

Principal Investigator/Program Director (Last, First, Middle):

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
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NAME SCOTT-ALGARA, Daniel		POSITION TITLE	
eRA COMMONS USER NAME NA		Associate Professor in Retrovirus Biology Unit	
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
High school, Caracas, Venezuela	Baccalaureate	1970	Sciences
Central University of Venezuela, Sciences, Venezuela	Master degree	1974-1978	Human physiopathology
Central University of Venezuela, Medical School, Venezuela	M.D.	1972-1978	Medicine
Central University of Venezuela, Medical School, Venezuela	Residency	1980-1983	Internal Medicine
Institut Pasteur and University of Sciences, Paris, France	Master degree	1984-1986	Immunology
Institut Pasteur and University of Sciences, Paris, France	Ph.D.	1987-1992	Immunology

A. POSITIONS AND HONORS

Positions and Employment

- 1984-1984: Assistant Director of Emergency Room - University Hospital of Caracas, Venezuela
1984-1987: Associate Professor in the "Cancerology and Immunogenetic Institute (Unité Associée CNRS n°1163)
1987-1988: Associate Professor in the "Laboratory of Immunogenetic of Allotransplantation (INSERM U 267)"
1988-2002: Associate Professor in the "Immunohematology and Immunopathology Unit, Institut Pasteur"
2002 to present: Associate Professor and team leader in the "Retrovirus Biology Unit, Institut Pasteur"

Other Experience and Professional Memberships

- 1988-1990 Teaching: Lectures in Immunopathology.
1994-1997 Teaching: Lectures in Immunology.
1998-2002 Teaching: Director of Immunology Lectures in Institut Pasteur.
1995 to present Teaching: Lectures in Immunology for administration staff.
1995-1996 Teaching: Virology: Virokines and immune evasion (Paris V)
2003 to present Teaching: Immunology: Immune cellular responses against virus (ParisVI).
2003 to present Teaching: Fungal Diseases: Immunological responses against fungi (Paris V)
2005 Teaching: Immunology course in Vietnam.
1998 Scientific member of "Advisory Commission of the Valorisation of Research"
1999 to present Scientific member of "Innate immunity and VIH group", ANRS
2000 to present Scientific Consultant of "Sedac Therapeutics"
2003 to present Scientific member of "Scientific Committee 1: Interaction host-virus", ANRS
2000 to present Editorial Board of Transcriptase (French HIV review journal for medical doctors).
2004 to present President of Texcell Scientific Committee
Supervision of 1 Postdoctoral 2 Ph.D, 2 Master, 1 graduate

HONORS AND AWARDS

- 1996 Orden del Libertador clase I (Venezuela)

B. SELECTED PEER-REVIEWED PUBLICATIONS (IN CHRONOLOGICAL ORDER) AFTER 1992

- 1 - M. LAFON, M. LAFAGE, A. MARTINEZ-ARENDTS, R. RAMIREZ, F. VUILLIER, D. CHARRON, V. LOTTEAU, **D. SCOTT-ALGARA**. Evidence for a viral superantigen in humans. *Nature*, 358:507-510, 1992.
- 2 - M. HERZOG, M. LAFAGE, J.A. MONTANO-HIROSE, C. FRITZELL, **D. SCOTT-ALGARA**, M. LAFON. Nucleocapsid specific T and B cell responses in humans after rabies vaccination. *Virus Research*, 24:77-84, 1992.
- 3 - **D. SCOTT-ALGARA**, F. VUILLIER, A. CAYOTA, G. DIGHIRO. NK cell activity during human immunodeficiency virus infection: a decrease in natural killer activity is observed at the clonal level and is not restored after in vitro long term culture of natural killer cells. *Clinical and Experimental Immunology*, 90:181-187, 1992.
- 4 - L.A. SANTANA-BLANK, M. CASTES, M.E. ROJAS, F. VARGAS, **D. SCOTT-ALGARA**. Evaluation of serum levels of tumour necrosis factor-alpha (TNF-a) and soluble IL-2 receptor (sIL-2R) and CD4, CD8 and natural killer (NK) populations during infrared pulsed laser device (IPLD) treatment.

