

References

Description

References

- Afshar-Kharghan, V., et al., *Human polymorphism of P-selectin glycoprotein ligand 1 attributable to variable numbers of tandem decameric repeats in the mucinlike region*. *Blood*, 2001. **97**(10) : p. 3306-7.
- Allen, U. and J. Preiksaitis, *Epstein-barr virus and posttransplant lymphoproliferative disorder in solid organ transplant recipients*. *Am J Transplant*, 2009. **9** Suppl 4 : p. S87-96.
- Andersson-Ellstrom, A., B. Svennerholm, and L. Forssman, *Prevalence of antibodies to herpes simplex virus types 1 and 2, Epstein-Barr virus and cytomegalovirus in teenage girls*. *Scand J Infect Dis*, **1995**. **27**(4) : p. 315-8.
- Apweiler, R., H. Hermjakob, and N. Sharon, *On the frequency of protein glycosylation, as deduced from analysis of the SWISS-PROT database*. *Biochim Biophys Acta*, 1999. **1473**(1) : p. 4-8.
- Asberg, A., et al., *Effects of the intensity of immunosuppressive therapy on outcome of treatment for CMV disease in organ transplant recipients*. *Am J Transplant*, 2010. **10**(8) : p. 1881-8.
- Asberg, A., H. Rollag, and A. Hartmann, *Valganciclovir for the prevention and treatment of CMV in solid organ transplant recipients*. *Expert Opin Pharmacother*, 2010. **11**(7) : p. 1159-66.
- Ashizawa, T., et al., *The clinical significance of sialyl Lewis antigen expression in the spread of gastric cancer. Flow cytometric DNA analysis*. *J Exp Clin Cancer Res*, 2003. **22**(1) : p. 91-8.
- Aubert, M., et al., *The virological synapse facilitates herpes simplex virus entry into T cells*. *J Virol*, 2009. **83**(12) : p. 6171-83.
- Austrup, F., et al., *P- and E-selectin mediate recruitment of T-helper-1 but not T-helper-2 cells into inflamed tissues*. *Nature*, 1997. **385**(6611) : p. 81-3.
- Babcock, G.J., et al., *EBV persistence in memory B cells in vivo*. *Immunity*, 1998. **9**(3) : p. 395-404.
- Barry, S.M., et al., *Induction of FucT-VII by the Ras/MAP kinase cascade in Jurkat T cells*. *Blood*, 2003. **102**(5) : p. 1771-8.
- Barthel, S.R., et al., *Alpha 1,3 fucosyltransferases are master regulators of prostate cancer cell trafficking*. *Proc Natl Acad Sci U S A*, 2009. **106**(46) : p. 19491-6.
- Bengtson, P., et al., *Identification of a missense mutation (G329A ;Arg(110)—> GLN) in the human FUT7 gene*. *J Biol Chem*, 2001. **276**(34) : p. 31575-82.
- Bengtson, P., et al., *Polymorphonuclear leukocytes from individuals carrying the G329A mutation in the alpha 1,3-fucosyltransferase VII gene (FUT7) roll on E- and P-selectins*.

J Immunol, 2002. **169**(7) : p. 3940-6.

Berg, E.L., et al., *The cutaneous lymphocyte antigen is a skin lymphocyte homing receptor for the vascular lectin endothelial cell-leukocyte adhesion molecule 1*. J Exp Med, 1991. **174**(6) : p. 1461-6.

Bevilacqua, M.P., et al., *Endothelial leukocyte adhesion molecule 1 : an inducible receptor for neutrophils related to complement regulatory proteins and lectins*. Science, 1989. **243**(4895) : p. 1160-5.

Bonder, C.S., et al., *P-selectin can support both Th1 and Th2 lymphocyte rolling in the intestinal microvasculature*. Am J Pathol, 2005. **167**(6) : p. 1647-60.

Brazil, J.C., et al., *alpha3/4 Fucosyltransferase 3-Dependent Synthesis of Sialyl Lewis A on CD44 Variant Containing Exon 6 Mediates Polymorphonuclear Leukocyte Detachment from Intestinal Epithelium during Transepithelial Migration*. J Immunol, 2013. **191**(9) : p. 4804-17.

Callan, M.F., *The immune response to Epstein-Barr virus*. Microbes Infect, 2004. **6**(10) : p. 937-45.

