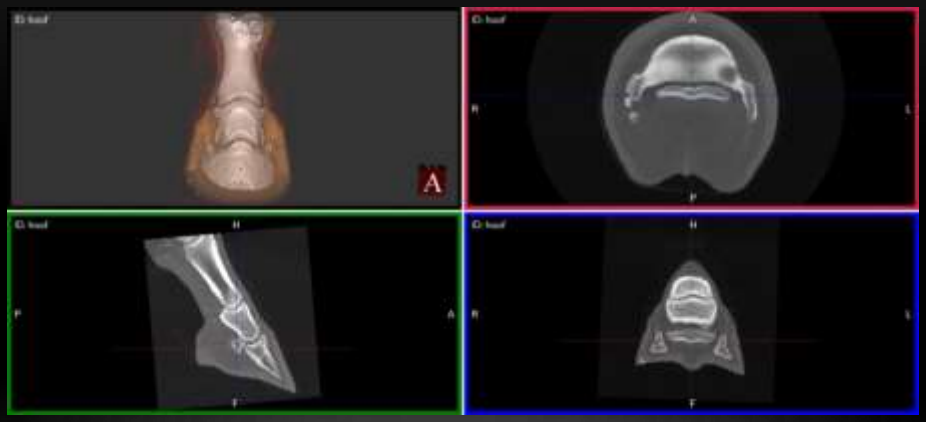
EQUINE STANDING 3D CT SCANNER



Dr. Sheila Lyons

Founder and Director

The American College of Veterinary Sports Medicine and Rehabilitation®

Homecoming Farm, Inc.

a 501(c)(3) Nonprofit Organization

LACK OF SAFETY FOR HORSE AND RIDER IMPACTS EVERY ASPECT OF THE HORSE RACING BUSINESS


Smith for News


WHAT ARE WE MISSING?
AND HOW CAN WE FIX THAT?

THE LEADING CAUSE OF CATASTROPHIC BREAKDOWN IN RACEHORSES IS:

PRE EXISTING INJURY

SOME MISCONCEPTIONS ABOUT RACING INJURIES AND BREAKDOWNS

- Degree of lameness, inflammation and other common clinical signs correlate with likelihood of catastrophic breakdown
- If the X-rays are clean, the horse is safe for racing and training
- “Bad step disease”
- The progressive development of degenerative arthritis in racehorses is inevitable
- Regulatory veterinarians can identify most horses at risk through prerace examinations
- The use of common anti-inflammatory pain killing drugs during training and racing will not mask the signs of high risk orthopedic injury
- If drugs are better regulated, this will be enough to prevent masking injuries that put the horse at high risk for catastrophic orthopedic injury

Subchondral Pathology

A “normal” developmental “repetitive stress” or “athletic” injury which, if training and racing continue without adjustment, can lead to stress fractures that are often fatal injuries in racehorses.

This type of injury to the bone which lies immediately beneath the cartilage often presents with minimal clinical signs, is undetectable by x-ray and has been discovered through necropsy examinations to have pre-existed and led to the majority of horse racing orthopedic fatalities

Subchondral Pathologies

Are detectable by two diagnostic imaging methods:

CT Scans
MRI

Computerized Tomography or CT Scans

Until now,

- CT scans required general anesthesia
- CT scans could only be done on an unloaded limb
- Impossible to use as a screening or routine diagnostic tool

THE EQUINE STANDING 3D CT SCANNER

- Scans the Standing Horse
- Both Limbs Scanned Simultaneously
- Scans From Knee or Hock Through Hoof
- Scan Takes Approximately One Minute
- Requires Only Light Sedation
- Produces High Resolution Imaging Studies
- Outstanding Safety: Same Radiation as a Single Human Chest X-ray

