

Dr Othmar Engelhardt

Peer-reviewed publications

O. Engelhardt, R. Grabherr, G. Himmler and F. Rüker. (1994) **Two-step cloning of antibody variable domains in a phage display vector.** *BioTechniques* 17: 44, 46.

T. Muster, B. Ferko, A. Klima, M. Purtscher, A. Trkola, P. Schulz, A. Grassauer, O. G. Engelhardt, A. García-Sastre, P. Palese and H. Katinger. (1995) **Mucosal model of immunization against human immunodeficiency virus type 1 with a chimeric influenza virus.** *J. Virol.* 69: 6678-6686.

S. Pleschka, S. R. Jaskunas, O. G. Engelhardt, T. Zürcher, P. Palese and A. García-Sastre. (1996) **A plasmid-based reverse genetics system for influenza A virus.** *J. Virol.* 70: 4188-4192.

J. Staczek, H. E. Gilleland, Jr., L. B. Gilleland, R. N. Harty, A. García-Sastre, O. G. Engelhardt and P. Palese. (1998) **A chimeric influenza virus expressing an epitope of outer membrane protein F of *Pseudomonas aeruginosa* affords protection against challenge with *P. aeruginosa* in a murine model of chronic pulmonary infection.** *Infect. Immun.* 66: 3990-3994.

E. Fodor, L. Devenish, O. G. Engelhardt, P. Palese, G. G. Brownlee, and A. García-Sastre. (1999) **Rescue of influenza A virus from recombinant DNA.** *J. Virol.* 73:9679-82.

E. Wagner, O. G. Engelhardt, F. Weber, O. Haller, and G. Kochs. (2000) **Formation of virus-like particles from cloned cDNAs of Thogoto virus.** *J. Gen. Virol.* 81:2849-53.

E. Wagner, O. G. Engelhardt, S. Gruber, O. Haller, and G. Kochs. (2001) **Rescue of recombinant Thogoto virus from cloned cDNA.** *J. Virol.* 75:9282-9286.

O. G. Engelhardt*, E. Ullrich*, G. Kochs, and O. Haller. (2001) **Interferon-induced antiviral Mx1 GTPase is associated with components of the SUMO-1 system and promyelocytic leukemia protein nuclear bodies.** *Exp. Cell Res.* 271:286-295.

O. G. Engelhardt, C. Boutell, A. Orr, E. Ullrich, O. Haller, and R. D. Everett. (2003) **The homeodomain-interacting kinase PKM (HIPK-2) modifies ND10 through both its kinase domain and a SUMO-1 interaction motif and alters the posttranslational modification of PML.** *Exp. Cell Res.* 283:36-50.

O. G. Engelhardt, H. Sirma, P.-P. Pandolfi, and O. Haller. (2004) **Mx1 GTPase accumulates in distinct nuclear domains and inhibits influenza A virus in cells that lack promyelocytic leukaemia protein nuclear bodies.** *J. Gen. Virol.* 85:2315-2326.

O. G. Engelhardt, M. Smith, and E. Fodor. (2005) **Association of the influenza A virus RNA-dependent RNA polymerase with cellular RNA polymerase II.** *J. Virol.* 79:5812-5818.