Cannon, M.J., D.S. Schmid, and T.B. Hyde, *Review of cytomegalovirus seroprevalence and demographic characteristics associated with infection*. Rev Med Virol, 2010. **20**(4) : p. 202-13.

Cao, Y., et al., *The fucosylated histo-blood group antigens H type 2 (blood group O, CD173) and Lewis Y (CD174) are expressed on CD34+ hematopoietic progenitors but absent on mature lymphocytes*. Glycobiology, 2001. **11**(8) : p. 677-83.

Cesarman, E., *Gammaherpesvirus and lymphoproliferative disorders in immunocompromised patients*. Cancer Lett, 2011. **305**(2) : p. 163-74.

Chen, G.Y., et al., *Interaction of GATA-3/T-bet transcription factors regulates expression of sialyl Lewis X homing receptors on Th1/Th2 lymphocytes*. Proc Natl Acad Sci U S A, 2006. **103**(45) : p. 16894-9.

Chentoufi, A.A. and L. Benmohamed, *Mucosal herpes immunity and immunopathology to ocular and genital herpes simplex virus infections*. Clin Dev Immunol, 2012. **2012** : p. 149135.

Cheung, A.K., et al., *Viral gene expression during the establishment of human cytomegalovirus latent infection in myeloid progenitor cells*. Blood, 2006. **108**(12) : p. 3691-9.

Cohen, J.I., et al., *Epstein-Barr virus-associated lymphoproliferative disease in non-immunocompromised hosts : a status report and summary of an international meeting, 8-9 September 2008*. Ann Oncol, 2009. **20**(9) : p. 1472-82.

Cohen, J.I., *Optimal treatment for chronic active Epstein-Barr virus disease*. Pediatr Transplant, 2009. **13**(4) : p. 393-6.

Cuchet-Lourenco, D., et al., *Herpes simplex virus 1 ubiquitin ligase ICP0 interacts with PML isoform I and induces its SUMO-independent degradation*. J Virol, 2012. **86**(20) : p. 11209-22.

-
- Daubeuf, S., et al., *HSV ICP0 recruits USP7 to modulate TLR-mediated innate response*. Blood, 2009. **113**(14) : p. 3264-75.
- de Vries, T., et al., *Fucosyltransferases : structure/function studies*. Glycobiology, 2001. **11**(10) : p. 119R-128R.
- Decman, V., et al., *Immune control of HSV-1 latency*. Viral Immunol, 2005. **18**(3) : p. 466-73.
- Dowd, J.B., et al., *Seroprevalence of Epstein-Barr virus infection in U.S. children ages 6-19, 2003-2010*. PLoS One, 2013. **8**(5) : p. e64921.
- Evans, C.M., G. Kudesia, and M. McKendrick, *Management of herpesvirus infections*. Int J Antimicrob Agents, 2013. **42**(2) : p. 119-28.
- Everett, R.D., et al., *Formation of nuclear foci of the herpes simplex virus type 1 regulatory protein ICP4 at early times of infection : localization, dynamics, recruitment of ICP27, and evidence for the de novo induction of ND10-like complexes*. J Virol, 2004. **78**(4) : p. 1903-17.
- Fakioglu, E., et al., *Herpes simplex virus downregulates secretory leukocyte protease inhibitor : a novel immune evasion mechanism*. J Virol, 2008. **82**(19) : p. 9337-44.
- Fields, B.N., D.M. Knipe, and P.M. Howley, *Fields virology*. 5th ed. 2007, Philadelphia : Wolters Kluwer Health/Lippincott Williams & Wilkins.
- Fishman, J.A. and R.H. Rubin, *Infection in organ-transplant recipients*. N Engl J Med, 1998. **338**(24) : p. 1741-51.
- Fishman, J.A., *Infection in solid-organ transplant recipients*. N Engl J Med, 2007. **357**(25) : p. 2601-14.
- Fishman, J.A., *Overview : cytomegalovirus and the herpesviruses in transplantation*. Am J Transplant, 2013. **13** Suppl 3 : p. 1-8 ; quiz 8.
- Fukuda, M.N., et al., *Structures of glycosphingolipids isolated from human granulocytes. The presence of a series of linear poly-N-acetyllactosaminylceramide and its significance in glycolipids of whole blood cells*. J Biol Chem, 1985. **260**(2) : p. 1067-82.
- Garcia-Vallejo, J.J., et al., *DC-SIGN mediates adhesion and rolling of dendritic cells on primary human umbilical vein endothelial cells through LewisY antigen expressed on ICAM-2*. Mol Immunol, 2008. **45**(8) : p. 2359-69.
- Gianella, S., et al., *Associations between virologic and immunologic dynamics in blood and in the male genital tract*. J Virol, 2012. **86**(3) : p. 1307-15.
- Gilden, D., et al., *Review : The neurobiology of varicella zoster virus infection*. Neuropathol Appl Neurobiol, 2011. **37**(5) : p. 441-63.