Principal Investigator/Program Director (Last, First, Middle):

- Clinical and Experimental Immunology, 90:43-48, 1992.
- 5 - A. CAYOTA, F. VUILLIER, **D. SCOTT-ALGARA**, V. FEUILLIE, G. DIGHIERO. Differential requirements for HIV-1 replication in naïve and memory CD4 T cells from asymptomatic HIV-1 seropositive carriers and AIDS patients. Clinical and Experimental Immunology, 91:541-248, 1993.
- 6 - **D. SCOTT-ALGARA**, F. VUILLIER, A. CAYOTA, V. RAME, D. GUETARD, M.L.J. MONCANY, M. MARASESCU, C. DAUGUET, and G. DIGHIERO. Non productive infection of purified NK cells by BRU isolate (human immunodeficiency virus type 1). Journal of General Virology, 74:725-731, 1993.
- 7 - **D. SCOTT-ALGARA**, M. LAFON, F. VUILLIER, G. PIALOUX, CH. DAUGUET, G. DIGHIERO. Viral superantigen-induced anergy of T cell and polyclonal B-cell activation in HIV-1 infection. European Journal of Immunology, 24:2595-2601, 1994.
- 8 - M. LAFON, **D. SCOTT-ALGARA**, P. MARCHE, P.-A. CAZENAVE, E. JOUVIN-MARCHE. Neonatal deletion and selective expansion of mouse T cells by exposure to Rabies virus nucleoprotein superantigen. Journal of Experimental Medicine, 180 (4): 1207-1215, 1994.
- 9 - F. VUILLIER, **D. SCOTT-ALGARA**, A. CAYOTA, J. SICILIANO, M.T. NUGEYRE, G. DIGHIERO. Flow cytometric analysis of protein-tyrosine phosphorylation in peripheral T cell subset. Application to healthy and HIV-seropositive subjects. Journal of Immunological Methods, 185:43-56, 1995.
- 10 - **D. SCOTT-ALGARA**, J.P. ABOULKER, E. BADELL, M. PRUD'HOMME, P. FLANDRE, F. RAFFI, G. PIALOUX for the ANRS 072 trial study group. CD4 T Cells Recovery Is Slower In Patients Experiencing Viral Load Rebounds During HAART. Clinical Experimental Immunology, 126(2): 295-303, 2001.
- 11 - **D. SCOTT-ALGARA**, F. BUSEYNE, C. JOUANNE, F. ROMAGNE, S. BLANCHE, C. ROUZIOUS, Y. RIVIERE. Frequency and characterization of Class I HLA-restricted anti HIV CD8+ T cells in perinatally infected children using MHC tetramers : relationship between cellular immune response and viral load. Journal of Infectious Diseases, 183(11): 1565-1573, 2001.
- 12 - F. VUILLIER, K. MALOUM, E.K. THOMAS, C. JOUANNE, G. DIGHIERO, **D. SCOTT-ALGARA**. Functional monocyte-derived dendritic cells can be generated in chronic lymphocytic leukemia. British Journal of Hematology, 115(4): 831-44, 2001.
- 13 - O. BUISSON, E. BADELL, G. DIGHIERO, **D. SCOTT-ALGARA**. Modulation of immune response by HIV-1 p24 protein: evidence for a differential effect in allogeneic response *in vitro*. Immunology, 21(2): 66-75, 2002.
