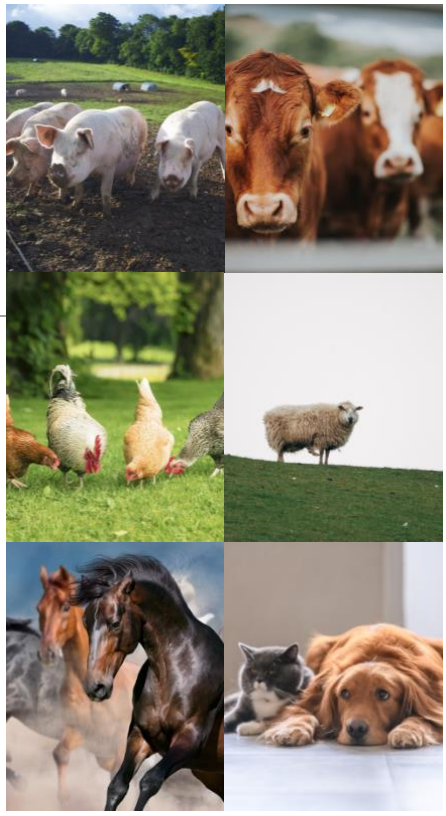
KTIN Therapeutics

Transforming Animal Health, Food & Nutrition | $5M Series A

Columbia University Startup | First Metabolic Health Platform for Animals

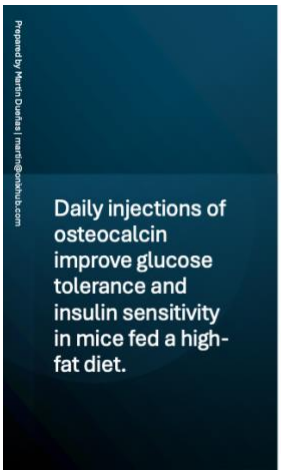


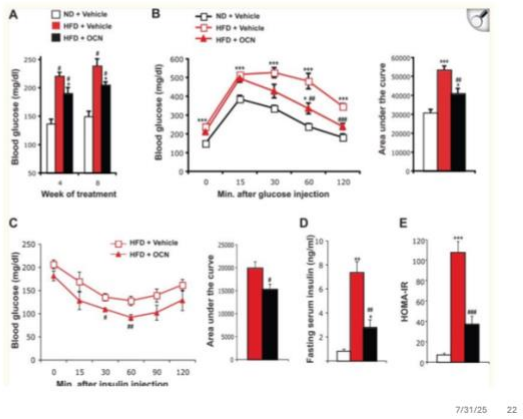
The Problem

Animal health challenges cost billions with **no solutions addressing root metabolic causes**:

- **Production Losses:** Suboptimal metabolic function reduces feed conversion, milk/egg production, meat quality
- **Performance Downtime:** Working dogs, racehorses suffer extended recovery with no metabolic solutions
- **Senior Animal Decline:** Age-related mobility, energy, cognitive decline creates substantial vet costs
- **Symptom-Only Treatments:** NSAIDs, basic supplements provide temporary relief without addressing metabolism

Our Solution: Osteocalcin Metabolic Platform





Three Products, Comprehensive Metabolic Approach:

- **KTIN-100** (IM injection, 6-8 weeks): IL-6/ALN conjugate stimulates endogenous osteocalcin
- **KTIN-200/300** (oral, under development): Direct osteocalcin delivery via feed/supplements

Triple Mechanism of Action:

1. **Metabolic Enhancement:** 5-10% lower fasting glucose, improved insulin sensitivity
2. **Muscle Function:** 30-50% faster recovery from microtears, 30% better endurance

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3. **Neuroprotection:** OCN crosses blood-brain barrier, modulates neurotransmitters via GPR158

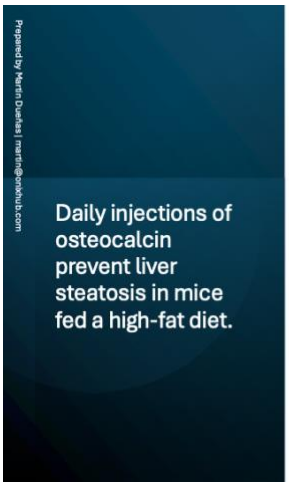
Market Opportunity ($95B+)

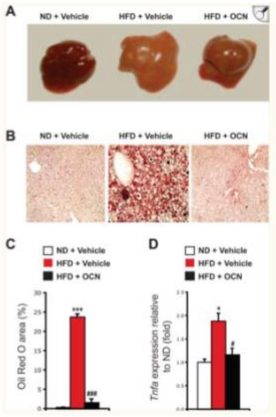
Segment	Market Size	Applications
Companion Animal Health	$30B	Metabolic disorders, recovery, aging
Livestock Health & Nutrition	$20B	Feed efficiency, metabolic optimization
Animal Feed Additives	$40B	Metabolic enhancement solutions
Pet Supplements	$5B	Aging and wellness solutions