-
- Gill, D.J., H. Clausen, and F. Bard, *Location, location, location : new insights into O-GalNAc protein glycosylation*. Trends Cell Biol, 2011. **21**(3) : p. 149-58.
- Goodrum, F., et al., *Differential outcomes of human cytomegalovirus infection in primitive hematopoietic cell subpopulations*. Blood, 2004. **104**(3) : p. 687-95.
- Goodrum, F., K. Caviness, and P. Zagallo, *Human cytomegalovirus persistence*. Cell Microbiol, 2012. **14**(5) : p. 644-55.
- Gulley, M.L. and W. Tang, *Using Epstein-Barr viral load assays to diagnose, monitor, and prevent posttransplant lymphoproliferative disorder*. Clin Microbiol Rev, 2010. **23**(2) : p. 350-66.
- Grzimek, N.K., et al., *Random, asynchronous, and asymmetric transcriptional activity of enhancer-flanking major immediate-early genes *ie1/3* and *ie2* during murine cytomegalovirus latency in the lungs*. J Virol, 2001. **75**(6) : p. 2692-705.
- Hanisch, F.G., *O-glycosylation of the mucin type*. Biol Chem, 2001. **382**(2) : p. 143-9.
- Harvala, H., et al., *High risk of cytomegalovirus infection following solid organ transplantation despite prophylactic therapy*. J Med Virol, 2013. **85**(5) : p. 893-8.
- Hatakeyama, S., et al., *Identification of mRNA splicing factors as the endothelial receptor for carbohydrate-dependent lung colonization of cancer cells*. Proc Natl Acad Sci U S A, 2009. **106**(9) : p. 3095-100.
- Heslop, H.E., et al., *Long-term outcome of EBV-specific T-cell infusions to prevent or treat EBV-related lymphoproliferative disease in transplant recipients*. Blood, 2010. **115**(5) : p. 925-35.
- Hidalgo, A., et al., *Complete identification of E-selectin ligands on neutrophils reveals distinct functions of PSGL-1, ESL-1, and CD44*. Immunity, 2007. **26**(4) : p. 477-89.
- Hiraiwa, N., M. Hiraiwa, and R. Kannagi, *Human T-cell leukemia virus-1 encoded Tax protein transactivates alpha 1—>3 fucosyltransferase Fuc-T VII, which synthesizes sialyl Lewis X, a selectin ligand expressed on adult T-cell leukemia cells*. Biochem Biophys Res Commun, 1997. **231**(1) : p. 183-6.
- Hiraiwa, N., et al., *Transactivation of the fucosyltransferase VII gene by human T-cell leukemia virus type 1 Tax through a variant cAMP-responsive element*. Blood, 2003. **101**(9) : p. 3615-21.
- Hirata, T., et al., *P-Selectin glycoprotein ligand 1 (PSGL-1) is a physiological ligand for E-selectin in mediating T helper 1 lymphocyte migration*. J Exp Med, 2000. **192**(11) : p. 1669-76.
- Hislop, A.D., et al., *Cellular responses to viral infection in humans : lessons from Epstein-Barr virus*. Annu Rev Immunol, 2007. **25** : p. 587-617.