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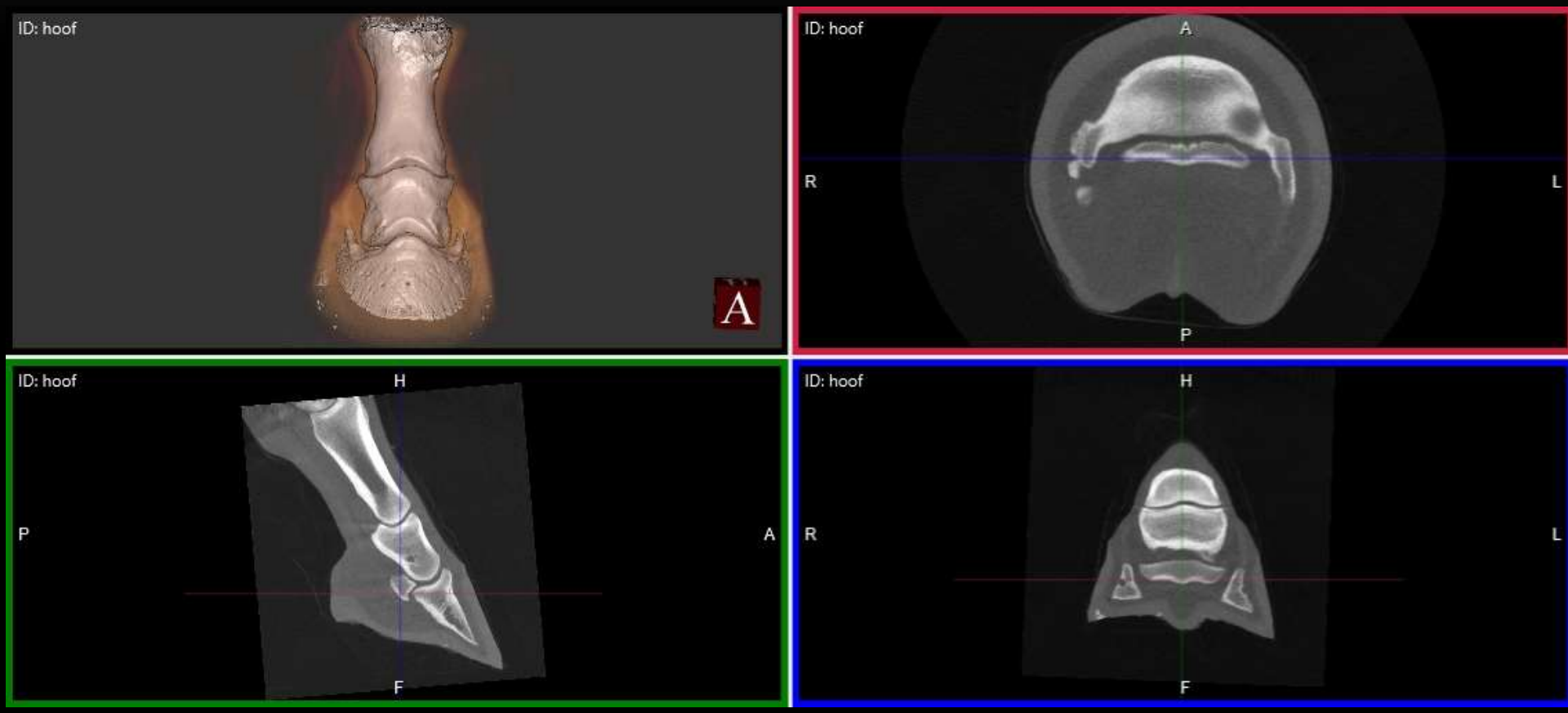

