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## TYRATECH, INC.

("TyraTech" or the "Company")

### **Progress in 2018 on Current Products and major milestones achieved in New Product Development**

TyraTech Inc. (AIM: TYR, and TYRU), the life sciences company focused on nature-derived insect and parasite control products, is pleased to provide an update on the progress made with its animal health products, following the successful sale of Vamousse® as announced on 4 December 2017.

Our operational goals at the end of 2017 were to expand the market penetration of the products already launched and to jump-start our development pipeline, focusing on products targeting the biggest markets of controlling internal parasites in production animals. For the beginning of the year 2018, we can report progress on all these fronts.

#### **Highlights**

- **PureScience™ Poultry Mite unit sales up 250% on a moving annual total - Expanding into Europe**
- **Outsmart® sales to SmartPak showing sharp increase for early 2018**
- **Coccidiosis: study in poultry showing encouraging reductions in severity of lesions (US\$1 billion market)**
- **Intestinal worms: field trial in pigs showing 70% reduction in intestinal worms (US\$3 billion market)**

We anticipate releasing our results for the year 2017 before the end of May.

#### **Progress on Current Products**

##### *Poultry*

Mites are one of the most significant pests in laying chickens, with a prevalence ranging from 60% in the US to 90% in Europe, causing close to US\$1 billion in lost productivity to the egg production industry worldwide. We are rolling-out our PureScience™ product to control mites on chickens in the US.

We have achieved: nationwide distribution in the USA with MWI Animal Health (the biggest distributor of animal health products in the US); high penetration rate (estimated at 60%) with CalMaine Foods Inc. (Nasdaq: CALM), the biggest producer of eggs in the US; solid contribution margin for our product; and positive economic return on investment for producers which could recover the cost of the mite treatment in less than a week. Starting from a modest base, unit sales to the producers have increased by 250% versus last year on a moving annual total basis and are still growing steadily. This number shows repeat purchase and evolution from treatment to prevention. We expect to grow the business in the US, even if it is a small market segment of less than US\$5 million, by expanding our market penetration to other major egg producers.

We are in the process of expanding the usage of our PureScience Poultry Mite Dust to Europe where the market is larger, estimated at US\$40 million. Egg producers in Europe are affected by a different type of mite (the "red mite"), which is more difficult to eradicate and is present more often in egg production facilities. We are pleased to report that our field studies have shown that our product provides up to 90% control of red mites for up to 4 months in layers after one treatment. This positions us very favorably versus competing products that are either more expensive or less effective. Furthermore, we have already registered our product in France, Germany and the Czech Republic and identified potential distribution partners. We are on track to launch our PureScience poultry mite product in France and Germany by the end of the year.

A major objective of the PureScience business is to set-up our commercial operations and relationships with poultry producers to create a streamlined distribution system for the future new products addressing larger market segments. Selling products to the poultry business is challenging because of the high barriers to entry. One must overcome several obstacles: finding a nationwide distributor; establishing a trusted relationship with the biggest key accounts; and demonstrating the economic and health benefit of the products. With the roll-out of our PureScience product to control mites on chickens in the USA we overcame these obstacles and we are planning to do the same in Europe.

### *Equine*

Sales of our equine fly repellent product, OutSmart®, to our partner SmartPak® are up sharply in the first part of 2018 over the same period in 2017. SmartPak is launching a new product this year, a roll-on formulation specifically designed to apply the product on sensitive areas of the horses (around the eyes, on the face). As with Vamousse®, we benefit from positive customer feedback that highlights the unique combination of safety and efficacy of SmartPak, that offers a full protection against flies over 5 hours, as well as protection against mosquitoes and ticks. Those are strong differentiators from our chemical pesticides competitors that provide a shorter protection against flies due to resistance and are less effective against ticks, potential vectors of severe diseases. Despite a good start, we do not expect a strong fly season due to the sustained cold weather.