-
- Homeister, J.W., et al., *The alpha(1,3)fucosyltransferases FucT-IV and FucT-VII exert collaborative control over selectin-dependent leukocyte recruitment and lymphocyte homing*. *Immunity*, 2001. **15**(1) : p. 115-26.
- Huang, M.C., et al., *P-selectin glycoprotein ligand-1 and E-selectin ligand-1 are differentially modified by fucosyltransferases Fuc-TIV and Fuc-TVII in mouse neutrophils*. *J Biol Chem*, 2000. **275**(40) : p. 31353-60.
- Jeschke, U., et al., *Expression of sialyl lewis X, sialyl Lewis A, E-cadherin and cathepsin-D in human breast cancer : immunohistochemical analysis in mammary carcinoma in situ, invasive carcinomas and their lymph node metastasis*. *Anticancer Res*, 2005.**25**(3A) : p. 1615-22.
- Jochum, S., et al., *RNAs in Epstein-Barr virions control early steps of infection*. *Proc Natl Acad Sci U S A*, 2012. **109**(21) : p. E1396-404.
- Kanamori, A., et al., *Distinct sulfation requirements of selectins disclosed using cells that support rolling mediated by all three selectins under shear flow. L-selectin prefers carbohydrate 6-sulfation to tyrosine sulfation, whereas p-selectin does not*. *J Biol Chem*, 2002. **277**(36) : p. 32578-86.
- Kannagi, R., et al., *Sialylated and sulfated carbohydrate ligands for selectins and siglecs : involvement in traffic and homing of human memory T and B lymphocytes*. *Adv Exp Med Biol*, 2011. **705** : p. 549-69.
- Kannagi, R., *Regulatory roles of carbohydrate ligands for selectins in the homing of lymphocytes*. *Current Opinion in Structural Biology*, 2002. **12**(5) : p. 599-608.
- Kannagi, R., et al., *Carbohydrate-mediated cell adhesion in cancer metastasis and angiogenesis*. *Cancer Sci*, 2004. **95**(5) : p. 377-84.
- Kannagi, R., *Transcriptional regulation of expression of carbohydrate ligands for cell adhesion molecules in the selectin family*. *Adv Exp Med Biol*, 2001. **491** : p. 267-78.
- Kawashima, H. and M. Fukuda, *Sulfated glycans control lymphocyte homing*. *Ann N Y Acad Sci*, 2012. **1253** : p. 112-21.
- Kimura, N., et al., *Reconstitution of functional L-selectin ligands on a cultured human endothelial cell line by cotransfection of alpha1—>3 fucosyltransferase VII and newly cloned GlcNAc beta:6-sulfotransferase cDNA*. *Proc Natl Acad Sci U S A*, 1999. **96**(8) : p. 4530-5.
- Knickelbein, J.E., et al., *Noncytotoxic lytic granule-mediated CD8+ T cell inhibition of HSV-1 reactivation from neuronal latency*. *Science*, 2008. **322**(5899) : p. 268-71.
- Krummenacher, C., et al., *Entry of herpesviruses into cells : the enigma variations*. *Adv Exp Med Biol*, 2013. **790** : p. 178-95.
- Ku, C.C., et al., *Tropism of varicella-zoster virus for human tonsillar CD4(+) T lymphocytes that express activation, memory, and skin homing markers*. *J Virol*, 2002. **76**(22) : p. 11425-33.
- Kullberg-Lindh, C., et al., *Epstein-Barr viremia levels after pediatric liver transplantation as measured by real-time polymerase chain reaction*

. *Pediatr Transplant*, 2006. **10**(1) : p. 83-9.

Kullberg-Lindh, C., et al., *Comparison of serum and whole blood levels of cytomegalovirus and Epstein-Barr virus DNA*. *Transpl Infect Dis*, 2008. **10**(5) : p. 308-15.

Lang, A. and J. Nikolich-Zugich, *Functional CD8 T cell memory responding to persistent latent infection is maintained for life*. *J Immunol*, 2011. **187**(7) : p. 3759-68.

Landry, M.L., J. Greenwold, and H.R. Vikram, *Herpes simplex type-2 meningitis : presentation and lack of standardized therapy*. *Am J Med*, 2009. **122**(7) : p. 688-91.

La Rosa, C. and D.J. Diamond, *The immune response to human CMV*. *Future Virol*, 2012. **7**(3) : p. 279-293.

Leon, B. and C. Ardavin, *Monocyte migration to inflamed skin and lymph nodes is differentially controlled by L-selectin and PSGL-1*. *Blood*, 2008. **111**(6) : p. 3126-30.

Lesley, J., R. Hyman, and P.W. Kincade, *CD44 and its interaction with extracellular matrix*. *Adv Immunol*, 1993. **54** : p. 271-335.