Total Addressable Market: $95B+ across animal health and nutrition

Primary Applications

Metabolic Health Focus





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- **Livestock Support:** Improves feed efficiency, reduces metabolic disorders
- **Companion Animals:** Manages age-related metabolic changes
- **Poultry Health:** Prevents Fatty Liver Hemorrhagic Syndrome (FLHS)
- **Feed Additive:** KTIN-200/300 improves glucose metabolism in feed

Performance & Recovery

- **Faster Recovery:** 30-50% reduction in healing time (microtears: 2-3 vs 5-7 days)
- **Performance Enhancement:** Secondary benefit through improved metabolism
- **Senior Animals:** Reduces age-related muscle wasting

Emerging Applications

- **Cognitive Support:** Preliminary evidence for senior pet cognitive function
- **Functional Foods:** Human metabolic health applications

Sustainability & Economic Impact

Environmental Benefits:

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- Reduced waste through better bone health, lower culling rates
- Enhanced feed efficiency reduces environmental footprint
- Circular economy via fish bone-derived osteocalcin

Economic Value:

- Cost savings through healthier animals (feed, vet, replacement costs)
- Premium pricing for organic livestock and senior pet markets
- 5-10% improved livestock growth rates

Competitive Advantage

✓ **First-Mover:** Only OCN-based metabolic health platform for animals
✓ **Scientific Foundation:** Dr. Gerard Karsenty's 20+ years OCN research
✓ **Comprehensive Approach:** Metabolic + muscular + neurological benefits
✓ **Strong IP:** Columbia University PCT application
✓ **Natural Solution:** Ethical alternative to performance enhancers

Development Timeline & Revenue

Fast Market Entry (<4 years):

- **2026:** CMC completion, GLP studies (canine/horse metabolic models)
- **2027:** TASS (Target Animal Safety Studies), INAD filing
- **2027/8:** TAES (Target Animal Effectiveness Studies)
- **Year 3-4:** $20-40M revenue potential

Pipeline Overview

Product	Indication	Timeline	Market
KTIN-100	Performance enhancement (horses/dogs)	GLP 2026 → TASS 2027	Performance animals
KTIN-100	Senior pet mobility	GLP 2026 → TASS 2027	Companion animals
KTIN-200	Feed additive (livestock growth)	Preclinical → Filing 2026	Agriculture
KTIN-200	Pet supplement (senior pets)	Discovery → Preclinical 2026	Pet health

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Financial Projections

- **Revenue by Year 4-5:** $20-30M
- **Target ROI:** 7-15x on $5M investment
- **Exit Strategy:** Acquisition by animal health leaders (Zoetis, Elanco) or feed companies
- **Revenue Streams:** Product sales, licensing, feed additive partnerships

Use of Funds ($5M Series A)

- **$1.5M** CMC Development (GMP manufacturing)
- **$1.0M** GLP Studies (canine/horse metabolic models)
- **$1.0M** KTIN-200 Development (in-vitro and in-vivo studies)
- **$1.0M** INAD and TASS regulatory studies
- **$0.5M** Operations, regulatory, legal, team expansion

Regulatory Strategy

- **FDA-CVM:** Animal health applications
- **GRAS Status:** Food and nutrition applications
- **Clear Pathway:** Established regulatory framework for animal therapeutics

Leadership Team

- **Martin Dueñas, MPA** - CEO & Co-Founder (10+ years biotech startups)
- **Dr. Gerard Karsenty, MD, PhD** - CSO & Scientific Founder (Columbia University OCN expert)
- **Jerry Kokoshka, PhD** - Board Member (Columbia University)

Strategic Partnerships

Universities: Columbia, Cornell, CIBERDEM Spain, INSERM
CROs: Altascienes, NorthEast Biolabs, Argenta
CDMOs: KBI, Catalent, Lonza, Piramal

Investment Thesis

Why Invest Now:

- First comprehensive approach to animal metabolic health
- Proven biological mechanism with 20+ years research foundation

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- $95B+ market with clear high-value applications
- Fast revenue timeline through veterinary market (<4 years)
- Natural, sustainable solution addressing root causes vs. symptoms

The Opportunity: Transform animal health through metabolic optimization - from farm to family pets

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"Join us to transform animal health through metabolic optimization with KTIN-100 & KTIN-200 — shaping the future of animal health and nutrition"