

**ACTOBIOTICS®**, MICROBE-BASED  
**BIOPHARMACEUTICALS**  
for expression and local delivery of  
therapeutics at disease sites  
including the intestine, the mouth  
and the nasopharynx.

- [ ] A unique delivery platform precisely tailored for specific disease modification
- [ ] Specifically designed to target disease areas with high unmet need
- [ ] Rapid development of new candidates
- [ ] Targeted delivery via oral capsule, oral rinse or topical solution
- [ ] Demonstrated safety and tolerability
- [ ] Robust and scalable manufacturing process

## Pioneers in unique disease-modifying technology

ActoBio Therapeutics™ is pioneering a new class of therapeutic agents: **ActoBiotics®**. These are targeted, **specifically designed and engineered** products that express and **locally deliver** potential **disease-modifying treatments** for a range of disorders. Since ActoBiotics® are based on the safe food-grade microorganism, *Lactococcus lactis*, this approach promises **safer and more efficacious** treatments than injectable agents. A broad and diverse portfolio of ActoBiotics® is being developed to treat a wide range of diseases, focusing primarily on disease areas with **high unmet needs** in immunotherapy, allergy and tolerance induction, such as Oral Mucositis and Type 1 Diabetes.

## HISTORY

2006

2013

2014

2015

2017

2018

ActoGeniX NV  
founded to  
commercialize  
and develop  
ActoBiotics®

Acquired by Intrexon  
Corporation (NASDAQ: XON)  
and renamed Intrexon  
ActoBiotics NV

Rebranded to  
ActoBio  
Therapeutics™

Publication of first  
ever successful  
clinical testing of an  
ActoBiotics®-type  
product

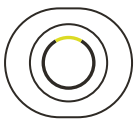
Publication of first  
Phase Ib clinical  
study in Oral  
Mucositis of AG013

Phase I clinical trial  
successfully completed  
for AG014 for Inflammatory  
Bowel Disease

Start of Phase IIb  
clinical study with  
AG013 treating Oral  
Mucositis

IND approval for  
ActoBiotics®  
AG019 treating  
Type 1 Diabetes

## KEY INVESTMENT HIGHLIGHTS



### PLATFORM

- ActoBiotics® is a fully integrated, **cost-effective & unique food microbe-based delivery platform** for therapeutics, with potential for **superior efficacy and safety** through oral or local targeted delivery
- **Designed** to perform specific biological interventions
- Accelerates development and validated regulatory path for new IND candidates: **<2 yrs from inception to IND achieved with AG013 for oral mucositis**
- Strong R&D engine and **large collection** of strains, with potential for further development



### PRODUCT PORTFOLIO

- **Two Clinical stage programs** in Phase IIb and Phase Ib, with other programs close to clinical stage
- **Broad therapeutic application** across a wide set of diseases with strong growth dynamics.
- Target the (gut) mucosal immune system for:
  - **Mucosal healing and decreasing local inflammation**
  - **Targets the gut associated lymphoid tissue to steer the systemic immune system towards immune tolerance/desensitization**
- Can produce multiple biologicals, thereby acting as a combination therapy, to **target multiple disease pathways**



### EXPERIENCE

- Straightforward and reliable **cGMP manufacturing process**
- IP portfolio across the technology platform:
  - >250 granted patents
  - >50 pending patent applications
- Extensive **regulatory acceptance** of platform and applications
- **Experienced leadership team** with unique expertise in bacterial engineering and strong scientific, regulatory and clinical backgrounds

