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CURRICULUM VITAE

Name: **Joseph A. Madri, Ph.D., M.D. Professor Emeritus**

Education:

1959-1963	Archbishop Molloy High School, Jamaica, New York
1963-1967	St. John's University, Jamaica, New York, B.S. in Biology
1967-1969	St. John's University, Jamaica, New York, M.S. in Biology
1969-1973	Indiana University, Bloomington, Indiana, Ph.D. in Chemistry
1973-1975	Indiana University, Indianapolis, Indiana, M.D.
1975-1977	Resident in Anatomical Pathology, Yale-New Haven Hospital, New Haven, CT
1977-1980	Fellow in Pathology, Yale University School of Medicine, New Haven, CT

Career:

1967-1969	NSF Traineeship, St. John's University
1969-1970	Associate Instructor, Indiana University
1970-1971	Research Associate, Indiana University
1971-1972	Research Assistant, Indiana University
1972-1973	NIH Traineeship, Indiana University
1975	American Lung Association Student Fellowship, Indiana University
1975-1977	Resident, Department of Pathology, Yale University Medicine
1977-1980	USPHS Individual Research Fellowship Award, Yale University
1980-1985	Assistant Professor, Department of Pathology, Yale University School of Medicine
1980-1984	Co-director, Immunohistochemistry Laboratory, Department of Pathology, Yale University School of Medicine
1985-1991	Associate Professor, Department of Pathology, Yale University School of Medicine
1986-2010	Member - MD/PhD Student Advisory and Admissions Committee,
1989	Tenure, Yale University School of Medicine and the Graduate School of Arts & Sciences
1991-present	Professor, Department of Pathology and Molecular, Cellular & Developmental Biology, Yale University School of Medicine and The Graduate School of Arts & Sciences
1991-2013	Co-director of the Reed Foundation Fellowship in Vascular Biology, for Women and Minorities
1992-2007	Director of Medical Studies, Pathology
2006-2011	Member - MD Student Admissions Committee
2010-2014	Director of Undergraduate Studies, Pathology
1992-2014	Founding Scientist & Member, Board of Directors, Alexion Pharmaceuticals, Inc., Cheshire, CT
1992-2000	Chairman, External Scientific Advisory Board, Alexion Pharmaceuticals, Inc., Cheshire, CT.
1995-2014	Member Compensation Committee & Pharmaceutical Compliance and Quality Committee, Alexion Pharmaceuticals, Inc., Cheshire, CT
1992-1998	Member, Shrinners Hospitals Research Advisory Board
1994-1999	Member, Scientific Board of Directors, Genzyme Tissue Repair, Inc. Framingham, MA.
2012-2014	Member, Executive Committee, Director of Education, Pathology

2013-2018 Co-founder of WBC Biosciences, New Haven, CT
2016-present Professor Emeritus and Senior Research Scientist, Department of Pathology, Yale University School of Medicine and The Graduate School of Arts & Sciences
2019-present Member, Scientific Advisory Board, Neutrolis, Boston, MA

Medical Licenses:

Indiana	#01026304	08/06/75 to 06/30/82
Connecticut	#022381	1979 to present

Societies and Honors:

Sigma Xi
Phi Lambda Upsilon
American Chemical Society
American Association of Pathologists
International Academy of Pathology
American Society for Cell Biology
New York Academy of Science
Diplomate - American Board of Pathology 1979
Member, Editorial Board of "Arteriosclerosis" 1983 to 1999
Member, Editorial Board of "American Journal of Pathology" 1984 to 1992
Associate Editor, "American Journal of Pathology" Jan. 1992 to May 1996
Member, Editorial Board of "Laboratory Investigation" July, 1991 to 1995
Executive Editor, "Laboratory Investigation" July, 1995 to Sept., 2003
Member, Editorial Board of "Angiogenesis" 1997 to 2005
Member, Editorial Board of "Endothelium" 1999 to Present
Editor, “FASEB Journal” 2002 to 2006
Member, Editorial Board of “FASEB Journal” 2006 - 2009
Associate Editor, "Journal of Cellular Physiology", 2006 - present
Reviewer for the Pathology A and Pathobiological Chemistry Study Sections, The Dental Institute, The Cancer Institute, The Atherosclerosis SCOR, Senior Fellowships Special Study Section and Developmental Cardiobiology Program Projects Study Section of The National Institutes of Health at various times from1983
Black Belt-First Dan, TaeKwon-Do 1991
Member, American Heart Association, Study Section on Vascular Wall Biology 1991-1994
Member, Research Advisory Board of the Shriners Children's Hospitals, 1992-1998
Councilor, American Society of Investigative Pathology, July, 1993 to July, 1996
Black Belt-Second Dan, TaeKwon-Do 1997
MERIT Award from NHLBI-NIH 2/99 – 2/09
Black Belt-Third Dan, TaeKwon-Do 2000
Chugai Award for Meritorious Mentorship & Scholarship from the Amer. Soc. Invest. Pathol., 4/2001
Black Belt-Fourth Dan, TaeKwon-Do 2003

Areas of Interest/Expertise:

Vasculogenesis & Angiogenesis, Neural Stem Cells
Biology and Biochemistry of Connective Tissues
Cell Biology of Endothelial and Vascular Smooth Muscle Cells, Cell-Matrix Interactions, Immunopathology, Light and Electron Microscopy and Immunoelectron Microscopy
Innate Immunity and Cancer Therapy

Madri Lab Web site:
https://medicine.yale.edu › lab › madri › people › joseph_madri.profile

https://www.youtube.com › watch

Trainees To Date:
Post Doctoral: 47
Ph.D. Thesis: 12
M.D. Thesis: 11
Undergraduate: 28

NIH extramural Funding (2 RO1s, R37 MERIT Award, 2 PO1s): 1977-2014, continuous

Private Funding: 2014-2019

Patents:
1) Genetically engineered endothelial cells exhibit enhanced migration and plasminogen activator activity USA # 5,336,615 Aug. 9, 1994
2) Universal Donor Cells USA # 5,705,732 Jan. 6, 1998
3) Universal Donor Cells Europe #00114262.9-2105 Aug. 29, 2000
4) Universal Donor Cells USA # 6916654 July 12, 2005
5) Early Diagnosis of Congenital Abnormalities in the Offspring of Diabetic Mothers USA #20090305259, Dec.10, 2009
6) Innate Immune System Modification for Anticancer Therapy, New PCT International Appl. No. PCT/US2015/052898, filed September 29, 2015 (Claims priority to U.S. Prov'l Patent Appl. No. 62/059,342, filed October 3, 2014)

h-index: 92 89, excluding self-citations
Citations: 30,036 reads: 24,239

Publications (279)
1. **Madri, J.A.** Carboxypeptidase A: Solvent and ion effects. Ph. D. Thesis, Indiana University, 1973.

2. **Madri, J.A**., Fromowitz, F.B. Amyloid deposition in immunoblastic lymphadenopathy. Human Pathol., 9: 157-162, 1978.

3. Marier, R., Valenti, A.J., **Madri, J.A.** Gram-negative endocarditis following cystoscopy. J. Urol., 119: 134-140, 1978.

4. Stenn, K.S., **Madri, J.A.,** Roll, F.J. Migrating epidermis produces AB_2 collagen and requires continual collagen synthesis for movement. Nature, 277: 229-232, 1979.

5. **Madri, J.A.,** Furthmayr, H. Isolation and tissue localization of type AB_2 collagen from normal lung parenchyma. Am. J. Pathol., 94: 323-331, 1979.

6. Roll, F.J., **Madri, J.A**., Furthmayr, H. A new method of iodinating collagens for use in radioimmunoassay. Anal. Biochem., 96: 489-499, 1979.

7. **Madri, J.A.,** Furthmayr, H. Collagen polymorphism in the lung: An immunochemical study of pulmonary fibrosis. Human Pathol., 11: 353-366, 1980.

