

Luna Bioscience, Inc.

*Ending the Threat of Leptospirosis
to Pets and Livestock with a
Genomics-Based Vaccine*

June 1, 2023



Problem:

Leptospirosis \$\$ > \$30 Bn*

Dogs

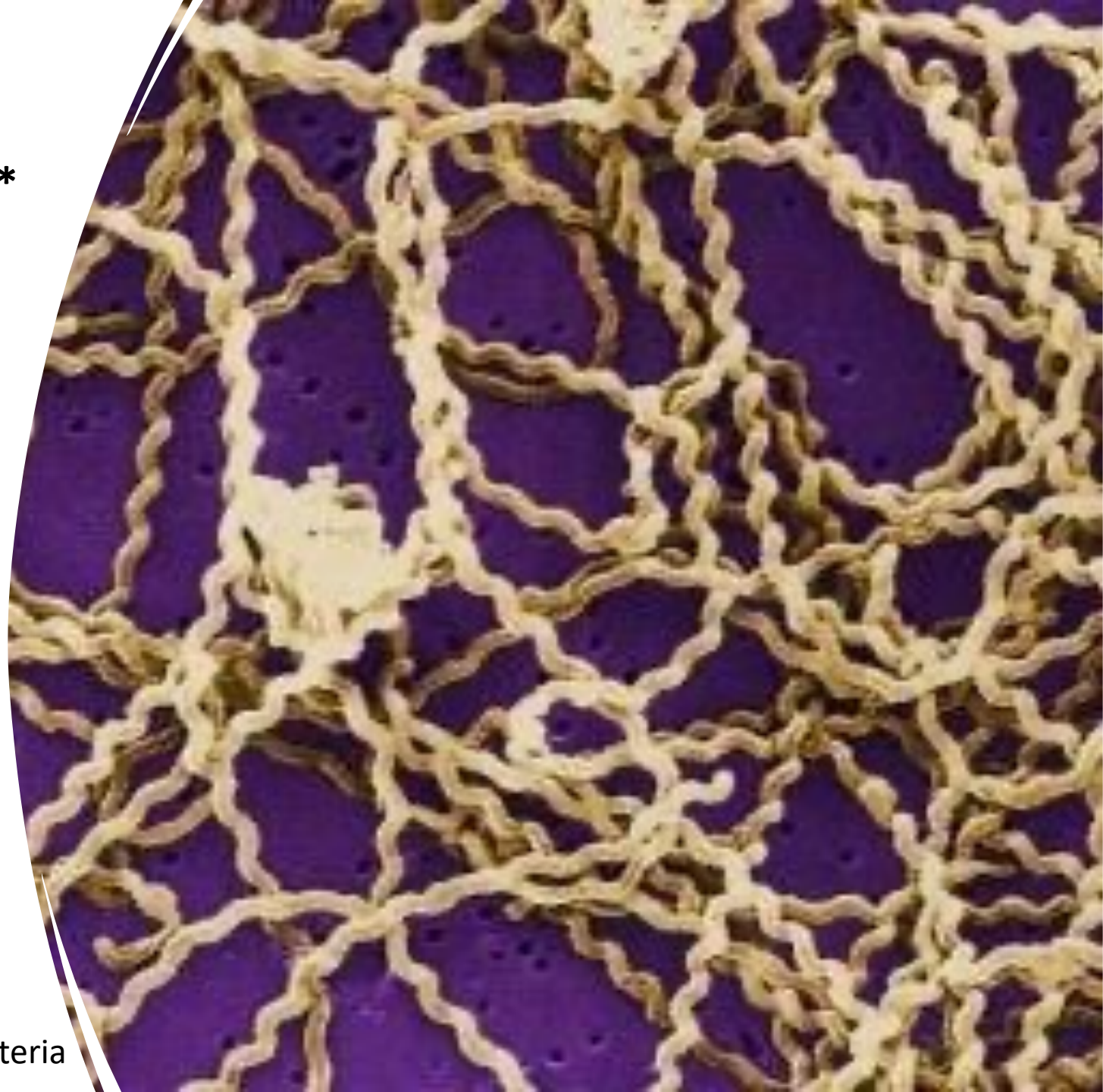
- Dialysis
- Death

Livestock

- Reduced Milk
- Spontaneous Abortion
- Organ Damage
- Blindness
- Death

*<https://doi.org/10.1101/2023.04.10.23288387>

