

CURRICULUM VITAE

Randall Ellis Morris, M.D., F.R.C.P.

This website is under construction, and information since 2008 is being added.

PERSONALIA

Present Position Head of Therapeutic Sciences for Transplantation & Immunology

Office Address: Novartis AG
Immunology & Infectious Diseases (IID)
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Place of Birth: San Mateo, California, USA

Citizenship: U.S.A.

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

EDUCATION & DEGREES

| Degree | Institution | Major Field | Dates |
|---------------|---|---|--------------|
| | Westminster Public School, London, England | Biology | 1963 – 1966 |
| A.B. | Stanford University | Biology (Honors in Molecular Biology) (Degree Conferred 1970) | 1966 – 1969 |
| M.D. | Stanford University | Medicine Transplantation Immunology (NIH Medical Scientist Training Program) | 1969 – 1976 |
| F.R.C.P. | Fellow of Royal College of Physicians (Glasgow) | | 2008 |

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

RESEARCH AND PROFESSIONAL EXPERIENCE

- 2006 – present Head of Therapeutic Sciences for Transplantation & Immunology Immunology & Infectious Diseases (IID), Novartis AG, Basel Switzerland
- 2004 – present Research Professor of Cardiothoracic Surgery (Emeritus), Stanford University School of Medicine, Stanford, California
- 2004 - 2006 Translational Medicine Head for Transplantation, Exploratory Development, Novartis AG, Basel Switzerland
- 2004 - 2006 Global Head of Transplantation Research (Autoimmune Disease and Transplantation Disease Area) Novartis Institutes for Biomedical Research (NIBR), Novartis AG, Basel, Switzerland
- 2002 – 2004 Global Head of Transplantation and Immunology Therapeutic Area, NIBR, Novartis AG, Basel, Switzerland
- 1995 - 2004 Research Professor of Cardiothoracic Surgery and, by courtesy in the Department of Surgery and the Department of Medicine, and Director of Transplantation Immunology in the Department of Cardiothoracic Surgery, Stanford University School of Medicine.
- 1983 - 1995 Senior Research Scientist and Director, Laboratory of Transplantation Immunology, Department of Cardiothoracic Surgery, Stanford University School of Medicine.
- 1977 - 1983 Residency in General Surgery (Chief Resident in Renal Transplantation) and Research Fellowship in Immunology in the

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Departments of Surgery and Pediatrics at the University of Wisconsin Health Sciences Center, Madison, WI.

- 1976 - 1977 Intern in Surgery at Stanford University Hospital.
- 1971 - 1976 NIH Medical Scientist Training Program in the Department of Cardiovascular Surgery (Transplantation Immunology), Stanford University School of Medicine.
- 1970 - 1971 NIH Medical Scientist Training Program in the Division of Renal Transplantation, Department of Surgery, Stanford University School of Medicine.
- 1967 - 1969 Undergraduate Research Student (four quarters/yr) in the Division of Medical Genetics, Department of Medicine, Stanford University School of Medicine.

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HONORS AND AWARDS

- N.I.H. Medical Scientist Training Program, 1970-1976
- Stanford Medical School Alumni Award - Medical Scholar for 1972
- American College of Surgeons Schering Award, 1980
- President's Award, Meeting of the International Society for Heart and Lung Transplantation, 1990
- Karolinska Institute Huddinge Transplant Medal, Annual Meeting of the Swedish Society for Medical Science, Stockholm, Sweden, 1991
- Award for Best Poster Presentation, Meeting of the International Society for Heart and Lung Transplantation, 1992
- Upjohn Lecture to the joint session of the annual meetings of the American Society of Transplant Physicians and American Society of Transplant Surgeons, 1992
- Eurotransplant 25th Anniversary Lecture, 1992, Leiden, The Netherlands
- Outstanding Speaker Award, American Association for Clinical Chemistry, 1994
- European Society for Organ Transplantation Biannual Congress, State of the Art Lecture: Molecular Mechanisms of New Immunosuppressants, 1995, Vienna, Austria
- European Society for Organ Transplantation Award for Highest Ranked Abstract, Vienna Congress, 1995

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- *San Francisco Focus Magazine* - Bay Area Brain Trust: Top 101, 1995
- President, International Conference on New Trends in Clinical and Experimental Immunosuppression, Geneva, Switzerland, 1996
- Royal Society of Medicine, Anglo/American Visiting Fellow in Transplantation, 1996
- Councillor, International Society of Transplantation, 1994-1996; 2000-2006
- Elected Honorary Scientific Member, American Society of Transplant Surgeons, 1998-present
- Keynote Speaker, Tenth Annual Meeting of the German Transplantation Society, Regensburg, Germany, 2000
- Honorary Member, German Transplantation Society, 2000.
- Andrew Lazarovits Memorial Lecture of the Canadian Society of Transplantation, 2003.
- Fellow of the Royal College of Physicians (Glasgow), 2008

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

RESEARCH GRANTS

- NIH Medical Scientist Training Program Award, 1970-1976
- Orthotopic Heart Transplantation, (N.E. Shumway, Principal Investigator) NHLBI, NIH, 1972-1975 American College of Surgeons Fellowship, 1979-1980
- Orthotopic Heart Transplantation, (N.E. Shumway, Principal Investigator), NHLBI, NIH, 1984-1987
- Orthotopic Heart Transplantation, (N.E. Shumway, Principal Investigator), NHLBI, NIH, 1987-1990
- Principal Investigator, (Pfizer) Studies to Evaluate CP-105,696 in a Murine Ear-Heart Transplant Model and in a Guinea Pig Delayed Graft Function Model, 1996-97
- Principal Investigator, Development of Leflunomide Analogues 1996-1999 (Hoechst-Marion-Roussel)
- Principal Investigator, Intl. Lung Transplant Database 1997-98 (Novartis Pharmaceuticals)
- Principal Investigator, Lung Transplant Drug Phase I Clinical Trial 1997-98 (Novartis Pharmaceuticals)
- Principal Investigator, Non-Human Primate Lung Transplant Research, 1997-99 (Novartis Pharmaceuticals)

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- Principal Investigator, Rapamycin as Treatment for Allograft Vasculopathy in Non-Human Primates, 1997-2001 (Wyeth-Ayerst Research)
- Principal Investigator, Immunosuppressant VX497 in Transplanted Rats, 1997-98 (Vertex Pharmaceuticals)
- Principal Investigator, Pharmacodynamic Drug monitoring of MMF, 1998-99 (Roche Laboratories)
- Principal Investigator, for New Immunosuppressant in Non-Human Primate Renal Transplants, 1998-99 (Pfizer Research)
- Principal Investigator, Evaluation of Monoclonal Antibodies in Non-Human Primate Renal Transplant, 1998-2001 (Genetics Institute)
- Principal Investigator, Evaluation of New Immunosuppressive Drug in Non-Human Primate Heart Transplants, 1998-2001 (Abbott Labs)
- Principal Investigator, Pharmacodynamic monitoring of MMF—A Study in Healthy Volunteers, 2000 (Roche Laboratories)
- Principal Investigator, Use of MMF to Reverse Graft Vascular Disease in Aortic Transplantation in Non-Human Primates, 1999-2000 (Roche Laboratories)
- Principal Investigator, 1999-2000 (Vascular Innovations)
- Principal Investigator, Immunosuppression in Xenotransplantation, 1999-2004 (Novartis Pharma)
- Principal Investigator, Study of Pharmacokinetics, Pharmacodynamics and Efficacy of FK778 in Non-Human Primate Renal Allograft Recipients, 1999-2001 (Fujisawa Healthcare)

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- Principal Investigator, Serine Proteinase Inhibitors in Organ Transplants, 2000-01 (Viron Therapeutics)
- Principal Investigator for Study of Pharmacokinetics, Pharmacodynamics and Efficacy of ISA-247 in Non-Human Primate Renal Allograft Recipients, 2001-2002 (Isotechnika, Inc.)
- Principal Investigator, Study of CP-690,550 Pharmacokinetics, Pharmacodynamics and Efficacy in Non-Human Primate Renal Allograft Recipients, 2001-2003 (Pfizer, Research)
- Co-Principal Investigator, A Phase 2, Randomized, Multicenter, Open-label Safety Study of ISA 247 and Cyclosporine (Neoral) in Post-Renal Transplant Patients, 2001-2003 (Isotechnika, Inc.)

FOUNDATION SUPPORT

- Hawes Foundation, 1983-1993
- Baxter Foundation, 1984
- HEDCO Foundation, 1985, 1988, 1994, 1998
- Dr. Ralph and Marian Falk Medical Research Trust 1994-2003

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EDITORIAL BOARDS

- 1990 - present Editorial Advisory Board, *Reviews in Contemporary Pharmacotherapy*
- 1991 – 1997 Editorial Board, *Transplantation*
- 1994 – 2002 Editorial Board, *Transplantation Proceedings*
- 1994 – 1996 Section Editor, *New Developments in Transplantation Medicine*
- 1995 – present Editorial Board, *Journal for Heart and Lung Transplantation*
- 1996 – present Editorial Board, *Transplantation Immunology*
- 1996 – present Editorial Board, *Current Opinion in Organ Transplantation*
- 1998 – 2002 Editor, *Graft-Journal of Organ and Cell Transplantation*
- 1998 – 2004 Editorial Board, *Transplant Infectious Diseases*
- 1999 – present Editorial Board, *Current Opinion in Anti-inflammatory and Immunomodulatory Drugs*
- 2000 – 2002 Associate Editor, *American Journal of Transplantation*

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ADVISORY ROLES

- 1981 – 1987 Costar Corp., Cambridge, MA
- 1981 – 1985 Sherwood Medical Inc., St. Louis, MO
- 1983 – 1985 Scientific Advisory Board, Tago, Inc., Burlingame, CA
- 1987 – 1990 Fujisawa Pharmaceutical Inc., Osaka, Japan
- 1987 – 1994 Syntex Pharmaceutical Inc., Palo Alto, CA
- 1988 – 1994 Bristol-Myers Pharmaceutical, Inc., Wallingford, CT
- 1988 – 1995 Genentech Inc., South San Francisco, CA
- 1988 – 2002 Wyeth-Ayerst Research, Inc., Princeton, NJ
- 1991 – 1999 Abbott Labs, Abbott Park, IL
- 1992 – 1993 Glycomed, Inc., Alameda, CA
- 1992 – 2000 Hoechst AG, Weisbaden, Germany
- 1993 – 1994 Roussel Uclaf, Romainville, France
- 1993 – 1994 F. Hoffmann La-Roche, Nutley, NJ
- 1994 – 1995 ALZA Corporation, Palo Alto, CA
- 1994 – 1995 GenPharm International, Sunnyvale, CA
- 1994 – 1997 Ortho Biotech, Raritan, NJ
- 1994 – 1995 Houghten Pharmaceuticals, Inc., San Diego, CA
- 1995 Pathology Council, International Society for Heart and Lung Transplantation
- 1995 Council on Cardiac Surgery, International Society for Heart and Lung Transplantation
- 1995 Council on Pulmonary Transplantation, International Society for Heart and Lung Transplantation
- 1995 Council on Pediatric Transplantation, International Society for Heart and Lung Transplantation
- 1995 – 2000 Signal Pharmaceuticals, Inc., San Diego, CA

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- 1995 – 1996 Ad Hoc Government Relations Committee, American Society of Transplantation
- 1995 – 1997 Agouron Pharmaceuticals, Inc., San Diego, CA
- 1995 – 1997 Procept Pharmaceuticals, Inc., San Diego, CA

- 1995 – 1998 Scientific Studies Committee, American Society of Transplantation
- 1996 Scientific Board, *Scientific Engineering*
- 1997 – 1998 Program Committee - Kidney I Subcommittee, American Society of Transplantation
- 1997 – 2000 Xenotransplantation Clinical Advisory Board, Imutran, Novartis, Cambridge, England
- 1997 – 2000 Imutran, Novartis, Cambridge, England
- 1997 External Reviewer, Transplantation Research, Novartis Research, Basel, Switzerland
- 1999 External Reviewer, Transplantation Research, Novartis Research, Basel, Switzerland
- 2001 External Reviewer, Transplantation Research, Novartis Research, Basel, Switzerland
- 1998 – 2002 Fujisawa Pharmaceuticals, Deerfield, IL
- 1998 – 2001 Genetics Institute, Andover, MA
- 1998 – 2001 Scientific Advisory Council, Abbott Laboratories, Abbott Park, IL
- 1999 – 2001 Chair, Xenotransplantation Committee, American Society of Transplantation, Morristown, NJ
- 1999 – 2002 Protein Design Labs, Research Management Committee, Fremont, CA

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MEMBERSHIPS (PAST AND PRESENT)

- The International Transplantation Society
- International Society for Heart and Lung Transplantation
- European Society for Organ Transplantation
- International Society for Immunopharmacology
- International Lectin Society
- American Association for the Advancement of Science
- International Association of Therapeutic Drug Monitoring and Clinical Toxicology
- American Society of Transplantation
- American Society of Transplant Surgeons
- Transplantation Society for Australia & New Zealand
- The Xenotransplantation Association (A Section of the Transplantation Society)
- The Transplant Infectious Disease Association

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PATENTS

- **Morris, R.E.:** Concanavalin A Dimers as Therapeutic Agents," U.S. Patent #4,889,842, issued 12/26/89.
- Gregory, C, **Morris, R.E.:** "Methods of Treating Hyperproliferative Vascular Disease," U.S. Patent 5,283,257, issued 2/94.
- **Morris, R.E,** Gregory, C.: "Method of Treating Hyperproliferative Vascular Disease," U.S. Patent 5,563,146, issued 10/8/96 (continuation).
- **Morris, R.E,** Drell, W., Fox R.: "Administration of Azaribine to Control Ongoing Rejection", issued 1996.
- **Morris, R.E.,** Drell, W., Fox R.: "Method for Inhibiting Allograft Rejection by the Administration of 6-Azauridine or its Triacetate Derivative," issued 1996.
- **Morris, R.E,** Bartlett, R.: "Method of Treating Hyperproliferative Vascular Disease," United States Patent #5,519,042, issued 5/21/96.
- **Morris, R.E,** Gregory, C.: "Method of Treating Hyperproliferative Vascular Disease with Rapamycin and Mycophenolic Acid," U.S. Patent #5,646,160, issued 7/8/97.
- **Morris, R.E,** Gregory, Clare R.: "Method of Treating Hyperproliferative Vascular Disease" United States Patent #5,665,728, issued 5/9/97.