8. Roll, F.J., **Madri, J.A.,** Albert, J., Furthmayr, H. Codistribution of collagen types IV and AB_2 in basement membranes and mesangium of the kidney: An immunoferritin study of ultrathin frozen sections. J. Cell Biol., 85: 597-616, 1980.

9. **Madri, J.A.,** Roll, F.J., Furthmayr, H., Foidart, J-M. Ultrastructural localization of fibronectin and laminin in the basement membranes of the murine kidney. J. Cell Biol. 86: 682-687, 1980.

10. **Madri, J.A.,** Dreyer, B., Pitlick, F., Furthmayr, H. The collagenous components of subendothelium: Correlation of structure and function. Lab. Invest., 43: 303-315, 1980.

11. **Madri, J.A**., Dise, C.A., LiVolsi, V.A., Merino, M.J., Bibro, M.C. Elastofibroma dorsi: An immunochemical study of collagen content. Human Pathol., 12: 186-190, 1981.

12. Kemp, J.D., **Madri, J.A.** The immune response to human type III and type V (AB_2) collagen antigenic determinants and genetic control in mice. Eur. J. Immunol., 11: 90-94, 1981.

13. Ingber, D.E., **Madri, J.A.,** Jamieson, J.D. Role of basal lamina in the neoplastic disorganization of tissue architecture. Proc. Natl. Acad. Sci., 78: 3901-3905, 1981.

14. Engel, J., Ordermatt, E., Engel, A., **Madri, J.A.,** Furthmayr, H., Rohde, H. and Timpl, R. Shapes, domain organizations and flexibility of laminin and fibronectin, two multi-functional proteins of the extracellular matrix. J. Mol. Biol., 150:97-120, 1981.

15. **Madri, J.A.,** Foellmer, H., Furthmayr, H. 1981. Type V collagens of the human placenta: Trimer α-chain composition, ultrastructural morphology and peptide analysis. Coll. Rel. Res., 2: 19-29, 1982.

16. Foellmer, H.G., **Madri, J.A.,** Wyatt, R., Furthmayr, H. Localization of collagen type IV in basement membranes by monoclonal antibodies. Protides of the Biological Fluids, 29: 773-776, 1982.

17. Furthmayr, H., Roll, F.J., **Madri, J.A.,** Foellmer, H.G. Composition of Basement Membranes as Viewed with the Electron Microscope, in New Trends in Basement Membrane Research, ed. by K. Kuhn, H. Schoene, and R. Timpl, Raven Press, New York, p. 31-48, 1982.

18. **Madri, J.A.** The Preparation of Type V Collagen, in The Immunochemistry of the Extracellular Matrix, Vol. I, edited by H. Furthmayr, CRC Press, Boca Raton, Florida, p. 75-90, 1982.

19. Roll, F.J., **Madri, J.A.** Immunocytochemical Techniques in Connective Tissue Research in The Immunochemistry of the Extracellular Matrix, Vol. II, edited by H. Furthmayr, CRC Press, Boca Raton, Florida, p. 49-88, 1982.

20. Kemp, J.D., **Madri, J.A.** The Immunobiology and Immunogenetics of the Collagens, in The Immunochemistry of the Extracellular Matrix, Vol. II, edited by H. Furthmayr, CRC Press, Boca Raton, Florida, p. 175-186, 1982.

21. **Madri, J.A.,** Barwick, K.W. An Immunohistochemical study of nasopharyngeal neoplasms using keratin antibodies: Epithelial versus non-epithelial neoplasms. Am. J. Surg. Path., 6: 143-153, 1982.

22. **Madri, J.A.,** Stenn, K.S. Aortic Endothelial Cell Migration: I. Matrix requirements and composition. Am. J. Pathol., 106: 180-186, 1982.

23. Rao, C.N., Margulies, I.M.K., Tralka, T.S., Terranova, V.P., **Madri, J.A.,** Liotta, L.A. Isolation of a subunit of laminin and its role in molecular structure and tumor cell attachment. J. Biol. Chem., 257: 9740-9744, 1982.

24. Furthmayr, H., **Madri, J.A.** Rotary shadowing of Connective Tissue Macromolecules. Coll. Rel. Res., 2: 349-363, 1982.

25. Barwick, K.W., **Madri, J.A.** An immunohistochemical study of adenomatoid tumors utilizing keratin and factor VIII antibodies: Evidence of a mesothelial origin. Lab. Invest., 47: 276-280, 1982.

26. **Madri, J.A.** Endothelial Cell-Matrix Interactions in Progress in Thrombosis and Hemostasis, ed. by T. Spaet, Grune & Stratton, Inc., New York, Vol. 6, pp. 1-24, 1982.

27. Rao, C.N., Margulies, I.M.K., Goldfarb, R.H., **Madri, J.A.,** Woodley, D.T., Liotta, L.A. Differential proteolytic susceptibility of laminin alpha and beta subunits. Arch. Biochem. Biophys., 219: 65-70, 1982.

28. Stenn, K.S., **Madri, J.A.,** Tinghitella, T., Terranova, V. Multiple mechanisms of dissociated epidermal cell spreading. J. Cell Biol.,96: 63-67, 1983.

29. **Madri, J.A.,** Barwick, K.W. Use of avidin-biotin complex in an ELISA system: A quantitative comparison with two other immunoperoxidase detection systems using keratin antisera. Lab. Invest., 48: 98-107, 1983.

30. Foellmer, H.G., **Madri, J.A.,** Furthmayr, H. Monoclonal antibodies to type IV collagen: Probes for the study of structure and function of basement membranes. Lab. Invest., 48: 639-649, 1983.

31. **Madri, J.A.,** Foellmer, H.G., Furthmayr, H. Ultrastructural morphology and domain structure of a unique collagenous component of basement membranes. Biochemistry, 22: 2797-2804, 1983.

32. **Madri, J.A.,** Williams, S.K. Capillary endothelial cell cultures: Phenotypic modulation by matrix components. J. Cell Biol., 97: 153-165, 1983.

33. Foellmer, H.G., Kawahara, K., **Madri, J.A.,** Furthmayr, H., Timpl, R., Tuderman, L. 1983. A monoclonal antibody specific for the amino terminal cleavage site of procollagen type I. Eur. J. Biochem., 134: 183-189, 1983.

34. Lwebuga-Mukasa, J., **Madri, J.A.,** Albert, J., Furthmayr, H. Studies on the interaction of human plasma-fibronectin with native Type I calf skin collagen molecules using the rotary shadowing technique. Coll. Rel. Res., 4: 95-110, 1984.

35. **Madri, J.A.,** Carter, D. Human lung scar carcinomas: Scar cancer of the lung: Origin and significance. Human Pathol., 15: 625-631, 1984.

36. **Madri, J.A.,** Pratt, B.M., Yurchenco, P.D., Furthmayr, H. The Ultrastructural Organization and Architecture of Basement Membranes. In Basement Membranes and Cell Movement, ed. by M. Bernfield, CIBA Symposium No. 108, pp. 6-24, 1984.

37. Lwebuga-Mukasa, J., Thulin, G., **Madri, J.A.,** Barrett, C., Warshaw, J. An acellular human amnionic membrane model for in vitro culture of type II pneumocytes: The role of the basement membrane in cell morphology and function. J. Cell Physiol., 121: 215-225, 1984.

38. Merrill, W., Barwick, K.W., **Madri, J.A.,** Strober, W., et al. Bronchial lavage proteins as correlates of histopathologic airway changes in healthy smokers and patients with pulmonary carcinoma. Amer. Rev. Resp. Dis., 130: 905-909, 1984.

39. Pratt, B.M., Harris, A.S., Morrow, J.S., **Madri, J.A**. Mechanisms of cytoskeletal regulation: Modulation of aortic endothelial cell spectrin by the extracellular matrix. Amer. J. Pathol., 117: 349-354, 1984.

40. Broek, D.L., **Madri, J.A.,** Eikenberry, E.F., Brodsky, B. Characterization of the tissue form of type V collagen from chick bone. J. Biol. Chem., 260: 555-562, 1985.