Leptospira bacteria

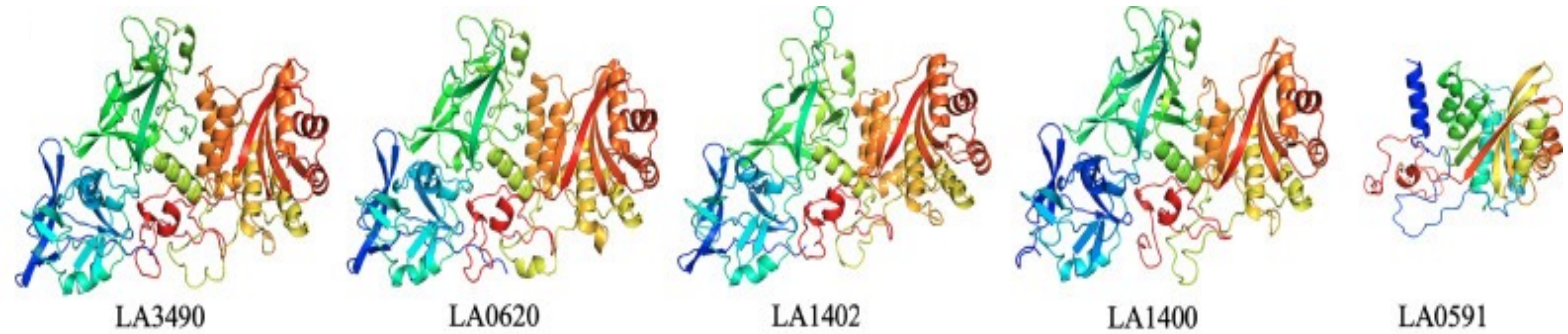


Current Vaccines

- Old Tech from the 1960s
- Whole Killed Bacteria
- Limited Strains per Vaccine
Entails \$\$ Customization
by Region



Luna's Solution



Modern Genomics and Molecular Modeling
Identified Vaccine Candidates from
200+ Serovars

IP: Composition of Matter: 2 PCTs Converted (Aug 2022)

