

The Chicago Zoological Society Endocrinology Service Lab is the ideal choice for analyzing biological samples. We are a reliant, efficient, and economical option for zoos, aquariums, universities, and field projects. Our goal is to make endocrine research accessible and affordable in order to promote wildlife conservation and animal welfare.

Our lab is perfect for any type of research, whether it is a finite study involving one animal for a graduate project, a long-term monitoring project with multiple individuals at a zoo, or multi-institutional study examining numerous animals. We use enzyme-immunoassay (EIA) techniques to analyze your samples for the hormones of interest in your study. We can evaluate approximately 50 species for multiple hormones. If your animal is not on our current list, we can also validate an assay specifically for your study.

With the goal of making endocrine data accessible and affordable, we can also assist you through the process. We are available to help by answering questions such as how many samples to collect, how to collect them, and how to ship them correctly.

Conduct analysis using EIA techniques

Ship to our lab

Expect a report from us within 5 to 10 business days\*

Endocrine analysis is a modern, informative tool that can answer many questions by providing an extra level of data about the animal of interest. Some common applications include:

- Monitoring female reproductive cycles
- Diagnosing pregnancy
- Estimating parturition
- Examining male endocrine function
- Assessing positive and negative indicators of animal welfare
- Correlating hormones to behavioral observations
- Determining contraception efficacy
- Evaluating when animals reach puberty

If you have questions or would like to learn more about endocrine analysis and how it can enhance your study, feel free to reach out to our Lab Manager, Jocelyn Bryant, or visit our website.

#### **Jocelyn Bryant**

Behavioral Endocrinology Lab Manager

Phone: (708) 688-8831 Endocrinology@CZS.org



<sup>\*</sup> Report time depends on number of samples.

# THE RESEARCH TEAM

## **Jocelyn Bryant**

### Endocrinology Lab Manager

Jocelyn received her B.S. in Wildlife Ecology from the University of Wisconsin-Madison (1999), and completed her M.S. in Biology from the University of Nebraska (2010). Jocelyn became interested in behavioral endocrinology while working as a zookeeper at Brookfield Zoo and volunteering in the endocrinology lab. She currently has approximately 50 species validated for reproductive and stress hormone assays and successfully runs one of the only three service labs in the country. Jocelyn was one of the founding members and previously a board member for the International Society of Wildlife Endocrinology (ISWE), a group focused on developing collaborations and sharing knowledge with fellow wildlife endocrinologists worldwide and staying on the forefront of new techniques.

#### Lance J. Miller, Ph.D.

## Senior Director of Animal Welfare Research

Lance received his graduate training in Experimental Psychology from the University of Southern Mississippi. Previously, he held positions as a Research Manager at Disney's Animal Kingdom and Scientist for the San Diego Zoo Institute for Conservation Research. Dr. Miller focuses on animal welfare to help ensure that each individual animal within zoological facilities is thriving. He is currently a member of the Association of Zoos and Aquariums (AZA) Research and Technology Committee, Vice Chair of the AZA Animal Welfare Committee, and a steering committee member for the AZA Behavioral Scientific Advisory Group.

# **CURRENTLY AVAILABLE ASSAYS\***

SPECIES	P4	E2	<b>T5</b>	CN	СТ	PdG
Aardvark	X			X		
Aardwolf	X	X	X	X		
African Elephant	X					
African Lion	X			х		
Amur Leopard		X		X		
Amur Tiger	X			X		
Babirusa	X			74		
Black-Footed Cat	X					
Black Rhino	X		X		X	
Blue Duiker	X		X	X	Λ	
Bonobo	21		21	74	x **	
Brown Bear			X	X	A	
Callimico	X	X	Λ	X		
Canada Lynx	X	X	X	X		
Capuchin	X	А	Λ	А		
Cheetah	Λ			37		
Clouded Leopard	37	37	37	X	37	
Domestic Cow	X	X	X		X	
	X					
Domestic Pig Echidna	X					
	X	X		X		
Fennec Fox	X		X			
Fishing Cat	X	X		X		
Giraffe	X					
Gorilla (Lowland)	X	X	X	X		
Jaguar		X				
Langur	X					
Lemur	X					
Mandrill	X					
Mouse	X	X		X		
Nubian Goat	X					
Okapi	X		X		X	X
Orangutan				X	x **	
Polar Bear				X	X	
Porcupine	X		X			X
Rat (lab spp.)				X		
Red River Hog	X		X	X		
Red-Tailed Guenon	X					
Rhesus Macaque	X			X		
River Otter	X			X		
Sloth Bear	X					
Slow Loris	X	X				
Somali Ass	X					
Warthog	X					
White-Cheeked	X					
Gibbon						
Wombat	X				X	
Woodrat	X	X	X			
Zebra (Grevy's)	X					

P4 = progesterone

E2 = estradiol

T5 = testosterone

CN = corticosterone

CT = cortisol

PdG = pregnanediol glucuronide

\*Unless noted otherwise, all EIAs listed are fecal assays.

\*\* Urinary

# **PRICES**

Fecal processing and extraction Per sample
First hormone (fecal, urine, serum) Per sample
Corticosterone Additional per sample \$8.00
New species analytical validation First hormone \$250.00 Each subsequent validation \$200.00