41. Duray, P.H., Mark, E.S., Barwick, K.W., **Madri, J.A.,** Strom, R.L. Congenital polycystic tumor of the atrioventricular node: Autopsy study with immunohistochemical findings suggesting evidence for an endodermal derivation. Arch. Pathol. Lab. Med., 109: 30-34, 1985.

42. Pratt, B.M., **Madri, J.A.** Immunolocalization of type IV collagen and laminin in non-basement membrane structures of murine corneal stroma. Lab. Invest., 52: 650-655, 1985.

43. Chow, A.W., Fuller, G.G., Wallace, D.G., **Madri, J.A.** The rheooptical response of rodlike shortened collagen protein to transient shear flow. Macromolecules, 18: 805-810, 1985.

44. Chow, A.W., Fuller, G., Wallace, D.G., **Madri, J.A.** The rheo-optical response of rodlike chains subject to transient shear flow. Part II: Two-color flow birefringence measurements on collagen protein. Macromolecules, 18: 793-804, 1985.

45. Ingber, D.E., **Madri, J.A.,** Jamieson, J.D. Neoplastic disorganization of pancreatic epithelial cell-cell relations: Role of basement membrane. Amer. J. Pathol., 121: 248-260, 1985.

46. Pratt, B.M., Form, D., **Madri, J.A.** Endothelial cell-extracellular matrix interactions. In Biology, Chemistry and Pathology of Collagen, ed. by Fleishmajer, R., Olsen, B.R., and Kuhn, K. Ann. N.Y. Acad. Sci. 460:274-288, 1985.

47. Ingber, D.E., **Madri, J.A.,** Jamieson, J.D. Basement membrane as a spatial organizer of polarized epithelia: Exogenous basement membrane reorients pancreatic epithelial tumor cells in vitro. Amer. J. Pathol., 122:129-139, 1986.

48. **Madri, J.A.,** Pratt, B.M. Endothelial cell-matrix interactions: In vitro models of angiogenesis. J. Histochem. and Cytochem., 34:85-91, 1986.

49. Lwebuga-Mukasa, J., Ingbar, D., **Madri, J.A.** Repopulation of a human alveolar matrix by adult rat type II pneumocytes in vitro: A novel system for type II pneumocyte culture. Expt'l. Cell Res., 162:423-435, 1986.

50. Duray, P.H., Cuono, C.B., **Madri, J.A.** Demonstration of cutaneous doxorubicin extravasation by rhodamine filtered fluorescence microscopy. J. Surgical Oncology, 31:21-25, 1986.

51. Leto, T.L., Pratt, B.M., **Madri, J.A.** Mechanisms of cytoskeletal regulation: Modulation of aortic endothelial cell protein band 4.1 by the extracellular matrix. J. Cell Physiol., 127:423-431, 1986.

52. Ingber, D.E., **Madri, J.A.,** Folkman, J.M. Angiostatic steroids induce capillary basement membrane dissolution and inhibit angiogenesis. Endocrinology, 119:1768-1775, 1986.

53. Form, D.M., Pratt, B.M., **Madri, J.A.** Endothelial cell proliferation during angiogenesis: In vitro modulation by basement membrane components. Lab. Invest., 55:521-530, 1986.

54. Smith, L.T., Holbrook, K.A., **Madri, J.A.** Collagen types I, III and V in human embryonic and fetal skin. Amer. J. Anat., 175:507-521, 1986.

55. Davis, B., **Madri, J.A.** Type I and type III procollagen peptides during hepatic fibrogenesis: An immunohistochemical and ELISA serum study in the CCl4 rat model. Amer. J. Pathol., 126: 137-147, 1987.

56. Pratt, B.M., **Madri, J.A.** Collagen, Proteoglycans, Connective Tissue: Interactions with Vascular Wall Cells, in Peripheral Vascular Disease, Grune & Stratton, N.Y., pp. 209-230, 1987.

57. Ingber, D.E., **Madri, J.A.,** Folkman, J. Endothelial growth factors and extracellular matrix regulate DNA synthesis through modulation of cell and nuclear expansion. In Vitro Cellular & Developmental Biology, 23:387-394, 1987.

58. Nicosia, R.F., **Madri, J.A.** The microvascular extracellular matrix: Developmental changes during angiogenesis in the aortic ring-plasma clot model. Amer. J. Pathol., 128:78-90, 1987.

59. Davis, B.H., Pratt, B.M., **Madri, J.A.** Retinol and extracellular collagen matrices modulate hepatic Ito cell collagen phenotype and cellular retinol binding protein levels. J. Biol. Chem., 262:10280-10286, 1987.

60. Davis, B., **Madri, J.A.** An immunohistochemical and serum ELISA study of Type I and III procollagen amino propeptides in primary biliary cirrhosis. Amer. J. Pathol., 128:265-275, 1987.

61. Keller, R., Silbert, J., Furthmayr, H., **Madri, J.A.** Aortic endothelial cell proteoheparan sulfate: I. Isolation and characterization of a plasmamembrane-associated and extracellular species. Amer. J. Pathol., 128:286-298, 1987.

62. Keller, R., Pratt, B.M., Furthmayr, H., **Madri, J.A.** Aortic endothelial cell proteoheparan sulfate: II. Modulation by extra-cellular matrix. Amer. J. Pathol., 128:299-306, 1987.

63. Caplan, M.J., Stow, J.L., Newman, A.P., **Madri, J.A.,** Anderson, H.C., Farquhar, M.G., Palade, G.E., Jamieson, J.D. Dependence on pH of polarized sorting of secreted proteins. Nature, 329:632-635, 1987.

64. Buchanan, M.R., Richardson, M., Haas, T.A., Hirsh, J., **Madri, J.A.** The basement membrane underlying the vascular endothelium is not thrombogenic: In vivo and in vitro studies with rabbit and human tissue. Thrombosis and Haemostasis, 58:698-704, 1987.

65. Tite, J.A., Foellmer, H.G., **Madri, J.A.,** Janeway, C.A. Inverse Ir gene control of the antibody and T cell proliferative responses to human basement membrane collagen. J. Immunol., 139:2892-2898, 1987.

66. **Madri, J.A.** The extracellular matrix as a modulator of angiogenesis, in Cardiovascular Disease: Molecular and Cellular Mechanisms, Prevention, Treatment. Edited by L. Gallo, Plenum Press, New York, Chapter 21, 177-184, 1987.

67. Nicosia, R.F., **Madri, J.A.** The extracellular matrix produced during angiogenesis in culture, in Cardiovascular Disease: Molecular and Cellular Mechanisms, Prevention, Treatment. Edited by L. Gallo, Plenum Press, New York, 185-192, 1987.

68. **Madri, J.A.,** Pratt, B.M. Angiogenesis, in The Molecular and Cellular Biology of Wound Healing. Edited by Clark, R.F., and Henson, P., Plenum Press, New York, Chapter 15, 337-358, 1988.

69. **Madri, J.A.,** Pratt, B.M., Tucker, A.M. Phenotypic modulation of endothelial cells by transforming growth factor-β depends upon the composition and organization of the extracellular matrix. J. Cell Biol., 106:1375-1384, 1988.

70. Yannariello-Brown, J., Wewer, U., Liotta, L., **Madri, J.A.** Distribution of a 69 kD laminin binding protein in aortic and microvascular endothelial cells: Modulation during cell attachment, spreading and migration. J. Cell Biol., 106:1773-1786, 1988.

71. **Madri, J.A.,** Pratt, B.M., Yannariello-Brown, J. Matrix driven cell size changes modulates aortic endothelial cell proliferation and sheet migration. Amer. J. Pathol., l32:18-27, 1988.

72. Carley, W., Milici, A.J., **Madri, J.A.** Extracellular matrix specificity for the differentiation of capillary endothelial cells. Expt'l. Cell Res., 178:426-434, 1988.