Levinovitz, A., et al., *Identification of a glycoprotein ligand for E-selectin on mouse myeloid cells*. *J Cell Biol*, 1993. **121**(2) : p. 449-59.

Ley, K. and T.F. Tedder, *Leukocyte interactions with vascular endothelium. New insights into selectin-mediated attachment and rolling*. *J Immunol*, 1995. **155**(2) : p. 525-8.

Ley, K., et al., *Sequential contribution of L- and P-selectin to leukocyte rolling in vivo*. *J Exp Med*, 1995. **181**(2) : p. 669-75.

Lin, W.M., et al., *Co-expression of CD173 (H2) and CD174 (Lewis Y) with CD44 suggests that fucosylated histo-blood group antigens are markers of breast cancer-initiating cells*. *Virchows Arch*, 2010. **456**(4) : p. 403-9.

Liu, F., H.L. Qi, and H.L. Chen, *Regulation of differentiation- and proliferation-inducers on Lewis antigens, alpha-fucosyltransferase and metastatic potential in hepatocarcinoma cells*. *Br J Cancer*, 2001. **84**(11) : p. 1556-63.

Lofling, J. and J. Holgersson, *Core saccharide dependence of sialyl Lewis X biosynthesis*. *Glycoconjugate Journal*, 2009. **26**(1) : p. 33-40.

Louis, C.U., et al., *Adoptive transfer of EBV-specific T cells results in sustained clinical responses in patients with locoregional nasopharyngeal carcinoma*. *J Immunother*, 2010. **33**(9) : p. 983-90.

Lowe, J.B. and J.D. Marth, *A genetic approach to Mammalian glycan function*. *Annu Rev Biochem*, 2003. **72** : p. 643-91.

Luster, A.D., R. Alon, and U.H. von Andrian, *Immune cell migration in inflammation : present and future therapeutic targets*. *Nat Immunol*, 2005. **6**(12) : p. 1182-90.

-
- Ma, B., J.L. Simala-Grant, and D.E. Taylor, *Fucosylation in prokaryotes and eukaryotes*. *Glycobiology*, 2006. **16**(12) : p. 158R-184R.
- Maly, P., et al., *The alpha(1,3)fucosyltransferase Fuc-TVII controls leukocyte trafficking through an essential role in L-, E-, and P-selectin ligand biosynthesis*. *Cell*, 1996. **86**(4) : p. 643-53.
- Markine-Goriaynoff, N., et al., *Glycosyltransferases encoded by viruses*. *J Gen Virol*, 2004. **85**(Pt 10) : p. 2741-54.
- Matsumoto, M., et al., *CD43 collaborates with P-selectin glycoprotein ligand-1 to mediate E-selectin-dependent T cell migration into inflamed skin*. *J Immunol*, 2007. **178**(4) : p. 2499-506.
- McEver, R.P., *Selectins : lectins that initiate cell adhesion under flow*. *Curr Opin Cell Biol*, 2002. **14**(5) : p. 581-6.
- Mettenleiter, T.C., *Herpesvirus assembly and egress*. *J Virol*, 2002. **76**(4) : p. 1537-47.
- Miyake, M., et al., *Correlation of expression of H/Le(y)/Le(b) antigens with survival in patients with carcinoma of the lung*. *N Engl J Med*, 1992. **327**(1) : p. 14-8.
- Moore, K.L., et al., *P-selectin glycoprotein ligand-1 mediates rolling of human neutrophils on P-selectin*. *J Cell Biol*, 1995. **128**(4) : p. 661-71.
- Moss, P. and N. Khan, *CD8(+) T-cell immunity to cytomegalovirus*. *Hum Immunol*, 2004. **65**(5) : p. 456-64.
- Munro, J.M., et al., *Expression of sialyl-Lewis X, an E-selectin ligand, in inflammation, immune processes, and lymphoid tissues*. *Am J Pathol*, 1992. **141**(6) : p. 1397-408.
- Nacher, M., et al., *Physiological contribution of CD44 as a ligand for E-Selectin during inflammatory T-cell recruitment*. *Am J Pathol*, 2011. **178**(5) : p. 2437-46.
- Nakamori, S., et al., *Increased expression of sialyl Lewisx antigen correlates with poor survival in patients with colorectal carcinoma : clinicopathological and immunohistochemical study*. *Cancer Res*, 1993. **53**(15) : p. 3632-7.
- Nakanishi, Y., et al., *CD8(+) T lymphocyte mobilization to virus-infected tissue requires CD4(+) T-cell help*. *Nature*, 2009. **462**(7272) : p. 510-3.
- Namvar, L., et al., *Detection and typing of Herpes Simplex virus (HSV) in mucocutaneous samples by TaqMan PCR targeting a gB segment homologous for HSV types 1 and 2*. *J Clin Microbiol*, 2005. **43**(5) : p. 2058-64.
- Nashan, B., et al., *Review of cytomegalovirus infection findings with mammalian target of rapamycin inhibitor-based immunosuppressive therapy in de novo renal transplant recipients*. *Transplantation*, 2012. **93**(11) : p. 1075-85.

