196 | 7,291 | 2,114 | 2,100 | 2,550 | 3,136 | 9,900 | 17,000 | 12,000 | 9,000 | 12,000 |
| Selling, General and Administrative | 1,274 | 2,987 | 1,226 | 1,450 | 1,475 | 1,425 | 5,576 | 8,000 | 9,000 | 15,500 | 24,000 |
| In-Process R&D | 0 | 1,500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total GAAP Operating Expenses | 3,470 | 11,778 | 3,340 | 3,550 | 4,025 | 4,561 | 15,476 | 25,000 | 21,000 | 24,500 | 36,000 |
| GAAP Income (Loss) from Operations | (3,470) | (11,778) | (3,340) | (3,550) | (4,025) | (4,561) | (15,476) | (25,000) | (21,000) | (18,261) | (15,143) |
| Interest income | 6 | 21 | 3 | 5 | 30 | 30 | 68 | 100 | 68 | 36 | 16 |
| Interest Expense | 0 | 0 | (24) | (75) | (138) | (138) | (375) | (552) | (572) | (610) | (700) |
| Other Income | 0 | 121 | 68 | 27 | 27 | 27 | 149 | 400 | 684 | 0 | 0 |
| Pre-tax GAAP Income | (3,464) | (11,636) | (3,293) | (3,593) | (4,106) | (4,642) | (15,634) | (25,052) | (20,820) | (18,835) | (15,827) |
| Income Tax (benefit) | 0 | 0 | - | - | - | - | 0 | 0 | 0 | 0 | 0 |
| GAAP Net Income | (3,464) | (11,636) | (3,293) | (3,593) | (4,106) | (4,642) | (15,634) | (25,052) | (20,820) | (18,835) | (15,827) |
| Modification of Series A Convertible Preferred Stock | (276) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unaccrued Dividends on Convertible Preferred Stock | (902) | (2,035) | (773) | 0 | 0 | 0 | (773) | 0 | 0 | 0 | 0 |
| Net Loss Attributable to Common Stockholders | (4,642) | (13,671) | (4,066) | (3,593) | (4,106) | (4,642) | (16,407) | (25,052) | (20,820) | (18,835) | (15,827) |
| EPS Attributable to Common Stockholders | (\$6.93) | (\$17.68) | (\$0.24) | (\$0.25) | (\$0.20) | (\$0.22) | (\$0.90) | (\$1.20) | (\$1.00) | (\$0.90) | (\$0.75) |
| Weighted Avg. Shares Outstanding DILUTED | 500 | 658 | 13,936 | 14,120 | 20,747 | 20,762 | 17,391 | 20,800 | 20,860 | 20,920 | 20,980 |
| Margin Analysis % of Sales | | | | | | | | | | | |
| Total Gross Margin | NM | NM | NM | NM | NM | NM | NM | NM | NM | 47.1% | 53.5% |
| Research and Development | NM | NM | NM | NM | NM | NM | NM | NM | NM | 67.9% | 30.8% |
| Selling, General and Administrative | NM | NM | NM | NM | NM | NM | NM | NM | NM | 117.0% | 61.5% |
| In-Process R&D | NM | NM | NM | NM | NM | NM | NM | NM | NM | 0.0% | 0.0% |
| Total GAAP Operating Expense | NM | NM | NM | NM | NM | NM | NM | NM | NM | 184.9% | 92.3% |
| GAAP Operating Margin | NM | NM | NM | NM | NM | NM | NM | NM | NM | -137.8% | -38.8% |
| Adj. EBITDA Margin | NM | NM | NM | NM | NM | NM | NM | NM | NM | -137.8% | -38.8% |
| GAAP Pre-tax Income | NM | NM | NM | NM | NM | NM | NM | NM | NM | -142.2% | -40.6% |
| Tax Rate (Effective) | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| GAAP Net Margin | NM | NM | NM | NM | NM | NM | NM | NM | NM | -142.2% | -40.6% |
| Percent Change (Yr/Yr) | | | | | | | | | | | |
| Total Revenue | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | 194.3% |
| Selling, General and Administrative | NM | 134.5% | 146.2% | NM | NM | NM | 86.7% | 43.5% | 12.5% | 72.2% | 54.8% |
| Research and Development | NM | 232.0% | 20.7% | NM | NM | NM | 35.8% | 71.7% | -29.4% | -25.0% | 33.3% |
| Total GAAP Operating Expense | NM | 239.4% | 48.5% | NM | NM | NM | 31.4% | 61.5% | -16.0% | 16.7% | 46.9% |
| GAAP Operating Income | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM |
| Adj. EBITDA | NM | 239.4% | 48.5% | NM | NM | NM | 31.2% | 61.7% | -16.0% | -13.0% | -17.1% |
| GAAP Pre-tax Income | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM |
| GAAP Net Income | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM |
| GAAP Earnings Per Share | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM |

Discounted Cash Flow Model

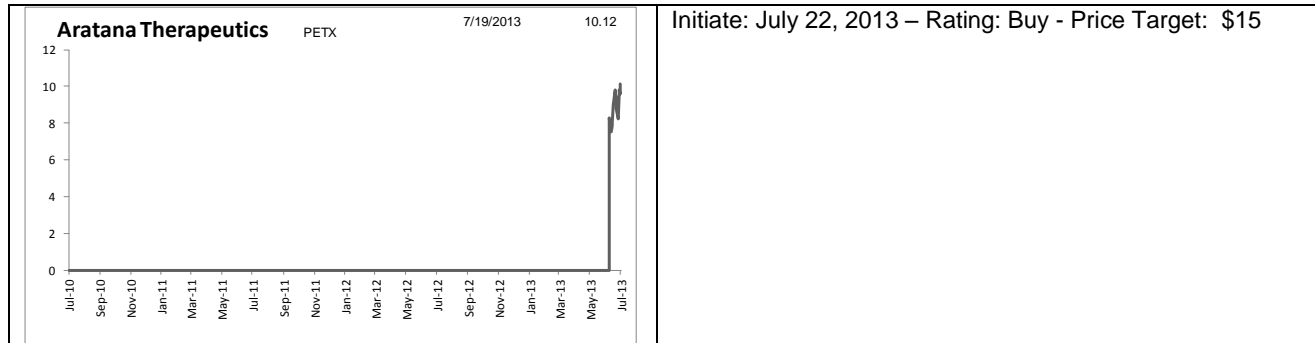
Aratana Therapeutics, Inc. Discounted Cash Flow Model

