

Primate Assay Laboratory (PAL)
Formerly PDL
California National Primate Research Center
University of California, Davis

<http://www.cnprc.ucdavis.edu/primate-assay-laboratory-core/>

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(note that we have discontinued our FAX line due to low usage)

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February 2018 Update

2018 already! Happy New Year! We hope it's off to a good start for all of you.

And before I forget until the last moment- this year's University holidays are:

Nov 21-23, 2018

Dec 21, 2018 – Jan 2, 2019

We won't be able to receive samples these dates unless you make arrangements in advance. But any time you are shipping it never hurts, and sometimes really helps, to let us know samples are coming so we can make sure they arrive and/or track them as needed before it is too late. This is especially true during holiday or inclement weather weeks- when shipping can be challenging even though we are open.

We are pleased that the CNPRC base grant renewal scored well. I am sending a poster from that site visit which summarizes the new PAL core (incorporating the old PDL). Please contact me if any of these services would be useful for your work.

Development and validation continues on several newer assays. We have validated the use of commercial Zika and West Nile antibody kits for IgG and also modified them for IgM detection. We now have access to digital droplet PCR and would be happy to discuss running any assays you have on a custom basis- some but not all qPCR assays can be adapted. Work is continuing on TB assays- we have validated good specificity but just have not had enough true positives samples to fully validate sensitivity. Given that caveat, we may be able to test limited numbers of suspect samples on a research basis. Again, we'd be happy to discuss the possibilities with you.

Thank you for your support!

Primate Assay Laboratory Core

The Primate Assay Laboratory (PAL) Core is a nationally and internationally recognized resource that plays a critical role in sample analysis and service to support the scientific research mission, optimize the health of the CNPRC colony, and meet the needs of the greater research community.

PAL's comprehensive A-to-Z services also include consultation on the appropriate selection and interpretation of assays to support study design and colony management, provision of pedigreed reagents and controls, trouble-shooting, management of up-to-date testing facilities for shared use, and training for the scientific community at large. The Core's technological platforms, reagents, specimen archive, data management systems, diagnostics and research skills can be strategically leveraged beyond endocrine and infectious disease research and applied to other areas of NHP research, to converge on NHP models efficiently across various disciplines.

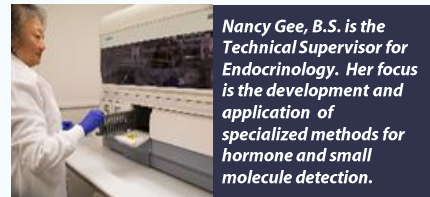
Capabilities and Services

Capabilities and Services

- Viral and other pathogen screening antibody panels and confirmatory tests (single and multiplex) for colony management and research support
- Infectious agent PCR
- Virus stocks & titrations
- Sample processing & cultures
- Custom assay development
- Endocrine urinary assays
- Endocrine cell-based assays
- Endocrine serum assays

Instrumentation

- Shared Resources: PAL manages (scheduling, training, preventative maintenance, quality assurance, trouble shooting) instruments available to all qualified users including: end point, real time, and Digital Droplet PCR, Nucleic Acid Purification, Luminex Multiplex Microbead Analyzers
- Nonhuman primate specific assays have been developed and validated on the Centaur analyzer



Nancy Gee, B.S. is the Technical Supervisor for Endocrinology. Her focus is the development and application of specialized methods for hormone and small molecule detection.

New Developments/Innovation

- Digital Droplet PCR assays
- Microbiome sample processing
- Cellular and humoral assays for TB
- Alternative samples and assays for laboratory and field studies
- Simian betaretrovirus epidemiology
- Using the NHP model we have included the adrenal cortex as an important element of the endocrine foundation of the menopausal transition.
- Integration of the current PAL Core database into the LabKey system

CNPRC and NPRC Consortia

- Perform testing and maintain the biorepository for the Specific Pathogen Free U42 5U42OD010990-17 grant
- Actively contribute to primate services plans and proposals
- Provide virus proficiency testing for all NPRCs through the BCMC Consortium
- Participate in the Assay Consortium



JoAnn Yee, B.S., M.L.S. is the Technical Supervisor for Pathogen Detection. Her interests are applying new technologies and quality standards to assays supporting NHP research.

Recent Publications

- Emerging diagnostic challenges and characteristics of simian betaretrovirus infections in captive macaque colonies. Yee JL, Grant R, Van Rompay KK, et al. J Med Primatol. 2017 Aug;46(4):149-153.
- Specific pathogen free macaque colonies: a review of principles and recent advances for viral testing and colony management. Yee JL, Vanderford TH, Didier ES et al. J Med Primatol. 2016 Apr;45(2):55-78

Core Personnel

PAL develops and offers validated endocrine and infectious disease assays for human and nonhuman primates; supports overall health and management of conventional and specific pathogen free colonies; and provides custom research support

Scientific Lead, Koen Van Rompay, D.V.M., Ph.D., Core Scientist, focuses his research on the use of a variety of rhesus macaque models of infectious diseases, including SIV, to study pathogenesis and test proof-of-concept of preventive and therapeutic intervention strategies.



Scientific Lead, Bill Lasley, Ph.D., Core Scientist, has over 35 years of experience in NIH funded nonhuman primate and translational research. His research focus is reproductive biology, endocrinology and toxicology with over 200 publications in human and nonhuman primate reproductive endocrinology.



Clinical Lead, Jeffrey Roberts, D.V.M., Medicine and Epidemiology Department, UC Davis School of Veterinary Medicine and Associate Director for Primate Services. His extensive expertise and experience in industry and academia highly qualify him to provide consultation for individual clinical cases as well as overall colony management.

