Safe Harbor Statement

Special Note Regarding Forward-Looking Statements
This presentation contains forward-looking statements (as that term is defined in the Private Securities Litigation Reform Act of 1995) and reflects Aratana's current beliefs. However, as with any pharmaceutical product, there are substantial risks and uncertainties in the process of development and commercialization, and actual results might differ materially from such forward-looking statement projections. Among other things, all statements contained in this presentation that do not relate to matters of historical fact should be considered forward-looking statements and there can be no guarantee with respect to anticipated financial performance; our anticipated use of cash in 2019; our ability to bring innovative therapeutics to the market; steps necessary for and timing of regulatory submissions and approvals of therapeutic candidates; study, development and commercialization of therapeutics or therapeutic candidates, including without limitation ongoing efforts to commercialize ENTYCE and NOCITA; timing of anticipated study results; increased market recognition of and demand for our therapeutics; our beliefs on sales coverage of our pet therapeutics in our MSAs in the U.S.; and statements regarding the Company's efforts, plans and opportunities, including, without limitation, advancing our therapeutic candidates and offering innovative therapeutics that help manage pet's medical needs safely and effectively and that result in longer and improved quality of life for pets. For further discussion of these and other risks and uncertainties, see Aratana's most recent Form 10-K and Form 10-Q filings with the United States Securities and Exchange Commission. Except as required by law, Aratana undertakes no duty to update forward-looking statements to reflect events after the date of this presentation.
Delivering best-in-class therapeutics that improve the lives of our pets.
Guiding Principles

Key differentiators within a highly competitive industry

**Delivering Best-In-Class Therapeutics**
- Quickly and effectively develop **scientifically differentiated therapeutics**, profiles superior to the standard of care therapy
- Focus on **new chemical entities** with strong IP, sustained patent lives

**Providing Comprehensive Service to Veterinarians**
- Efficient selling model allows us to **partner with veterinarians**
- Veterinarians are business owners and **our therapeutics are practice-building** meeting veterinarian’s desire to provide quality care and the evolving needs of pet owners concerned about quality of life

**Serving as a Collaborator of Choice**
- **Strategically deliver innovation** from human pharmaceutical companies
- **Remain well-suited for collaborations** across the dynamic animal health industry – from both an R&D and commercial standpoint
Successful Track Record

Proven history of innovation & collaboration

- Aratana Founded
- RaQualia Agreements
- Galliprant & Entyce
- Pacira Agreement
- NOCITA
- Advaxis Agreement
- AT-014 (Canine Osteosarcoma Vaccine)
- Aratana IPO
- Atopix Agreement
- AT-018
- Elanco Collaboration Agreement
- Galliprant
- Canine Osteosarcoma Vaccine (Live Listeria Vector)
- AskAt Agreement
- AT-019
Our Proven Development Strategy

Intersecting market opportunity & veterinarian needs with scientifically differentiated therapeutics

Compelling Market
Prevalent or high incidence to support opportunity

Recognizable need
Conditions or diseases without treatment options or outdated options

Highly differentiated
Scientifically elegant, first-in-class innovation and targeted mechanism of action

Results

REGULATORY AGENCY APPROVALS
Four FDA-approved indications; one EU marketing authorization; three USDA licensures

MANUFACTURING DOSSIERS
Manufacturing dossiers supported by worldwide manufacturing CMOs; three drug master files

CLINICAL STUDIES
More than 15 studies investigating therapeutic candidates in client-owned dogs or cats

Provided March 13, 2019.
Fast-Tracked Innovation

Early de-risking allows for efficient R&D efforts

Timeline from In-Licensing to FDA-Approval

- **Humans**:
  - **YR1**: Proof of Concept in Lab Animals
  - **YR2**: SAR Chemistry, Selection of Lead
  - **YR3**: Animal Toxicology
  - **YR4**: Animal PK
  - **YR5**: In vitro Toxicology
  - **YR6**: IND Filing
  - **YR7**: Chemistry Optimization
  - **YR8**: IND Filing
  - **YR9**: NDA
  - **YR10**: Proof of Concept
  - **YR11**: PK
  - **YR12**: API and Formulation Development
  - **YR13**: NDA

- **Pets**:
  - **YR1**: De-Risking
  - **YR2**: PK
  - **YR3**: API and Formulation Development
  - **YR4**: Dose Selection
  - **YR5**: Probe Safety
  - **YR6**: Final Formulation
  - **YR7**: Field Studies
  - **YR8**: NADA

Potential for approvals in pets before humans

5.3 years
5.4 years
3.8 years
5.8 years

Provided March 13, 2019.
Our Commercial Approach

Aratana Sales
Co-Promote
Distributors
Corporate Sales
eCommerce

Dispensed in Clinic/Pharmacy/Home Delivery

Pet Owners
Comprehensive Service to Veterinarians

Starting to successfully unlock potential in veterinary clinics

- Our sales force is efficient, highly trained and partners directly with veterinarians and their staff
  - Two dozen sales representatives in top-40 MSAs
  - Veterinary Medical Liaisons (veterinarians in the field)
  - Work with distribution and corporate accounts