1 Provisional Filed

New IP Continually Being Generated

Global, Exclusive License from Yale



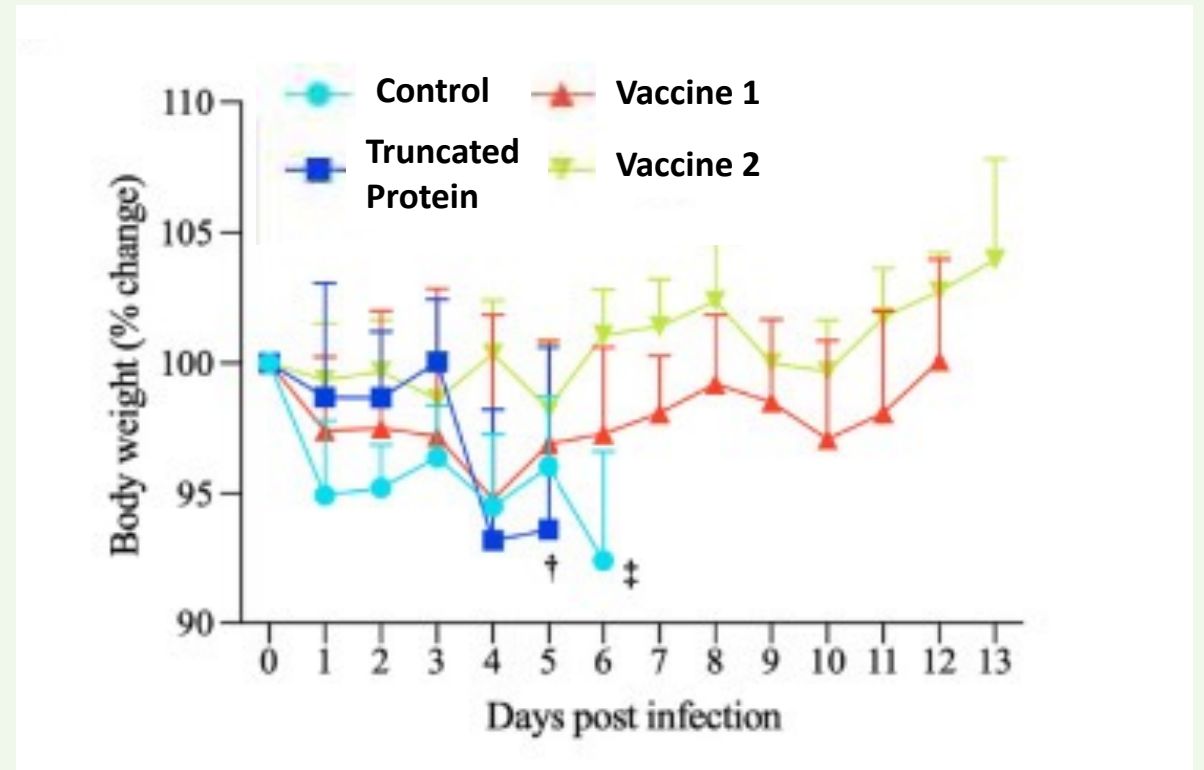
Luna's Vaccine Proof of Concept

Mice injected with 1000X LD₅₀ *Leptospira*