-
- Nimrichter, L., et al., *E-selectin receptors on human leukocytes*. Blood, 2008. **112**(9) : p. 3744-52.
- Nordén, R., et al., *Activation of host antiviral RNA-sensing factors necessary for herpes simplex virus type 1-activated transcription of host cell fucosyltransferase genes FUT3, FUT5, and FUT6 and subsequent expression of sLe(x) in virus-infected cells*. Glycobiology 2009 Jul ;**19**(7):776-88.
- Nordén, R., et al., *Virus-induced appearance of the selectin ligand sLex in herpes simplex virus type 1-infected T cells : Involvement of host and viral factors*. Glycobiology 2013. Mar ;**23**(3):310-21.
- Nordén, R., et al., *Involvement of viral glycoprotein gC-1 in expression of the selectin ligand sialyl-Lewis X induced after infection with herpes simplex virus type 1*. APMIS 2013 Apr ;**121**(4):280-9.
- Norman, K.E., et al., *Leukocyte rolling in vivo is mediated by P-selectin glycoprotein ligand-1*. Blood, 1995. **86**(12) : p. 4417-21.
- Nyström, K., et al., *Induction of sialyl-Lex expression by herpes simplex virus type 1 is dependent on viral immediate early RNA-activated transcription of host fucosyltransferase genes*. Glycobiology 2009 Aug ;**19**(8):847-59.
- Nystrom, K., et al., *Real time PCR for monitoring regulation of host gene expression in herpes simplex virus type 1-infected human diploid cells*. Journal of Virological Methods, 2004. **118**(2) : p. 83-94.
- Nystrom, K., et al., *Virus-induced transcriptional activation of host FUT genes associated with neo-expression of Ley in cytomegalovirus-infected and sialyl-Lex in varicella-zoster virus-infected diploid human cells*. Glycobiology, 2007. **17**(4) : p. 355-66.
- Ohmori, K., et al., *A distinct type of sialyl Lewis X antigen defined by a novel monoclonal antibody is selectively expressed on helper memory T cells*. Blood, 1993. **82**(9) : p. 2797-805.
- Ohmori, K., et al., *Identification of cutaneous lymphocyte-associated antigen as sialyl 6-sulfo Lewis X, a selectin ligand expressed on a subset of skin-homing helper memory T cells*. Blood, 2006. **107**(8) : p. 3197-204.
- Owers, D.S., et al., *Pre-emptive treatment for cytomegalovirus viraemia to prevent cytomegalovirus disease in solid organ transplant recipients*. Cochrane Database Syst Rev, 2013. 2 : p. CD005133.
- Reusser, P., et al., *Cytomegalovirus (CMV)-specific T cell immunity after renal transplantation mediates protection from CMV disease by limiting the systemic virus load*. J Infect Dis, 1999. **180**(2) : p. 247-53.
- Robert, C., et al., *Interaction of dendritic cells with skin endothelium : A new perspective on immunosurveillance*. J Exp Med, 1999. **189**(4) : p. 627-36.
- Roizman, B. and A.E. Sears, *An inquiry into the mechanisms of herpes simplex virus latency*. Annu Rev Microbiol, 1987. **41** : p. 543-71.