### *DEET-free Insect Repellent*

For Guardian, our DEET-free mosquito and tick repellent, we decided not to invest in the short term in its commercialization but rather dedicate our resources to follow the EPA registration process. The objective is to seek stronger health claims which would allow us to compete more effectively with the major players in the category. We are currently optimizing the formulation to ensure the best possible combination of efficacy, safety and cosmetics before entering the formal preparation of the registration dossier. We are in the lab test phase of these new formulations, before moving to field testing in the summer.

## **Major milestones in New Products for internal parasites**

### *Poultry*

We are first focusing our development pipeline on the control of coccidiosis, a protozoan parasite of poultry. Coccidiosis, a parasite of the guts in poultry, is very common. Worldwide, the annual cost inflicted by coccidiosis to commercial poultry has been estimated at US\$2 billion. The worldwide market for products to control coccidiosis is estimated at US\$1 billion annually and current chemical or biological solutions are not satisfactory. We could anticipate a streamlined launch for this future product because it would benefit from the commercial operations already established by our Poultry Mite Dust in the poultry sector.

Two independent in-vitro tests conducted by North Carolina University and Virginia Polytechnic Institute and State University with TyraTech's formulations showed a significant control (up to 98% depending on the dose) of Eimeria (the agent of coccidiosis) and Histomonas meleagridis (a similar parasite to coccidiosis). In a further independent study, we showed that, when administered to chicken, our formulation can significantly reduce the severity of the lesions caused by coccidiosis. This is a preliminary probe study that needs further confirmation but it represents a significant milestone showing the potential activity of our formulation against coccidiosis in the target animal.

### *Ruminants*

Second, we will direct our development effort on controlling intestinal and stomach worms in ruminants, a worldwide market valued at US\$3 billion. Ruminants are frequently infested by intestinal and stomach worms. Because of over-usage, worms have developed resistance lowering the effectiveness of the pharmaceutical products currently used. After multiple in-vitro studies that demonstrated that TyraTech's specifically designed formulations controlled several species of intestinal worms, a pivotal in-vivo study was conducted on pigs, independently managed by the University of Georgia (USA). It showed that our product significantly reduced the load of worms in the pigs by 70%. Although more studies will need to be designed to optimize the formulations and demonstrate that they are also effective in ruminants, it is a significant milestone that shows activity of our formulations when administered to the animal.

Our product development pipeline follows a traditional stage-gate process, with one of the most critical milestones being confirming that the efficacy demonstrated in-vitro in the lab can be confirmed in-vivo in the animal. This will be our focus for the coming months as we continue to move as quickly and efficiently as possible through the phases of product development.

**Bruno Jactel, Chief Executive of TyraTech commented:**

*"We are pleased to show that, in a short period of time, we are making significant progress in developing new products and solutions for some of the largest animal health market segments and to answer some of the biggest un-met needs. After numerous positive lab studies, we are now moving to the Phase II of our development pipeline to test our products against internal parasites directly on animals. Initial probe studies are encouraging and show that we are moving in the right direction.*

*More broadly, we are implementing a new strategy that promotes a more sustainable and green agriculture. As the world's population grows and demands more food, and especially more meat, industrial farming will have to scale. At the same time, millennials and aging baby boomers are demanding cleaner food without added chemicals and a more sustainable agriculture, respective of the environment and animal welfare. Therefore, farmers are now looking for new technologies as an alternative to chemical solutions to promote a production of animal protein without antibiotics or pesticides. Now that TyraTech has its new strategic focus we believe we are well placed to use our unique technology to take advantage of this shift and provide producers and customers with cleaner food and healthier environment. We are already well on the road to our transformation into a pure player in green and sustainable agriculture."*

***The information communicated within this announcement is deemed to constitute inside information as stipulated under the Market Abuse Regulations (EU) No. 596/2014. Upon the publication of this announcement, this inside information is now considered to be in the public domain.***

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