

Advancing Research Together at WFPRC

Members of the Wake Forest Primate Research Center community came together for the 2nd WFPRC Symposium, focused on **Research Opportunities at the Intersection of Imaging, Cognition, and Behavior**. The event highlighted ongoing research, shared resources, and collaborative opportunities, including a poster session showcasing work from across the WFPRC community, reflecting the Center's growing, multidisciplinary network advancing translational science.



New Research Infrastructure: PRIMIR Imaging Facility



LINAC at Clarkson Campus

The Wake Forest University School of Medicine has recently launched the Preclinical Imaging and Irradiation Facility (PRIMIR), a state-of-the-art research building designed to expand and accelerate NIH-funded translational science.

Located on the Clarkson Campus, PRIMIR provides integrated space for advanced imaging and irradiation studies, including PET/CT, MRI, and linear accelerator technologies, with infrastructure supporting both nonhuman primate and other preclinical animal research.

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PRIMIR at Clarkson Campus



2nd WFPRC Symposium

Hello from the Leadership!

Dear Wake Forest Primate Research Center Members,

We are pleased to share that the Wake Forest Primate Research Center (WFPRC) continues to grow as a vibrant, collaborative research community. The Center now includes 85 members across 18 departments and centers, including the Charlotte campus, reflecting the multidisciplinary strength of nonhuman primate research at Wake Forest University School of Medicine.

This momentum was highlighted at the 2nd WFPRC Symposium, which brought together investigators, clinicians, veterinarians, trainees, and staff. As a hub within the School of Medicine, WFPRC fosters cross-disciplinary collaboration while advancing initiatives aligned with institutional priorities, including aging, cancer, cardiovascular disease, diabetes and obesity, Alzheimer's disease, neuroscience, infectious disease, substance misuse, and regenerative medicine.

We look forward to continued collaboration as we advance impactful translational research and shared resources.

– Mark Cline, Alessandro G. Salerno

FUNDING

The Wake Forest Primate Research Center is pleased to announce the pilot projects selected for funding in Calendar Year 2026. These awards support innovative, multidisciplinary research that leverages nonhuman primate models to advance translational science, foster collaboration, and generate preliminary data for future extramural funding.



Dr. Kiran Solingapuram Sai received pilot funding for the project titled “First-in-Class GPR39 PET Imaging: Safety and Test-Retest Performance of [18F]GPR39-2.1 in Vervet Monkeys,” representing a collaboration across the Departments of Radiology, Translational Neuroscience, and Pathology.



Dr. Daniel Sprockett (Department of Microbiology and Immunology) received funding for the project “Tracking Microbial Lineages Across Generations: Strain-Level Dynamics of Early-Life Gut Colonization in Vervet Monkeys.”



Dr. Cecilia Schaaf (Department of Comparative Medicine, Pathology) received pilot funding for the project titled “Spatial Transcriptomics and Organoid Models to Define Radiation Late Effects on Non Human Primates Intestinal Barrier Function.”



Dr. Michael Nader was awarded pilot funding for the project titled “Behavioral and Neuropharmacological Effects of Fentanyl and Cocaine Co-use in Female and Male Cynomolgus Monkeys,” within the Department of Translational Neuroscience.

Taking Research to Space



WFPRC member **Jeff Willey**, PhD, and **George Schaaf**, DVM, have been awarded a NASA Human Research Program grant to investigate the multi-system and accelerated aging effects of space travel.

WFPRC at Scientific Meetings

WFPRC participated in several institutional research events in 2026, highlighting its scientific expertise and collaborative impact:

“Explore Resources and Research Impact” - InterAC Speaker Series, presented by **J. Mark Cline**, DVM, PhD (February 2026)

“Illuminating the Invisible: Advances in PET and Molecular Imaging” - Celebrate Research! 2026, featuring WFPRC faculty (April 13, 2026; Winston-Salem, NC)

“Center for Precision Medicine Research Day” (April 21, 2026; Bermuda Run, NC), including scientific sessions, lightning talks, and a poster session with graduate students and postdocs, with WFPRC members presenting posters.



A. Salerno, DVM, PhD
CPM Research Day

Research Spotlight



Courtney S. Moore, DVM, and **Clemer Abad, DVM, MS** (Comparative Medicine Postdoc Training Program) will present their work at the Annual Meeting of the Society of Toxicologic Pathology (San Diego, June 21–24):

“Analyzing the Genetic Basis and Transcriptional Features of Sarcomas in Irradiated Rhesus Macaques” - **Moore** (Student Travel Award); “Brain Pathology in Irradiated Non-Human Primates: Vascular Injury is Radiation Dose Dependent” - **Abad**.



M. Cline, DVM, PhD
2nd WFPRC Symposium

Become a WFPRC Member!

Learn more!
WFPRC • PRIMIR

PUBLICATIONS

From January through April 2026, WFPRC investigators published more than 20 PubMed-indexed studies involving nonhuman primate models, highlighting the continued breadth and impact of WFPRC research. Selected publications are listed below:

- Yang B, Adekunbi DA, Huber HF, Camones R, Li J, Moody AJ, Riojas AM, Li C, Hall-Ursone S, Frost P, Register TC, Cox LA, Nathanielsz PW, Salmon AB, Clarke GD. **Prenatal glucocorticoid exposure programs long-term left ventricular metabolism, function, and remodeling in baboons.** *Am J Physiol Heart Circ Physiol.* 2026 Apr 1;330(4):H961-H976. doi: 10.1152/ajpheart.00360.2025. PMID: 41592575; PMCID: PMC12965284.