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PUBLICATIONS

JOURNAL ARTICLES

1. **Morris RE** and Lucas ZJ.: Immunologic enhancement of rat kidney grafts: Evidence for peripheral action of homologous antiserum. *Transplant. Proc.*, 3:697-700, 1971.
2. **Morris RE**, Enomoto K, Kay GL, Dong E, and Shumway NE: Prolongation of rat renal allograft survival by chicken anti-rat lymphocyte globulin. *Transplant. Proc.*, 5:535-540, 1973.
3. Caves PK, Dong E Jr., **Morris RE**, and Shumway NE: The immunologic diagnosis of orthotopic cardiac allograft rejection in dogs. *Transplant. Proc.*, 5:745-748, 1973.
4. Caves PK, Dong E Jr., **Morris RE**, and Shumway NE.: Hyper-acute rejection of orthotopic cardiac allografts in dogs following solubilized antigen pretreatment. *Transplantation*, 16:252-256, 1973.
5. Souther SG, **Morris RE**, and Vistnes LM: Prolongation of rat cardiac allograft survival by splenectomy following transplantation. *Transplantation*, 17:317-319, 1974.
6. **Morris RE**, Dong E Jr., Struthers CM, Griep RB, Stinson EB, Billingham ME, and Shumway NE: Immunologic detection of human cardiac rejection, *Surgical Forum*, 25:282-284, 1974.
7. **Morris RE**, Souther S.G., Dong E Jr., Vistnes L.M., and Shumway N.E.: Prolongation of rat cardiac allograft survival by a new immunosuppressant: Chicken anti-rat lymphocyte globulin. *Surgery*, 76:150-159, 1974.

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8. **Morris RE**, Souther SG, Dong E Jr. and Shumway NE: Chicken antilymphocyte globulin: Mechanisms of action. *Transplant. Proc.*, 7:427-429, 1975.
9. Souther SG, **Morris RE**, and Vistnes LM: Trapping, splenectomy and allograft survival. *J. Immunol. (Letter to Editor)*, 114:1138, 1975.
10. **Morris RE**, and Dong E. Jr.: Clarification of certain characteristics of chicken antilymphocyte globulin. *Transplantation (Letter to Editor)*, 21:511-512, 1976.
11. **Morris RE**, Dong E Jr., and Shumway NE: Chicken anti-rat lymphocyte globulin (CARLG): Dose response study. *Surgical Forum*, 27:327-330, 1976.
12. **Morris RE**: High-efficiency differential ultracentrifugation of small sample volumes using Sorvall TFT-80.4 and TFT-80.2 rotors. *Biotechnology Update*, 3:11-12, 1988.
13. **Morris RE**, Hanley JM, Griep RB, and Shumway NE: Chicken antilymphocyte globulin: A source of heterologous enhancing antibody. *Transplant. Proc.*, 9:1037-1039, 1977.
14. **Morris RE**, Dong E Jr., Struthers CM, Griep RB and Stinson EB: Immunologic monitoring of cardiac transplant recipients by a modified reactive leukocyte blastogenesis assay (MRLB). *Transplant. Proc.*, 10:585-588, 1978.
15. **Morris RE**: Chicken anti-rat lymphocyte globulin: Dose-response study and determination of strain specific alloantibody. *Transplantation*, 28:77-83, 1979.
16. **Morris RE**: Chicken anti-rat lymphocyte globulin (CARLG): A new specific immunosuppressant. *Current Surgery*, 36:356-359, 1979.

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17. **Morris RE:** Sources of noncomplement-binding xenoantibody for passive enhancement of allografts. *Transplantation*, 34:157-159, 1982.
18. **Morris RE, Thomas PT and Hong R.:** Cellular enzyme-linked immunospecific assay (CELISA). A new micromethod that detects antibodies to cell-surface antigens. *Human Immunology*, 5:1-19, 1982.
19. **Morris RE:** A new, highly sensitive assay for quantitating antibody bound to cell-surface antigens. *Transplant. Proc.*, 15:60-62, 1983.
20. **Morris RE:** The induction of tolerance to and the definition of the pharmacokinetics of chicken anti-rat lymphocyte globulin. *Current Surgery*, 40:448-451, 1983.
21. **Morris RE:** Cellular enzyme-linked immunospecific assay. Use of the CELISA to quantitate monoclonal antibodies bound to HLA antigens and to sub-set specific antigens on cell surfaces. *Transplantation*, 36:719-725, 1983.
22. **Morris RE and Horowitz DA:** Cellular enzyme linked immunospecific assay (CELISA). Inhibition of endogenous cellular alkaline phosphatase activity. *J. Immunol. Methods*, 68:11-17, 1984.
23. **Morris RE:** Progress in the use of the cellular enzyme linked immunospecific assay (CELISA) for the phenotyping of cellular antigens associated with subpopulation of T-cells. *Review of Immunology and Immunopharmacology (EOS)*, 4:47-53, 1984.

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24. Anderson JE, **Morris RE** and Blaschke TE: Pharmacodynamics of cyclosporine-ketoconazole interaction in mice: Combined therapy potentiates cyclosporine immunosuppression and toxicity. *Transplantation*, 43:529-533, 1987.
25. **Morris RE**, DeValeria P, Skogen B, Pratt F, Cheng P-J, Kim J and Clark WA: Intravenously injected anti-cardiac myosin monoclonal antibody specifically demarcates cardiac rejection. *Transplant. Proc.*, 29:1053-1055, 1987.
26. **Morris,RE**, Hoyt,G. and DeValeria,P. A comparison in the in vitro and in vivo immunological activities of concanavalin A and its succinylated derivative. *Transplant. Proc.*, 29:626-627, 1987.
27. Cheng,P-J and **Morris,RE**: A new, rapid, high-capacity chromatographic purification of IgG 1 monoclonal antibodies directly from mouse ascites fluid. *Transplant. Proc.*, 29:607-609, 1987.
28. Anderson SE, **Morris RE** and Blaschke TE: Ketoconazole potentiates cyclosporine immunosuppression and toxicity in mice. *Transplant. Proc.*, 29:1267-1268, 1987.
29. Babany G, **Morris RE**, Babany I and Kates RE: Evaluation of the in vivo dose response relationship of immunosuppressive drugs using a mouse heart transplant model: Application to cyclosporine. *J. Pharmacol. and Exp. Therapeutics*, 244:259-262, 1988.
30. **Morris RE**, Hoyt G, Baldwin JC, and Meiser B.: Splenectomy antagonizes the action of cyclosporine. *Transplant. Proc.*, 20:1079-1080, 1988.

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31. Babany G, **Morris RE**, Babany I, Shepherd S, Kates R: In vivo evaluation of the effects of altered cyclosporine metabolism on its immunosuppressive potency. *J. Pharmacol. and Exp. Therapeutics*, 248:893-899, 1989.
32. **Morris RE**, Hoyt EG, Murphy MP, and Shorthouse R: Immunopharmacology of FK 506. *Transplant. Proc.*, 21:1042-1044, 1989.
33. Yuh D, Zurcher RP, Carmichael PG, **Morris RE**: Efficacy of Didemnin B therapy in suppressing allograft rejection in mice and rats. *Transplant. Proc.*, 21:1141-1143, 1989.
34. Gudas V, Carmichael PG, **Morris RE**: Comparison of the immunosuppressive and toxic effects of high dose oral FK-506 in the rat cardiac xenograft model. *Transplant. Proc.*, 21:1072-1073, 1989.
35. Carmichael PG, **Morris RE**: Alteration of in vivo allogeneic functions by ultraviolet B (UVB). *Transplant. Proc.*, 21:1137-1138. 1989.
36. **Morris RE** and Meiser B: A new pharmacologic action for an old compound Rapamycin. *Medical Science Research*, 17:609-610, 1989. (Republished due to typesetting errors, *Med. Sci. Res.* 17:877-878, 1989.)
37. **Morris RE**, Hoyt G, Eugui E and Allison A: Prolongation of rat heart allograft survival by RS-61443 Mycophenolace Mofetil. *Surgical Forum*, 40:337-338, 1989.
38. Meiser BM, Wang J, **Morris RE**: Rapamycin: A new and highly active immunosuppressive macrolide with efficacy superior to cyclosporine. *Progress in Immunology*, 7:1195-1198, 1989.

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39. Palladino MA, **Morris RE**, Starnes HF and Levinson AD: The transforming growth factor-betas: A new family of immunosuppressive molecules. *Ann. N.Y. Acad. Sci.*, 593:181-187, 1990.
40. **Morris RE**, Wu J, and Shorthouse R: Comparative immunopharmacological effects of FK506 and cyclosporine in in vivo models of organ transplantation. *Transplant. Proc.*, 22:(Suppl)1:110-112, 1990.
41. **Morris RE**, Wu J, and Shorthouse R: A study of the contrasting effects of cyclosporine, FK506 and rapamycin on the suppression of allograft rejection. *Transplant. Proc.*, 22:1638-1641, 1990.
42. **Morris RE**, Hoyt G, Murphy MP, Eugui EM, and Allison AC: Mycophenolic acid morpholinoethyl ester (RS-61443) is a new immunosuppressant that prevents and halts heart allograft rejection by selective inhibition of T and B cell purine synthesis. *Transplant. Proc.*, 22:1659-1662, 1990.
43. **Morris RE**: Treating rejection of transplants in the post-cyclosporine era. *Dialysis and Transplant*, 19:544, 1990.
44. Wallick SC, Figari IS, **Morris RE**, Levinson AD and Palladino MA: Immunoregulatory role of transforming growth factor β (TGF- β) in development of killer cells: Comparison of active and latent TGF- β_1 . *J. Exp. Med.*, 172:1777-1784, 1990.
45. Meiser BM and **Morris RE**: The importance of the spleen for the immunosuppressive action of cyclosporine in transplantation. *Transplantation*, 51:690-696, 1991.

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46. **Morris RE**, Wang J: Comparison of the immunosuppressive effects of mycophenolic acid and the morpholinoethyl ester of mycophenolic acid (RS-61443) in recipients of heart allografts. *Transplant. Proc.*, 23:493-496, 1991.
47. **Morris RE**, Meiser BM, Wu J, Shorthouse R, and Wang J: Use of rapamycin for the suppression of alloimmune reactions in vivo: schedule dependence, tolerance induction, synergy with cyclosporine and FK506, and effect on host-versus-graft and graft-versus-host reactions. *Transplant. Proc.*, 23:521-524, 1991
48. Zheng B, Shorthouse R, Masek MA, Berry G, Billingham ME and **Morris RE**: Effects of the new and highly active immunosuppressant, rapamycin, on lymphoid tissues and cells *in vivo*. *Transplant. Proc.*, 23:851-855, 1991
49. Wu J, Palladino MA, Figari IS, and **Morris RE**: Comparative immunoregulatory effects of rapamycin, FK506 and cyclosporine on mitogen-induced cytokine production and lymphoproliferation. *Transplant. Proc.*, 23:238-240, 1991.
50. Wang J, **Morris RE**: Effect of Splenectomy and mono- or combination therapy with rapamycin, the morpholinoethyl ester of mycophenolic acid and deoxyspergualin on cardiac xenograft survival. *Transplant. Proc.*, 23:699-702, 1991.
51. Flavin T, Ivens K, Wang J, Gutierrez J, Hoyt EG, Billingham M, **Morris RE**: Initial experience with FK506 as an immunosuppressant for nonhuman primate recipients of cardiac allografts. *Transplant. Proc.*, 23:531-532, 1991.
52. Yuh D, **Morris RE**: 15-Deoxyspergualin is a more potent and effective immunosuppressant than cyclosporine but does not effectively suppress lymphoproliferation *in vivo*. *Transplant. Proc.*, 23:535-539, 1991.

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53. **Morris RE**, Wang J, Blum J, Flavin T, Almquist SJ, Chu N, Lam YL, Kaloostian M, Allison A, and Eugui E: Immunosuppressive effects of the morpholinoethyl ester of mycophenolic acid (RS-61443) on rat and non-human primate recipients of cardiac allografts. *Transplant. Proc.*, 23(Supp 2):19-25, 1991.
54. **Morris RE**: Rapamycin: FK506's fraternal twin or distant cousin? *Immunol. Today*, 12:137-140, 1991.
55. Meiser BM, Billingham ME, **Morris RE**: Effects of cyclosporine, FK506 and rapamycin on graft vessel disease. *The Lancet*, 338:1297-1298, 1991.
56. **Morris RE**: In vivo immunopharmacology of the macrolides FK506 and rapamycin: toward the era of rational immunosuppression drug discovery, development and use. *Transplantation Proceedings*, 23:2722-2724, 1991.
57. **Morris RE**: 15-Deoxyspergualin: a mystery wrapped within an enigma. *Clinical Transplant*, 5:530-533, 1991.
58. Murphy MP, **Morris RE**: Brequinar sodium (Dup 785) is a highly potent antimetabolite immunosuppressant that suppresses heart allograft rejection. *Medical Science Res.*, 19:835-836, 1991.
59. **Morris RE**: Rapamycins: antifungal, antitumor, antiproliferative and immunosuppressive macrolides. *Transplant Rev.*, 6:39-87, 1992.
60. **Morris RE**: Immunopharmacology of new xenobiotic immunosuppressive molecules. *Seminars in Nephrology*, 4:304-314, July 1992.