- 14 - M. ALFONZO, D. BLANC, C. TROADEC, M. ELIASZEWICZ, G. GÓNZALEZ, **D. SCOTT-ALGARA**. Temporary restoration of immune response against *Toxoplasma gondii* in HIV-infected individuals after HAART, as studied in the hu-PBMC-SCID mouse model. Clinical Experimental Immunology, 129(3):411-9, 2002.
- 15 - M. A. OSTOS, D. RECALDE, M. M. ZAKIN, **D. SCOTT-ALGARA**. Implication of Natural Killer T cells in atherosclerosis development during a LPS-induced chronic inflammation. FEBS Letters, 519(1-3):23-9, 2002.
- 16 - F. BUSEYNE F., **D. SCOTT-ALGARA**, F. PORROT, B. CORRE, N. BELLAL, M. BURGARD, C. ROUZIOUX, S. BLANCHE, Y. RIVIÈRE. Frequencies of *ex vivo* activated HIV-specific IFN- γ producing CD8+ T cells in infected children are determined by viral replication. Journal of Virology, 76(24):12414-22, 2002.
- 17 - F. VUILLIER, K. MALOUM, E. K. THOMAS, C. MAGNAC, G. DUMAS, B. PAYELLE-BROGARD, P. OPPEZO, G. DIGHIERO, **D. SCOTT-ALGARA**. Idiotypic-pulsed dendritic cells are able to induce anti-tumoral cytotoxic CD8 cells in chronic lymphocytic leukemia. British Journal of Haematology, 120(2):243-50, 2003.
- 18 - M. ALFONZO, D. BLANC, C. TROADEC, M. ELIASZEWICZ, G. GÓNZALEZ, **D. SCOTT-ALGARA**. Partial restoration of cytokine profile despite Cytomegalovirus (CMV)-specific cell-mediated immunity reconstitution in HIV-infected patients during HAART. Scandinavian Journal of Immunology, 57(4):375-83, 2003.
- 19 - TRUONG X. L., LUONG T. TRAM, **D. SCOTT-ALGARA**, P. VERSMISSE, A. DAVID, D. PEREZ-BERCOFF, NGUYEN V. NGAI, TRAN KIM HUNG, CAO THU CUC, A. FONTANET, J.-Y. FOLLÉZOU, I. THEODOROU, F. BARRÉ-SINOUSSE, G. PANCINO. CD4+ cell and CD8+ cell mediated resistance to HIV-1 infection in a context of immune activation in exposed uninfected intravenous drug users in Vietnam AIDS, 17(10):1425-1434, 2003.
- 20 - **D. SCOTT-ALGARA**, P. VERSMISSE, A. DAVID, LUONG T. TRAM, NGUYEN V. NGAI, I. THEODOROU, TRUONG X. LIEN, F. BARRÉ-SINOUSSE, G. PANCINO. High NK cell cytolytic and secretory activity in HIV-1 exposed uninfected vietnamese intravenous drug users. Journal of Immunology, 171(11): 5663-67, 2003.
- 21 - D. RECALDE, M. A. OSTOS, E. BADELL, A.L. GARCIA-OTIN, J. PIDOUX, G. CASTRO, M. M. ZAKIN, **D. SCOTT-ALGARA**. Human apolipoprotein A-IV expression in apolipoprotein E-deficient mice reduces inflammatory and atherosclerotic effects of a chronic infection mimicked by LPS. Arteriosclerosis Thrombosis and Vascular Biology 24 (4): 756-761, 2004
- 22 - M. MANCINI-BOURGINE, H. FOANTAINÉ, **D. SCOTT-ALGARA**, S. POL, C. BRECHOT, M-L MICHEL. Induction of T-cell responses by hepatitis B DNA vaccine administered to chronic HBV carriers. Hepatology 40 (4): 874-882, 2004
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Principal Investigator/Program Director (Last, First, Middle):

