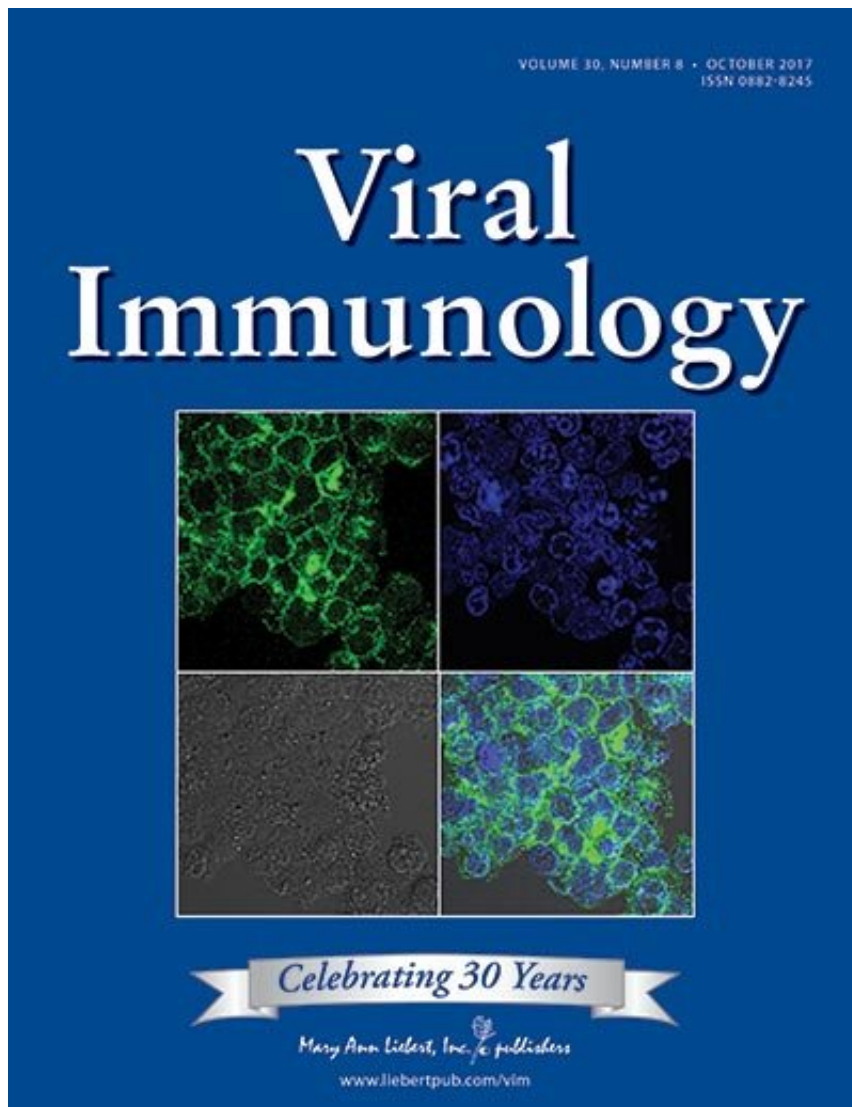


# Novel reagent detects memory immune response in vaccinated animals

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Credit: Mary Ann Liebert, Inc., publishers

Researchers have developed a novel reagent capable of detecting rare, antigen-specific B cells that indicate successful vaccination in veterinary animals. The method used to create a B cell tetramer that can detect a memory immune response to porcine reproductive and respiratory syndrome virus (PRRSV) will be widely applicable for demonstrating immunity to other veterinary pathogens, and is presented in an article in *Viral Immunology*.

The article entitled "B Cell Tetramer Development for Veterinary Vaccinology" is part of a special issue on Challenges in Veterinary Vaccines led by Guest Editor Crystal Loving, PhD, USDA-ARS National Animal Disease Center, Ames, IA.

Coauthors Michael Rahe, Kevin Gustafson, and Michael Murtaugh, University of Minnesota, St. Paul, described how the nsp7-B cell tetramer can be used to facilitate an in-depth understanding of the characteristics and quality of the memory B cell response generated to PRRSV infection and to vaccination against the virus. The researchers reported that validation studies showed the reagent able to detect PRRSV-specific B [cells](#) present at a frequency of about 0.001% of the total B lymphocytes in a vaccinated animal.

"The authors have done a wonderful job of extending B cell tetramer technology to the veterinary immunology field. This approach will be tremendously useful for the study of veterinary vaccines in general," says David L. Woodland, PhD, Editor-in Chief of *Viral Immunology* and Chief Scientific officer for Keystone Symposia on *Molecular and Cellular Biology*.

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**More information:** Michael C. Rahe et al, B Cell Tetramer Development for Veterinary Vaccinology, *Viral Immunology* (2017).  
[DOI: 10.1089/vim.2017.0073](https://doi.org/10.1089/vim.2017.0073)

Provided by Mary Ann Liebert, Inc

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