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Personal data

Born: 7 March 1949, Birkenhead, England
Nationality: British
Married: Alexandra Livingstone
Children: Alan and Graham Mosmann
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Education

1968 B.Sc. (Chemistry and Physiology) University of Natal, South Africa
1969 B.Sc. (Hons) (Microbiology) Rhodes University, South Africa
1973 Ph.D. (Microbiology) University of British Columbia, Canada

Employment

1973-75 MRC Fellow, Dept. of Immunology, Hospital for Sick Children, Toronto. (R. Bauml)
1975-77 MRC Centennial Fellow, Glasgow University, Dept. of Biochemistry. (A.R. Williamson)
1977-81 Assistant Professor, Dept. of Immunology, Univ. of Alberta, Edmonton, Canada; Principal Investigator, MRC Group on Immunoregulation
1981-81 Scholar, Alberta Heritage Fund for Medical Research
1982-90 Senior Scientist, DNAX Research Institute, Palo Alto, California
1990-95 Professor and Chair, Dept. of Immunology, Univ. of Alberta, Edmonton, Canada.
1996-98 Professor, Dept. of Medical Microbiology and Immunology, Univ. of Alberta.
1998- Michael and Angela Pichichero Director, David H. Smith Center for Vaccine Biology and Immunology, and Professor of Microbiology and Immunology, University of Rochester.

Professional activities:

1990-94 NIH grant review panel, Allergy and Immunology.
1991-94 MRC grant review panel, Immunology and Transplantation.
1991-92 Advisory Committee, Biotechnology, Alberta Research Council.
1992-95 Connaught University research program grants committee.
1992-99 Editorial Board, Immunology Today
1994-97 Chair, MRC grant review panel, Immunology and Transplantation.
1995 NIH Special Study Section, Basic Mechanisms underlying autoimmune trials
1995-98 Scientific Advisory Board, Genzyme Diagnostics
1998-2004 Scientific Advisory Board, MedCell Biologics, Inc.

Honours and Awards.

- 1975-77 Centennial Fellow, MRC of Canada.
- 1991-96 International Research Scholar, Howard Hughes Medical Institute.
- 1993 Bernhard Cınader Lectureship, Canadian Society for Immunology.
- 1994 Avery-Landsteiner Prize, German Society for Immunology
- 1995- Fellow of the Royal Society of Canada
- 1996-99 NIH Fogarty Scholar-in-Residence, 12 months total
- 1997-2001 International Research Scholar, Howard Hughes Medical Institute.
- 1997 William B. Coley Award, Cancer Research Institute (USA)
- 1997 ASTECH award for Outstanding Leadership in Alberta Science
- 2002- Highly Cited Researcher, Institute for Scientific Information.
- 2005 1986 paper “Mosmann, T.R., Cherwinski, H., Bond, M.W., Giedlin, M.A., Coffman, R.L. Two types of murine helper T cell clone. I. Definition according to profiles of lymphokine activities and secreted proteins.” selected as a “Pillar of Immunology” by J. Immunology.
- 2008 Paul Ehrlich/Ludwig Darmstaedter Prize

PATENTS:

1. United States Patent 4,690,893 1987
Hybridoma cell lines producing monoclonal antibodies which specifically bind to mouse interleukin-2.
Mosmann; T. R.
2. United States Patent 5,001,230 1991
T cell activation markers
Brown; K. D., Mosmann; T.R., Zurawski, G., Zurawski, S.M.
3. United States Patent 5,017,691 1991
Mammalian interleukin-4
Lee, F., Yokota, T., Arai, K., Mosmann, T.R., and Rennick, D.
4. United States Patent 5,136,022 1992
T cell activation markers
Brown, K.D., Mosmann, T.R., Zurawski, G. and Zurawski, S.M.
5. United States Patent 5,231,012 1992
Nucleic acids encoding cytokine synthesis inhibitory factor (interleukin-10)
Mosmann, T.R., Moore, K.W., Bond, M.W., and Vieira, P.J.M.
6. United States Patent 5,518,882 1996
Immunological methods of component selection and recovery
Lund, G., Wegmann, T.G. and Mosmann, T.R.
7. United States Patent 5,552,304 1996
cDNA clones coding for human protein exhibiting a broad cellular activity spectrum (human interleukin-4)
Lee, F., Yokota, T., Arai, K., Mosmann, T.R. and Rennick, D.
8. United States Patent 5,656,266 1997
Method of using interleukin-4
Lee, F., Yokota, T., Arai, K., Mosmann, T.R., and Rennick, D.
9. United States Patent 5,730,970 1998
Pharmaceutical compositions comprising human interleukin-4 (IL-4)
Lee, F., Yokota, T., Arai, K., Mosmann, T.R., and Rennick, D.
10. United States Patent 5,807,996 1998
Fused polypeptides comprising Interleukin-4 polypeptide fragments
Lee, F., Yokota, T., Arai, K., Mosmann, T., and Rennick, D.
11. United States Patent 5,951,973, September 14, 1999
Use of interleukin-4 (IL-4) to treat rheumatoid arthritis
Lee, F., Yokota, T., Arai, K., Mosmann, T. and Rennick, D.
12. United States Patent 5,955,315 1999
Nucleic acids encoding human Interleukin-4
Lee, F., Yokota, T., Arai, K., Mosmann, T., and Rennick, D.
13. United States Patent 6,018,036 2000
Nucleic acids encoding cytokine synthesis inhibitory factor (Interleukin-10)
Mosmann, T.R., Moore, K.W., Bond, M.W. and Vieira, P.J.M.
14. United States Patent 6,207,154, March 27, 2001