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

61. Walpoth B, Galdikas J, Tschopp A, Lazeyras F, Altermatt HJ, Schaffner T, Althaus U, Billingham M and **Morris RE**: Prevention of cardiac allograft rejection by FK506 and rapamycin: assessment by histology and nuclear magnetic resonance. *Transplant. Intl.*, 5(Suppl 1):S561-S563, 1992.
62. Walpoth B, Galdikas J, Vorburger T, Altermatt HJ, Schaffner T, Althaus U, Billingham M, **Morris RE**: Assessment of new immunosuppressive drugs in a rat cardiac allograft heterotopic model. *Eur. J. Surg. Res.*, 24:243-248, 1992.
63. Mohacsi PJ, **Morris RE**: Brief treatment with rapamycin in vivo increases responsiveness to alloantigens measured by the mixed lymphocyte response. *Immunology Letters*, 34:273-278, 1992.
64. Yuh D and **Morris RE**: The immunopharmacology of immunosuppression by 15-deoxyspergualin. *Transplantation*, 55:578-591, 1993.
65. **Morris RE**: Prevention and treatment of allograft rejection in vivo by rapamycin: molecular and cellular mechanisms of immunosuppressive action. *Annals NY Acad. of Sci.*, 685:68-72, 1993.
66. **Morris RE**: Commentary on new xenobiotic immunosuppressants for transplantation: where are we, how did we get here, and where are we going? *Clinical Transplantation*, 7(Issue 1, Part 2):138-145, 1993.
67. Nakakura EK, McCabe SM, Zheng B, Shorthouse RA, Scheiner TM, Blank G, Jardieu PM, and **Morris RE**: Potent and effective prolongation by anti-LFA-1 monoclonal antibody monotherapy of non-primarily vascularized heart allograft

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160. NVP-AEB071 (AEB), A Novel Oral Inhibitor of Early T-Cell Activation, Prolongs the Survival of Non-Human Primate (NHP) Kidney Allografts When Used As Monotherapy or At Non-Effective Doses Combined With a Non-Effective Dose of Cyclosporine (CsA). Bigaud M, Wieczorek G, Reisen S, Menninger K, Barbet I, Jean, C, Beerli, C, Audet M, Blancher A, Heusser C, Wagner J, **Morris RE**: American J. Transplant. 6, Suppl 2: 250, Abstract 546, 2006.
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164. First Escalating Single Dose Human Volunteer Study of the Novel Immunosuppressant (IS) NVP-AEB071 (AEB): Relationships among Dose Levels, PK and PD of Immune Functions. Burkhart C, Welzenbach K, Raulf F, Vitaliti A, Grenet O, Schmidli H, Belleli R, Marbach P, Wagner J, **Morris RE**, Rordorf C: American J.

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165. Pharmacokinetics (PK) of the Novel Oral Protein Kinase C (PKC) Inhibitor NVP-AEB071 (AEB) in Rats and Non-Human Primates (NHP): Study of Immunosuppressive (IS) Efficacy and Distribution to Lymphatic Organs. Weckbecker G, Jean C, Pally C, Wagner J, **Morris RE**, Bruns C: American J. Transplant. 6, Suppl 2: 768, Abstract 2114, 2006.
166. Enzymatic & Cellular Characterization of NVP-AEB071 (AEB), A Novel & Selective Protein Kinase C (PKC) Inhibitor That Blocks Early T-Cell Activation, and Its Use to Define the Role of PKC in T Cells. Evenou J-P, Brinkmann V, Towbin H, Welzenbach K, Cottens S, Wagner J, **Morris RE**, Zenke G: American J. Transplant. 6, Suppl 2: 1026, Abstract 2954, 2006.
167. Selective Protein Kinase C Inhibitor Prevents Organ Allograft Rejection. Wagner J, Zenke G, Baier G, Bigaud M, Evenou J-P, Brinkmann V, Pally C, Wieczorek G, Weckbecker G, Beerli C, Bruns C, Heusser C, Burkhardt C, Welzenbach K, Kovarik J, Gruber T, Lutz-Nicoladoni C, Thuille N, Albert R, Cooke N, Sedrani R, van Eis M, Vangrevelinghe E, von Matt P, Marbach P, Dumortier T, Geiser M, Strauss A, Rummel G, Stark W, **Morris RE**, Rordorf C, Cottens S: In preparation.
168. Efficacy of NVP-AEB071, a Novel Oral Inhibitor of Early T-Cell Activation in GvH and Transplantation Models. Weckbecker G, Pally C, Beerli C, Burkhardt C, Wieczorek G, Metzler B, **Morris RE**, Wagner J, Bruns C: 4th International Leukocyte Signal Transduction Workshop: Clinical Implications of Signaling Pathways. Aegean Conferences, Rhodos/Greece, 2007

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169. Burkhart C, Welzenbach K, Raulf F, Vitaliti A, Grenet O, Schmidili H, Belleli R, Marbach P, Wagner J, Rordorf C, Slade A, **Morris RE**. NVP-AEB071 (AEB071) Suppression of immune cell functions: Single dose Exposure-Response in humans. 2008. Intl conference on new trends in immunosuppression and immunotherapy.

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MISCELLANEOUS PUBLICATIONS

1. Brazelton TR, Doyle RL, Poirer C, Wong RL, Newmark RD, Lin T, Reitz BA, Theodore J, **Morris RE**, and the Stanford Lung Database Group, the International Lung Transplant Study Group and Novartis Pharmaceuticals. The Novartis Lung Transplant Database: White Paper. February 1998.

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MEETING PRESENTATIONS AND INVITED LECTURES

1. Prolongation of rat renal allograft survival by chicken anti-rat lymphocyte globulin. Presented at the International Congress of the Transplantation Society, San Francisco, CA, 1972.
2. Prolongation of rat cardiac allograft survival by a new immunosuppressant: Chicken anti-rat lymphocyte globulin. Presented at the Annual Meeting of the Society of University Surgeons Meeting, St. Louis, MO, 1974.
3. Immunological detection of human cardiac rejection. Presented at the American College of Surgeons Annual Meeting, Miami, FL, 1974.
4. Chicken antilymphocyte globulin: Mechanisms of action. Presented at the International Congress of the Transplantation Society, Jerusalem, Israel, 1974.
5. Chicken anti-rat lymphocyte globulin (CARLG): Dose-response study. Presented at the American College of Surgeons Annual Meeting, Chicago, IL, 1976.
6. Chicken antilymphocyte globulin: A source of heterologous enhancing antibody. Presented at the International Congress of the Transplantation Society, New York, NY, 1976.
7. Immunologic monitoring of cardiac transplant recipients by a modified reactive leukocyte blastogenesis assay. Presented at the International Congress of the Transplantation Society, Special Session on Immunological Monitoring of the Transplant Recipient, New York, NY, 1976.

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8. Immunologic monitoring of cardiac transplant recipients by a modified reactive leukocyte blastogenesis assay (MRLB). Presented at the International Congress on Immunological Monitoring in Transplantation, London, Ont., 1977.
9. Chicken anti-rat lymphocyte globulin (CARLG): A new specific immunosuppressant. Presented at the Resident's Forum at the Annual Meeting of the Society of University Surgeons, Salt Lake City, UT, 1979.
10. Detection of cell surface antigens by the cellular enzyme-linked immunosorbent assay (CELISA). Presented at the Annual Meeting for the American Association for Clinical Histocompatibility Typing, Orlando, FL, 1981.
11. New approaches to enzyme immunoassay. Invited Lecture at Flow Labs, Inc., Gaithersburg, MD, 1980.
12. Cellular enzyme immunoassay. Invited Lecture to the Division of Immunology, Department of Medicine, Mayo Clinic Foundation, Rochester, MN, 1981.
13. Cellular enzyme immunoassay. Invited Lecture to the Milwaukee Blood Center, Milwaukee, WI, 1981.
14. Cellular enzyme immunoassay. Invited Lecture to Department of Medical Microbiology and Division of Oncology, University of Vermont School of Medicine, Burlington, VT, 1981.

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15. A new, highly sensitive assay for quantitating antibody bound to cell-surface antigens. Presented at the International Congress of the Transplantation Society, Brighton, England, 1982.
16. The induction of tolerance to and the definition of the pharmacokinetics of chicken anti-rat lymphocyte globulin. Presented at the Resident's Forum, Annual Meeting of the Society of University Surgeons, Oklahoma City, OK, 1983.
17. The use of the cellular enzyme-linked immunospecific assay to probe the cell surface. Invited Lecture to Hybritech, Inc., San Diego, CA, 1983.
18. "The Media and The Medical News". Panelist, at the Annual Meeting of University Science Writers, San Francisco, CA, 1985.
19. New developments in transplantation immunology. Invited Lecture to Invitron, Inc., Redwood City, CA, 1987.
20. In search of: the ideal immunosuppressant for organ transplantation. Invited Lecture, National Cancer Institute, Developmental Therapeutics Program, Bethesda, MD, 1987.
21. The future of organ transplantation. Invited Lecture at the Emerging Surgical Technologies Conference, San Francisco, CA, 1987.
22. Immunopharmacology, of FK-506. Presented at the International Congress of the Transplantation Society, Sydney, Australia, 1988.

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23. Immunosuppressive effects of cytokines produced by recombinant DNA technology. Invited presentation at Mini-Symposium on Immunosuppressive Cytokines, Genentech, San Francisco, CA, 1988.
24. New molecules as potential therapy in AIDS. Invited presentation to The Decision Network Committee 2a, N.C.I., Bethesda, MD, 1988.
25. New developments in immunosuppression for transplantation, Invited presentation, ITT Research Institute, Chicago, IL, 1988.
26. Use of the purine synthesis inhibitor, RS-61443 as an immunosuppressant for transplantation. Invited presentation at Mini-symposium on RS-61443, Syntex, Inc., Palo Alto, CA, 1989.
27. Immunopharmacology of deoxyspergualin. Invited presentation at The International Symposium on the Use of Deoxyspergualin for Transplantation, Chicago, IL, 1989.
28. Quantitative analysis of deoxyspergualin immunosuppression, Workshop on suppression in transplantation. International Congress on Immunology, Berlin, West Germany, 1989.
29. Rapamycin: A new and highly active immunosuppressive macrolide-structurally similar to FK-506. Invited address on Newest Developments in Transplantation, International Congress on Immunology, Berlin, West Germany, 1989.
30. 15-Deoxyspergualin: A novel, effective immunosuppressant. Presented at the International Congress of Immunology, Berlin, West Germany, 1989.

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31. Recombinant human transforming growth factor beta-1 is a potent immunosuppressant in vivo. Presented at the International Congress of Immunology, Berlin, West Germany, 1989.
32. Immunosuppressive properties of two novel macrolides: FK-506 and rapamycin. Invited presentation to Wyeth-Ayerst Research, Princeton, NJ, 1989.
33. RS-61443 is a novel purine synthesis inhibitor that prolongs allo- and xenograft survival. American College of Surgeons Annual Meeting, Atlanta, GA, 1989.
34. Quantitative immunopharmacologic comparison between FK-506 and cyclosporine. Invited presentation, Symposium on FK-506, Presented at The European Society of Organ Transplantation, Barcelona, Spain, 1989.
35. RS-61443 Prolongs allograft survival by selective inhibition lymphocyte purine nucleotide synthesis, Presented at the European Society of Organ Transplantation, Barcelona, Spain, 1989.
36. Progress in the use of RS-61443 as an immunosuppressant for organ transplantation. Invited presentation, Syntex Research, Palo Alto, CA, 1989.
37. New molecules for the control of graft rejection. Invited presentation by the Stanford Clinical Laboratory Education Committee, Stanford, CA, 1990.
38. The importance of animal models for the development of new drugs to treat organ transplant rejection. Invited presentation to the Department of Laboratory Animal Medicine, Stanford, CA, 1990.

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39. Control of transplant rejection at the molecular level. Invited presentation, Genentech, Inc., South San Francisco, CA, 1990.
40. FK-506 immunosuppression for the future. Invited presentation to the Cardiology Research Conference, Stanford, CA, 1990.
41. The post-cyclosporine era. Invited presentation to The National Kidney Foundation's Science Writers' Briefing, New York, NY, 1990.
42. New xenobiotics for organ and tissue transplantation. Invited presentation to Ortho Biotech, Lambertville, NJ, 1990.
43. Progress in use of rapamycin for the control of graft rejection. Invited presentation, Wyeth, Ayerst Research, Princeton, NJ, 1990.
44. RS-61442 is a novel and specific inhibitor of T and B cell purine synthesis that induces transplant tolerance, reverses acute rejection and prolongs xenograft survival. Presented at annual meeting of The International Society for Heart Transplantation, Ft. Lauderdale, FL, 1990.
45. Induction of graft tolerance by brief treatment with rapamycin: a new, far more potent and effective immunosuppressant than cyclosporine. Presented at the annual meeting of The International Society for Heart Transplantation, Ft. Lauderdale, FL, 1990.
46. Preclinical studies in mice, rats and monkeys using mycophenolic acid and its morpholinoethyl ester to control allo- and xenograft rejection. Presented at the annual meeting of The American Society for Transplant Surgeons, Chicago, IL, 1990.