73. **Madri, J.A.,** Pratt, B.M., Yannariello-Brown, J. Endothelial Cell Extracellular Matrix Interactions: Matrix as a Modulator of Cell Function, in Endothelial Cell Biology in Health and Disease, ed. by N. Simionescu & M. Simionescu, Plenum Press, New York., pp. 167-188, 1988.

74. Langdon, R., Cuono, C., Birchall, N., **Madri, J.A.,** Kuklinska, E., McGuire, J., Moellmann, G., Reconstitution of structure and cell function in human skin grafts derived from cryoperserved allogeneic dermis and autologous cultured keratinocytes. J. Invest. Dermatol., 91:478-485, 1988.

75. Kocher, O., **Madri, J.A.** Modulation of actin mRNAs in vascular cells by matrix components and TGF- β1. In Vitro Cellular & Developmental Biology, 25:424-434, 1989.

76. **Madri, J.A.,** Reidy, M., Kocher, O., Bell, L., Endothelial cell behavior after denudation injury is modulated by TGF-β and fibronectin. Lab. Invest., 60:755-765, 1989.

77. **Madri, J.A.,** Kocher, O., Merwin, J.R., Bell, L., Yannariello-Brown, J. The interactions of vascular cells with solid phase (matrix) and soluble factors. J. Cardiovasc. Pharm., 14 (Suppl. 6):S70-S75, 1989.

78. **Madri, J.A**. Inflammation and Healing. In Anderson's Pathology, edited by J.M. Kissane, Mosby, Lanham, M.D. pp. 67-110, 1989.

79. Stenn, K.S., Link, R., Moellmann, G., **Madri, J.A**., Kuklinska, E., Dispase, a neutral protease from bacillus polymyxa is a powerful fibronectinase and Type IV collagenase. J. Invest. Dermatol., 93:287-290, 1989.

80. Bell, L., **Madri, J.A**. Effect of platelet factors on migration of cultured bovine aortic enothelial and smooth muscle cells. Circ. Res., 65:1057-1065, 1989.

81. Murray, J., **Madri, J.,** Tite, J., Carding, S., Bottomly, K., MHC gene control of $CD4^+$ T cell subset activation. J. Expt'l. Med., 170: 2135-2140, 1989.

82. Yannariello-Brown, J., **Madri, J.A.** A 48 kD collagen-binding phospho-protein isolated from bovine aortic endothelial cells interacts with the collagenous domain, but not the globular domain, of collagen type IV. Biochem. J., 265: 383-392, 1990.

83. Merwin, J.R., Anderson, J., Kocher, O., van Itallie, C., **Madri, J.A.,** Transforming growth factor β1 modulates extracellular matrix organization and cell-cell junctional complex formation during in vitro angiogenesis. J. Cell Physiol., 142: 117-128, 1990.

84. **Madri, J.A.,** Kocher, O., Merwin, J.R., Basson, C.T., Bell, L., The interactions of vascular cells with transforming growth factor β., in Transforming Growth Factor-β s: Chemistry, Biology and Therapeutics, edited by K.A. Piez and M.B. Sporn. N.Y. Acad. Sci., 593:243-258, 1990.

85. Basson, C.T., Knowles, W.J., Abelda, S., Bell, L., Castronovo, V., Liotta, L.A., **Madri, J.A.** Spatiotemporal segregation of endothelial cell integrin and nonintegrin extracellular matrix binding proteins during adhesion events. J. Cell Biol., 110: 789-802, 1990.

86. Bell, L., **Madri, J.A.,** Influence of the angiotensin system on endothelial and smooth muscle cell migration. Amer. J. Pathol., 137: 7-12, 1990.

87. Kocher, O., Kennedy, S., **Madri, J.A.,** Alternative splicing of endothelial cell fibronectin mRNA in the IIICS region in endothelial cells: Functional significance. Amer. J. Pathol., 137: 1509-1524, 1990.

88. **Madri, J.A.,** Bell, L., Marx, M, Merwin, J.R., Basson, C.T., Prinz, C., The effects of soluble factors and extracellular matrix components on vascular cell behavior in vitro and in vivo: Models of de-endothelialization and repair. J. Cellular Biochem., 45: 123-130, 1991.

89. Pfeiffer, C., Murray, J., **Madri, J.,** Bottomly, K, Selective activation of Th1- and Th2-like cells in vivo: Response to human collagen IV. Immunol. Rev.,123:65-84, 1991.

90. Merwin, J.R., Newman, W., Beall, D., Tucker, A., **Madri, J.A.,** Vascular cells respond differentially to transforming growth factors-beta$_1$ and beta$_2$ in vitro. Amer. J. Pathol., 138: 37-51, 1991.

91. **Madri, J.A.,** Endothelial Cell - Extracellular Matrix Interactions: Modulation of Vascular Cell Phenotype by Matrix Components and Soluble Factors, In The First Altshul Symposium on Atherosclerosis: Cellular and Molecular Interactions in the Artery Wall, edited by S. Fedoroff, Plenum Press, New York, pp. 127-135, 1991.

92. Ment, L.R., Stewart, W.B., Ardito, T.A., **Madri, J.A.,** Beagle pup germinal matrix maturation studies. Stroke, 22:390-395, 1991.

93. Merwin J. R., Tucker, A., Madisen, L., Purchio, A., **Madri, J.A**., Vascular cell responses to a hybrid transforming growth factor beta molecule. Biochem. Biophys. Res. Comm., 175:589-595, 1991.

94. Merwin J. R., Tucker, A., Roberts, A., Kondaiah, P, **Madri, J.A**., Vascular cell responses to transforming growth factor beta$_3$ mimic those of transforming growth factor beta$_1$ In Vitro, Growth Factors: 5:149-158, 1991.

95. **Madri, J.A.,** Merwin, J.R., Bell, L., Basson, C.T., Kocher, O., Perlmutter, R., Prinz, C., Interactions of matrix components and soluble factors in vascular responses to injury: Modulation of cell phenotype, in Endothelial Cell Dysfunction, ed. by N. Simionescu & M. Simionescu, Plenum Press, New York., pp. 11-30, 1992.

96. Bell, L., Luthringer, D.J., **Madri, J.A.,** Warren, S.L., Autocrine angiotensin system regulation of bovine aortic endothelial cell migration and plasminogen activator involves modulation of proto-oncogene pp60$^{c\text{-}src}$ expression. J. Clin. Invest., 89: 315-320, 1992.

97. **Madri, J.A.,** Marx, M., Matrix composition, organization and soluble factors: Modulators of microvascular cell differentiation in vitro. Kidney Int'l., 41: 560-565, 1992.

98. Murray, J.S., Pfeiffer, C., **Madri, J.A.,** Bottomly, K., MHC control of CD4 T cell subset activation. II. A single peptide induces either humoral or cell-mediated responses in mice of distinct MHC genotype. Eur. J. Immunol, 22: 559-565, 1992.

99. Moore, R., **Madri, J.A.,** Carlson, S., Madara, J.L., Intestinal epithelium restitutes normally in the presence of anti-basement membrane antibodies and soluble basement membrane components. Gastroenterol., 102: 199-130, 1992.

100. **Madri, J.A.,** Basson, M.D., Extracellular matrix-cell interactions: Dynamic modulators of cell, tissue and organism structure and function. Lab. Invest., 66: 519-521, 1992.

101. **Madri, J.A.,** Bell, L., Merwin, J.R., Modulation of vascular cell behavior by transforming growth factors beta. Molecular Reproduction and Development, 32: 121-126, 1992.

102. Basson, M.D., Modlin, I.M., **Madri, J.A.,** Human enterocyte (Caco-2) migration is modulated in vitro by extracellular matrix composition and epidermal growth factor. J. Clin Invest., 90: 15-23, 1992.

103. **Madri, J.A.,** Bell, L., Vascular cell responses to injury: modulation by extracellular matrix and soluble factors, In Ultrastructure, Membranes and Cell Interactions in Atherosclerosis, Ed. by H. Robenek and N. Severs, CRC Press, Boca Raton, FL, Chapter 6, pp. 165-179, 1992.