| Estimates | | | | | | | | | | |
|-----------------------------------|----------------|----------|----------|----------|----------|---------|---------|---------|---------|---------|
| (\$ in Thousands) | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Total Sales | 0 | 0 | 0 | 13,250 | 39,000 | 78,000 | 140,399 | 238,680 | 381,887 | 393,344 |
| Operating Profit | (15,476) | (25,000) | (21,000) | (18,261) | (15,143) | 2,939 | 28,080 | 65,637 | 124,113 | 118,003 |
| Less: Cash Taxes Paid | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37,234 | 43,661 |
| Operating Profit After Tax | (15,476) | (25,000) | (21,000) | (18,261) | (15,143) | 2,939 | 28,080 | 65,637 | 86,879 | 74,342 |
| Depreciation & Amortization | 20 | 23 | 175 | 547 | 616 | 693 | 779 | 877 | 986 | 1,109 |
| Fixed Cap Expenditures | 100 | 107 | 2,114 | 1,163 | 1,244 | 1,331 | 1,424 | 1,524 | 1,630 | 1,745 |
| Working Cap Increase | 0 | 0 | 0 | 1,656 | 3,219 | 4,875 | 7,800 | 12,285 | 17,901 | 1,432 |
| FCF | (15,556) | (25,085) | (22,939) | (20,533) | (18,990) | (2,574) | 19,635 | 52,705 | 68,334 | 72,275 |
| PV FCF | (13,889) | (19,997) | (16,328) | (13,049) | (10,775) | (1,304) | 8,882 | 21,287 | 24,642 | 23,270 |
| Perpetual FCF | | | | | | | | | | |
| Base FCF | 72,275 | | | | | | | | | |
| Weighted Avg. Cost of Capital (k) | 12.0% | | | | | | | | | |
| Perpetual Growth Rate (g) | 3.0% | | | | | | | | | |
| Base Year | 2012 | | | | | | | | | |
| Perpetual Start Year | 2022 | | | | | | | | | |
| Perpetual Value | 827,143 | | | | | | | | | |
| PV of Perpetual Growth Period | 266,318 | | | | | | | | | |
| Total FCF | | | | | | | | | | |
| Value of FCF | 269,056 | | | | | | | | | |
| Intrinsic Value | | | | | | | | | | |
| Cash | 50,670 | | | | | | | | | |
| Debt | 4,929 | | | | | | | | | |
| After Tax ESO Liability | 3,214 | | | | | | | | | |
| Value of Equity | 311,583 | | | | | | | | | |
| Shares Outstanding | 20,732 | | | | | | | | | |
| Intrinsic Value per Share | \$15.03 | | | | | | | | | |

| Sensitivity Analysis | | | | | |
|---------------------------|-------|------------|----------------|---------|---------|
| Terminal Period Variables | | FCF Growth | | | |
| Cost of Capital | 2.5% | 3.0% | 3.5% | 4.0% | |
| | 9.5% | \$23.36 | \$25.06 | \$27.03 | \$29.37 |
| | 10.0% | \$21.00 | \$22.41 | \$24.04 | \$25.93 |
| | 11.5% | \$15.66 | \$16.51 | \$17.47 | \$18.56 |
| | 12.0% | \$14.29 | \$15.03 | \$15.85 | \$16.77 |
| | 12.5% | \$13.09 | \$13.72 | \$14.43 | \$15.22 |
| | 13.0% | \$12.02 | \$12.57 | \$13.18 | \$13.86 |



REQUIRED DISCLOSURES



Source: Baseline

Ratings definitions:

Buy rated stocks generally have twelve month price targets that are more than 20% above the current price. **Accumulate** rated stocks generally have twelve month price targets above the current price but lack a visible catalyst. This rating includes Early View coverage. **Neutral** rated stocks generally have no price target and we would sell the stock.

Fundamental trend definitions:

Improving means growth rates of key business metrics are generally accelerating. **Stable** means growth rates of key business metrics are generally steady. **Mixed** means growth rates of some key business metrics are positive but others are negative. **Declining** means growth rates of key business metrics are generally decelerating.

Ratings Distribution (6/30/2013)

| Rating | % Of Companies Covered | % With Investment Banking Relationships |
|--------|------------------------|---|
| Buy | 72% | 19% |
| Hold | 27% | 0% |
| Sell | 1% | 0% |
| Total | 100% | 14% |

Information about valuation methods and risks can be found in the “STOCK OPPORTUNITY” and “RISKS” sections, respectively, of this report.

CHLM makes a market in this security.

CHLM has managed or co-managed an offering of securities for the subject company in the last 12 months. CHLM expects to receive or intends to seek compensation for investment banking services from the subject company in the next three months.

Analysts receive no direct compensation in connection with the firm's investment banking business. Analysts may be eligible for bonus compensation based on the overall profitability of the firm, which takes into account revenues from all of the firm's business, including investment banking.

OTHER DISCLOSURES

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I, Steven F. Crowley, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject security and issuer. No part of my compensation was, is or will be directly or indirectly related to the specific recommendations or views contained herein.