- 23- C. CAPOULADE-MÉTAY, L. MA, LI. X. TRUONG, Y. DUDOIT, P. VERSMISSE, N. V. NGUYEN, M. NGUYEN, **D. SCOTT-ALGARA**, F. BARRÉ-SINOSSI, P. DEBRÉ, G. PANCINO AND I. THEODOROU. New CCR5 variants associated with decreased susceptibility to HIV infection in South-East Asian. *AIDS* 18 (17): 2243-2252, 2004
- 24- J. R. DOMÍNGUEZ-RODRÍGUEZ, V. CHAPARRO-HUERTA, G. HERNÁNDEZ-FLORES, P. C. GÓMEZ-CONTRERAS, J. M. LERMA-DÍAZ, P. C. ORTIZ-LAZARENO, R. CERVANTES-MUNGUIA, S. ORBACH-ARBOUYS, **D. SCOTT-ALGARA**, A BRAVO CUELLAR. In vivo adriamycin-induced apoptosis in peritoneal murine macrophages: partial participation of a caspase cascade. *Anticancer Research* 24 (5a): 2689-2696, 2004
- 25- J. R. DOMÍNGUEZ-RODRÍGUEZ, V. CHAPARRO-HUERTA, G. HERNÁNDEZ-FLORES, P. C. GÓMEZ-CONTRERAS, J. M. LERMA-DÍAZ, P. C. ORTIZ-LAZARENO, R. CERVANTES-MUNGUIA, S. ORBACH-ARBOUYS, **D. SCOTT-ALGARA** AND A. BRAVO CUELLAR. In vivo adriamycin-induced apoptosis in peritoneal murine macrophages: partial participation of a caspase cascade *Anticancer Research* 24 (5a): 2689-2696, 2004
- 26- **D. SCOTT-ALGARA**, F. BUSEYNE, F. PORROT, B. CORRE, C. ROUZIOUX, S. BLANCHE, Y. RIVIÈRE. A proportion of tetramer binding CD8 T cells are unable to produce cytokines or chemokines involved in the effector functions of cytotoxic T lymphocytes in HIV-infected infants. *J Clin Immunol.* 2005 Jan;25(1):57-67.
- 27- LERMA-DIAZ JM, HERNANDEZ-FLORES G, DOMINGUEZ-RODRIGUEZ JR, ORTIZ-LAZARENO PC, GOMEZ-CONTRERAS P, CERVANTES-MUNGUIA R, **SCOTT-ALGARA D** AGUILAR-LEMARROY A, JAVE-SUAREZ LF, BRAVO-CUELLAR A. In vivo and in vitro sensitization of leukemic cells to adriamycin-induced apoptosis by pentoxifylline. Involvement of caspase cascades and I κ B phosphorylation. *Immunol Lett.* 2006 Mar 15;103(2):149-58.
- 28- BUSEYNE F, **SCOTT-ALGARA D**, BELLAL N, BURGARD M, ROUZIOUX C, BLANCHE S, RIVIERE Y. The frequency of HIV-specific interferon- γ -producing CD8 T cells is associated with both age and level of antigenic stimulation in HIV-1-infected children. *J Infect Dis.* 2005 Nov 15;192(10):1781-6.
- 29- BUSEYNE F, CATTEAU A, **SCOTT-ALGARA D**, CORRE B, PORROT F, ROUZIOUX C, BLANCHE S, RIVIERE Y. A vaccinia-based elispot assay for detection of CD8+ T cells from HIV-1 infected children. *J Immunol Methods.* 2005 Mar;298(1-2):105-18.
- 30- L. MORTARA, MICKAËL J.-Y. PLOQUIN, A. FAYE, **D. SCOTT-ALGARA**, B. VASLIN, C. BUTOR, A. HOSMALIN, F. BARRÉ-SINOSSI, O. M. DIOP, AND M. C. MÜLLER-TRUTWIN. Phenotypic and functional characterization of myeloid dendritic cells derived from African green monkey blood monocytes *J Immunol Methods.* 2006 Jan 20;308(1-2):138-55
- 31- SCHMITT N, NUGEYRE MT, **SCOTT-ALGARA D**, CUMONT MC, BARRE-SINOSSI F, PANCINO G, ISRAEL N. Differential susceptibility of human thymic dendritic cell subsets to X4 and R5 HIV-1 infection. *AIDS.* 2006 Feb 28;20(4):533-542.