104. Basson, C.T., Kocher, O., Basson, M.D., Asis, A., **Madri, J.A**., Differential Modulation of Vascular Cell Integrin and Extracellular Matrix Expression In Vitro by TGF- β1 Correlates with Reciprocal Effects on Cell Migration. J. Cell. Physiol., 153: 118-128, 1992.

105. Qian, S.W., Burmester, J.K., Merwin, J.R., **Madri, J.A.,** Sporn, M.B., Roberts, A.B., Identification of a structural domain that distinguishes the actions of the type 1 and 2 isoforms of TGF-β on endothelial cells. Proc. Natl. Acad. Sci, USA, 89: 6290-6294, 1992.

106. Ment, L.R., Stewart, W.B., Ardito, T.A., Huang, E., **Madri, J.A.,** Indomethacin promotes germinal matrix microvessel maturation in the newborn beagle pup. Stroke, 23: 1132-1137, 1992.

107. Merwin, J.R., Lynch, M.J., **Madri, J.A.,** Pastan, I., Seigall, C.B., Acidic FGF-Pseudomonas exotoxin chimeric protein elicits anti-angiogenic effects on endothelial cells. Cancer Research, 52:4995-5001, 1992.

108. L. Schimmenti, Yan, H-C., **Madri, J.A.,** Albelda, S., Platelet endothelial cell adhesion molecule PECAM-1 modulates cell migration. J. Cell. Physiol, 153: 417:428, 1992.

109. Basson, M.D., Flynn, S.D., Jena, B.P., Modlin, I.M., **Madri, J.A**., Independent modulation of enterocyte migration and proliferation by growth factors, matrix proteins and pharmacologic agents in an in vitro model of mucosal healing. Surgery, 112:299-308, 1992.

110. Hayashi, K., **Madri, J.A.,** Yurchenco, P.D., Endothelial cells interact with the core protein of basement membrane Perlecan through β1 and β3 integrins: An adhesion modulated by glycosaminoglycan. J. Cell Biol., 119:945-960, 1992.

111. Merwin, J.R., **Madri, J.A.,** Lynch, M., Cancer cell binding to E-selectin transfected endothelia. Biochem. Biophys. Res. Comm., 189:315-323, 1992.

112. Johnson, W.C., Pagano, T.G., Basson, C.T., **Madri, J.A.,** Gooley, P., Armitage, I.M., Biologically-active RGD oligopeptides assume a type II β-turn in solution. Biochemistry, 32:268-273, 1993.

113. Baron, J.L., **Madri, J.A.,** Ruddle, N.H., Hashim, G., Janeway, C.A., Surface expression of α4 integrin by CD4 T cells is required for their entry into brain parenchyma. J. Expt'l. Med., 177:57-68, 1993.

114. Deckelbaum, L.I., Scott, J.J., Stetz, M.L., O'Brien, K.M., Sumpio, B.E., **Madri, J.A.,** Bell, L., Photoinhibition of smooth muscle cell migration: Potential therapy for restenosis. Lasers in Surgery & Medicine, 13:4-11, 1993.

115. Marx, M., Daniel, T.O., Kashgarian, M., **Madri, J.A.,** Spatial organization of the extracellular matrix modulates the expression of PDGF-receptor subunits in mesangial cells. Kidney Int'l., 43:1027-1041, 1993.

116. Hauser, I., Setter, E., Bell, L., **Madri, J.A.,** Fibronectin expression correlates with U937 cell adhesion to migrating bovine aortic endothelial cells in vitro. Amer. J. Pathol., 143:173-179, 1993.

117. Murray, J., **Madri, J.,** Pasqualini, T., Bottomly, K., Functional CD4 T-cell subset interplay in an intact immune system. J. Immunol., 150:4270-4276, 1993.

118. Hauser, I., Johnson, D.R., **Madri, J.A.,** Differential induction of VCAM-1 on human iliac venous and arterial endothelial cells and its role in adhesion. J. Immunol., 151(10):1-14, 1993.

119. Basson, M.D., Modlin, I.M., Turowski, G., **Madri, J.A.,** Enterocyte-matrix interactions in the healing of mucosal injury. Eur. J. Gastroenterol., 93(5 Suppl 3):S21-S28, 1993.

120. Burmester, J.K., Qian, S.W., Roberts, A.B., Huang, A. Amatayakul-Chantler, S., Suardet, L., Odartchenko, N., **Madri, J.A**., Sporn, M.B., Characterization of distinct functional domains of transforming growth factor-β. Proc. Natl. Acad. Sci. USA, 90:8628-8632, 1993.

121. Marx, M., Perlmutter, R., **Madri, J.A.,** Modulation of PDGF-receptor expression in microvascular endothelial cells during in vitro angiogenesis. J. Clin. Invest., 93: 131-139, 1994.

122. Romanic, A.M., **Madri, J.A**., Extracellular matrix-degrading proteinases in the nervous system. Brain Pathol., 4:145-156, 1994.

123. Romanic, A., **Madri, J.A.,** The induction of 72 kDa gelatinase in T cells upon adhesion to endothelial cells is VCAM-1 dependent. J. Cell Biol., 125:1165-1178, 1994.

124. Basson, M.D., Beidler, D.R., Turowski, G., Zarif, A., Modlin, I.M., Jena, J.A., **Madri, J.A.,** The effects of tyrosine kinase inhibition on basal and EGF-stimulated Caco-2 enterocyte sheet migration and proliferation. J. Cell. Physiol., 160:491:501, 1994.

125. Fodor, W.L., Williams, B.L., Rollins, S.A., Matis, L., **Madri, J.A.,** Knight, J.W., Velander, W., Squinto, S.P., Expression of a functional human complement inhibitor in transgenic swine as an approach to abrogate xenogeneic hyperacute organ rejection. Proc. Natl. Acad. Sci (USA), 91:11153-11157, 1994.

126. Turowski, G.A., Rashid, Z., Hong, F., **Madri, J.A**., Basson, M.D., Glutamine modulates phenotype and stimulates proliferation in human colon cancer cell lines, Can. Res., 54:5974-5980, 1994.

127. Squinto, S.P., **Madri, J.A.,** Kennedy, S., Springhorn, J., The ENCEL system: A somatic cell protein delivery system, In Vivo, 8:771-780, 1994.

128. **Madri, J.A.,** Sankar, S., Romanic, A.M., Angiogenesis, in The Molecular and Cellular Biology of Wound Healing. Second Edition, Edited by Clark, R.A.F., Plenum Press, New York, Chapter 11, pp. 355-371, 1996.

129. Ment, L.R., Stewart, W.B., Ardito, T.A., **Madri, J.A.,** Germinal matrix microvascular maturation correlates inversely with the risk period for neonatal intraventricular hemorrhage. Developmental Brain Research, 84:142-149, 1995.

130. Springhorn, J.P., **Madri, J.A.,** Squinto, S.P., Human capillary endothelial cells from abdominal wall adipose tissue: Isolation using an anti-PECAM antibody. In Vitro Cellular & Developmental Biology, 31:473-481, 1995.

131. Sankar, S., Mahooti-Brooks, N., Centrella, M., McCarthy, T.L., **Madri, J.A.,** Expression of transforming growth factor beta type III receptor in vascular endothelial cells increases their responsiveness to transforming growth factor $\beta 2$. J. Biol. Chem., 270:13567-13572, 1995.

132. Sankar, S., Mahooti-Brooks, N., Hu, K., **Madri, J.,** Modulation of cell spreading and migration by pp125^{FAK} phosphorylation. American J. Pathol., 147:601-608, 1995.

133. Wang, Y., Rollins, S.A., **Madri, J.A.,** Matis, L.A., Anti-C5 monoclonal antibody therapy prevents collagen-induced arthritis and ameliorates established disease. Proc. Natl. Acad. Sci., USA, 92:8955-8959, 1995.