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47. Rapamycin, a new immunosuppressant, more potent and effective than FK506 and CsA; induces specific unresponsiveness to cardiac allografts after a brief treatment. Presented at the annual meeting of The American Society for Transplant Surgeons, Chicago, IL, 1990.
48. Rapamycin and RS-61443. Invited presentation at the First Post-Graduate Course on Basic Mechanisms and Clinical Application of Immunosuppressive Agents sponsored by The American Society for Transplant Surgeons, Chicago, IL, 1990.
49. Progress in the discovery and development of new drugs for the control of graft rejection. Invited presentation at the University of Utah Medical School, Salt Lake City, UT, 1990.
50. Studies of rapamycin in rat and murine models of heart allografts. Invited presentation at a satellite symposium (Rapamycin, a novel immunosuppressant for organ transplantation) of the 13th International Congress of the Transplantation Society, San Francisco, CA, 1990.
51. New developments in the use of FK506, rapamycin, RS-61443 and deoxyspergualin. Invited presentation to Sandoz Pharmaceuticals, San Francisco, CA, 1990.
52. Effects of various immunosuppressive regimens on cardiac allografts in the rat and monkey. Invited presentation at a satellite symposium (Immunosuppressive drugs: targets and mechanisms of action) at the 13th International Congress of the Transplantation Society, San Francisco, CA, 1990.

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53. Mycophenolic acid and its morpholinoethyl ester are novel, selective and effective immunosuppressants for cardiac allograft rejection in mice, rats and non-human primates. Presented at the 13th International Congress of the Transplantation Society, San Francisco, CA, 1990.
54. Rapamycin is a new, safe, and highly potent and effective means of inducing antigen-specific unresponsiveness to allografts. Presented at the 13th International Congress of the Transplantation Society, San Francisco, CA, 1990.
55. Journey into the heart of darkness: a search for new immunosuppressants. Invited presentation to Boehringer Ingelheim, Inc., Ridgefield, CT, 1990.
56. Lectins and other immunosuppressants for transplantation. Invited presentation to Incyte Bioscience Research, Inc., Redwood City, CA, 1990.
57. New developments in immunosuppression for organ transplantation. Invited presentation to Abbott Laboratories, Abbott Park, IL, 1990.
58. Relevance of preclinical models of transplantation to the design of clinical trials of immunosuppressive drugs. Invited presentation to the Food and Drug Administration, Rockville, MD, 1990.
59. Improved immunosuppression for transplantation: a challenge for the 1990's. Invited presentation to the Dept. of Surgery Grand Rounds, Johns Hopkins University, Baltimore, MD, 1990.

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60. Molecular Mechanisms of action of new immunosuppressive molecules. Invited presentation to the Hematopoiesis Society, Johns Hopkins University, Baltimore, MD, 1990.
61. Discovery and development of the use of mycophenolic acid and its morpholinoethyl ester for the control of organ allograft rejection. Invited presentation to the Medical Products Group, E.I. Du Pont de Nemours and Co., Wilmington, DE, 1990.
62. The post cyclosporine era: "Operating on the immune system with molecular scalpels." Invited presentation to the Dept. of Surgery, University of Iowa, Iowa City, IA, 1990.
63. New immunosuppressants in the post-cyclosporine era. Invited presentation to the Department of Surgery, University of Minnesota, Minneapolis, MN, 1990.
64. Immunopharmacology of new immunosuppressants - macrolides and anti-purines. Invited presentation at the Thoracic Organ Transplantation Symposium - 1991, Tucson, AZ, .
65. Prospects for immune tolerance. Invited presentation to the Thoracic Organ Transplantation Symposium - 1991, Tucson, AZ, 1991.
66. Investigation of new immunosuppressive agents. Invited presentation to the Winter Practice and Research Forum of the American College of Clinical Pharmacy, Fort Lauderdale, FL, 1991.

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67. Cellular and molecular mechanisms of action of immunosuppressive agents. Invited presentation to the Winter Practice and Research Forum of the American College of Clinical Pharmacy, Fort Lauderdale, FL, 1991.
68. The post-cyclosporine era: "Operating" on the immune system with new molecular "scalpels." Invited presentation to the New York Society of Nephrology, New York, NY, 1991.
69. New horizons in immunosuppression for transplantation. Invited presentation to the Division of Nephrology, Mt. Sinai School of Medicine, New York, NY, 1991.
70. Emerging new immunosuppressive therapy for transplantation. Invited presentation to the Harvard Course on Renal Transplantation: Clinical Therapy and Management, Boston, MA, 1991.
71. New immunosuppressive agents. Invited presentation to the Meeting on Organ Transplants in Children: A Perspective for the 90's, Temple University School of Medicine, Philadelphia, PA, 1991.
72. Study of the immunosuppressive, pharmacokinetic and pharmacodynamic effects of RS-61443 monotherapy in cynomolgus recipients of heart allografts. Presented at the 11th Annual Meeting and Scientific Sessions of the International Society of Heart and Lung Transplantation, Paris, France, 1991.
73. Perspectives for immunoregulation in the '90's. Invited presentation to Biospan, Inc., Redwood City, CA, 1991.

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74. Update on efficacy and safety of rapamycin immunosuppression in cynomolgus recipients of heart allografts. Invited presentation to Wyeth-Ayerst Research, Princeton, NJ, 1991.
75. Studies of the effects of RS-61443 and FK506 on graft coronary disease and acute rejection, and of the immunosuppressive efficacy of triple drug therapy with RS-61443, rapamycin and cyclosporine. Presented at the Annual Meeting of the American Society of Transplant Physicians, Chicago, IL, 1991.
76. Study of the immunosuppressive, pharmacokinetic, and pharmacodynamic effects of RS-61443 monotherapy in cynomolgus recipients of heart allografts. Presented at the Annual Meeting of the American Society of Transplant Physicians, Chicago, IL, 1991.
77. Initial use of rapamycin immunosuppression in nonhuman primate graft recipients: efficacy, toxicity, combined use with cyclosporine and pharmacokinetics and dynamics. Presented at the Annual Meeting of the American Society of Transplant Surgeons, Chicago, IL, 1991.
78. 15-deoxyspergualin. Invited presentation to the American Society of Transplant Physicians Postgraduate Course on Advances in immunosuppression, Chicago, IL, 1991.
79. Discovery, development and clinical application of new immunosuppressive drugs. Invited presentation to the Transplantation Research Seminar, University of Wisconsin, Madison, WI, 1991.

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80. In vivo immunopharmacology of immunosuppressive macrolides. Invited plenary Lecture at the First International Congress on FK506, Pittsburgh, PA, 1991.
81. Workshop on new immunosuppressants. Invitation by Second Basic Science Symposium of the Transplantation Society, Oxford, United Kingdom, 1991.
82. Workshop on composite tissue transplantation. Invitation by the Pacific Northwest Research Foundation, Seattle, WA, 1991.
83. New immunosuppressive agents. Invited Lecture for the postgraduate course in cardiac surgery, American College of Surgeons, 1991 Clinical Congress, Chicago, IL.
84. Immunosuppression - the future. Invited Lecture to the postgraduate course on the current status of organ transplantation in children, the American College of Surgeons, 1991 Clinical Congress, Chicago, IL.
85. New advances in molecular immunosuppression. Invited Lecture at the Loyola School of Medicine, 1991.
86. New compounds in transplantation. Invited Lecture to the Sandoz Fellows Transplant Symposium, Chicago, IL, 1991.
87. The molecular basis of the discovery, development and use of new immunosuppressive drugs. Invited by Karolinska Institute Huddinge Transplant Lecture, Annual Meeting of the Swedish Medical Society, Stockholm, Sweden, 1991.
88. New molecules for the control of graft rejection. Invited Lecture to ICOS Pharmaceuticals, Inc., Bothell, WA, 1991.

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89. New immunosuppressive drugs for renal transplantation. Invited Lecture to Stanford Medical School Division of Nephrology Research Conference, Stanford, CA, 1992.
90. Advances in immunosuppression and the treatment of vascular occlusive disease. Invited Lecture to Surgical Grand Rounds, The Cleveland Clinic Foundation, Cleveland, OH, 1992.
91. A review of new immunosuppressants for transplantation. Invited Lecture to the Transplantation Society of Northeast Ohio, Cleveland, OH, 1992.
92. Treatment of transplant graft rejection, immune- and angioplasty-mediated vascular occlusive disease: three cases of unmistakable identity. Invited Presentation to the Program in Molecular and Genetic Medicine, Mini-symposium in vascular biology and medicine, Stanford University, Stanford, CA, 1992.
93. New immunosuppressive compounds in transplantation. Invited Lecture to the Annual International Conference on Biochemical Analysis, Munich, Germany, 1992.
94. A non-lymphocyte depleting monoclonal antibody to the adhesion molecule LFA-1(CD11a) inhibits ongoing and accelerated rejection and induces specific unresponsiveness to heart allografts. Plenary Lecture at the annual meeting of the American Association of Transplant Physicians, Chicago, IL, 1992.
95. Brequinar is a new and highly potent antimetabolite immunosuppressant that reverses advanced graft rejection and effectively suppresses accelerated rejection. Presented at the annual meeting of the American Association of Transplant Physicians, Chicago, IL, 1992.

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96. Recent progress in the discovery and development of immunosuppressants for transplantation. Invited Lecture to the Third Annual American Society of Transplant Surgeons Postgraduate Course, Chicago, IL, 1992.
97. The same immunosuppressive drugs can prevent rejection and intimal thickening after mechanical vascular injury. Invited Lecture to Glycomed, Inc., Alameda, CA, 1992.
98. Prevention and treatment of allograft rejection in vivo by rapamycin: molecular and cellular mechanisms of immunosuppressive action. Invited presentation to the New York Academy of Sciences/The National Institutes of Health Third International Conference on Drug Research in Immunologic and Infectious Diseases. Immunomodulating drugs: synthesis, preclinical and clinical evaluation, Washington, D.C., 1992.
99. An anti-LFA-1 (CD11a) monoclonal antibody (MAb) inhibits ongoing and accelerated rejection and induces specific unresponsiveness to cardiac allografts. Presented at the 8th International Congress of Immunology, Budapest, Hungary, 1992.
100. Brequinar is a new and highly potent antimetabolite immunosuppressant that reverses advanced graft rejection and effectively suppresses accelerated rejection. Presented at the 8th International Congress of Immunology, Budapest, Hungary, 1992.
101. Treatment with rapamycin reverses severe heart allograft rejection: mechanisms of rapamycin's actions at the cellular and molecular levels. Presented at the 8th International Congress of Immunology, Budapest, Hungary, 1992.

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102. Brequinar is a new and highly potent antimetabolite immunosuppressant that reverses advanced graft rejection and effectively suppresses accelerated rejection. Presented at the 14th International Congress of the Transplantation Society, Paris, France, 1992.
103. An anti-LFA-1 (CD11a) monoclonal antibody (MAb) inhibits ongoing and accelerated rejection and induces specific unresponsiveness to cardiac allografts. Presented at the 14th International Congress of the Transplantation Society, Paris, France, 1992.
104. Invited "Introductory Lecture," Second Rapamycin Workshop held in conjunction with the 14th International Congress of the Transplantation Society, Paris, France, 1992.
105. New immunosuppressive drugs. Invited Lecture to Ortho Symposium on Molecular Immunology at the Annual Meeting of the Canadian Transplantation Society and 61st Annual Meeting of the Royal College of Physicians and Surgeons of Canada, Ottawa, Canada, 1992.
106. Immunosuppression for transplantation in the 1990s. Invited Lecture to the Edmonton Multi-Organ Transplant Organization, Edmonton, Canada, 1992.
107. Rapamycin for immunosuppression and treatment of vascular disease. Invited Lecture at the University of Alberta, Edmonton, Canada, 1992.
108. Introduction to immunosuppression for transplantation: concepts, perspectives and role of preclinical animal models. Invited Lecture to Course on Immunosuppressive Drug Development and Transplantation Science organized by Staff College of the

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Center for Drug Evaluation and Research, Food and Drug Administration, Rockville, MD, 1992.

109. Strategies for immunosuppression in the '90s. Invited Lecture to Alza Pharmaceuticals, Inc., Palo Alto, CA, 1992.
110. Update on new immunosuppressants for transplantation. Invited Lecture at Rush-Presbyterian Medical Center, Chicago, IL, 1992.
111. Recent advances in xenobiotic immunosuppression. Invited Lecture at University of Oregon Health Sciences Center, Portland, OR, 1992.
112. Role of new immunosuppressive drugs in tolerance induction. Invited Lecture to the Second Symposium on Tolerance Induction, Breckenridge, CO, 1993.
113. New immunosuppressants to suppress rejection of thoracic organ allografts. Invited Lecture to Thoracic Organ Transplantation Symposium, Tucson, AZ, 1993.
114. New immunosuppressive drugs. Invited Lecture to the International Symposium on Pediatric Heart Transplantation, Rancho Mirage, CA, 1993.
115. Mechanisms of action of cyclosporine. Invited Lecture to Symposium on Cyclosporine: A Decade of Experience, held in conjunction with the International Society of Heart and Lung Transplantation annual meeting, Boca Raton, FL, 1993.
116. Rapamycin reverses ongoing rat and nonhuman primate cardiac allograft rejection: mechanisms of drug action at the cellular and molecular levels. Presented at the

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- meeting of the International Society for Heart and Lung Transplantation, Boca Raton, FL, 1993.
117. Potential and limitations of new immunosuppressants. Invited, featured Lecture to the International Society for Heart and Lung Transplantation, Boca Raton, FL, 1993.
118. New ways of discovering new immunosuppressive agents. Invited Lecture to Symposium on Immunosuppressive Agents, meeting of the American Society of Transplant Physicians, Houston, TX, 1993.
119. Rapamycin reverses ongoing rat and monkey heart allograft rejection. Presented at the American Society of Transplant Surgeons, Houston, TX, 1993.
120. Review of new immunosuppressive drugs for transplantation. Invited Lecture at the International Meeting of Therapeutic Drug Monitoring, Philadelphia, PA, 1993.
121. Suppression of monkey allograft rejection by rapamycin. Invited presentation at the Wyeth-Ayerst Rapamycin Investigators' Meeting, Princeton, NJ, 1993.
122. Use of rapamycin to inhibit restenosis after balloon catheter injury in rats. Invited presentation at the Wyeth-Ayerst Rapamycin Investigators' Symposium, Princeton, NJ, 1993.
123. The revolution in immunosuppression: new drugs offer new hope. Invited presentation at the California Transplant Games and Symposium, Palo Alto, CA, 1993.