- We partner with veterinarians to provide:
  - Education on conditions
  - Doctor-to-doctor conversations
  - Technician training (including Continuing Education)
  - In the case of NOCITA, hands-on training
Our Therapeutics
Our Portfolio of Pet Therapeutics

AT-002 (capromorelin)
AT-014 (Canine Osteosarcoma Vaccine, Live Listeria Vector)
AT-018 (timapiprant)
AT-019 (EP4 receptor antagonist)
Prostaglandin receptor antagonist (PRA) that specifically blocks the EP4 receptor, a primary mediator of canine OA pain and inflammation, and has been demonstrated in a 12-month safety study.

GALLIPRANT (grapiprant tablets) controls pain and inflammation associated with osteoarthritis, which allows veterinarians to treat from the earliest stages of OA disease.

According to third-party data, GALLIPRANT is second in market share (approximately 15%) and dispensed by more clinics than any other oral NSAID.

Development and commercialization agreement with Elanco Animal Health validates blockbuster potential.

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1 Data on file.
Highly differentiated therapeutic works by mimicking the naturally occurring hunger hormone, ghrelin

Compelling market opportunity & ability to continue to build inappetence category

The only FDA-approved therapeutic for appetite stimulation in dogs that has proven improvement in canine appetite and weight gain

Strong account acquisition, positive feedback on the therapeutic profile provides opportunity to drive uptake and increase use (frequency & duration) through education on inappetence and positioning ENTYCE as 1st choice (versus “wait and see” and extra-label products)
## Longer-term Causes for Inappetence

- Aging
- Autoimmune disease
- Cancer
- Infectious disease
- Respiratory disease
- Endocrine disease
- Gastrointestinal disease
- Heart disease
- Kidney disease

## Shorter-term Causes for Inappetence

- Dehydration
- Fever
- Gastroenteritis
- Medications
- Post-operative ileus
- Psychological
- Nasal disease
- Nausea
- Neurologic disease
- Pain
- Post-surgery
Recognizable Need

**Veterinarian Concerns**

- If pets develop extreme frailty, treatment options may not be as effective
- A long-term poor nutritional state may result in:
  - Decreased quality of life leading to decreased survival
  - Decreased musculoskeletal strength
  - Delayed wound healing
  - Decreased immune response
- Restoring appetite is important for treating many health conditions:
  - Provide additional time to investigate a diagnosis
  - Shorten hospital stay
  - Increase strength, improve immune function and promote wound healing

**Pet Owner Concerns**

- Eating is the #1 indicator pet owners use to assess their pet’s quality of life and overall well-being
- When animals do not eat over a period of time, they experience weight loss and muscle wasting. Pet owners are distressed by these effects and often perceive them as evidence of suffering

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Like naturally occurring ghrelin, **ENTYCE causes the feeling of hunger** by binding to specific cell receptors and affects signaling in the hypothalamus.

A pivotal field effectiveness study demonstrated **client-owned dogs receiving ENTYCE for four days had a statistically significant increase in appetite** compared to placebo-treated dogs.

**Capromorelin is well-tolerated for long term use** as shown in the 12-month laboratory safety study.

In a laboratory effectiveness study, **ENTYCE-treated dogs had a 61% increase in food consumption** when compared to placebo-treated dogs who experienced a reduction in food consumption if 11% ($p < 0.001$).

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“Many pet owners report when their dog is not eating right. ENTYCE works within a few hours and it is easy to send home with the owner.”

- 70% aided awareness among veterinarians
- 20% veterinarian prescribe ENTYCE in the acute setting (~5 days of therapy)
- 30% veterinarians prescribe ENTYCE in the chronic setting (~11 days of therapy)
- 90% veterinarians cite therapeutic efficacy as primary benefit

Source: Market research data on file.
Highly differentiated local anesthetic provides long-lasting pain relief for up to 72 hours

Compelling market opportunity to use NOCITA in certain painful surgeries for feline and canine patients

Recognizable need to bridge pain control from vet clinic to home with fewer of the side effects that are generally associated with NSAIDs and opioids

Validated veterinarian satisfaction and strong revenue growth; opportunity for expanded use through introduction of 10mL
- Postsurgical pain can be well-controlled using a **multimodal analgesic regimen** that includes the combination of local anesthetics, opioids, NSAIDS, alpha₂-agonists.

- On-going **opioid shortage** expected to continue impacting veterinarians; continued **quota restrictions on opioids** by DEA.

- Veterinarians have a **desire to move away from opioids** because of systemic side effects, logistics, safety and potential for abuse by others in the household.