134. **Madri, J.A.,** Graesser, D., Haas, T., The Roles of Adhesion Molecules and Proteinases in Lymphocyte Transendothelial Migration. Biochem & Cell Biol., 74:749-757, 1996.

135. Sankar, S., Mahooti-Brooks, N., Bensen, L., Centrella, M., McCarthy, T.L., **Madri, J.A.,** Modulation of transforming growth factor beta receptor expression in microvascular endothelial cells during in vitro angiogenesis. J. Clin. Invest., 97: 1436-1446, 1996.

136. Becker, P.S., Li, Z., Potselueva, T., **Madri, J.A.,** Newburger, P.E., Berliner, N., Laminin promotes differentiation of NB4 promyelocytic leukemia cells with all-*trans*-retinoic acid. Blood, 88:261-267, 1996.

137. Petzelbauer, E., Springhorn, J.P., Tucker, A., **Madri, J.A.,** The Role of Plasminogen Activator Inhibitor in the Reciprocal Regulation of Bovine Aortic Endothelial and Smooth Muscle Cell Migration by TGF- $\beta 1$. Amer. J. Pathol., 149: 923-931, 1996.

138. Wang, Y., Hu, Q., **Madri, J.A**., Rollins, S.A., Chodera, A., Matis, L.A., Amelioration of lupus-like autoimmune disease in NZB/W F_1 mice following treatment with a blocking monoclonal antibody specific for complement component C5, Proc. Nat'l. Acad. Sci., (USA), 93:8563-8568, 1996.

139. Lu, T.T., Yan, L.G.., **Madri, J.A.,** Integrin engagement mediates tyrosine dephosphorylation on platelet-endothelial cell adhesion moleucle-1 (PECAM-1), Proc. Nat'l. Acad. Sci., (USA), 93: 11808-11813, 1996.

140. Basson, M.D., Turowski, G., Rashid, Z., Hong, F., **Madri, J.A.,** Regulation of human colonocyte cell line phenotype by sodium butyrate. Digest. Dis. & Sci., 41:1986-1993, 1996.

141. Basson, M.D., Rashid, G., Turowski, G., West, A.B., Emenaker, N.J., Sgambati, S.A., Perdikis, D.M., Datta, S., **Madri, J.A.,** Restitution at the cellular level: Regulation of the migrating phenotype. Yale Journal of Biology & Medicine, 69:119-129, 1996.

142. **Madri, J.A.,** Sankar, S., The biphasic effects of TGFβ in angiogenesis. In Tumour Angiogenesis, ed. by C.E. Lewis, R. Bicknell & N. Farrera, Oxford University Press, Oxford, England, Chapter 18, pp. 239-250, 1997.

143. Romanic, A.M., Graesser, D., Visintin, I., Baron, J.L., Janeway, C.A., **Madri, J.A.,** T cell adhesion to endothelial cell adhesion molecules and extracellular matrix is modulated upon transendothelial cell migration. Lab. Invest., 76:11-23, 1997.

144. Ment, L.R., Stewart, W.B., Fronc, R., Seashore, C., Mahooti, S., Scaramuzzino, D., **Madri, J.A.,** Vascular endothelial growth factor mediates reactive angiogenesis in the postnatal developing brain. Developmental Brain Research, 100:52-61, 1997.

145. Pinter, E., Barreuther, M., Lu, T.T., Imhof, B., **Madri, J.A**., PECAM-1/CD31 tyrosine phosphorylation state changes during vasculogenesis, Amer. J. Pathol., 150:1523-1530, 1997.

146. Papapetropoulos, A., Desai, K.M., Rudic, D.R., Mayer, B., Zhang, R., Ruiz-Torres, M.P., Garcia-Cardena, G., **Madri, J.A.,** Sessa, W.C., Nitric oxide synthase inhibitors attenuate transforming growth factor- β1-stimulated capillary organization in vitro. Amer. J. Pathol, 150:1835-1844, 1997.

147. Ment, L.R., Stewart, W.B., Scaramuzzino, D., **Madri, J.A.,** Germinal matrix microvascular maturation - An in vitro model, In Vitro Cellular & Developmental Biology, 33:684-691, 1997.

148. Papapetropoulos, A., Garcia-Cardena, G., **Madri, J.A.,** Sessa, W.C., Nitric oxide production contributes to the angiogenic properties of vascular endothelial growth factor in human endothelial cells. J. Clin. Invest., 100:3131-3139, 1997.

149. Lu, T.T., Barreuther, M., Davis, S. and **Madri, J.A.,** Platelet endothelial cell adhesion molecule-1 (PECAM-1/CD31) is phosphorylatable by c-src and binds SH2 domain and exhibits ITAM-like properties, J. Biol. Chem., 272:14442-14446, 1997.

150. DeLisser, H.M., Christofidou-Solomidou, M., Strieter, R.M., Burdick, M.D., Robinson, C., Wexler, R., Merwin, J.R., **Madri, J.A**., Albelda, S.M. Involvement of Endothelial PECAM-1/CD31 in Angiogenesis. Amer. J. Pathol., 151:671-677, 1997.

151. **Madri, J.A.,** Extracellular Matrix Modulation of Vascular Cell Behavior, Transplant. Immunol., 5:179-183. 1997.

152. Bruckheimer, E., Bulbul, Z., McCarthy, P., Freidman, A.H., **Madri, J.A.,** Hellenbrand, W.E.H., Coronary artery aneurysms in Kawasaki disease in mother and son. Circulation, 97:410-411, 1998.

153. Nilsson, S.K., Debatis M.E., Dooner, M.S., **Madri, J.A.,** Quesenberry, P.J., Becker, P.S. Immunofluroescence characterization of key extracellular matrix proteins in murine bone marrow in vivo. J. Histochem. & Cytochem., 46: 371-377, 1998.

154. Haas, T.L., Davis, S., **Madri, J.A.,** Three dimensional type I collagen lattices induce coordinate expression of matrix metalloproteinases MT1-MMP and MMP-2 in microvascular endothelial cells, J. Biol. Chem., 273:3604-3610, 1998.

155. Woodard, A.S., Garcia-Cardena, G., Leong, M., **Madri, J.A.,** Sessa, W.C., Languino, L.R., Synergistic activity of the αv β3 integrin and the PDGF receptor in microvascular endothelial cells. J. Cell Sci, 111:469-478, 1998.

156. **Madri, J.A.,** Extracellular matrix components as substrata in cell and tissue culture, in Cells, A laboratory Manual, Volume 1: Culture and Biochemical Analysis of Cells, Edited by D.L. Spector, R.D. Goldman & L.A. Leinwand, Cold Spring Harbor Laboratory Press, pp. 3.1-3.12, 1998.

157. Kim, C.S., Wang, T., **Madri, J.A.,** PECAM-1 Expression Modulates Endothelial Cell Migration In Vitro. Lab. Invest., 78:583-590, 1998.

158. Graesser, D., Mahooti, S., Haas, T., Davis, S., Clark, R., **Madri, J.A.,** The interrelationship of α4 integrin and matrix metalloproteinase-2 in the pathogenesis of experimental autoimmune encephalomyelitis. Lab. Invest., 78:1445-1458, 1998.

159. Ilan, N., Mahooti, S., **Madri, J.A.,** Distinct Signal Transduction Pathways are Utilized During the Tube Formation and Survival Phases of in vitro Angiogenesis. J. Cell Sci., 111:3621-3631, 1998.

160. Pinter, E., Mahooti, S., Wang, Y., Imhof, B.A., **Madri, J.A.,** Hyperglycemia-induced Vasculopathy in the Murine Vitelline Vasculature: Correlation with PECAM-1/CD31 Tyrosine Phosphorylation State. Amer. J. Pathol., 154: 13667-1379, 1999.

161. Haas, T.L., Stitelman, D., Davis, S.J., Apte, S.S., **Madri, J.A**., Transcriptional upregulation of the membrane type matrix metalloproteinase-1 in response to extracellular cues involves Egr-1, J. Biol. Chem., 274: 22679-22685, 1999.