Control and Truncated Protein



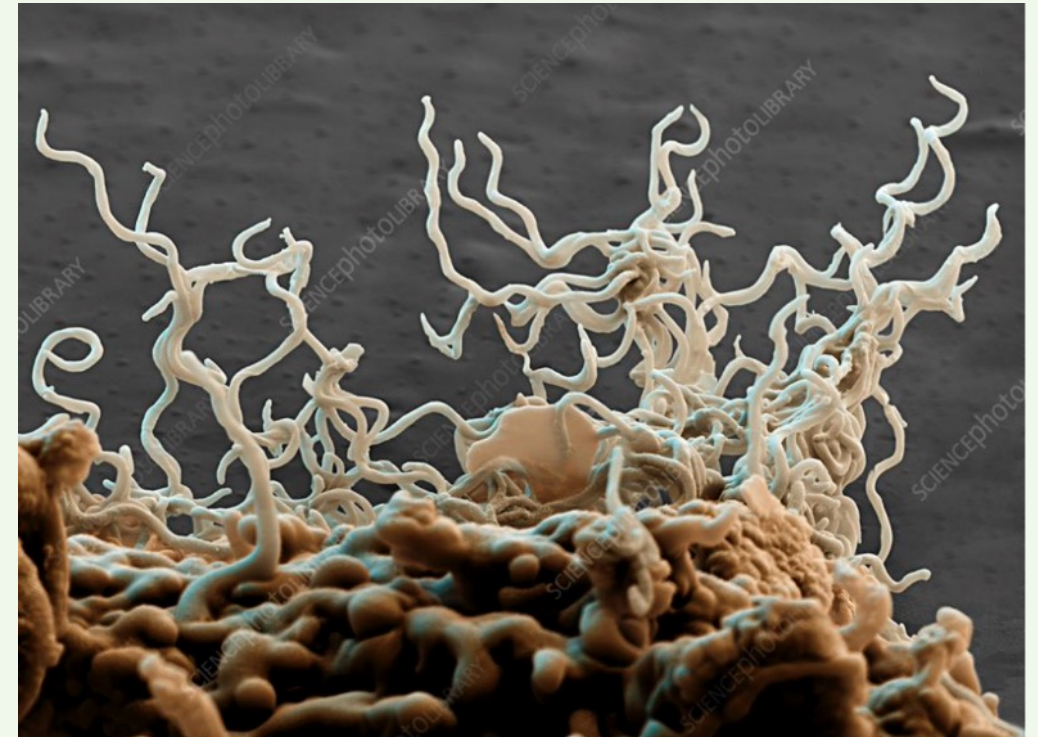
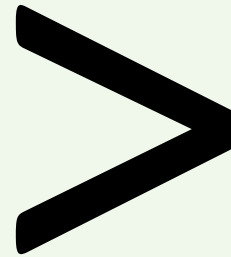
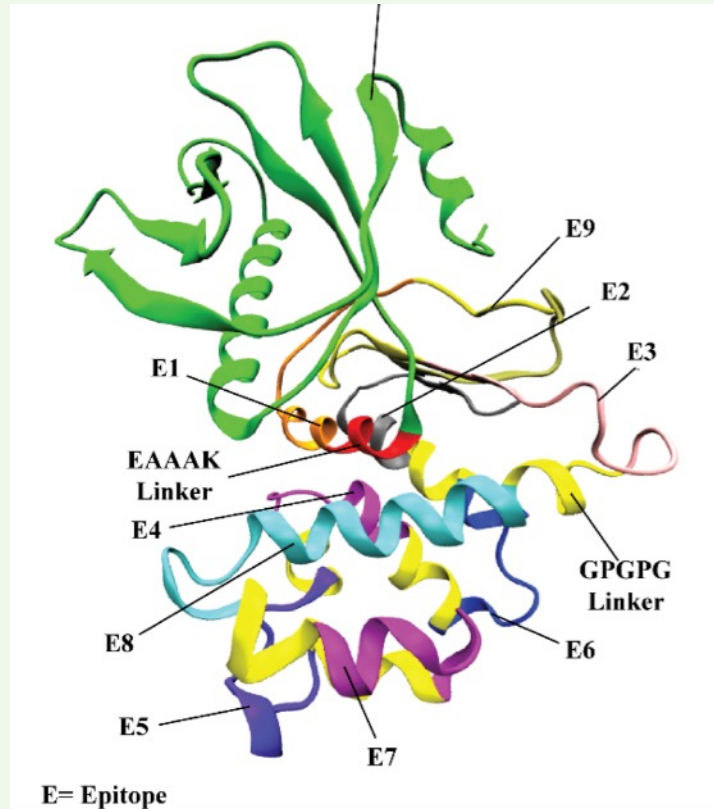
Vaccine Mixes 1 or 2