- A. Y. Chan, F. T. Vreede, M. Smith, O. G. Engelhardt, and E. Fodor. (2006) **Influenza virus inhibits RNA polymerase II elongation.** *Virology* 351:210-217.
- T. Deng*, O. G. Engelhardt*, B. Thomas, A. V. Akoulitchev, G. G. Brownlee, and E. Fodor. (2007) **Role of Ran Binding Protein 5 in nuclear import and assembly of the influenza virus RNA polymerase complex.** *J. Virol.* 80:11911-11919.
- R. Harvey, J. X. Wheeler, C. L. Wallis, J. S. Robertson, and O. G. Engelhardt. (2008) **Quantitation of haemagglutinin in H5N1 influenza viruses reveals low haemagglutinin content of vaccine virus NIBRG-14 (H5N1).** *Vaccine.* 26:6550-6554.
- I. G. Barr, J. McCauley, N. Cox, R. Daniels, O. G. Engelhardt, K. Fukuda, G. Grohmann, A. Hay, A. Kelso, A. Klimov, T. Odagiri, D. Smith, C. Russell, M. Tashiro, R. Webby, J. Wood, Z. Ye, W. Zhang, Writing Committee of the World Health Organization on Northern Hemisphere Influenza Vaccine Composition for 2009-2010. (2010) **Epidemiological, antigenic and genetic characteristics of seasonal influenza A(H1N1), A(H3N2) and B influenza viruses: Basis for the WHO recommendation on the composition of influenza vaccines for use in the 2009-2010 Northern Hemisphere season.** *Vaccine.* 28:1156-1167.
- R. Harvey, C. Nicolson, R. E. Johnson, K. A. Guilfoyle, D. L. Major, J. S. Robertson, and O. G. Engelhardt. (2010) **Improved haemagglutinin antigen content in H5N1 candidate vaccine viruses with chimeric haemagglutinin molecules.** *Vaccine.* 28:8008-8014.
- J. S. Robertson, C. Nicolson, R. Harvey, R. Johnson, D. Major, K. Guilfoyle, S. Roseby, R. Newman, R. Collin, C. Wallis, O. G. Engelhardt, J. M. Wood, J. Le, R. Manojkumar, B. A. Pokorny, J. Silverman, R. Devis, D. Bucher, E. Verity, C. Agius, S. Camuglia, C. Ong, S. Rockman, A. Curtis, P. Schoofs, O. Zoueva, H. Xie, X. Li, Z. Lin, Z. Ye, L. M. Chen, E. O'Neill, A. Balish, A. S. Lipatov, Z. Guo, I. Isakova, C. T. Davis, P. Rivaller, K. M. Gustin, J. A. Belser, T. R. Maines, T. M. Tumpey, X. Xu, J. M. Katz, A. Klimov, N. J. Cox, R. O. Donis. (2011) **The development of vaccine viruses against pandemic A(H1N1) influenza.** *Vaccine.* 29:1836-1843. (doi:10.1016/j.vaccine.2010.12.044)
- R. Harvey, K. A. Guilfoyle, S. Roseby, J. S. Robertson and O. G. Engelhardt. (2011) **Improved antigen yield in pandemic H1N1 (2009) candidate vaccine viruses with chimeric haemagglutinin molecules.** *J. Virol.* 85:6086-6090.
- E. Hutchinson, O. Orr, S. M. Liu, O. G. Engelhardt and E. Fodor. (2011) **Characterisation of the interaction between the influenza A virus polymerase subunit PB1 and the host nuclear import factor Ran Binding Protein 5.** *J. Gen. Virol.* 92:1859-1869.
- C. Nicolson, R. Harvey, R. Johnson, K. Guilfoyle, O. G. Engelhardt and J. S. Robertson. (2012) **An additional oligosaccharide moiety in the HA of a pandemic influenza H1N1 candidate vaccine virus confers increased antigen yield in eggs.** *Vaccine.* 30:745-751.
- R. Harvey, M. Hamill, J. S. Robertson, P. Minor, G. M. Vodeiko, J. P. Weir, H. Takahashi, Y. Harada, S. Itamura, P. Bamford, T. Dalla Pozza, O. G. Engelhardt. (2012) **Application of deglycosylation to SDS PAGE analysis improves calibration of influenza antigen standards.** *Biologicals* 40:96-99.

R. E. Johnson, M. Hamill, R. Harvey, C. Nicolson, J. S. Robertson, O. G. Engelhardt. (2012) **Permissible variation in the 3' non-coding region of the haemagglutinin genome segment of the H5N1 candidate vaccine virus NIBRG-14.** *PLoS ONE* 7(5):e36241.
doi:10.1371/journal.pone.0036241

A. I. Klimov, R. Garten, C. Russell, I. G. Barr, T. G. Besselaar, R. Daniels, O. G. Engelhardt, G. Grohmann, S. Itamura, A. Kelso, J. McCauley, T. Odagiri, D. Smith, M. Tashiro, X. Xu, R. Webby, D. Wang, Z. Ye, S. Yuelong, W. Zhang, N. Cox, Writing Committee of the World Health Organization Consultation on Southern Hemisphere Influenza Vaccine Composition for 2012. (2012) **WHO recommendations for the viruses to be used in the 2012 Southern Hemisphere Influenza Vaccine: Epidemiology, antigenic and genetic characteristics of influenza A(H1N1)pdm09, A(H3N2) and B influenza viruses collected from February to September 2011.** *Vaccine*. 30:6461-6471. (doi:10.1016/j.vaccine.2012.07.089)

R. Harvey, R. E. Johnson, K. MacLellan-Gibson, J. S. Robertson, O. G. Engelhardt. (2014) **A promoter mutation in the haemagglutinin segment of influenza A virus generates an effective candidate live attenuated vaccine.** *Influenza and Other Respiratory Viruses*. doi:10.1111/irv.12274.