162. Ilan, N., Mahooti, S., Rimm, D.L., **Madri, J.A.,** PECAM-1 (CD31) Functions as a Reservoir for and a Modulator of Tyrosine-Phosphorylated β-catenin. J. Cell Sci., 112 (18): 3005-3014, 1999.

163. Haas, T.L. & **Madri, J.A.,** Extracellular Matrix -Driven Matrix Metalloproteinase Production in Endothelial Cells: Implications for Angiogenesis, Trends in Cardiovasc. Med., 9:70-77, 1999.

164. Ilan, N., **Madri J.A.,** New Paradigms of Signaling in the Vasculature: Ephrins and Metalloproteases, Curr. Opin. in Biotech., 10:536-540, 1999.

165. Ogunshola, O., Stewart, W.B., Mihalcik, V., Solli, T., **Madri, J.A.,** Ment, L.R., Neuronal VEGF mediates angiogenesis in postnatal developing rat brain, Develop. Brain Res., 119: 139-153, 2000.

166. Mahooti, S., Graesser, D., Patel, S., Newman, P.J., Duncan, G., Mak, T., **Madri, J.A.** PECAM-1 (CD31) expression Modulates Bleeding Time in vivo. Amer. J. Pathol., 157: 75-81, 2000.

167. Ilan, N., Cheung, L., Pinter, E., **Madri, J.A.** PECAM-1 (CD31): A scaffolding molecule for selected catenin family members whose binding is mediated by different tyrosine and serine/threonine phosphorylation. J. Biol. Chem., 275: 21435-21443, 2000.

168. Bonanno, E., Iurlaro, M., **Madri, J.A.,** Nicosia, R.F. Type IV Collagen modulates of angiogenesis and neovessel survival in the rat aorta model in Vitro. In Vitro Cell & Develop. Biol., 36: 336-340, 2000.

169. Graesser, D., Mahooti, S., **Madri, J.A.,** Distinct roles for matrix metalloproteinase-2 and α4 integrin during T lymphocyte entry and residency in the pathogenesis of experimental autoimmune encephalomyelitis. J. Neuroimmunol., 109(2):121-131, 2000.

170. Haas, T.L., Milkiewicz, M., Davis, S.J., Zhou, A.L., Egginton, S., Brown, M.D., **Madri, J.A.,** Hudlicka, O. Matrix metalloproteinase-2 and membrane type matrix metalloproteinase-1 are co-ordinately upregulated during adaptive angiogenesis. Amer. J. Physiol., 279: H1540-H1547, 2000.

171. **Madri, J.A.,** Graesser, D., Cell Migration in the Immune System: The Evolving Inter-related Roles of Adhesion Molecules and Proteinases. Develop. Immunol., 7: 103-116, 2000.

172. Ilan, N., Cheung, L., Mohsenin, A., **Madri, J.A.** PECAM-1 shedding during apoptosis generates a membrane-anchored truncated molecule with unique signaling characteristics. FASEB J., 15:362-372, 2001.

173. **Madri, J.A.,** Evolving Paradigms in Vasculogenesis and Angiogenesis, in Genetic Models in Cardiorespiratory Biology - Cardiovascular Biology, Edited by G.G. Haddad & T. Xu, Marcel Dekker, New York, pp. 281-312, 2001.

174. **Madri, J.A.,** The extracellular matrix and the regulation of angiogenesis in Tumor Angiogenesis and Microcirculation, edited by P. D'Amore and E. Voest, Marcel Dekker, New York, pp. 9-28, 2001.

175. Pinter, E., Haigh, J., Nagy, A., **Madri, J.A.** Hyperglycemia-induced Vasculopathy in the Murine Conceptus is Mediated via Reductions of VEGF Expression and VEGF Receptor Activation. Amer. J. Pathol., I58:1199-1206, 2001.

176. Ilan, N., Cheung, L., Miller, S., Mohsenin, A., Tucker, A., **Madri, J.A.** PECAM-1 is a modulator of STAT family member phosphorylation and localization: Lessons from a transgenic mouse. Develop. Biol., 232:219-232, 2001.

177. Marx, M., L., Warren, S.L, **Madri, J.A.** pp60$^{c\text{-}src}$ modulates microvascular endothelial phenotype and in vitro angiogenesis. Exptl. & Mol. Pathol., 70:201-213, 2001.

178. Xie, B., Kitagawa, M., Durbin, J., **Madri, J.A.,** Guan, J-L., Fu, X-Y. Focal adhesion kinase activates Stat1 in integrin-mediated cell migration and adhesion. J. Biol. Chem., 276(22):19512-23, 2001.

179. Chow, J., Ogunshola, O., Fan, S.-Y., Li, Y., Ment, L.R., **Madri, J.A**. Astrocyte-derived VEGF mediates survival and tube stabilization of hypoxic brain microvascular endothelial cells in vitro. Develop. Brain Res., Sep 23;130(1):123-132, 2001.

180. Ogunshola, O.O, Antic, A., Donoghue, M.J., Fan, S-H, Kim, H., Stewart, W.B., **Madri, J.A.,** Ment, L.R., Paracrine and autocrine functions of neuronal VEGF in the CNS. J. Biol. Chem., 277(13):11410-11415, 2002.

181. Graesser, D., Solowiej, A., Bruckner,M., Osterweil, E., Judes, A., M., Davis, S., Ruddle, N., Engelhardt, B., **Madri, J.A.** Changes in Vascular Permeability and Early Onset of Experimental Autoimmune Encephalomyelitis in PECAM-1 (CD31) Deficient Mice. J. Clin Invest., 109:383-392, 2002.

182. Yamaguchi, S., Yamaguchi, M., Yatsuyanagi, E., Yun, S-S., Nakajima, N., **Madri, J.A.,** Sumpio, B.E., Cyclic strain stimulates Egr-1 mediated expression of MT1-MMP in endothelium, Lab. Invest., 82:949-956, 2002.

183. Yun, S., Dardik, A., Haga, M., Yamashita, A., Yamaguchi, S., Koh, Y., **Madri, J.A.,** Sumpio, B.E., Transcription factor Sp1 Phosphorylation Induced by Shear Stress Inhibits MT1-MMP Expression in Endothelium, J. Biol. Chem., 277:34808-34814, 2002.

184. Curristin, S.M., Cao, A., Stewart, W.B., Zhang, H., **Madri, J.A.,** Morrow, J.S., Ment, L.R., Disrupted Synaptic Maturation in the Hypoxic Newborn Brain, Proc. Natl. Acad. Sci. (USA), 99 (24):15729-15734, 2002.

185. Gratzinger, Barreuther, M., **Madri, J.A.** Platelet-Endothelial Cell Adhesion Molecule-1 Modulates Endothelial Migration through its Immunoreceptor Tyrosine-based Inhibitory Motif. Biochem. Biophys. Res Comm., 301: 243–249, 2003.

186. Biswas, P., Canosa, S., Schoenfeld, J., Schoenfeld, D., Tucker, A., **Madri, J.A**., PECAM-1 promotes β-catenin accumulation and stimulates endothelial cell proliferation, Biochem. Biophys Res. Comm., 303: 212-218, 2003.

187. Enciso, J., Gratzinger, D., Camenisch, T.D., Canosa, S., Pinter, E., **Madri, J.A**. Elevated glucose inhibits VEGF-mediated endocardial cushion formation: modulation by PECAM-1 and MMP-2. J. Cell Biol., 160: 605-615, 2003.

188. Solowiej, A., Biswas, P.,Graesser, D., **Madri, J.A.,** Absence of PECAM-1 Attenuates Foreign-Body Inflammation Due to Decreased Angiogenesis in and around the Implant. Amer. J. Pathol., 162: 953-962, 2003.

189. **Madri, J.A.,** The Evolving Roles of Cell Surface Proteases in Health and Disease: Implications for Developmental, Adaptive, Inflammatory and Neoplastic processes, in Cell Surface Proteases and Related Mechanisms, Curr Top Dev Biol,54:391-410, 2003.