Methods of treatment using antagonists of cytokine synthesis inhibitory factor
Mosmann, T.R., Moore, K.W., Bond, M.W. and Vieira, P.J.M.

15. United States Patent 6,217,857 2001
Cytokine synthesis inhibitory factor (IL-10) and pharmaceutical compositions thereof
Mosmann, T.R., Moore, K.W., Bond, M.W. and Vieira, P.J.M.
16. United States Patent 6,239,260 May 29, 2001
Binding compositions specific for interleukin-10
Mosmann, T.R., Moore, K.W., Bond, M.W. and Vieira, P.J.M.
17. United States Patent 6,312,680 Nov.6, 2001
Methods of treatment using cytokine synthesis inhibitory factor
Mosmann, T.R., Moore, K.W., Bond, M.W. and Vieira, P.J.M.

PUBLICATIONS

Peer reviewed:

1. Mosmann, T.R. and Woods, D.R. Pigment from two different coloured strains of *Serratia Marcescens*. *J.S.African Chem.Inst.* 23:197-199, 1970.
2. Woods, D.R., Mosmann, T.R., Hanson, S. and Hendry, D.A. Pigmentation and acriflavine resistance in *Serratia marcescens*. *J.Bacteriol.* 108:765-769, 1971.
3. Mosmann, T.R. and Hudson, J.B. Some properties of the genome of murine cytomegalovirus (MCV). *Virology.* 54:135-149, 1973.
4. Mosmann, T.R. and Hudson, J.B. Structural and functional heterogeneity of the murine cytomegalovirus genome. *Virology.* 62:175-183, 1974.
5. Mosmann, T.R. and Baumal, R. Synthesis but not secretion of J chain by variant mouse myeloma cells which lose alpha-chain-synthesizing ability. *J.Immunol.* 115:955-962, 1975.
6. Hudson, J.B., Misra, V. and Mosmann, T.R. Cytomegalovirus infectivity: analysis of the phenomenon of centrifugal enhancement of infectivity. *Virology.* 72:235-243, 1976.
7. Hudson, J.B., Misra, V. and Mosmann, T.R. Properties of the multicapsid virions of murine cytomegalovirus. *Virology.* 72:224-234, 1976.
8. Mosmann, T.R. and Baumal, R. Macroscopic cloning assay using complement fixation to isolate secretion variants of myeloma cells. *J.Immunol.Methods.* 10:119-125, 1976.
9. Mosmann, T.R., Gravel, Y., Williamson, A.R. and Baumal, R. Modification and fate of J chain in myeloma cells in the presence and absence of polymeric immunoglobulin secretion. *Eur.J.Immunol.* 8:94-101, 1978.
10. Longenecker, B.M., Mosmann, T.R. and Shiozawa, C. A strong preferential response of mice to polymorphic antigenic determinants of the chicken MHC, analysed with mouse hybridoma (monoclonal) antibodies. *Immunogen.* 9:137-147, 1979.
11. Mosmann, T.R., Baumal, R. and Williamson, A.R. Mutations affecting immunoglobulin light chain secretion by myeloma cells. I. Functional analysis by cell fusion. *Eur.J.Immunol.* 9:511-516, 1979.
12. Wegmann, T.G., Mosmann, T.R., Carlson, G.A., Olijnyk, O. and Singh, B. The ability of the murine placenta to absorb monoclonal anti-fetal H-2K antibody from the maternal circulation. *J.Immunol.* 123:1020-1023, 1979.
13. Longenecker, B.M. and Mosmann, T.R. Restricted expression of an MHC alloantigen in cells of the erythroid series: a specific marker for erythroid differentiation. *J.Supramol.Struct.* 13:395-400, 1980.
14. Longenecker, B.M. and Mosmann, T.R. "Natural" antibodies to chicken MHC antigens are present in mice, rats, humans, alligators and allogeneic chickens. *Immunogen.* 11:293-302, 1980.
15. Mosmann, T.R. and Williamson, A.R. Structural mutations in a mouse immunoglobulin light chain resulting in failure to be secreted. *Cell* 20:283-292, 1980.
16. Mosmann, T.R., Gallatin, M. and Longenecker, B.M. Alteration of apparent specificity of monoclonal (hybridoma) antibodies recognizing polymorphic histocompatibility and blood group determinants. *J.Immunol.* 125:1152-1156, 1980.
17. Wegmann, T.G., Barrington-Leigh, J., Carlson, G., Mosmann, T.R., Raghupathy, R. and Singh, B. Quantitation of the capacity of the mouse placenta to absorb monoclonal antifetal H2K antibody. *J.Repro.Immunol.* 2:53-59, 1980.