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124. New immunosuppressants for transplantation. Invited Lecture to the Fourth Annual Symposium on Renal Transplantation, Miami, FL, 1993.
125. Overview of the discovery, development and clinical use of new immunosuppressive molecules: lessons from the past and strategies for the future. Invited Lecture to the Gordon Conference (Medicinal Chemistry), New London, NH, 1993.
126. New kids on the block: advances in immunosuppression. Invited plenary symposium Lecture to the International Conference on Pediatric Transplantation, Minneapolis, MN, 1993.
127. Effect of leflunomide on survival of non-human primate allografts and on proliferation of vascular smooth muscle cells in vitro and in vivo. Invited to Lecture to Hoechst Pharmaceuticals, Weisbaden, Germany, 1993.
128. New immunosuppressive drugs in transplant recipients. Invited plenary Lecture to the Twenty-Fifth Anniversary Symposium of Eurotransplant, Leiden, The Netherlands, 1993.
129. Update on new immunosuppressive drugs. Invited to Lecture to University of Southern California Conference on Complex Problems in Cardiac Surgery, Pasadena, CA, 1993.
130. Use of immunosuppressants to suppress intimal thickening after vascular injury, Abbott Pharmaceuticals, Abbott Park, IL, 1993.
131. New immunosuppressants. Invited presentation to A Short Course in Transplantation, American Society of Nephrology Annual Meeting, Boston, MA, 1993.

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132. Mechanisms and uses of new molecules that control rejection to transplanted grafts. Invited to Lecture at American Association for Clinical Chemistry A.O. Beckman Conference on Immune Disorders, Newport Beach, CA, 1994.
133. Modes of action of FK506 and Cyclosporin A. Invited to Lecture at FK506 Symposium, Geneva, Switzerland, 1994.
134. Overview of the discovery and development of new, small molecule immunosuppressants for transplantation. Invited Lecture at International Conference on New Trends in Clinical and Experimental Immunosuppression, Geneva, Switzerland, 1994.
135. The current revolution in Immunosuppression for transplantation: Where are we? How did we get here? and Where are we going? Invited Lecture at Roussel Uclaf Pharmaceuticals, Romainville, France, 1994.
136. New drugs for control of transplant rejection and intimal thickening after arterial injury. Invited Lecture at University of Bern, Bern, Switzerland, 1994.
137. Future trends in immunosuppression for transplantation. Invited Lecture at Sandoz Pharmaceuticals, Basel, Switzerland, 1994.
138. Immunosuppression: past, present and future. Invited Lecture to the UNOS Region V Clinical/OPO Forum, San Francisco, CA 1994.
139. Blending of immunosuppressive drugs. Invited Presentation to the 3rd International Congress on Cyclosporine, Seville, Spain, 1994.

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140. Not completely irrational discovery and development of new xenobiotic immunosuppressants for transplantation and other diseases. Invited presentation to Agouron Pharmaceuticals, Inc., San Diego, CA, 1994.
141. New molecules to control the immune response: from the bench to the bedside. Stanford Lung Disease Research Center Seminar, Stanford, CA, 1994.
142. New immunosuppressive drugs, their mechanisms and clinical trials. Invited presentation to the Annual Meetings of the American Society of Transplant Physicians and American Society of Transplant Surgeons Joint Symposium on New Immunosuppressive Drugs, Chicago, IL, 1994.
143. Immunosuppressive drugs for transplantation that inhibit cytokine action. Invited presentation to the 5th Annual Rush Symposium on Transplantation: Leflunomide: A New Direction to Immunosuppression, Chicago, IL, 1994.
144. Immunosuppressive molecules, from the bench to the bedside. Invited presentation to the UCLA Society of Nephrology, Los Angeles, CA, 1994.
145. New research developments in control of heart/lung rejection. Presented to the Stanford Lung Transplant Support Group, Stanford, CA, 1994.
146. Use of new immunosuppressive molecules for the prevention and treatment of chronic heart and lung allograft rejection. Invited presentation to the 5th Alexis Carrel Conference, Munich, Germany, 1994.

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147. Inhibition of growth factor action by new small molecules: relevance for treatment of chronic heart and lung rejection (and maybe even restenosis after PTCA). Invited presentation, Cardiovascular Medicine Basic Science Seminar, Stanford University Medical Center, 1994.
148. How to understand and use new xenobiotic immunosuppressants. Invited plenary Lecture to the 25th World Congress of the Transplantation Society, Kyoto, Japan, 1994.
149. Initiation of rapamycin treatment after an established alloimmune response inhibits arterial intimal thickening. Presented at the 25th World Congress of the Transplantation Society, Kyoto, Japan, 1994.
150. Inhibition of arterial intimal thickening by leflunomide: *in vivo* efficacy and molecular mechanisms. Presented at the 25th World Congress of the Transplantation Society, Kyoto, Japan, 1994.
151. Uses of new immunosuppressive molecules for transplantation and nonimmunologic diseases. Presentation to ITT Research Institute, Chicago, IL, 1994.
152. Review of new developments in immunosuppression with reference to HPI 228. Vector Securities, Deerfield, IL, 1994.
153. Review of past, present and future opportunities in immunosuppression for transplantation. Invited presentation to Houghten Pharmaceuticals, San Diego, CA, 1994.

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154. New immunosuppressive drugs for transplantation. Invited presentation to Current Trends in Transplantation Conference, Anaheim, CA, 1994.
155. New immunosuppressive molecules for transplantation. Invited presentation to Panel on Biotechnology in Surgery, Annual Meeting of the American College of Surgeons, Chicago, IL, 1994.
156. Conceptual framework for the understanding of new immunosuppressive drugs. Invited presentation to the Minneapolis Heart Institute Symposium on Thoracic Organ Transplantation, Tucson, AZ, 1994.
157. New models and new treatments for lung allograft obliterative bronchiolitis. Presented to the Division of Pulmonary Medicine Research Seminar, Stanford, CA, 1994.
158. Immunosuppression for transplantation: Common sense solutions to a complex therapeutic area. Keynote speaker, Fifth Annual Day in Transplantation, 1994. University of Toronto Multi Organ Transplant Program in association with the Toronto Hospital, Hospital for Sick Children, and St. Michael's Hospital, Toronto, Canada, 1994.
159. Update on clinical trials for new immunosuppressants for transplantation. Invited Lecture to Surgical Grand Rounds, Visiting Professor, Multi-Organ Transplant Program, University of Toronto, Canada, 1994.
160. Mechanisms of action for drugs controlling chronic allograft rejection. Invited Lecture, to Liver Transplant Rounds, Visiting Professor, Multi-Organ Transplant Program, University of Toronto, Canada, 1994.

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161. Novel targets for inhibition of growth factor action: use of new drugs to control chronic heart and lung allograft rejection and arterial narrowing after balloon catheter injury. Invited Lecture, Vascular Retreat – Invited Lecture to "Trends in Vascular Medicine and Biology," Stanford Division of Cardiovascular Medicine, Santa Cruz, CA, 1994.
162. Clinical status of immunosuppressants. Invited Lecture to Southeastern Organ Procurement Foundation, Charleston, SC, 1995.
163. Use of pharmacologic agents to dissect the pathophysiology of chronic rejection. Invited Lecture, Chronic Heart Rejection Summit, St. Louis, MO, 1995.
164. Use of new immunosuppressants in tolerance. Invited Lecture to N.I.H. Consensus Conference on Tolerance, Washington, D.C., 1995.
165. New developments in immunosuppression for transplantation. Invited Lecture to North American Pediatric Renal Transplant Cooperative Study, 5th Annual Workshop, San Francisco, CA, 1995.
166. Immunosuppression and the role of biotechnology. Invited Lecture to Genentech, S. San Francisco, CA, 1995.
167. Use of cyclosporine, mycophenolic acid, rapamycin, leflunomide or deoxyspergualin for prevention and treatment of obliterative airway disease in new animal models. International Society of Heart & Lung Transplantation 15th Annual Meeting, San Francisco, CA, 1995.

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

168. Rapamycin for immunosuppression. Invited Lecture to American Association for Thoracic Surgery, Symposium on Transplantation, Boston, MA, 1995.
169. Mechanisms of action of new immunosuppressive molecules. Invited Lecture to the International Consensus Conference on Immunosuppressive Drugs, Lake Louise, Canada, 1995.
170. Tracheal allograft transplantation: a model of obliterative airway disease and its treatment with new immunosuppressive drugs. American Society of Transplant Surgeons, Chicago, IL, 1995.
171. The cellular and molecular events causing obliterative airway disease after heterotopic tracheal allograft transplantation in rats. American Society of Transplant Physicians, Chicago, IL, 1995.
172. Chronic rejection of vessels and airways: new insights and new treatments. Invited Lecture to 6th Annual Rush Symposium on Transplantation "Chronic Rejection: A New Opportunity for Treatment," Chicago, IL, 1995.
173. Study of new immunosuppressive drugs using new animal models of obliterative airway disease in transplanted grafts. Invited Lecture, American Thoracic Society International Conference, Seattle, WA, 1995.
174. Immunosuppressive drugs for cardiac transplantation. Invited Lecture to the 6th International Symposium on Cardiac Surgery, Rome, Italy, 1995.

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

175. Newer immunosuppressive agents: drugs binding immunophilins, drugs interfering with purine and pyrimidine metabolism. Invited Lecture, 13th International Congress of Nephrology, Madrid, Spain, 1995.
176. Therapeutic interventions for long-term allograft failure - immunosuppressive therapies. Chair of session at Satellite Symposium of the 13th International Congress of Nephrology, Cuenca, Spain, 1995.
177. Mechanisms of immunosuppression. Invited Lecture, North American Society for Dialysis and Transplantation, Maui, HI, 1995.
178. New immunosuppressants. Invited Lecture, North American Society for Dialysis and Transplantation, Maui, HI, 1995.
179. New immunosuppressive therapy. Invited Lecture, UCSF Transplant Lecture Series, San Francisco, CA, 1995.
180. Mechanism of action and potential drug combinations. Invited Lecture, Plenary Session, the International Congress on New Immunosuppressive Drugs, Minneapolis, MN, 1995.
181. Leflunomide. Invited Lecture, Plenary Session, the International Congress on New Immunosuppressive Drugs, Minneapolis, MN, 1995.
182. Combination leflunomide and cyclosporine immunosuppression prevents MLR mismatches allograft rejection in mongrel dogs. International Congress on Immunosuppressive Drugs, Minneapolis, MN, 1995.

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183. New immunosuppressive drugs - mechanisms and potential for therapy. Invited Lecture to the 4th International Congress of Therapeutic Drug Monitoring, Vienna, 1995.
184. Lung transplantation: Clinical status, preclinical models for obliterative bronchiolitis and the potential for sirolimus. Invited Lecture, Wyeth Ayerst Research, Radnor, PA, 1995.
185. Current status and future perspectives of new immunosuppressants. Invited Lecture, Procept Pharmaceuticals, Inc, Cambridge, MA, 1995.
186. Update on immunosuppression invited Lecture to Transplant Fitness Day, Palo Alto, CA, 1995.
187. From tacrolimus to leflunomide and beyond: Lessons for immunosuppressive drug discovery, development and FDA approval. Invited Lecture, Vertex, Boston, 1995.
188. Molecular mechanisms of new immunosuppressants. Invited State of the Art Lecture, European Society of Organ Transplantation Biannual Meeting, Vienna, 1995.
189. Novel molecular mechanisms and pharmacodynamics of the antiproliferative actions of leflunomide, a new effective immunosuppressant, European Society of Organ Transplantation Biannual Meeting, Vienna, 1995.
190. Present status and future trends in immunosuppression for transplantation and autoimmune diseases. Invited presentation to Ortho Biotech, Sundance, UT, 1995.

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191. New developments in the use of Monoclonal Antibodies in transplantation. Invited Lecture, British Transplantation Society Meeting, London, England, 1995.
192. Into the heart of darkness: Review of immunosuppression for transplantation. Invited Lecture, Cambridge University, Cambridge, England, 1995.
193. Molecular mechanisms of action of leflunomide. Invited Lecture, Annual Meeting, American College of Rheumatology, San Francisco, 1995.
194. Strategies for the preclinical development of immunosuppressants relevant to studies of lymphocyte specific inhibition of transcription factors. Invited Lecture to joint meeting of Signal Pharmaceuticals and Bristol-Myers-Squibb Pharmaceuticals, San Diego, CA, 1995.
195. Review of immunosuppression for transplantation. Invited Lecture to American Liver Foundation (Northern California Chapter), San Francisco, 1995.
196. New developments in immunosuppression with special reference to chronic lung rejection. Invited Lecture, Pulmonary Grand Rounds, Cedars Sinai, Los Angeles, 1995.
197. New immunosuppressive drugs and therapeutic drug monitoring. Invited Lecture to Behring Diagnostics, San Jose, CA, 1995.
198. A comparison of the new pharmacologic agents in prevention of allograft rejection. Invited presentation at 5th Annual Postgraduate Course: New York - Transplant, New York, NY, 1995.