-
- Roseman, S., *The synthesis of complex carbohydrates by multiglycosyltransferase systems and their potential function in intercellular adhesion*. Chem Phys Lipids, 1970. **5**(1) : p. 270-97.
- Rubin, R.H., *The indirect effects of cytomegalovirus infection on the outcome of organ transplantation*. JAMA, 1989. **261**(24) : p. 3607-9.
- Sacher, T., et al., *Shedding light on the elusive role of endothelial cells in cytomegalovirus dissemination*. PLoS Pathog, 2011. **7**(11) : p. e1002366.
- Sakuma, K., M. Aoki, and R. Kannagi, *Transcription factors c-Myc and CDX2 mediate E-selectin ligand expression in colon cancer cells undergoing EGF/bFGF-induced epithelial-mesenchymal transition*. Proc Natl Acad Sci U S A, 2012. **109**(20) : p. 7776-81.
- Screaton, G.R., et al., *Genomic structure of DNA encoding the lymphocyte homing receptor CD44 reveals at least 12 alternatively spliced exons*. Proc Natl Acad Sci U S A, 1992. **89**(24) : p. 12160-4.
- Scrivano, L., et al., *HCMV spread and cell tropism are determined by distinct virus populations*. PLoS Pathog, 2011. **7**(1) : p. e1001256.
- Seckert, C.K., et al., *Viral latency drives 'memory inflation' : a unifying hypothesis linking two hallmarks of cytomegalovirus infection*. Med Microbiol Immunol, 2012. **201**(4) : p. 551-66.
- Sen, N., et al., *Signal transducer and activator of transcription 3 (STAT3) and survivin induction by varicella-zoster virus promote replication and skin pathogenesis*. Proc Natl Acad Sci U S A, 2012. **109**(2) : p. 600-5.
- Serpa, J., et al., *Expression of Lea in gastric cancer cell lines depends on FUT3 expression regulated by promoter methylation*. Cancer Lett, 2006. **242**(2) : p. 191-7.
- Shapiro, R.S., et al., *Epstein-Barr virus associated B cell lymphoproliferative disorders following bone marrow transplantation*. Blood, 1988. **71**(5) : p. 1234-43.
- Sheridan, B.S., J.E. Knickelbein, and R.L. Hendricks, *CD8 T cells and latent herpes simplex virus type 1 : keeping the peace in sensory ganglia*. Expert Opin Biol Ther, 2007. **7**(9) : p. 1323-31.
- Simon, C.O., et al., *CD8 T cells control cytomegalovirus latency by epitope-specific sensing of transcriptional reactivation*. J Virol, 2006. **80**(21) : p. 10436-56.
- Sinzger, C., M. Digel, and G. Jahn, *Cytomegalovirus cell tropism*. Curr Top Microbiol Immunol, 2008. **325** : p. 63-83.
- Sperandio, M., et al., *P-selectin glycoprotein ligand-1 mediates L-selectin-dependent leukocyte rolling in venules*. J Exp Med, 2003. **197**(10) : p. 1355-63.
- Sperandio, M., *Selectins and glycosyltransferases in leukocyte rolling in vivo*. FEBS J, 2006. **273**(19) : p. 4377-89.
- Sperandio, M., C.A. Gleissner, and K. Ley, *Glycosylation in immune cell trafficking*. Immunol Rev,

2009. **230**(1) : p. 97-113.

St Hill, C.A., et al., *The high affinity selectin glycan ligand C2-O-sLex and mRNA transcripts of the core 2 beta-1,6-N-acetylglucosaminyltransferase (C2GnT1) gene are highly expressed in human colorectal adenocarcinomas*. BMC Cancer, 2009. **9** : p. 79.

Steedmaier, M., et al., *The E-selectin-ligand ESL-1 is a variant of a receptor for fibroblast growth factor*. Nature, 1995. **373**(6515) : p. 615-20.

Steiner, I., P.G. Kennedy, and A.R. Pachner, *The neurotropic herpes viruses : herpes simplex and varicella-zoster*. Lancet Neurol, 2007. **6**(11) : p. 1015-28.

Steininger, C., *Clinical relevance of cytomegalovirus infection in patients with disorders of the immune system*. Clin Microbiol Infect, 2007. **13**(10) : p. 953-63.

Svahn, A., et al., *Changes in seroprevalence to four herpesviruses over 30 years in Swedish children aged 9-12 years*. J Clin Virol, 2006. **37**(2) : p. 118-23.

Tang, W., et al., *Atypical Epstein-Barr viral genomic structure in lymphoma tissue and lymphoid cell lines*. Diagn Mol Pathol, 2013. **22**(2) : p. 91-101.