Luna's Analogous Precedent of Market Replacement

Recombinant Lyme Vaccine for Dogs Outcompeted Killed Bacteria Lyme Vaccine

Captured > 60% Market Share in 3 Years



Current Market

- Wholesale Dog Sales
 - US: \$200MM
 - Global **\$570 Million**
- Wholesale Livestock Sales
 - Global **\$1 Billion**

Growing Market

- Warming Climate >> Increased Lepto
- “Core” Dog Vaccine Imminent
- High Margin Equine Market
- Multi-Billion \$ Opportunity

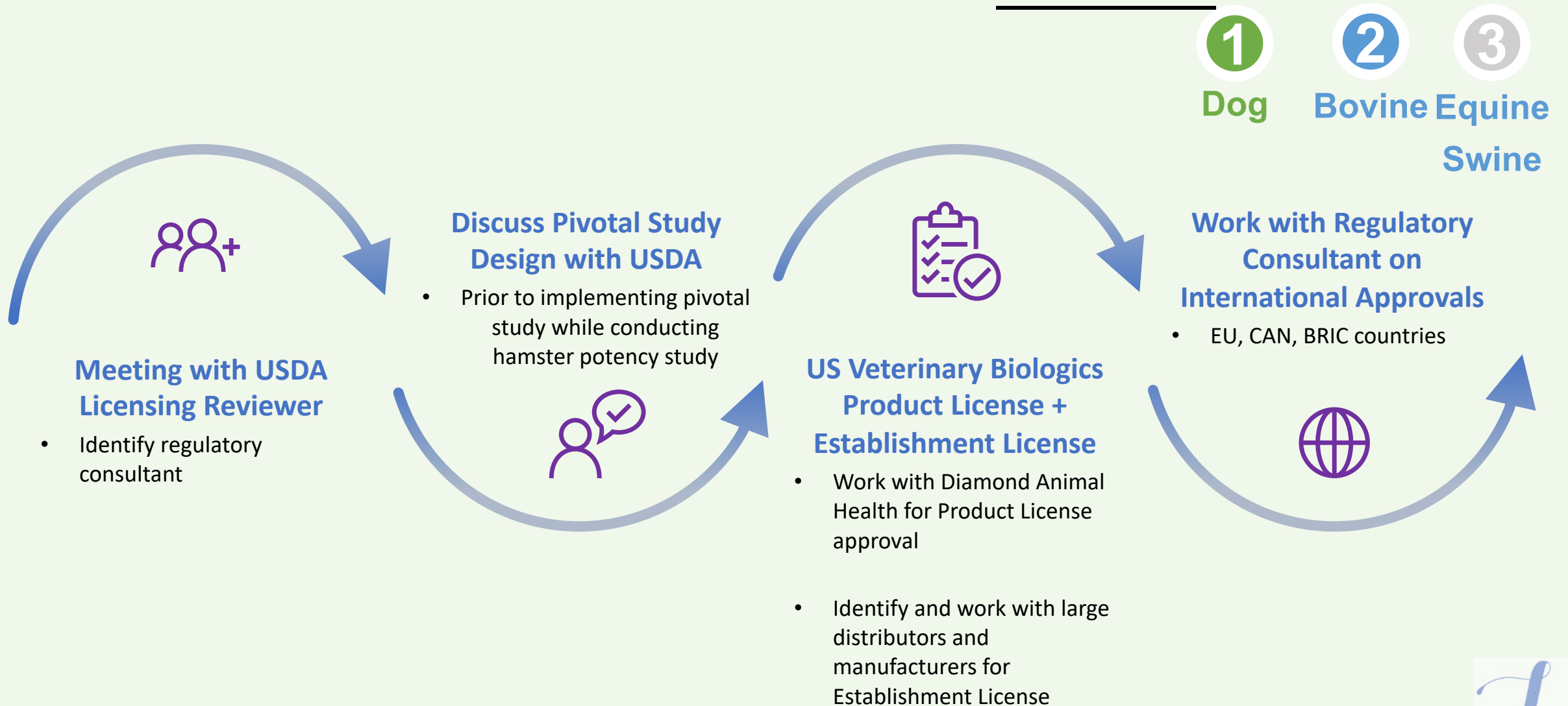
Traction

Awarded NIH Phase 1 STTR Grant: Production of Recombinant Protein for Early Vaccine Trials

In Active Discussions with Major Animal Health Company that Wants to Perform First Regulatory Trial in Partnership



Low-Risk, Clear USDA Approval Pathway for Animal Vaccines: First Product to Market in ~3 Years



World-Leading Team Expertise in Animal and Human Business Development and Vaccine Science

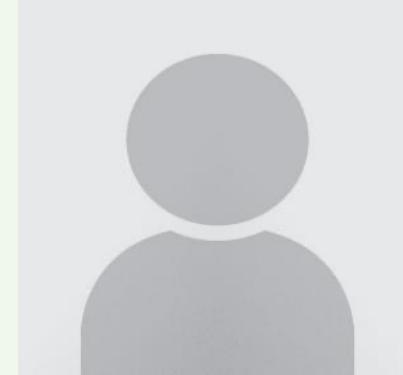
Management Team



Carla Devillers, MBA
CEO and Co-Founder
Wharton MBA in Finance
Experience in Operations



Joseph Vinetz, MD
Co-Founder
Professor of Medicine
Yale School of Medicine



CSO
To Be Hired Upon Funding

Scientific Advisory Board



Jane E. Sykes, BVSc (Hons), PhD, MBA
UC Davis School of
Veterinary Health



Richard Marconi, PhD
Professor, VCU
Inventor of Canine Recombinant
Lyme Vaccine



Tom Campi, DVM
Former Elanco
Director of External
Innovation



**Richard Squires, BVSc (Hons), PhD, DVR,
DipACVIM, DipECVIM, GradCertED**
Chairman, World Small Animal Veterinary
Assn. Vaccine Guidelines Group



