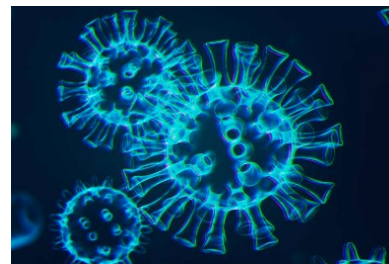


## Publications Using IVIS® Imaging Systems For Virology Research

When it comes to peer-reviewed publications using preclinical imaging platforms, PerkinElmer's IVIS systems sets the standard for optical imaging in every disease area – with over 10,000 papers and counting.

Below is a sample list of published research articles from 2010 to 2020 in the area of virology.



### Coronaviruses (SARS, MERS) and Influenza

Desforges, M. et al. (2020). Human Coronaviruses and Other Respiratory Viruses: Underestimated Opportunistic Pathogens of the Central Nervous System? *Viruses*, 12(1): 14. doi: [10.3390/v12010014](https://doi.org/10.3390/v12010014)

Xia, S. et al. (2019). A pan-coronavirus fusion inhibitor targeting the HR1 domain of human coronavirus spike. *Science Advances*, 5(4): eaav4580. doi: [10.1126/sciadv.aav4580](https://doi.org/10.1126/sciadv.aav4580)

Zhou, H. et al. (2019). Structural definition of a neutralization epitope on the N-terminal domain of MERS-CoV spike glycoprotein. *Nat Commun.* 10, 3068. doi: [10.1038/s41467-019-10897-4](https://doi.org/10.1038/s41467-019-10897-4)

Fan, C. et al (2018). A Human DPP4-Knockin Mouse's Susceptibility to Infection by Authentic and Pseudotyped MERS-CoV. *Viruses* 10(9), 448. doi: [10.3390/v10090448](https://doi.org/10.3390/v10090448)

Tomar, J. et al. (2019). Pulmonary immunization: deposition site is of minor relevance for influenza vaccination but deep lung deposition is crucial for hepatitis B vaccination. *Acta Pharmaceutica Sinica B*, 9 (6): 1231-1240. doi: [10.1016/j.apsb.2019.05.003](https://doi.org/10.1016/j.apsb.2019.05.003)

Nogales, A., Ávila-Pérez, G., Rangel-Moreno, J., Chiem, K., DeDiego, M., Martínez-Sobrido, L. (2019). A Novel Fluorescent and Bioluminescent Bireporter Influenza A Virus To Evaluate Viral Infections. *Journal of Virology*, 93 (10) e00032-19. doi: [10.1128/JVI.00032-19](https://doi.org/10.1128/JVI.00032-19)

Escaffre et al. (2018). Experimental Infection of Syrian Hamsters With Aerosolized Nipah Virus, *J Inf Disease*. 218(10): 1602-1610. doi: [10.1093/infdis/jiy357](https://doi.org/10.1093/infdis/jiy357)

Karlsson E.A. et al. (2018). Measuring Influenza Virus Infection Using Bioluminescent Reporter Viruses for In Vivo Imaging and In Vitro Replication Assays. In: Yamauchi Y. (eds) Influenza Virus. *Methods in Molecular Biology*, vol 1836. doi: [10.1007/978-1-4939-8678-1\\_21](https://doi.org/10.1007/978-1-4939-8678-1_21)

Vogel, A.B. et al. (2018). Self-Amplifying RNA Vaccines Give Equivalent Protection against Influenza to mRNA Vaccines but at Much Lower Doses. *Mol Therapy*. 26(2): 446-455. doi: [10.1016/j.ymthe.2017.11.017](https://doi.org/10.1016/j.ymthe.2017.11.017)