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**Multi-Modal Pain Management Landscape**

**NOCITA**
Administered by veterinarian to provide 72 hours pain relief

**NSAIDS**
- Carprofen
- Metacam
- Derramax
- Previcox

**Opioids**
- Butorphanol
- Fentanyl
- Morphine
- Hydrocodone
- Buprenorphine
- Hydromorphone

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▪ **72 hours is recommended as the minimum** amount of time analgesics should be provided following surgery; International Veterinary Academy of Pain Management recommends use of locals with **every surgical procedure**

▪ A long-acting local anesthetic **prevents analgesia gaps in the first 72 hours** – even after the patient goes home
The extended-release bupivacaine technology consists of multivesicular liposomes resembling a honeycomb-like matrix designed to allow bupivacaine to gradually release from vesicles over a period of time.

Pivotal canine field study data supports effective use of NOCITA for up to 72 hours of analgesia following cranial cruciate ligament surgery in dogs. NOCITA was well-tolerated in pivotal field and laboratory safety studies.

Pivotal feline field study data supports effective use of NOCITA for up to 72 hours of analgesia in owner-elected feline onychectomy. NOCITA was well-tolerated in the pivotal field study and did not produce systemic toxicity as a femoral nerve block in a laboratory safety study.
1-2 surgeries
To feel comfortable with the NOCITA administration technique

“Given the way our practice is set up, any given day there’s 3-4 of us performing up to 3-10 certain feline and canine surgeries per day. We use NOCITA in every surgery we can.”

90% aided awareness among surgeons
94% surgeons cite 72 hours of pain control as primary benefit

NOCITA adds only 3-5 minutes to surgery time

Source: Market research data on file.
Our Portfolio of Pet Therapeutics

AT-002
(capromorelin)

AT-014
(Canine Osteosarcoma Vaccine, Live Listeria Vector)

AT-018
(timapiprant)

AT-019
(EP4 receptor antagonist)
### Key Pipeline Programs

<table>
<thead>
<tr>
<th>Therapeutic Candidate</th>
<th>Condition</th>
<th>Collaborator</th>
<th>Highlights</th>
</tr>
</thead>
</table>
| AT-002 (capromorelin) | Management of weight loss in cats with chronic kidney disease | RaQualia | - Millions of cats present to their vet annually with weight loss or inappetence in the U.S.; most common causes include hyperthyroidism, chronic kidney disease, inflammatory bowel disease, neoplasia, pancreatitis and liver failure  
- Pivotal field effectiveness study is on-going for cat-specific formulation; anticipate completing target enrollment in 2019  
- Technical Section Complete Letter for Target Animal Safety; submitted technical section for CMC |
| AT-018 (timapiprant) | Atopic dermatitis in dogs | ATOPIX Chiesi | - 10+ million dogs present to their vet annually for seasonal allergies in the U.S.  
- New chemical entity in CRTH2 pathway  
- Initiated a pilot study in Apr. 2017; expect to complete target enrollment in 2019 |
| AT-019 (EP4 receptor antagonist) | Pain, inflammation and other indications for dogs and cats | ASKAT | - 19M+ dogs diagnosed with osteoarthritis in U.S. annually  
- Next-generation EP4 receptor antagonist; chemically and molecularly differentiated therapeutic candidate thought to work by inhibiting the EP4 receptor downstream on the arachidonic cascade  
- AskAt has conducted several pre-clinical studies evaluating AT-019 safety, potency and toxicity  
- In early-2019, started transferring the manufacturing process of the active pharmaceutical ingredient (API) and early formulation work |
Our Financials
Revenues from Therapeutics

NOCITA & ENTYCE net product sales, GALLIPRANT licensing & collaboration revenues

1. Does not include GALLIPRANT finished goods sold to Elanco
2. Does not include a one-time non-recurring $1.0 million manufacturing payment
3. Does not include a one-time non-recurring $15.0 million commercial milestone payment
## Aratana At-A-Glance

<table>
<thead>
<tr>
<th>Delivered top-line results</th>
<th>$20.4 million in net revenues from net product sales and licensing &amp; collaboration revenues in 2018 (does not include $15.0 million milestone payment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt-free</td>
<td>In the fourth quarter of 2018, we <strong>repaid the remainder of our loan</strong> and we do not have any outstanding debt on our balance sheet</td>
</tr>
<tr>
<td>Effectively managed cash</td>
<td><strong>Ending 2018 cash balance of ~$43.0 million</strong> as result of our increase in product revenues, management of operating expenses and prudent use of cash. In 2019, Aratana expects a <strong>net decrease of cash of $20.0 million</strong> to be used to support its current activities</td>
</tr>
<tr>
<td>Opportunities for growth</td>
<td>Focused on creating <strong>commercial and development momentum</strong> to drive future growth</td>
</tr>
</tbody>
</table>

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