

## Quality Assurance Letter

Diagnostic Endocrinology Service

January 20, 2023

**External Quality Assurance Participation.** The Service has participated in the Society for Comparative Endocrinology (SCE) External Quality Assurance Program (EQUAS) since the program's inception in 1988. The Chair of the program is Dr. R.F. Nachreiner, AHDL, Endocrine Section, P.O. Box 30076, Lansing, MI 48909-7576. The Service has also subscribed to the Veterinary Laboratory Association (VLA) Quality Assurance program since 2000, provided by Diagnostic Chemicals Limited, 16 First Street, West Royalty Industrial Park, Charlottetown, PE C1E 1BP. The two programs provide for assessment of laboratory proficiency by providing unknown samples for assay to participating laboratories. Each laboratory conducts analysis on the samples for specific hormonal concentrations and results are reported back to the programs where the data is evaluated and correlation of results with other laboratories is conducted and reported to all participants.

**In-House Quality Assurance Program.** The Service has an in-house quality control program, in addition to participating in the external programs above. The Service purchases canine controls from ICN/MP Biomedicals, Costa Mesa, CA, from Siemens Healthcare Diagnostics, Los Angeles, CA, and from Bio-Rad Clinical Diagnostics, Hercules, CA for use with the various assay procedures. The controls have established ranges in which results must fall for each specific hormone analyzed. Kit calibrators, controls and patient samples are assayed in duplicate and must fall within 20% CV. Disposable precision pipetting supplies (RAININ™ and Eppendorf) are utilized to ensure accuracy. Pipetting equipment is calibrated and serviced every 3 months by Cohutta Calibration, LLC, 291 Wolfe St., Cohutta, GA 30710.

**Good Laboratory Practices.** Laboratory personnel participate in safety training seminars, and a written Chemical Hygiene Plan is maintained in the lab that outlines all standard operating procedures. The University of Tennessee Institute of Agriculture's Safety Officer, to ensure safety in the workplace, conducts inspections of laboratory facilities each year.

**Diagnostic Endocrinology Service Personnel.** L. Kim Abney, B.A., who has been involved with laboratory technical work in this service for the past 30 years and serves as Supervisor of the Service; Julie Fields, B.S., who has been involved in laboratory technical work in this service for the past 13 years; Ivan Haworth, B.S., who joined the service in December 2015; Noah Kivlin, B.S., who joined the service in July 2021; Kelsey Peterson, B.S., who joined the service in October 2021; Parker Hill, B.S., who joined the service in May 2022; Jessie Cagle, A.A.S., who joined the service in April 2013; Alejandro Esteller-Vico, D.V.M., Ph.D. Assistant Professor. Dr. Esteller-Vico's area of expertise is in endocrinology and reproduction with a focus on identifying biomarkers of disease, as well as, development of diagnostic tests. Dr. Esteller-Vico joined the faculty and service in 2018; Luca Giori, D.V.M., Ph.D. Associate Professor and Assistant Director of the Diagnostic Endocrinology Service. Dr. Giori's training is in the area of clinical pathology (cytology, hematology, biochemistry and endocrinology) and quality assurance. His research has been focused on identification of new biomarkers and innovative analytical methods in veterinary medicine. Dr. Giori joined the faculty and service in 2014; Hugo Eiler, D.V.M., Ph.D., Professor Emeritus, whose training is in the disciplines of physiology and endocrinology. Dr. Eiler has been involved with diagnostic procedure development and has been a member of the College for the past 42 years; Kellie Fecteau, Ph.D., Director of the Service, has been a member of the service for the past 20 years and has pursued research studies in

Endocrinology Quality Assurance Letter

January 20, 2023

Page 2

reproductive physiology and oncology, and currently is involved in cell culture studies with adrenal cells concerning mechanisms of drug effects.

**Radioactive Materials Usage.** The Diagnostic Endocrinology Service is under the Broad Radioactive Materials License (R-47005-HO8) agreement held by the University of Tennessee, approved by the State of Tennessee. Tennessee has an agreement with the Nuclear Regulatory Agency (NRC). The University of Tennessee Radiation Safety Department conducts frequent radiation safety checks of laboratory equipment and workspace.

**Contact for the Service:** Diagnostic Endocrinology Service, Department of Biomedical and Diagnostic Sciences, College of Veterinary Medicine University of Tennessee 2407 River Drive, Room A105 Knoxville, TN 37996-4543 865-974-5638; 865-974-7147 (FAX).

*Kellie Fecteau*

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Clinical Associate Professor and Director