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199. Immunosuppression for transplantation. Transplant Journal Club, Stanford Medical School, Stanford, CA, 1995.
200. New developments in experimental and clinical immunosuppression. Invited Lecture, Emory University, Atlanta, GA, 1995.
201. New concepts in the pathogenesis, prevention and treatment of chronic allograft dysfunction. Invited Lecture to Sandoz, Basel, Switzerland, 1995.
202. Overview of New Immunosuppressants. Invited presentation to the American College of Clinical Pharmacology, Sixteenth Annual Frontiers Symposium and Winter Practice and Research Forum of the American College of Clinical Pharmacy, Monterey, CA 1996.
203. Gusperimus (15-deoxyspergualin). Invited presentation to The American College of Clinical Pharmacology, Sixteenth Annual Frontiers Symposium and Winter Practice and Research Forum of the American College of Clinical Pharmacy, Monterey, CA 1996.
204. Immunosuppression for transplantation. Invited Lecture to Transplantation Course, Stanford, CA, 1996.
205. Mechanisms of Action of Tacrolimus. Invited presentation to the Fujisawa Prograf Symposium, Second International Conference of Clinical and Experimental Immunosuppression, Geneva, Switzerland, 1996.

CURRICULUM VITAE

Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

206. Conceptual Frameworks for Understanding Immunosuppression. Presidential Address to the 2nd International Conference on New Trends in Clinical and Experimental Immunosuppression, Geneva, Switzerland, 1996.
207. Lessons from the Discovery and Development of New Immunosuppressants and Predictions for the Future. Invited Lecture to the 2nd International Conference on New Trends in Clinical and Experimental Immunosuppression, Geneva, Switzerland, 1996.
208. Pathogenesis and Treatment of Obliterative Airway Disease (OAD) after Xenogeneic Tracheal Transplantation in Rodents. Oral presentation to the 2nd International Conference on New Trends in Clinical and Experimental Immunosuppression, Geneva, Switzerland, 1996.
209. New immunosuppressants for transplantation. Invited Lecture to the 16th annual North American Renal Transplant Cooperative Study (NAPRTCS), Washington, DC, 1996.
210. Discovery and development of sirolimus (rapamycin) for control of chronic rejection and restenosis. Invited Lecture to the Wyeth-Ayerst Round Table on Sirolimus for Restenosis, New York City, 1996.
211. Introduction to new immunosuppressants. Invited Introduction to the "Treatment of Recurrent/Refractory Rejection at the International Society for Heart and Lung Transplantation, New York City, 1996.
212. Cellular and molecular mechanisms with inhibition by rapamycin of experimental allograft obliterative airway disease (OAD): Inhibition of growth-factor stimulated

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

- human adult lung fibroblast proliferation in vitro by rapamycin. Oral presentation, International Society for Heart and Lung Transplantation, New York City, 1996.
213. Update and new concepts in immunosuppression for organ transplantation. Invited Lecture, Liver Transplant Conference, Stanford University Hospital, 1996.
214. Preclinical package for immunosuppressive agents. Invited Lecture to CIBA Transplantation Workshop, CIBA Pharmaceutical, Summit, New Jersey, 1996.
215. Status of currently available immunosuppressive agents. Invited Lecture to the CIBA Transplantation Workshop, CIBA Pharmaceuticals, Summit, New Jersey, 1996.
216. Mycophenolate mofetil and rapamycin: Discovery, development and clinical use of two novel immunosuppressants. Invited Lecture to Stanford University Clinical Transplantation Forum, 1996.
217. Current and new immunosuppressive agents. Invited Lecture to the Transplantation Society of Australia and New Zealand, Sydney, Australia, 1996.
218. New perspectives in immunosuppression. Invited Lecture to the Transplantation Society of Australia and New Zealand, Sydney, Australia, 1996.
219. Mechanisms of action of new immunosuppressive drugs: Focus on potential and limitations. Invited Lecture to the Transplantation Society of Australia and New Zealand, Canberra, Australia, 1996.
220. Basic mechanisms of chronic allograft rejection. Invited Lecture to the Transplantation Society of Australia and New Zealand, Canberra, Australia, 1996.

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

221. Introduction: Practical experience with MNA's. Invited presentation to Hoechst AG, Leflunomide Method of Action Meeting, Symposium on MNA's in Transplantation, Eltville, Germany, 1996.
222. MNA's at Stanford and UC Davis. Invited presentation to Hoechst AG, Leflunomide Method of Action Meeting, Symposium on MNA's in Transplantation, Eltville, Germany, 1996.
223. Inhibition of pyrimidine biosynthesis with leflunomide in vitro and in vivo. Invited presentation to Hoechst AG, Leflunomide Method of Action Meeting, Symposium on DHODH, Eltville, Germany, 1996.
224. Induction of immunosuppressive cytokine and reduction of immunostimulatory cytokine, a novel mechanism of action of the immunomodulatory drug, leflunomide. Invited presentation to Hoechst AG, Leflunomide Method of Action Meeting, Symposium on Molecular Targets Other Than DHODH and Effects on Cytokines, Eltville, Germany, 1996.
225. Perspectives in immunosuppression. Anglo-American Visiting Professor Lecture, Royal Society of Medicine, London, 1996.
226. Overview of immunosuppression for transplantation. Invited Lecture, Renal Transplant Unit, Central Manchester Healthcare NHS Trust, Manchester, England, 1996.
227. New directions in immunosuppression. Invited Lecture, Northern General Hospital, University of Sheffield Clinical Sciences Centre, Sheffield, England, 1996.

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

228. Immunosuppression and chronic rejection. Invited Plenary Lecture at Symposium on Chronic Rejection, American Society for Transplant Physicians, Dallas, TX, 1996.
229. Mechanisms of immunosuppressive drugs: Action and special problems in children. Invited Plenary Lecture, Sigrid Juselius Symposium, Helsinki, Finland, 1996.
230. Preclinical and clinical status of immunosuppression for organ grafting. Invited Lecture, Vertex Pharmaceuticals, Cambridge, MA, 1996.
231. Potential of rapamycin to control clinical lung allograft rejection. Invited Lecture, Western Lung Consortium, Stanford, CA, 1996.
232. Novel immunosuppressive drugs for transplantation. Invited Lecture, Immunosuppression, Cytokine, and Immunotherapy Research Symposium, Princeton, NJ, 1996.
233. Molecular biology of immunosuppressive medications. Invited Lecture, American Society of Transplant Physicians Symposium on Transplantation, St. Louis, MO, 1996.
234. Mechanism and prevention of chronic allograft failure. Invited Lecture, Symposium on Chronic Rejection, Transplantation Society Congress, Barcelona, Spain, 1996.
235. Overview of Immunosuppressive drugs. Invited plenary session presentation at the International Congress of the Transplantation Society, Barcelona, Spain, 1996.

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

236. Antibodies in management of transplant patients. Invited Lecture, Transplantation Society Congress, Barcelona, Spain, 1996.
237. A novel inhibitor of NF κ B and AP-1 transcription factors in T cells suppresses host vs. graft alloreactivity in vivo. Invited Lecture, Symposium on New immunosuppressors: FTY-Apoptosis, at the International Congress of the Transplantation Society, Barcelona, Spain 1996.
238. New immunosuppressive regimens. Invited Lecture, Lung Transplantation Symposium, European Respiratory Society, Stockholm, 1996.
239. Removal of alloimmune injury fails to prevent subsequent progression of obliterative airway disease in rat tracheal allografts. Invited Lecture, 2nd International Congress on Lung Transplantation, Paris, 1996.
240. Novel immunosuppressant drug therapy for obliterative airway disease after rat heterotopic tracheal allograft transplantation. Invited Lecture, 2nd International Congress on Lung Transplantation, Paris, 1996.
241. Insights into the cellular and molecular pathogenesis of obliterative bronchiolitis from studies of transplanted tracheal grafts. Invited Lecture, 2nd International Congress on Lung Transplantation, Paris, 1996.
242. Lung Transplantation: Preclinical and clinical status. Invited presentation, Sandoz Pharmaceuticals, Basel, Switzerland, 1996.
243. Transplantation in the future. Invited presentation, Leflunomide Analogues (Malononitriloamides) at Hoechst-Marion Roussel, Frankfurt, Germany 1996.

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

244. Immunosuppressive therapy: Risks and chances for development of new immunosuppressive drugs. Invited presentation, Leflunomide Analogues (Malononitriloamides) at Hoechst-Marion Roussel, Frankfurt, Germany 1996.
245. Experience with MNAs at Stanford. Invited Presentation, Leflunomide Analogues (Malononitriloamides) at Hoechst-Marion Roussel, Frankfurt, Germany 1996.
246. Mechanisms of chronic rejection, Invited plenary Lecture, American Society of Histocompatibility & Immunogenetics 22nd Annual Meeting, San Diego, CA, 1996.
247. Control of chronic rejection with new immunosuppressive drugs. Invited plenary Lecture, American Society of Histocompatibility & Immunogenetics Annual Meeting, San Diego, CA, 1996.
248. How do we use the immunosuppressive drugs?, Invited Symposium Presentation, National Kidney Foundation Annual Meeting, New Orleans, 1996.
249. What's Next? Invited Lecture, Symposium - How to use immunosuppressive drugs, National Kidney Foundation, New Orleans, 1996.
250. Evidence that *in vitro* and *in vivo* anti-proliferative effects of leflunomide (LFM) are mediated by inhibition of *de novo* pyrimidine biosynthesis: *In vivo* inhibition of dihydroorotate dehydrogenase (DHOdehase). Invited Presentation, International Conference on Pediatric Heart & Lung Transplantation, Rancho Mirage, CA 1997.

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

251. Removal of alloimmune injury fails to prevent subsequent progression of obliterative airway disease in rat tracheal allografts. Invited Presentation, International Conference on Pediatric Heart & Lung Transplantation, Rancho Mirage, CA 1997.
252. New immunosuppressive agents. Invited Lecture, International Conference on Pediatric Heart & Lung Transplantation, Rancho Mirage, CA 1997.
253. Chronic rejection. Invited presentation, Advanced Nephrology: Nephrology for the Consultant, San Diego, CA 1997.
254. Invited Mini-clinical pathological conference. Advanced Nephrology: Nephrology for the Consultant, San Diego, CA 1997.
255. Organ transplantation in the 21st century: optimal targets for immunosuppression and tolerance. Invited Lecture, American Society of Transplant Physicians Winter Symposium, Phoenix, AZ 1997.
256. Emerging immunosuppressive therapies not in clinical trial. Invited Lecture, American Society of Transplant Physicians Winter Symposium, Phoenix, AZ 1997.
257. The discovery and development of new immunosuppressants. Invited presentation, Sixth Annual Spring Clinical Nephrology Meeting, National Kidney Foundation, Dallas, TX 1997.
258. The Future of Transplantation Medicine. Invited Presentation, Immunosuppressive Drug Monitoring Symposium.. San Jose, CA, 1997.

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

259. Study Design of Monkey Transplant Studies. Invited Presentation, RAD Heart and Lung Transplant Advisory Board. Chicago, 1997.
260. "Investigational Immunosuppressive Agents - Pharmacologic." Invited Presentation, American Society of Transplant Physicians. Symposium on Transplantation Medicine. St Louis, MO, 1997.
261. "Novel Immunosuppression." Invited Presentation, 5th International Symposium on Intestinal Transplantation. Cambridge, England, 1997.
262. "The Discovery and Development of New Immunosuppressants." Invited Presentation, (NIH) Workshop on Bone and the Hematopoietic and Immune Systems. Bethesda, Maryland, 1997.
263. "HMR-Stanford-UC Davis Collaboration: Leflunomide and MNAs." Invited Presentation, HMR Meeting. Bridgewater, NJ, 1997.
264. "Preclinical Summary of Rapamune." Invited Presentation, The Emerging Profile of Rapamune. European Society of Organ Transplantation. Budapest, Hungary, 1997.
265. "Overview and Update on Present and Future Trends in Pharmacologic Immunosuppression." Invited Presentation, Fifth Basic Science Symposium of the Transplantation Society. Chautauqua, NY, 1997.
266. "From Molecules to Drugs: Lessons Learned from Immunosuppressive Drug Discovery and Development." Invited Presentation, Immune Modulation for Transplantation and Autoimmune Diseases Conference: New Approaches to Drug Design and Development. San Francisco, CA, 1997.

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

267. “New Immunosuppressive Drugs: Are They Necessary?” Invited Presentation, Organ Transplantation: A Present Treatment With New Challenges for the Future. La Coruna, Spain, 1997.
268. “Chronic Rejection: Possibilities for Therapeutic Intervention.” Invited Plenary Presentation, Spanish Society of Nephrology: Update in Immunosuppression, Santander, Spain, 1997.
269. “New Immunosuppressive Agents: Drugs in Preclinical Evaluation.” Invited Plenary Presentation, Spanish Society of Nephrology: Update in Immunosuppression, Santander, Spain, 1997.
270. “Drugs for Immunosuppression.” Invited Presentation, Minneapolis Heart Institute Foundation: Current Perspectives in Cardiac Transplantation, Tucson, AZ, 1997.
271. “Overview: New Immunosuppressive Drugs.” Invited Plenary Presentation, 5th International Congress of Therapeutic Drug Monitoring and Clinical Toxicology, Vancouver, Canada, 1997.
272. “Transplantation Monitoring: Where Do We Go From Here?” Invited Plenary Presentation, 5th International Congress of Therapeutic Drug Monitoring and Clinical Toxicology, Vancouver, Canada, 1997.
273. “Current Preclinical and Clinical Development of Immunosuppressive Drugs for Transplantation and Autoimmune Diseases.” Invited Presentation, Zeneca Pharmaceuticals, Wilmington, DE, 1997.