Jerome Kim, MD
Director General
International Vaccine
Institute



The Ask

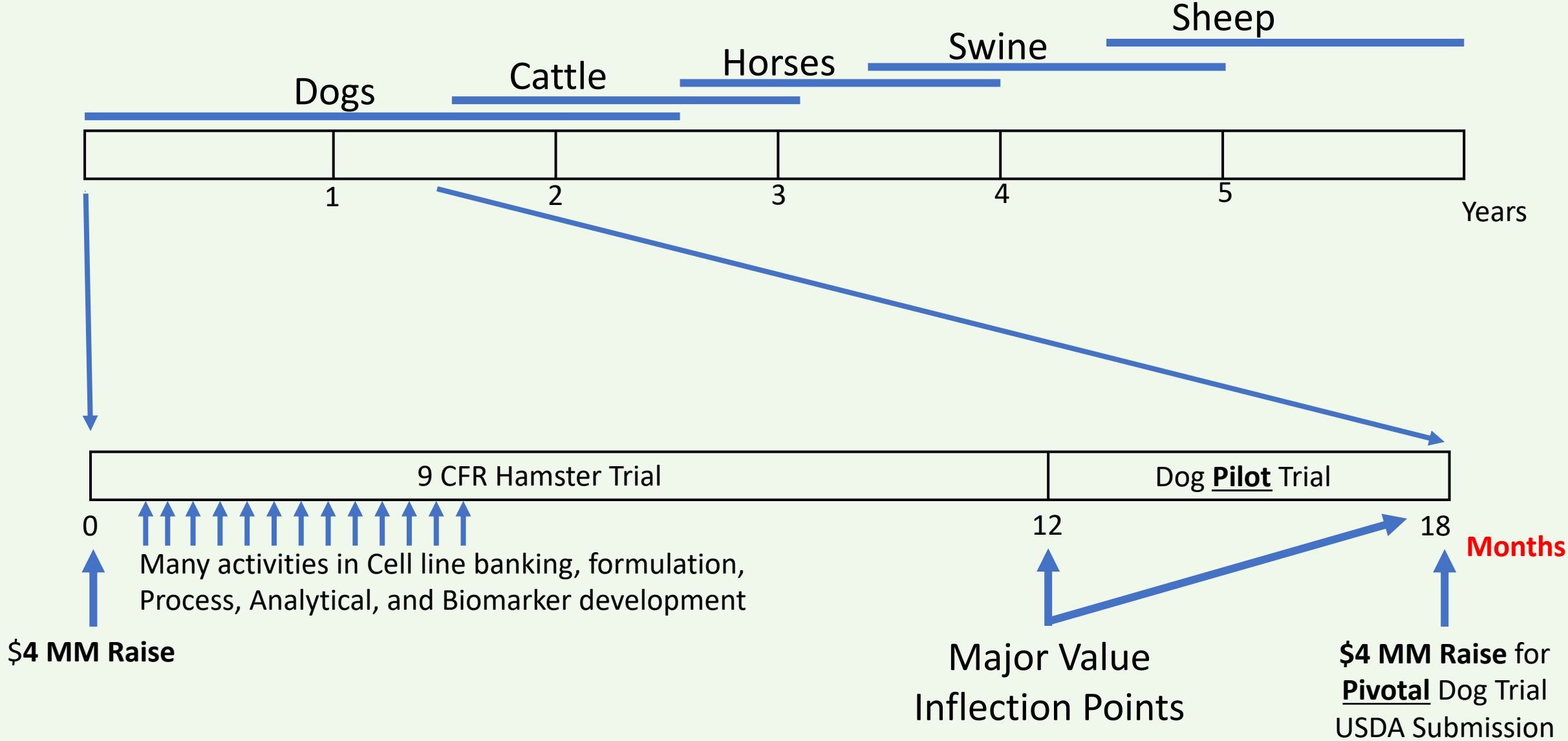
Luna Bioscience is seeking strategic partners & funding to advance the company and its technology.

Luna is raising \$4 MM with a premoney valuation of \$12 MM to support our runway up to the pivotal trial in dogs.

We anticipate raising a total of ~\$8 MM over three years → INAD submission to USDA (for dog vaccine).



Milestones



Thank You

Carla Devillers

Co-Founder, CEO

Luna Bioscience, Inc.

carladevillers@gmail.com

(917) 545-7262



Joseph Vinetz, MD

Co-Founder, Sr. Scientific Advisor

Professor, Yale Sch. of Medicine

joseph.vinetz@yale.edu

(858) 945-7550