S. E. Hufton, P. Risley, C. R. Ball, D. Major, O.G. Engelhardt, S. Poole. (2014) **The breadth of cross sub-type neutralisation activity of a single domain antibody to influenza hemagglutinin can be increased by antibody valency.** *PLoS ONE* 9(8): e103294. doi:10.1371/journal.pone.0103294.

Meeting reports, reviews, and book chapters

T. Muster, B. Ferko, A. Klima, M. Purtscher, P. Schulz, A. Grassauer, H. Katinger, O. Engelhardt, A. García-Sastre and P. Palese, (1995) **Secretory antibodies against HIV-1 induced by a chimeric influenza virus.** In *Vaccines 95*. Cold Spring Harbor Laboratory Press.

T. Muster, B. Ferko, A. Grassauer, A. Klima, D. Katinger, M. Purtscher, H. Katinger, O. G. Engelhardt, A. García-Sastre and P. Palese. (1996) **Long-lasting systemic and mucosal humoral immune responses against the HIV-1 gp41-specific epitope ELDKWA induced by a chimeric influenza virus.** In *Vaccines 96*. Cold Spring Harbor Laboratory Press.

P. Palese, H. Zheng, O. G. Engelhardt, S. Pleschka and A. García-Sastre. (1996) **Negative-strand RNA viruses: Genetic engineering and applications.** *Proc. Natl. Acad. Sci. USA* 93: 11354-11358.

H. E. Gilleland, Jr., L. B. Gilleland, J. Staczek, R. N. Harty, A. García-Sastre, O. G. Engelhardt and P. Palese. (1997) **Chimeric influenza viruses incorporating epitopes of outer membrane protein F as a vaccine against infection with *Pseudomonas aeruginosa*.** *Behring. Inst. Mitt.* 98: 291-301.

G. Kochs, O. G. Engelhardt, and O. Haller. (2002) **Mx proteins: high molecular weight GTPases with antiviral activity.** In: „*Handbook of Cell Signaling*“ Vol. 2, 771-775.

O. G. Engelhardt and E. Fodor. (2006) **Functional association between viral and cellular transcription during influenza virus infection.** *Rev. Med. Virol.* 16: 329-345.

- E. Fodor, O. G. Engelhardt, M. Smith, J. Sharps, G. G. Brownlee, and T. Deng. (2008) **Nuclear import and assembly of the influenza virus RNA polymerase complex**. In *Options for the Control of Influenza VI, Proceedings of the International Conference*. 90-92.
- P. D. Minor, O. G. Engelhardt, J. M. Wood, J. S. Robertson, S. Blayer, T. Colegate, L. Fabry, J. G. Heldens, Y. Kino, O. Kistner, R. Kompier, K. Makizumi, J. Medema, S. Mimori, D. Ryan, R. Schwartz, J. S. Smith, K. Sugawara, H. Trusheim, T. F. Tsai, and R. Krause. (2009) **Conference Report: Current challenges in implementing cell-derived influenza vaccines: implications for production and regulation, July 2007, NIBSC, Potters Bar, UK**. *Vaccine*. 27:2907-2913.
- J. S. Robertson and O. G. Engelhardt. (2010) **Developing vaccines to combat pandemic influenza**. *Viruses* 2, 532-546. doi:10.3390/v2020532.
- O. G. Engelhardt. (2013) **Many ways to make an influenza virus – a review of influenza virus reverse genetics methods**. *Influenza Other Respi Viruses*. 7:249-256. (DOI: 10.1111/j.1750-2659.2012.00392.x.)
- M. D. Van Kerkhove, E. Broberg, O. G. Engelhardt, J. Wood, A. Nicoll; on behalf of the CONSIZE steering committee. (2013) **The consortium for the standardization of influenza seroepidemiology (CONSIZE): a global partnership to standardize influenza seroepidemiology and develop influenza investigation protocols to inform public health policy**. *Influenza Other Respi Viruses*. 7:231-234. DOI: 10.1111/irv.12068
- K. L. Laurie, O. G. Engelhardt, J. Wood and M. D. Van Kerkhove. (2014) **Global seroepidemiology: values and limitations**. In *Clinical Insights: Influenza Surveillance*, J. Oxford (editor), Future Medicines Ltd. doi:10.2217/9781780843605