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

274. “New Developments in Immunosuppressive Therapy.” Invited Plenary Presentation, The 13th Rotterdam Liver Day, Rotterdam, 1997.
275. “New Immunosuppressive Strategies.” International Congress on Immunosuppression, Orlando, FL, 1997.
276. “New Developments in Allo- and Xenotransplantation.” Invited Plenary Presentation, OECD New York Academy of Sciences, New York, NY, 1998.
277. “Managing Rejection: Clinical Outcomes and Pharmaceutical Approaches.” Invited Presentation, OECD New York Academy of Sciences, New York, NY, 1998.
278. “Humanized Monoclonal Antibody Therapy.” Invited Plenary Presentation, International Society for the Heart and Lung Transplantation 18th Annual Meeting and Scientific Session, Chicago, IL, 1998.
279. “Experimental Models for Drug Testing.” Invited Speaker, Chronic Rejection Satellite Symposium, International Society for the Heart and Lung Transplantation, Chicago, IL, 1998.
280. “Novel Immunosuppressive Drugs.” Invited Plenary Presentation, Royal College of Physicians: Immunotherapeutics, Regent’s Park, London, 1998.
281. “Understanding Modes of Action: Current and Emerging Immunosuppressants.” Invited Presentation, Roche Scientific Roundtable, San Francisco, CA, 1998.

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

282. Guest Lecture: "Genetically Engineered Immunosuppressive Monoclonal Antibodies - Principles and Examples." Invited Presentation, Roche Workshop, Congress of the Transplantation Society, Montreal, Canada, 1998.
283. "Will the Next Generation of Immunosuppressants Have a Role in Chronic Rejection?" Invited Presentation, Congress of the Transplantation Society, Montreal, Canada, 1998.
284. "New Immunosuppressive Drugs." Invited Presentation, International Society for Experimental Microsurgery (ISEM), London, Ontario, 1998.
285. "Update on New Immunosuppressive Agents: From Bench to Practice." Invited Presentation, The North ICU Education Committee: Selected Topics in Cardiovascular Care, Stanford, CA, 1998.
286. "Effect of Immunosuppressive Agents on Intimal Proliferation." Invited Presentation, International Society of Heart & Lung Transplantation, First Fall Education Meeting, Washington, DC, 1998.
287. "Chronic Rejection and Immunosuppression." Roche Round Table, Dallas, TX, 1998.
288. "Novel Immunomodulatory Strategies: An Overview." Invited Presentation, American Society of Nephrology Annual Scientific Meeting, Philadelphia, PA, 1998.
289. "Experimental and Clinical Use of New Promising Immunosuppressive Agents in Organ Transplantation." Invited Lecturer, Hospital Grossharden, Munich, Germany, 1998.

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

290. "Is There a New Therapeutic Approach to Chronic Graft Rejection/Dysfunction?"
Invited Lecturer, Charite Hospital, Berlin, Germany, 1998.
291. "Summary of Experience, Cynomolgus Monkey Kidney Transplant Studies." Invited
Presentation, Anti B-7 Monoclonal Antibody Preclinical Investigators Meeting, Boston,
MA, 1999.
292. "Presentation of Outlines for Kidney Transplant Study Protocols." Invited
Presentation, Anti B-7 Preclinical Investigators Meeting, Boston, 1999.
293. "The Lung as a Model for Clinical Efficacy - Additional Suggested Lung Studies."
Roche Symposium, Kapalua, HI, 1999.
294. "Immunopharmacologic Control of T-cell Signaling Pathways Involved in the
Allorecognition Response." Invited Speaker, American Society of Clinical Pharmacy
and Therapeutics 100th Annual Meeting, San Antonio, TX, 1999.
295. "Preclinical Pharmacology Models." Invited Presentation, Anti-B7 Monoclonal
Antibodies Meeting, Philadelphia, 1999.
296. "Immunosuppressive Strategies in Heart Transplantation." Invited Presentation,
Investigational Workshop of Tacrolimus in Heart Transplantation, International
Society of Heart and Lung Transplantation, San Francisco, 1999.
297. "Immunosuppression: Today and Tomorrow." Invited Plenary Presentation, 6th
Congress of the Brazilian Society of Organ Transplants, Belo Horizonte, Brazil, 1999.

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

298. "Chronic Rejection: Prevention and Interruption." Invited Plenary Presentation, 6th Congress of the Brazilian Society of Organ Transplants, Belo Horizonte, Brazil, 1999.
299. "Novel Immunosuppressive Drugs (Small Molecule)." Invited Speaker and Chair, International Society of Heart and Lung Transplantation 19th Annual Meeting and Scientific Sessions, San Francisco, CA, 1999.
300. "Molecular Effects of Drugs on Immune Cells In vivo: Importance for Drug Discovery, Clinical Trials, and Routine Use." Invited Speaker, International Society of Heart and Lung Transplantation 19th Annual Meeting and Scientific Sessions, San Francisco, CA, 1999.
301. "Role of Animal Models in the Study of Acute and Chronic Lung Allograft Rejection." Invited Presentation, American Lung Association/American Thoracic Association International Conference, San Diego, CA, 1999.
302. "RAD Experience in Primate Lung Transplantation." Invited Presentation, B153 Protocol, Novartis Finalization Meeting, London, 1999.
303. "Mechanisms of Immunosuppression." Invited Plenary Presentation, Symposium for the Retirement of Sir Roy Calne, Cambridge, England, 1999.
304. "Overview of Immunosuppression." Invited Presentation, American Society of Transplantation Symposium, Montreal, Canada, 1999.
305. "Leflunomide." Invited Plenary Presentation, 6th International Congress of Therapeutic Drug Monitoring & Clinical Toxicology, Queensland, Australia, 1999.

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

306. “Designer Immunosuppressants for Transplantation: From Bench to Bedside.” Invited Plenary Presentation, 6th Congress of the Asian Society of Transplantation, Suntec City, Singapore, 1999.
307. “MNA’s, A Class of Their Own”, Invited Lecture, International Congress on Experimental and Clinical Immunosuppression, Geneva, 2000.
308. “ New Targets for Immunosuppression”, Invited Plenary Lecture, International Congress on Experimental and Clinical Immunosuppression, Geneva, 2000.
309. “ Mechanisms of Action of Mycophenolic Acid and Monitoring Issues,” Pediatric Nephrology Meeting, Stanford , CA, April 11, 2000.
310. “Immunosuppression: Rapamycin,” Heart-Lung and Lung Transplant Team Retreat, Stanford University Medical Center Transplant Programs, Stanford, CA, 2000.
311. “ Mycophenolate Mofetil and Sirolimus in Models of Chronic Rejection,” Advisory Board Meeting, Roche, New York, NY, 2000.
312. “ OB/OAD and Treatment in a Rat Model,” American Society of Transplantation, Chicago, 2000.
313. “Obliterative Bronchiolitis Workshop,” Invited Lecture, American Society of Transplantation, Chicago, 2000.
314. “The Molecular Mechanisms of Immunosuppressants and Their Importance for Optimal Clinical Outcomes in Transplantation,” Invited Lecture, American Society of Transplantation, Chicago, 2000.

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

315. "Chronic Allograft Dysfunction: Impact of the New Immunosuppressive Drugs," Invited Plenary Lecture, American Society of Transplantation, Chicago, 2000. "Newer Immunosuppressives," Invited Plenary Lecture, First Meeting of the International Pediatric Transplant Association, Venice, Italy, 2000.
316. "Leading the Way in Transplantation," Satellite Symposium, XVIII International Congress of the Transplantation Society, Rome, 2000.
317. "Efficacy of Immunosuppressive Agents in Pig-to-Primate Transplantation," Invited Lecture, XVIII International Congress of the Transplantation Society, Rome, 2000.
318. "In Vivo Mechanisms of Action of Immunosuppressants," Invited Keynote Lecture, 9th Annual Meeting of the German Transplant Society, Regensburg, Germany, 2000.
319. "Pharmacokinetics and Safety of Two Single Doses of RAD001 in Stable Lung and Heart/Lung Transplant Recipients with and without Cystic Fibrosis," Annual Meeting of the American College of Clinical Pharmacy, Los Angeles, 2000.
320. "The response to immune and non-immune mediated injury in vessels and airways: Effects and mechanisms of new therapeutic agents." International Symposium on Chronic Rejection in Experimental and Clinical Transplantation: New Strategies and Research and Therapy, Wuerzburg, Germany, 2001.
321. "New small and large molecular weight drugs to suppress acute and chronic rejection and their in vivo mechanisms of action." Grand Rounds, University of Michigan, Ann Arbor, MI, 2001.

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

322. "New drugs for transplant rejection and post-angioplasty restenosis and their in vivo mechanisms." Grand Rounds, Baylor University, Houston, TX, 2001.
323. "Approaches to graft survival: Current and new immunosuppressive regimens." Invited Lecture, Geron Corporation, Menlo Park, CA, 2001.
324. "The discovery of a new agent for transplantation: Sirolimus-a novel immunosuppressive agent." 1st international symposium on Sirolimus, Plenary Session. Vienna, Austria, 2001
325. "Cynomolgus monkeys PK/PD and dog transplantation." Transplant consultants meeting. Chicago, Illinois, 2001.
326. "Pharmacodynamic pharmacokinetic models for immunosuppressive drugs". Plenary Lecture Seventh International Congress of Therapeutic Drug Monitoring and Clinical Toxicology. Washington, D.C. 2001.
327. "Present status of transplantation: new immunosuppressive drugs". Plenary Lecture at Transplantation Congresses. Istanbul, Turkey, 2001.
328. "Ischemia injury and chronic rejection: Importance of basic science for new drug discovery development and clinical use. Keynote speaker, the 7th Basic Sciences Symposium of the Transplantation Society. Thun/Bern, Switzerland, 2001.
329. "Drug discovery and development for transplantation: bench to bedside and spin-offs beyond transplantation. Grand Rounds, Stanford University, Stanford, CA. 2001.

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

330. "Immunosuppression-2005". Oscar Salvatierra Transplant fellows Symposium. Scottsdale, AZ, 2001.
331. "Impact of TOR inhibitors on Graft Vascular Disease". Satellite Symposium on: New findings on the antiproliferative and cardiovascular risk profiles of TOR inhibitors. Chicago, IL, 2001.
332. "New developments in immunosuppression for transplantation". Plenary Lecture Seventh International Small Bowel Transplant Symposium. Stockholm, Sweden, 2001.
333. "Future Immunosuppressive agents". Invited plenary talk, 2nd International Congress on Immunosuppression, San Diego, CA, 2001.
334. "Immunosuppression". Invited Lecture to 22nd Annual Meeting & Scientific Sessions of the International Society for Heart and Lung Transplantation, Washington, DC, 2002.
335. "Immunosuppression: From Serendipity to Designer Drugs" Plenary Lecture to XIX International Congress of the Transplantation Society, Miami, 2002.
336. Transplantation 2002 "The Transplant Evolution" Dublin, Ireland, October 2002.
337. 20th Eurotransplant Winter Meeting "Immunosuppression: From Serendipity to Designer Drugs" Fügen, Austria, January 2003.
338. 7th Congress of the Catalan Transplantation Society "Immunosuppressive drug discovery" Barcelona, Spain, February 2003.

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

- 339. Annual Scientific Meeting, Andrew Lazarovits Memorial Plenary Lecture "Innovations in Immunosuppressive Drug strategies" Lake Louise, Canada, March 2003.
- 340. International Society for Heart and Lung Transplantation ISHLT 23rd Annual Meeting and Scientific Session "Advances in Immunosuppression – Potential Targets for the Future" Vienna, Austria, April 2003.
- 341. 6th International Conference on New Trends in Immunosuppression Plenary Lecture "Search for new and specific immunosuppressive drugs" Salzburg, Austria, February 2004.
- 342. Certican (everolimus) Global Heart Meeting "Preclinical review of Certican (everolimus) with a focus on its use for prevention of graft vascular disease" Stanford University, California, April 2004.
- 343. The 5th Annual Novartis Norway Transplantation Workshop, "Search for New and Specific Immunosuppressive Drugs", Oslo, Norway, March 2004.
- 344. American Transplant Congress "Novel Immunosuppressive Drug Targets for Patient Management in the Future", Boston, Massachusetts, May 2004.
- 345. American Transplant Congress "The Future of Transplantation" Boston, Massachusetts, May 2004.
- 346. XX International Congress of the Transplantation Society, Invited Lecture "Pharmacogenetics & Pharmacogenomics: Toward individualized Immunosuppressive therapy", Vienna, Austria, September 2004.

