



Special Issue Information

Guest Editors:

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Interests: monoclonal antibodies; immunology; virology; herpesviruses; SARS-CoV-2

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Interests: parvoviruses; herpesviruses; virus–host interactions; nuclear transport; cell and molecular biology; virology

Neurotropic viruses exploit the unique architecture and immune landscape of the nervous system, using specialized strategies of entry, spread, and immune evasion to establish acute or persistent infections. Advances in imaging technologies—from high-resolution fluorescence and live-cell microscopy to super-resolution and correlative approaches—are reshaping our understanding of these dynamic processes in real time. At the same time, innovative in vitro models such as neural organoids, primary neuronal cultures, air–liquid interface systems, and microphysiological platforms offer increasingly accurate tools for dissecting viral tropism, neuroinvasion, and host responses.

This Special Issue seeks original research manuscripts and review articles that provide new insights into the mechanisms by which neurotropic viruses infect and interact with neural tissues. We welcome contributions that leverage cutting-edge imaging methods, explore viral strategies of immune evasion, characterize host–virus dynamics in advanced neural models, or bridge imaging with systems-level analyses. Submissions combining mechanistic depth with technological innovation are particularly encouraged. Our goal is to highlight multidisciplinary research that advances fundamental knowledge and supports the development of future antiviral or neuroprotective interventions.

Keywords: neurotropic viruses; neuroinvasion; immune evasion; host–virus interactions; neuronal models; organoids; live-cell microscopy; microfluidics

Submission deadline: 30 September 2026



SUBMIT to the
Special Issue

**Imaging
Neurotropic
Viruses**