- Abusheikha AJ, Johnson CSC, Snyder-Mackler N, Zimmerman KD, Frye BM, Shively CA, Register TC. **Mediterranean Versus Western Diet Effects on Obesity Phenotypes and Adipose Tissue Transcriptional Profiles in Female Monkeys.** *Obesity (Silver Spring).* 2026 Mar;34(3):641-651. doi: 10.1002/oby.70121. PMID: 41640108; PMCID: PMC12933220.

- Roberts BF, Clark MA, Nader MA, Rough MI. **Sex, social rank, and nicotine co-administration shape cocaine- and cocaethylene-induced reinstatement in monkeys.** *Front Behav Neurosci.* 2026 Feb 18;20:1770940. doi: 10.3389/fnbeh.2026.1770940. PMID: 41788623; PMCID: PMC12957084.

- Johnson BJ, Lipford ME, Barcus RA, Schaaf GW, Andrews RN, Kim J, Olson JD, Deycmar S, Reed CA, Whitlow CT, Cline JM. **Total-body Irradiation Reduces Cerebrovascular Reactivity in Rhesus Macaques (*Macaca mulatta*).** *Int J Radiat Oncol Biol Phys.* 2026 Feb 12;S0360-3016(26)00376-7. doi: 10.1016/j.ijrobp.2026.01.043. PMID: 41690557.

- Key Planas DA, Nazli S, Riojas AM, Reyes AC, Jadhav A, Zimmerman K, Cox LA, Olivier M. **Identification of putative kidney-derived proteins in plasma using nanoparticle enrichment.** *Mol Omics.* 2026 Mar 6;22(2):aaiagoo8. doi: 10.1093/molecular-omics/aaiagoo8. PMID: 41697016; PMCID: PMC13017961.

- Bhoopal B, Frye BM, Miller M, Bansode A, Gollapelli KK, Barcus RA, Lockhart SN, Damuka N, Sutphen CL, Fitzgerald RW, Kim J, Baxter MG, Jorgensen MJ, Craft S, Register TC, Whitlow CT, Shively CA, Solingapuram Sai KK. **PET imaging utility of a novel A β -tracking PET radiotracer, [18F]FC119S in aged vervet monkeys.** *J Transl Med.* 2026 Jan 8;24(1):42. doi: 10.1186/s12967-025-07642-5. PMID: 41501910; PMCID: PMC12784507.

- Frye BM, Cooper H, Negrey JD, Sutphen C, Nagpal R, Kim J, Barcus RA, Lockhart SN, Whitlow CT, Tooze JA, Yadav H, Craft S, Register TC, Shively CA. **Dietary Pattern-Induced Gut Microbiota Differences Are Associated with White Matter Volume Changes in Middle-Aged Female Macaques.** *Nutrients.* 2026 Mar 31;18(7):1124. doi: 10.3390/nu18071124. PMID: 41978176; PMCID: PMC13075110.

- Prete JN, Epperly PM, Cronin EA, Flöge AP, Czoty PW. **Patterns of chronic ethanol drinking in male and female cynomolgus monkeys.** *Alcohol Clin Exp Res (Hoboken).* 2026 Feb;50(2):e70254. doi: 10.1111/acer.70254. PMID: 41731324; PMCID: PMC12929704.

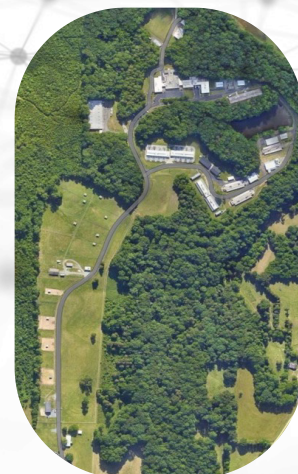
- Liss A, Lowe CC, Siddiqi MT, Podder D, Scroger MV, Vessey G, Martin K, Paperny NM, Lam DM, Martin AE, Bacar JN, Vo KT, Astefanous A, Belachew N, Idahor E, Davenport AT, Daunais JB, Hayes WM, Cervera-Juanes R, Davis TD, Varodayan FP. **Alcohol drinking sex-dependently regulates IL-1 pro-inflammatory signaling in the prefrontal cortex of mice and rhesus macaques.** *Brain Behav Immun.* 2026 Mar 13;136:106545. doi: 10.1016/j.bbi.2026.106545. PMID: 41833757.

Stay Connected

We welcome your feedback and suggestions for future issues, including topics, facilities, and research highlights you would like to see featured in upcoming newsletters.

We also invite you to participate in our **Journal Club Series**, developed in collaboration with Prof. Carol Shively, focusing on Nonhuman Primate Models of Aging and Brain Health. Sessions are held monthly (first Tuesday, 3-4 PM, virtual), and all members and collaborators are welcome.

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