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

347. UK Visitors at Novartis, "From Laboratory to Clinic: An Overview of Novartis' Research Efforts in Transplantation", Basel, Switzerland, November 2004.
348. Surgical & Gastroenterological Grand Rounds, "Novel Immunosuppressive Drug Targets for Patient Management in the Future", University Hospital, Zürich, Switzerland, January 2005
349. International Liver Transplantation Society Council and Novartis, "Novel Immunosuppressive Drug Targets for Patient Management in the Future", Basel, February 2005
350. A First Annual Forum on Immunological Pathways in Transplantation, "Toward Immune Cell-Selective Immunosuppression: JAK3 Signaling Pathway", Madrid, Spain, April 2005.
351. 25th Anniversary Meeting and Scientific Sessions, International Society for Heart and Lung Transplantation ISHLT, "Molecular Biology of Proliferation Signal Inhibitors: New Insights", Philadelphia, Pennsylvania, USA, April 2005
352. University of Alberta, Immunosuppressive Drug Discovery in "Big Pharma", Edmonton, Canada, May 2005
353. Immunosuppressive Drug Discovery in "Big Pharma", Denver, Colorado, USA, May 2005
354. SwissTransplant Physicians Visit to Novartis, Basel, "Novartis Dedicated Research Plan", June 2005

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

- 355. Plenary Lecture 20th Ciclosporin Anniversary Symposium, Japan “Discovery of New Immunosuppressants for Transplantation” Tokyo, Japan August 2005
- 356. Swiss National Research Foundation Program, Invited Lecture “Immunosuppressive Drug Discovery in the Era of More Immune Cell-Selective Therapies” Bern, Switzerland September 2005
- 357. Congreso de Nacional S.E.N., Plenary Lecture “Immunosuppression alternative to anticalcineuritics” Malaga, Spain October 2005
- 358. International Symposium One Thousand Organ Transplants in the Friuli-Venezia Giulia Region, Plenary Lecture “New Molecules, New Drugs”, Udine, Italy October 2005
- 359. Infectious Disease & Transplantation Business Unit of Novartis Strategic Roundtable, Boston, “Transplantation Immunosuppressants: Research and Early Clinical Development Development” April 2006
- 360. AST Winter Symposium, Invited Lecture “Transplant Immunosuppressive Drug Discovery: From Serendipity to Rational Drug Design”, Cancun, Mexico February 2006
- 361. Clinical Immunology Unit of Graz University Medical School, Jean Dausset Symposium, “The Jean Dausset Plenary Lecture: Rational Discovery and Design of Safer and More Effective Immunosuppressants” Graz, Austria June 2006

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

362. World Transplant Congress, Boston, "Targeted by Design, A Rational Approach to Discovering Novel, Selective Immunosuppressants", July 2006
363. World Transplant Congress, Boston, "Overview of Transplantation at Novartis", Lecture to Infectious Disease, Transplantation & Immunology Business Unit, Boston July 2006
364. Columbia Presbyterian University Medical Center, Transplantation Lecture, "Current Revolution in Immunosuppression for Transplantation" New York August 2006
365. Hahnenmann University Medical Center, Transplantation Seminar, "Current Revolution in Immunosuppression for Transplantation" Philadelphia August 2006
366. University of Miami Medical Center, Dept of Surgery Seminar, "Current Revolution in Immunosuppression for Transplantation" Miami August 2006
367. University of California at Los Angeles Medical Center, Surgical Seminar, "Current Revolution in Immunosuppression for Transplantation" Los Angeles August 2006
368. University of Southern California Medical Center, Cedars Sinai Hospital, Transplantation Seminar, "Current Revolution in Immunosuppression for Transplantation" Los Angeles August 2006
369. Scripps Research Institute, Lecture, "Current Revolution in Immunosuppression for Transplantation", San Diego August 2006

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

370. Sharp Medical Clinic, Nephrology Seminar, "Current Revolution in Immunosuppression for Transplantation", San Diego August 2006
371. University of California at Pacific Medical Center, Transplantation Seminar, "Current Revolution in Immunosuppression for Transplantation", San Francisco August 2006
372. University of California at San Francisco Medical Center, Transplantation Lecture, "Current Revolution in Immunosuppression for Transplantation" San Francisco August 2006
373. Institute of Clinical & Experimental Medicine, Certican/Myfortic Launch Symposium, "A Rational Approach to Discovering Novel, Selective Immunosuppressants" Prague, Czechoslovakia September 2006
374. University of Oslo Rikspital, Transplantation Lecture "The Current Revolution in the Discovery and Development of Immunosuppressive Drugs for Transplantation" Oslo, Norway September 2006
375. Nordic World Transplant Congress, World Transplant Congress Update Symposium, "Advances in Transplantation Basic Science" Copenhagen, Denmark September 2006
376. University of Copenhagen Odense and Aarhus Medical Center, "The Current Revolution in the Discovery and Development of Immunosuppressive Drugs for Transplantation" Copenhagen, Denmark September 2006
377. University of Malmo and Lund Medical Centers, Seminar, "The Current Revolution in the Discovery and Development of Immunosuppressive Drugs for Transplantation"

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Randall Ellis Morris, M.D., F.R.C.P. Fellow of Royal College of Physicians (Glasgow)

Malmö, Sweden September 2006

378. University of Gothenburg Medical Center, Transplantation Lecture, "The Current Revolution in the Discovery and Development of Immunosuppressive Drugs for Transplantation" Gothenburg, Sweden September 2006
379. Seattle Cancer Alliance (Fred Hutchinson Cancer Center, University of Washington, Children's Hospital), Research Lecture, "Current Revolution in Immunosuppression for Transplantation" Seattle October 2006
380. University of Oregon Health Sciences Center Transplantation Lecture, "Current Revolution in Immunosuppression for Transplantation" Portland October 2006
381. University of Washington Seminar, "Current Revolution in Immunosuppression for Transplantation" Seattle October 2006
382. University of Washington Transplantation Lecture, "Current Revolution in Immunosuppression for Transplantation" Seattle October 2006
383. University of Colorado Health Sciences Center, Transplantation Seminar, "Current Revolution in Immunosuppression for Transplantation" Denver October 2006
384. Osaka Kidney Transplantation Forum, Invited Plenary Lecture "Basic Research & Pipeline Projects at Novartis" Osaka, Japan November 2006
385. Lecture to Mexican Transplant Physicians "Current Revolution in Immunosuppression for Transplantation", Basel, Switzerland November 2006

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- 386. Clinical Review Symposium, Invited Plenary Lecture "Novel Diagnostics and Therapeutics in Organ Transplantation", Utrecht, Netherlands November 2006
- 387. Novartis Transplantation Symposium, "Current Revolution in Immunosuppressive Drug Discovery for Transplantation", London, United Kingdom November 2006
- 388. Guy's Hospital, Lecture, "Current Revolution in Immunosuppressive Drug Discovery for Transplantation", London, United Kingdom November 2006
- 389. Hammersmith Hospital, Seminar, "Current Revolution in Immunosuppressive Drug Discovery for Transplantation", London United Kingdom November 2006
- 390. Update in Transplantation Meeting, "Current Revolution in Immunosuppressive Drug Discovery for Transplantation", Dublin, Ireland December 2006
- 391. Novartis Symposium, "Current Revolution in Immunosuppressive Drug Discovery for Transplantation" Manchester, United Kingdom December 2006
- 392. University of Cambridge Nuffield Hospital, Transplantation Lecture, "Current Revolution in Immunosuppressive Drug Discovery for Transplantation" Cambridge, United Kingdom December 2006
- 393. "Perspectives on Clinical Transplantation: Visits with Members of Transplant Centers in the U.S., Scandinavia, Europe and Asia (July to December 2006)" Presentation to Novartis Infectious Diseases, Transplantation & Immunology Business Franchise, Basel, Switzerland, February, 2007.

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394. "Current Revolution in Immunosuppressive Drug Discovery for Transplantation"
Presentation at Symposium for Chicago Transplant Units (Northwestern Memorial Hospital, University of Illinois at Chicago Medical Center, University of Chicago Medical Center, Rush University Medical Center, Loyola University Medical Center), Chicago, Illinois, February, 2007.
395. "Current Revolution in Immunosuppressive Drug Discovery for Transplantation"
Presentation at University of Wisconsin at Madison, Madison, Wisconsin, February, 2007.
396. "Current Revolution in Immunosuppressive Drug Discovery for Transplantation"
Presentation at University of Pennsylvania Medical Center, Philadelphia, Pennsylvania, February, 2007.
397. "Current Status of Transplantation" Presented at Novartis Infectious Diseases, Transplantation and Immunology - U.S., East Hanover, New Jersey, February, 2007.
398. "Current Revolution in Immunosuppressive Drug Discovery for Transplantation."
Invited presentation at the 9th Congress of the Catalan Transplantation Society, Barcelona, Spain, February, 2007.
399. "Current Status of Transplantation Research and Development with a Focus on AEB071" Presented at meeting for Spanish transplant professionals, Barcelona, Spain, February, 2007.
400. "The Current Revolution in Immunosuppressive Drug Discovery for Transplant Immunosuppression" Canadian Society for transplantation annual meeting, Banff,

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Canada, March, 2007.

401. "Tx Landscape 2010 - 2015: Global Perspectives & Pipelines" IDTI BOS Meeting, Zürich, Switzerland, March, 2007
402. "AEB071: Selective Protein Kinase C (PKC) Immunosuppressant for Transplantation" AEB071 Advisory Board, American Transplant Congress, San Francisco, May, 2007
403. "Biochemistry and Immunology of Protein Kinase C" American Transplant Congress, San Francisco, May, 2007
404. "The Current Revolution in Immunosuppressive Drug Discovery for Transplant Immunosuppression" Cardiology Seminar, St. Vincent's Hospital, Sydney
405. "The Current Revolution in Immunosuppressive Drug Discovery for Transplant Immunosuppression" Cardiopulmonary Transplantation Seminar, St. Vincent's Hospital, Sydney, Australia, June 2007
406. "Renal Transplant Summit 'Targeted by Design' A rational approach to Discovering Novel, Selective Immunosuppressants", Noosa, Australia, June 2007
407. "Advances in Transplantation Medicine - Past, Present & Future" 360° Approach: Advances in the Management of Kidney Disease, Berlin, June, 2007
408. "Current Revolution in Immunosuppressants for Transplantation". Departments of Surgery Special Grand Rounds, University of Nebraska, Omaha, September, 2007

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409. Invited presentation at the Joint Congress of the Cell Transplantation Society, “Rational Drug Design of Immunosuppressants for Transplantation: JAK3 and PKC Inhibitors”, International Pancreas and Islet Transplantation Association and the Xenotransplantation Association. Minneapolis, September, 2007
410. “Pharmaceuticals and Immunosuppression”. Presented to transplant professionals from the St. Paul Hospital, University of Texas Southwestern Medical School, Children's Medical Center, Methodist Hospital, Dallas, Texas, September, 2007
411. “Current Revolution in Immunosuppressants for Transplantation”. Presentation at the Baylor University Medical Center at Dallas Regional Transplant Institute, Dallas, Texas, September, 2007
412. Plenary Lecture: “Pharmacogenetics, Pharmacokinetics and Therapeutic Drug Monitoring of Immunosuppressive Drugs”, New strategies in Immunosuppressive Drug Development, Nice, September 2007
413. “Current Revolution in Immunosuppression Discovery and Development for Transplantation”. Bellvitge Hospital, Renal Transplantation, University of Barcelona, Spain, October, 2007
414. “Biochemistry of Protein Kinase C and Its Inhibition by AEB071”. AEB071 Renal Transplantation Investigators' Meeting, European Society of Transplantation, Prague, Czech Republic, October, 2007
415. German Transplantation Society Meeting, “AEB071 is a Novel and Selective Inhibitor of Protein Kinase C that Inhibits Early T-Cell Activation and Suppresses Transplant Rejection”, Mainz, Germany, October, 2007

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416. Taiwan Transplantation Society Meeting, “AEB071: A First-In-Class Immunomodulator for prevention of renal allograft rejection” Taipei, Taiwan, November, 2007
417. British Transplantation Society, “A Journey of Discovery: Immunosuppressants for Transplantation. Muck, Mold & Medicines: From Antsepsis to Antirejection”, Glasgow, Scotland, April 2008
418. 15 Year Anniversary Symposium of the Walter Brendel College: Transplantation Yesterday, Today and Tomorrow “The Past, Present and Future Trends in Immunosuppression for Transplantation”. Wildbad-Kreuth, Germany, March, 2008
419. AEB071: Preclinical and Early Development Results, presented at the AEB071 Advisory Board, Toronto, Canada, May, 2008
420. Novartis Transplant Research: Current and Future Directions, presented at the Novartis Canada Novartis Global Thought Leaders Event, Toronto, Canada, May 2008
421. The Current Revolution in Immunosuppressive Drug Discovery for Transplantation, Montefiore Medical Center, New York City, June 2008
422. The Current Revolution in Immunosuppressive Drug Discovery for Transplantation, Mount Sinai Transplantation Institute, New York City, June 2008
423. The Current Revolution in Immunosuppressive Drug Discovery for Transplantation, Massachusetts General Hospital, Boston, June 2008

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424. American Transplant Congress. AEB071 Advisory Board Mtg. "NVP-AEB071 (Sotrastaurin): Selective Inhibitor of Protein Kinase C (PKC), Early T-Cell Activation and Transplant Rejection." Toronto, Canada, June 2008
425. American Transplantation Congress. Canadian Transplantation Research Mtg. "Novartis Transplantation Research -- Current and Future Directions." Toronto, Canada, June 2008
426. Transplantation Seminar. "Current Revolution in Immunosuppressive Drug Discovery for Transplantation." Montefiore Medical Center, New York, New York, June, 2008
427. Transplantation Seminar. "Current Revolution in Immunosuppressive Drug Discovery for Transplantation." Mount Sinai Medical Center, New York, New York, June, 2008
428. Transplantation Research Seminar. "Current Revolution in Immunosuppressive Drug Discovery for Transplantation." Massachusetts General Hospital, Harvard University Medical School, Boston, Massachusetts, June, 2008
429. Fourth Annual Conference on Living Donor Abdominal Transplantation: State of the Art. "Future Directions in Transplant Immunosuppression." Sorrento, Italy, June, 2008
430. International Congress of The Transplantation Society. State-of-the-Art Symposium. "Why So Many Targets but so Few Drugs?" Sydney Australia, August, 2008
431. Transplantation Seminar. "Current Revolution in Immunosuppressive Drug Discovery for Transplantation." University of California at Davis Medical Center,

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Sacramento, California, August, 2008

432. Transplantation Seminar. "Why So Many Targets but so Few Novel and Approved Drugs for Transplantation?" University of California at San Francisco Medical Center, San Francisco, California, August, 2008
433. Dinner Seminar. "Update on AEB071 Clinical Trials and Novartis's Increased Commitment to Transplantation." University of California at Los Angeles Medical Center, University of Southern California Medical Center, St. Vincents Hospital, Los Angeles, California, 2008
434. 40th Anniversary of Human Heart Transplantation at Stanford. "The Future of Immunosuppression." Stanford University School of Medicine, Stanford, California, October, 2008
435. 40th Anniversary of Renal Transplantation at Verona. "New Drugs for Old Problems." Azienda Ospedaliero-Universitaria di Verona, Verona, Italy, November, 2008