18. Bleackley, R.C., Caplan, B., Havele, C., Ritzel, R.G., Mosmann, T.R., Farrar, J.J. and Paetkau, V. Translation of lymphocyte mRNA into biologically-active Interleukin 2 in oocytes. *J.Immunol.* 127:2432-2435, 1981.
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20. Mackie, E.B., Mosmann, T.R., Bryan, L.E. and Longenecker, B.M. A strong, specific response of mice to serotype-specific antigenic determinants of *Neisseria meningitidis*, analyzed with mouse monoclonal antibodies. *J.Immunol.* 127:387-388, 1981.
 21. Hozumi, N., Wu, G., Murialdo, H., Baumal, R., Mosmann, T.R., Winberry, L. and Marks, A. Arrangement of lambda light chain genes in mutant clones of the MOPC 315 mouse myeloma cells. *J.Immunol.* 129:260-266, 1982.
 22. Lee, J.S., Dombroski, D.F. and Mosmann, T.R. Specificity of autoimmune monoclonal Fab fragments binding to single-stranded deoxyribonucleic acid. *Biochemistry* 21:4940-4945, 1982.
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 31. Giedlin, M.A., Longenecker, B.M. and Mosmann, T.R. Murine T-cell clones specific for chicken erythrocyte alloantigens. *Cell.Immunol.* 97:357-370, 1986.
 32. Krowka, J.F., Singh, B., Fotedar, A., Mosmann, T.R., Giedlin, M.A. and Pilarski, L.M. A requirement for physical linkage between determinants recognized by helper molecules and cytotoxic T cell precursors in the induction of cytotoxic T cell responses. *J.Immunol.* 136:3561-3566, 1986.
 33. Lee, F., Yokota, T., Otsuka, T., Meyerson, P., Villaret, D., Coffman, R., Mosmann, T.R., Rennick, D., Roehm, N., Smith, C., Zlotnik, A. and Arai, K. Isolation and characterization of a mouse interleukin cDNA clone that expresses B-cell stimulatory factor 1 activities and T-cell- and mast-cell-stimulating activities. *Proc.Natl.Acad.Sci.USA.* 83:2061-2065, 1986.
 34. Mosmann, T.R., Bond, M.W., Coffman, R.L., Ohara, J. and Paul, W.E. T-cell and mast cell lines respond to B-cell stimulatory factor 1. *Proc.Natl.Acad.Sci.USA.* 83:5654-5658, 1986.
 35. Mosmann, T.R., Cherwinski, H., Bond, M.W., Giedlin, M.A. and Coffman, R.L. Two types of murine helper T cell clone. I. Definition according to profiles of lymphokine activities and secreted proteins. *J.Immunol.* 136:2348-2357, 1986.
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- J.E., Lee, F. and Arai, K. Isolation and characterization of a human interleukin cDNA clone, homologous to mouse B-cell stimulatory factor 1, that expresses B-cell- and T-cell-stimulating activities. *Proc.Natl.Acad.Sci.USA.* 83:5894-5898, 1986.
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 39. Cher, D.J. and Mosmann, T.R. Two types of murine helper T cell clone. II. Delayed-type hypersensitivity is mediated by TH1 clones. *J.Immunol.* 138:3688-3694, 1987.
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 41. Coffman, R.L., Shrader, B., Carty, J., Mosmann, T.R. and Bond, M.W. A mouse T cell product that preferentially enhances IgA production. I. Biologic characterization. *J.Immunol.* 139:3685-3690, 1987.
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 51. Schumacher, J.H., O'Garra, A., Shrader, B., van Kimmenade, A., Bond, M.W., Mosmann, T.R. and Coffman, R.L. The characterization of four monoclonal antibodies specific for mouse IL5 and development of mouse and human IL5 enzyme-linked immunosorbent assays. *J.Immunol.* 141:1576-1581, 1988.
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 58. DeKruyff, R.H., Mosmann, T.R. and Umetsu, D.T. Induction of Antibody Synthesis by CD4+ T-Cells - IL5 Is Essential for Induction of Antigen-Specific Antibody Responses by Th2 But Not Th1 Clones. *Eur.J.Immunol.* 20:2219-2227, 1990.
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