- 32- M. ALFONZO, **D. SCOTT-ALGARA**. Cell-mediated immune response is responsible of partial restoration against reactivation of toxoplasmosis in human reconstituted SCID mice. *Inmunologia* 24(3): 273-282, 2005.
- 33- K.BRETAUDEAU, O. ELOY, A.RICHER, F.BRUNEEL, **D. SCOTT-ALGARA**, O.LHORTHOLARY, F.PICO. Cryptococcal meningo-encephalitis in an apparently immunocompetent patient. *Rev Neurol (Paris).* 2006 Feb;162(2):233-7
- 34- HUNG TRAN K, LOÏC CHARTIER, LIEN TROUNG X., NGAI NGUYEN V., ARNAUD FONTANET, FRANÇOISE BARRE-SINOSSI, GIANFRANCO PANCINO AND **DANIEL SCOTT-ALGARA** Systemic immune activation in HIV-1-exposed Uninfected vietnamese intravascular drug users (In press, *Aids Research and Human Retrovirus*, March 2006)
- 35- F. BUSEYNE, **D. SCOTT-ALGARA**, B. CORRE, F. PORROT, N. BELLAL, M. BURGARD, C. ROUZIOUX, S. BLANCHE, Y. RIVIÈRE. Poor recognition of HIV-1 Nef protein by CD8+ T cells from HIV-1-infected children: impact of age. (in press)
- 36- F. BUSEYNE, **D. SCOTT-ALGARA**, B. CORRE, F. PORROT, N. BELLAL, M. BURGARD, C. ROUZIOUX, S. BLANCHE, Y. RIVIÈRE. Poor recognition of HIV-1 Nef protein by CD8+ T cells from HIV-1-infected children: impact of age. *Virology.* 354(2):271-279, 2006.
- 37- SAEZ-CIRION A, VERSMISSE P, TRUONG LX, CHAKRABARTI LA, CARPENTIER W, BARRE-SINOSSI F, **SCOTT-ALGARA D**, PANCINO G. Persistent resistance to HIV-1 infection in CD4 T cells from exposed uninfected Vietnamese individuals is mediated by entry and post-entry blocks. *Retrovirology.* 2006 Nov 8;3:81.
- 38- BEGAUD E, CHARTIER L, MARECHAL V, IPEROJ, LEAL J, VERSMISSE P, BRETON G, FONTANET A, CAPOULADE-METAY C, FLEURY H, BARRE-SINOSSI F, **SCOTT-ALGARA D**, PANCINO G. Reduced CD4 T cell activation and in vitro susceptibility to HIV-1 infection in exposed uninfected Central Africans. *Retrovirology.* 2006 Jun 22;3:35.
- 39- RAVET S, **SCOTT-ALGARA D**, BONNET E, TRAN HK, TRAN T, NGUYEN N, TRUONG LX, THEODOROU I, BARRE-SINOSSI F, PANCINO G, PAUL P. Distinctive NK-cell receptor repertoires sustain high-level constitutive NK-cell activation in HIV-exposed uninfected individuals. *Blood.* 2007 May 15;109(10):4296-305.
- 40- SCHMITT N, CUMONT MC, NUGEYRE MT, HURTREL B, BARRE-SINOSSI F, **SCOTT-ALGARA D** ISRAEL N Ex vivo characterization of human thymic dendritic cell subsets. *Immunobiology.* 2007;212(3):167-77.
- 41 - ORTIZ-LAZARENO, P; HERNANDEZ-FLORES, G; DOMÍNGUEZ-RODRÍGUEZ, J; GÓMEZ-CONTRERAS, P; LERMA-DÍAZ, J; JAVE-SUÁREZ, L; AGUILAR-LEMARROY, A; **SCOTT-ALGARA, D**; BRAVO-CUELLAR, A. MG132 proteasome inhibitor
-

Principal Investigator/Program Director (Last, First, Middle):

modulates TNF- α , IL-1 β , and IL-6 production and expression of their soluble and membrane receptors in U937 cells: involvement of NF- κ B and AP-1. Immunology, 2008 in press.