Tenno, M., et al., *Initiation of protein O glycosylation by the polypeptide GalNAcT-1 in vascular biology and humoral immunity*. Mol Cell Biol, 2007. **27**(24) : p. 8783-96.

Tiemeyer, M., et al., *Carbohydrate ligands for endothelial-leukocyte adhesion molecule 1*. Proc Natl Acad Sci U S A, 1991. **88**(4) : p. 1138-42.

Thorley-Lawson, D.A. and A. Gross, *Persistence of the Epstein-Barr virus and the origins of associated lymphomas*. N Engl J Med, 2004. **350**(13) : p. 1328-37.

Toczyski, D.P., et al., *The Epstein-Barr virus (EBV) small RNA EBER1 binds and relocalizes ribosomal protein L22 in EBV-infected human B lymphocytes*. Proc Natl Acad Sci U S A, 1994. **91**(8) : p. 3463-7.

Torti, N. and A. Oxenius, *T cell memory in the context of persistent herpes viral infections*. Viruses, 2012. **4**(7) : p. 1116-43.

Tortorella, D., et al., *Viral subversion of the immune system*. Annu Rev Immunol, 2000. **18** : p. 861-926.

van Leeuwen, E.M., et al., *Emergence of a CD4+CD28- granzyme B+, cytomegalovirus-specific T cell subset after recovery of primary cytomegalovirus infection*. J Immunol, 2004. **173**(3) : p. 1834-41.

Varki, A., *Selectin ligands*. Proc Natl Acad Sci U S A, 1994. **91**(16) : p. 7390-7.

Varki, A., *Essentials of glycobiology*. 2nd ed. 2009, Cold Spring Harbor, N.Y. : Cold Spring Harbor Laboratory Press. xxix, 784 p.

Varki, A., J.D. Esko, and K.J. Colley, *Cellular Organization of Glycosylation, in Essentials of Glycobiology*, A. Varki, et al., Editors. 2009 : Cold Spring Harbor (NY).

Wagers, A.J., et al., *Expression of leukocyte fucosyltransferases regulates binding to E-selectin : relationship to previously implicated carbohydrate epitopes*.

J Immunol, 1997. **159**(4) : p. 1917-29.

Wagner, H.J., et al., *Prompt versus preemptive intervention for EBV lymphoproliferative disease*. Blood, 2004. **103**(10) : p. 3979-81.

Weninger, W., et al., *Specialized contributions by alpha(1,3)-fucosyltransferase-IV and FucT-VII during leukocyte rolling in dermal microvessels*. Immunity, 2000. **12**(6) : p. 665-76.

White, D.W., R. Suzanne Beard, and E.S. Barton, *Immune modulation during latent herpesvirus infection*. Immunol Rev, 2012. **245**(1) : p. 189-208.

Wilkins, P.P., R.P. McEver, and R.D. Cummings, *Structures of the O-glycans on P-selectin glycoprotein ligand-1 from HL-60 cells*. J Biol Chem, 1996. **271**(31) : p. 18732-42.

Wilson, I.B., Y. Gavel, and G. von Heijne, *Amino acid distributions around O-linked glycosylation sites*. Biochem J, 1991. **275** (Pt 2) : p. 529-34.

Wilson, A.C. and I. Mohr, *A cultured affair : HSV latency and reactivation in neurons*. Trends Microbiol, 2012. **20**(12) : p. 604-11.

Xia, L., et al., *P-selectin glycoprotein ligand-1-deficient mice have impaired leukocyte tethering to E-selectin under flow*. J Clin Invest, 2002. **109**(7) : p. 939-50.

Xuan, L., et al., *Spectrum of Epstein-Barr virus-associated diseases in recipients of allogeneic hematopoietic stem cell transplantation*. Transplantation, 2013. **96**(6) : p. 560-6.

Yin, X., et al., *Knockdown of fucosyltransferase III disrupts the adhesion of circulating cancer cells to E-selectin without affecting hematopoietic cell adhesion*. Carbohydr Res, 2010. **345**(16) : p. 2334-42.

Zarbock, A., et al., *PSGL-1-dependent myeloid leukocyte activation*. J Leukoc Biol, 2009. **86**(5) : p. 1119-24.

Zarbock, A., et al., *Leukocyte ligands for endothelial selectins : specialized glycoconjugates that mediate rolling and signaling under flow*. Blood, 2011. **118**(26) : p. 6743-51.