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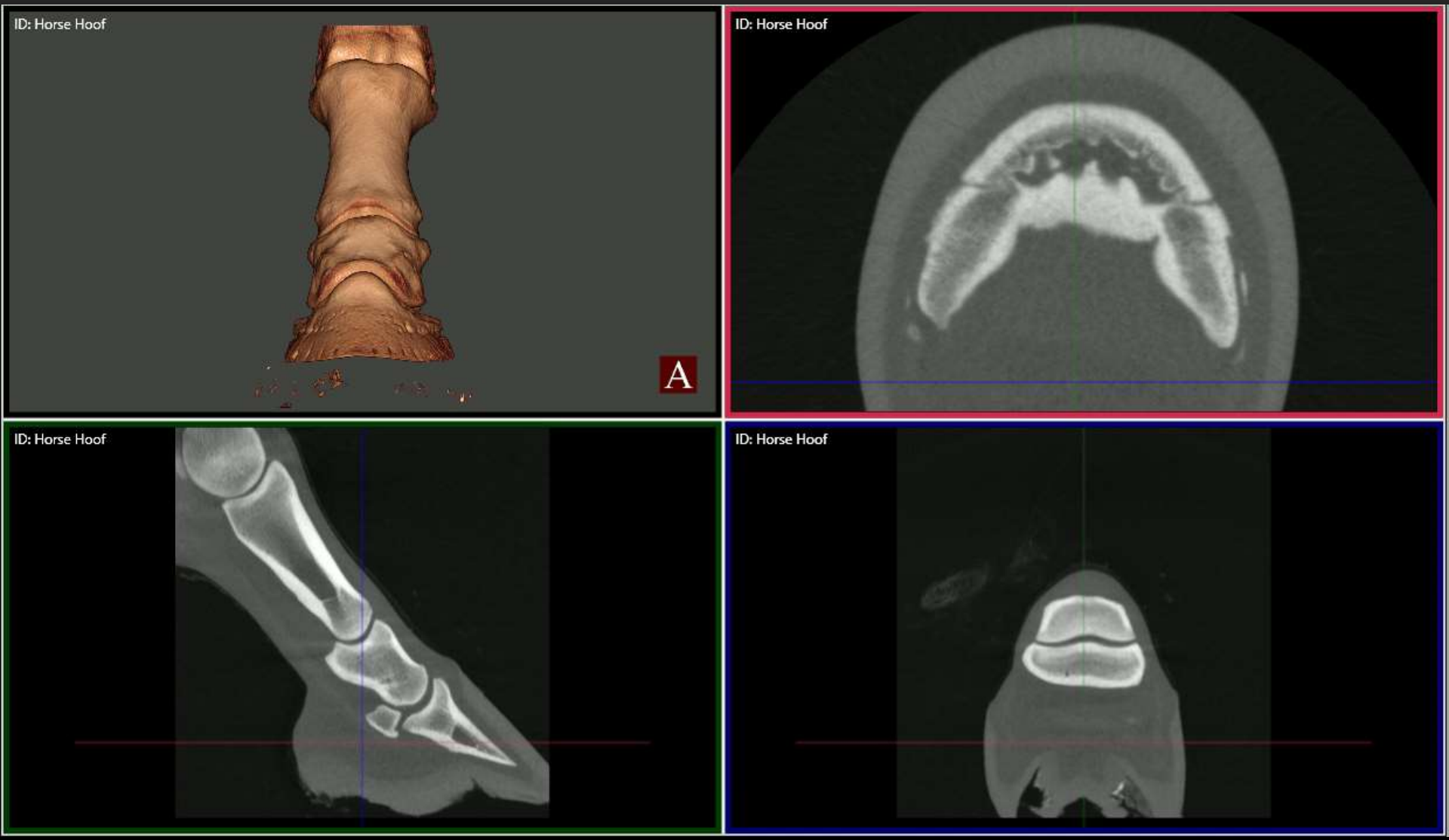

RESEARCH AND DATA COLLECTION PROJECT

- CT Scan all horses in training at three different tracks in the USA
- One year study
- Partner with two international jurisdictions that would also collect data on all horses in training
- Obtain training, veterinary history, racing surface and other variables to correlate with CT findings
- The largest collection of data to establish the nature and prevalence of orthopedic injury in racehorses
- Scan some horses multiple times to track injuries and determine the most effective veterinary treatments and management practices to ensure recovery
- Screen horses for high risk orthopedic disease to assist regulatory veterinarians
- No charge to horse owners
- Publish data and analysis in veterinary journals and horsemen's publications

What do I need to make this study happen through my nonprofit 501(c)(3) organization?

A commitment from the horse racing industry to collect this information and use it to improve racing safety, including 3 tracks to partner with this project to enable us to scan all horses on their grounds.

$1.7 M

THANK YOU FOR THIS INCREDIBLE OPPORTUNITY AND HONOR TO PRESENT MY PROJECT TO THE HORSE RACING INDUSTRY!

I'D LIKE TO THANK THE SPONSORS, THE ATTENDEES, AND ESPECIALLY THE UNIVERSITY OF ARIZONA'S RACE TRACK INDUSTRY PROGRAM FOR IMPROVING THE INDUSTRY THROUGH EDUCATION AND FOR APPRECIATING THE POWER OF INNOVATION