

Title (en)  
PREVENTION AND TREATMENT OF VIRAL DISEASE

Title (de)  
VERMEIDUNG UND BEHANDLUNG VON VIRALEN ERKRANKUNGEN

Title (fr)  
PREVENTION ET TRAITEMENT DE PATHOLOGIE VIRALE

Publication  
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Application  
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Abstract (en)  
[origin: WO0008043A2] The invention relates to the generation of Fusion-Related Molecular Structures (FRMS) which comprise one or more transitional fusion-related determinants. Highly effective vaccines may be constructed which present the fusion-related determinants to the immune system that engender unique antibodies capable of potentially neutralizing a broad range of primary isolates, from worldwide locations and from different phylogenetic viral clades. The present invention provides methods for formation, isolation and purification of the FRMS as well as the use of such FRMS in a variety of compositions and methods, including, for example, as vaccine immunogens, diagnostics, and therapeutics. The present invention concerns FRMS capable of eliciting neutralizing antibodies to viral pathogens and primary isolates of a virus. Antibodies raised to the FRMS can be used to study the molecular pathway toward fusion of the virus and host cell and to identify points of a possible antibody-mediated blockade to that pathway. The invention also relates to the use of antibodies of the invention for anti-viral agents, blood product additives, contraceptive additives passive immunization in post-exposure treatments or fetus immunization.

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Citation (search report)  
• [X] WHITE-SCHARF: "Broadly neutralizing monoclonal antibodies to the V3 region of HIV-1 can be elicited by peptide immunization", VIROLOGY, vol. 192, 1993, pages 197 - 206, XP002203539  
• [A] WYATT & SODROSKI: "The HIV-1 envelope glycoproteins: fusogens, antigens and immunogens", SCIENCE, vol. 280, 19 June 1998 (1998-06-19), pages 1884 - 1888, XP002203540  
• [A] THALI ET AL.: "Characterization of conserved human immunodeficiency virus type 1 gp120 neutralization epitopes exposed upon gp120-CD4 binding", J. VIROLOGY, vol. 67, no. 7, July 1993 (1993-07-01), pages 3978 - 3988, XP000579277  
• [PX] LACASSE ET AL.: "Fusion-competent vaccines: Broad neutralization of primary isolates of HIV", SCIENCE, vol. 283, 15 January 1999 (1999-01-15), pages 357 - 362, XP002120812 & NUNBERG, J.: "Retraction", SCIENCE, vol. 296, 10 May 2002 (2002-05-10), pages 1025  
• See references of WO 0008043A2

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