- Cai, H., Liu, M., Russell, C.J. (2018). Directed Evolution of an Influenza Reporter Virus To Restore Replication and Virulence and Enhance Noninvasive Bioluminescence Imaging in Mice. *Journal of Virology*. 92(16): e00593-18. doi: [10.1128/JVI.00593-18](https://doi.org/10.1128/JVI.00593-18)
- Zhao, H. et al. (2018). Dual-functional peptide with defective interfering genes effectively protects mice against avian and seasonal influenza. *Nat Commun* 9, 2358. doi: [10.1038/s41467-018-04792-7](https://doi.org/10.1038/s41467-018-04792-7)
- Deng, L. et al. (2018). Heterosubtypic influenza protection elicited by double-layered polypeptide nanoparticles in mice. *PNAS*. 115(33): E7758-E7767. doi: [10.1073/pnas.1805713115](https://doi.org/10.1073/pnas.1805713115)
- Kim HJ, Seo YH, An S, Jo A, Kwon IC, Kim S. (2018). Chemiluminescence imaging of Duox2-derived hydrogen peroxide for longitudinal visualization of biological response to viral infection in nasal mucosa. *Theranostics*. 8(7):1798–1807. doi: [10.7150/thno.22481](https://doi.org/10.7150/thno.22481)
- Pan W, Dong J, Chen P, Zhang B, Li Z, Chen L. (2018). Development and application of bioluminescence imaging for the influenza A virus. *J Thorac Dis*. 10(Suppl 19): S2230–S2237. doi: [10.21037/jtd.2018.02.35](https://doi.org/10.21037/jtd.2018.02.35)
- Czako R. et al. (2017). In Vivo Imaging of Influenza Virus Infection in Immunized Mice, *mBio*. 8(3) e00714-17. doi: [10.1128/mBio.00714-17](https://doi.org/10.1128/mBio.00714-17)
- Vidy A, Maisonnasse P, Da Costa B, Delmas B, Chevalier C, Le Goffic R. (2016). The Influenza Virus Protein PB1-F2 Increases Viral Pathogenesis through Neutrophil Recruitment and NK Cells Inhibition. *PLoS One*. 11(10):e0165361. doi: [10.1371/journal.pone.0165361](https://doi.org/10.1371/journal.pone.0165361)
- Nogales, A., Baker, SF, Martínez-Sobrido, L., (2015). Replication-competent influenza A viruses expressing a red fluorescent protein. *Virology*, 476: 206-216. doi: [10.1016/j.virol.2014.12.006](https://doi.org/10.1016/j.virol.2014.12.006)
- Mina, MJ, McCullers, JA, Klugman, KP. (2014). Live Attenuated Influenza Vaccine Enhances Colonization of *Streptococcus pneumoniae* and *Staphylococcus aureus* in Mice. *mBio*. 5(1) e01040-13. doi: [10.1128/mBio.01040-13](https://doi.org/10.1128/mBio.01040-13)
- Pan, W et al. (2013). Visualizing influenza virus infection in living mice, *Nature Comm*. 4:2369. doi: [10.1038/ncomms3369](https://doi.org/10.1038/ncomms3369)
- Heaton, N.S., Leyva-Grado, V.H., Tan, G.S., Eggink, D., Hai, R., Palese, P. (2013). In Vivo Bioluminescent Imaging of Influenza A Virus Infection and Characterization of Novel Cross-Protective Monoclonal Antibodies. *Journal of Virology*. 87 (15) 8272-8281. doi: [10.1128/JVI.00969-13](https://doi.org/10.1128/JVI.00969-13)
- Tran, V., Moser, L.A., Pooloe, D.S., Mehle, A. (2013). Highly Sensitive Real-Time In Vivo Imaging of an Influenza Reporter Virus Reveals Dynamics of Replication and Spread. *Journal of Virology*. 87 (24) 13321-13329; doi: [10.1128/JVI.02381-13](https://doi.org/10.1128/JVI.02381-13)
- Song, JM et al. (2012). DNA Vaccination in the Skin Using Microneedles Improves Protection Against Influenza. *Molecular Therapy*. 20(7): 1472-1480. doi: [10.1038/mt.2012.69](https://doi.org/10.1038/mt.2012.69)

Burke, C.W., Mason, J.N., Surman, S.L., Jones, B.G., Dalloneau, E., Hurwitz, J.L., Russell, C.J., (2011). Illumination of Parainfluenza Virus Infection and Transmission in Living Animals Reveals a Tissue-Specific Dichotomy. *PLoS Pathog.* 7(7): 31002134. doi: [10.1371/journal.ppat.1002134](https://doi.org/10.1371/journal.ppat.1002134)

Manicassamy, B. et al. (2010). Analysis of in vivo dynamics of influenza virus infection in mice using a GFP reporter virus *PNAS.* 107(25): 11531-11536. doi: [10.1073/pnas.0914994107](https://doi.org/10.1073/pnas.0914994107)

PerkinElmer, Inc.  
940 Winter Street  
Waltham, MA 02451 USA  
P (800) 762-4000 or  
(+1) 203- 925-4602  
[www.perkinelmer.com](http://www.perkinelmer.com)



---

For a complete listing of our global offices, visit [www.perkinelmer.com/ContactUs](http://www.perkinelmer.com/ContactUs)

Copyright ©2020, PerkinElmer, Inc. All rights reserved. PerkinElmer® is a registered trademark of PerkinElmer, Inc. All other trademarks are the property of their respective owners