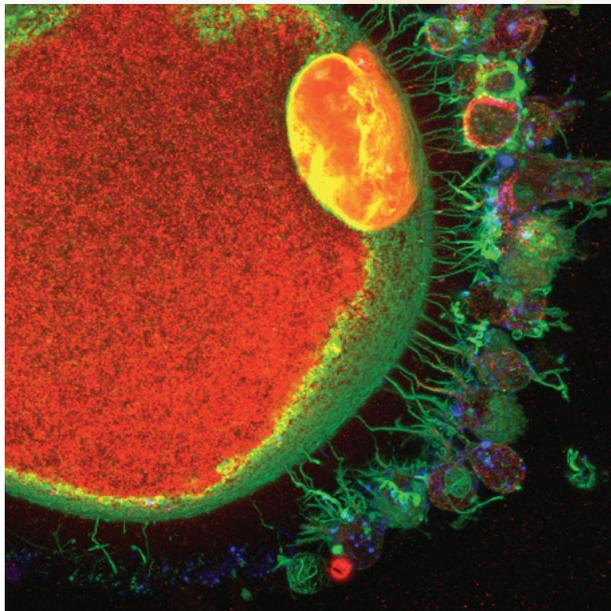


## CATHERINE VANDEVOORT, PhD

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*Female and male reproduction,  
including epigenetics and toxicology*

The research in my laboratory covers several broad areas of reproduction. In addition to sperm and egg freezing and function of ovarian follicle cells, we have focused on how changes in the ovary can affect eggs in ways that are carried in to the resulting embryo (epigenetics). We also collaborate with many scientists at other institutions on developmental toxicology projects, such as the recently completed bisphenol A study that showed many effects of BPA on fetal development. That data was a pivotal part of the recent decision by the California Prop 65 committee to list the chemical as a female reproductive toxicant.



*This image is of a monkey egg with the cumulus cells that surround it stained with various fluorescent dyes. The slender green lines show how the cumulus cells send processes through the "coat" that surrounds an egg and interact with its surface. These cells control growth and maturation of the egg.*

Studies of nonhuman primate reproduction are directly translatable to humans because primates share many unique qualities of reproduction and fetal development that are not shared by rodent models.

### **Bisphenol A alters early oogenesis and follicle formation in the fetal ovary of the rhesus monkey**

Hunt PA, Lawson C, Gieske M, Murdoch B, Smith H, Marre A, Hassold T, VandeVoort CA  
*Proc Natl Acad Sci* 2012 Oct 23;109(43):17525-30. PMID: PMC3491481

### **Transgenerational effects of binge drinking in a primate model: implications for human health**

VandeVoort CA, Grimsrud KN, Midic U, Mtango N, Latham KE *Fertil Steril*. 2015 Feb;103(2):560-9 PMID: PMC4314404

*"The monkey model is necessary for these studies because the mouse model has little relevance to human health in this area of biology and it is ethically impossible to perform definitive studies on oocytes and embryo development in women. The support of the CNPRC and other National Primate Research Centers by the National Institutes of Health allows these types of critically important studies to be conducted. The highly trained staff and exceptional facilities at the CNPRC made this study possible" Dr. C. VandeVoort*