190. Payne, G.W., **Madri, J.A.,** Sessa. W.C., Segal, S,S., Abolition of arteriolar dilation to histamine in cremaster muscle of eNOS -/- mice. Am J Physiol Heart Circ Physiol., 285(2):H493-H498, 2003.

191. Gratzinger, D., Canosa, S., Engelhardt, B., **Madri, J.A.,** PECAM-1 modulates endothelial cell motility through the small G-protein Rho, FASEB J., 17:1458-1469, 2003.

192. Ilan, N., Tucker, A., **Madri, J.A.,** VEGF expression, β-catenin tyrosine phosphorylation and endothelial proliferative behavior: A pathway for transformation?, Lab. Invest., 83 (8):1105-1115, 2003.

193. Ilan, N., **Madri J.A.,** PECAM-1: Old friend, new partners, Curr. Opin. in Cell Biol., 15(5):515-24, 2003.

194. **Madri, J.A.,** Enciso, J., Pinter, E., Maternal diabetes: Effects on embryonic vascular development – A VEGF-A mediated process., Ped. Develop. Pathol., 6(4):334-341,.2003.

195. Han, X., Boyd, P.J., Colgan, S., **Madri, J.A**., Haas, T.L. Transcriptional upregulation of endothelial cell matrix metalloproteinase-2 in response to extracellular cues involves GATA-2. J. Biol. Chem., 278(48):47785-47791, 2003.

196. Payne, G.W., **Madri, J.A.,** Sessa, W.C., Segal. S.S., Histamine inhibits conducted vasodilation through NO production in arterioles of mouse skeletal muscle, FASEB J., 18:280-286, 2004.

197. Nath, A.K., Enciso, J. Kuniyasu, M., Hao, X-Y., **Madri, J.A.** and Pinter, E., Nitric Oxide Modulates Murine Yolk Sac Vasculogenesis and Rescues Glucose Induced Vasculopathy, Development, 131, (10):2485-96, 2004.

198. Meoli, D.F., Sadeghi, M.M., Krassilnikova, S., Bourke, B., Giordano, F.J., Dione, D. P., Su, H., Edwards, D.S., Liu, S., Harris, T.D., **Madri J.A.,** Zaret, B.L., Sinusas, A.J., Non-invasive imaging of myocardial angiogenesis following experimental myocardial infarction, J. Clin. Invest., 113(12):1684-1691, 2004.

199. Kim, H., LI, Q., Hempstead, B., **Madri, J.A.** Paracrine and Autocrine Functions of BDNF and NGF in Brain-derived Endothelial Cells, J. Biol. Chem., 279(32):33538-33546, 2004.

200. Hallaq, H., Pinter, E., Enciso, J., McGrath, J., Zeiss, C., Brueckner, M., **Madri, J.,** Jacobs, H.C., Wilson, C.M., Vasavada, H., Jiang, X., Bogue, C.W. A null mutation of *Hhex* results in abnormal cardiac development, defective vasculogenesis and elevated VEGFA levels, Development, 131:5197-5209, 2004.

201. Esparza, J., Kruse, M., Lee, J., Michaud, M and **Madri, J.A**., MMP-2 null mice exhibit an early onset and severe experimental autoimmune encephalomyelitis due to an increase in MMP-9 expression and activity. FASEB J. 18: 1682-1691, 2004.

202. Carrithers, M., Tandon, S., Canosa, S., Michaud, M., Graesser, D. and **Madri, J.A.,** Enhanced susceptibility to endotoxic shock and impaired STAT3 signaling in CD31-deficient mice, Amer. J. Pathol., 166: 185-196, 2005.

203. Sumpio, B.E., Yun, S., Cordova, A.C., Haga, M., Jin Zhang, J., Koh, Y., **Madri, J.A.,** MAP Kinases (ERK1/2, p38) and AKT can be phosphorylated by Shear Stress independently of PECAM-1 (CD31) in Vascular Endothelial Cells, J. Biol. Chem., 280(12):11185-11191, 2005.

204. Biswas, P., Zhang, J., Schoenfeld, J., Schoenfeld, D., Gratzinger, D., Canosa, S., **Madri, J.A**., Identification of the regions of PECAM-1 involved in β- and γ-catenin associations, Biochem. Biophys. Res. Comm., 329(4):1225-1233, 2005.

205. Hua, J., Dobrucki, L.W., Sadeghi, M.M., Zhang, J., Bourke, B.N., Cavaliere, P., Song, J., Chow, C., Jahanshad, N., van Royen, N., Buschmann, I., **Madri, J.A.,** Mendizabal, M., Sinusas, A.J., Noninvasive Imaging of Angiogenesis With a 99mTc-Labeled Peptide Targeted at αvβ3 Integrin Integrin Following Murine Hindlimb Ischemia, Circ., 111(24):3255-60, 2005.

206. Peng, T., Hao, L., **Madri, J.,** Elias, JJ., Squinto, S., Wang, Y., Role of C5 in The Development of Airway Inflammation, Airway Hyper-responsiveness and On-going Asthmatic Attack, J. Clin. Invest., 115(6):1590-1600, 2005.

207. Wu, Y., Stabach, P., Michaud, M., **Madri, J.A.,** Neutrophils Lacking PECAM-1 Exhibit Loss of Directionality in IL8-Induced Chemotaxis, J. Immunol.,175:3484-3491, 2005.

208. Graesser,D.S., Spraker, T.R., Dressen, P., Garner, M.M., Raymond, J.T., Terwilliger,G., Kim, J., **Madri, J.A.,** Wobbly Hedgehog Syndrome in African Pygmy Hedgehogs (*Atelerix* spp.) Journal of Exotic Pet Medicine, 15(1): 59-65, 2006.

209. Nath A.K., **Madri J.A.,** The Roles of Nitric Oxide in Murine Cardiovascular Development, Develop. Biol., 292(1):25-33, 2006.

210. Ford, M.C., Bertram, J.P., Hynes, S.R., Michaud, M., Li, Q., Young, M., Segal, S.S., **Madri, J.A.,** Lavik, E.B., A novel macroporous hydrogel for the culture of neural progenitor and endothelial cells to form functional vascular networks in vivo, Proc. Natl. Acad. Sci. (USA), 103 (8):2512-2517, 2006.

211. You, X., Pan, M., Gao, W., Shiah, H-S., Tao, J., Zhang, D., Koumpouras, F., Wang, S., Zhao, H., **Madri, J.A**., Baker, D., Cheng, Y-C., Yin, Z., Effect of a novel Tylophorine analog on inflammatory arthritis through inhibition of the innate immune response, Arthritis & Rheumatism, 54(3):877-886, 2006.

212. Biswas, P., Canosa, S., Schoenfeld, D.S., Schoenfeld, J., Li, P., Cheas, L.C., Zhang, J., Cordova, A., Sumpio, B.E., . and **Madri, J.A.,** PECAM-1 Affects GSK-3β -mediated β-catenin Phosphorylation and Degradation. Amer. J. Pathol., 169 (1):314-324, 2006.

213.. Wang, T., Gao, Y., Scully, E., Davis, C.T., Anderson, J.F., Welte, T., Ledizet, M., Koski, R., **Madri, J.A.,** Barrett, A., Yin, Z., Craft, J., Fikrig, E. γδ T cells Facilitate Adaptive Immunity Against West Nile Virus Infection in Mice. J. Immunol., 177 (3):1825-1832, 2006.

214. Li, Q., Ford, M., Lavik, E., **Madri, J.A.,** Modeling the neurovascular niche: VEGF- and BDNF-mediated cross-talk between neural stem cells and endothelial cells - an in vitro study, J. Neurosci., 84(8):1656-68, 2006.

215. Zhang, J., Biswas, P, Li, P., Kelm, R., Kashgarian, M., **Madri, J.A.,** PECAM-1 Modulates Thrombin-Induced Tissue Factor Expression on Endothelial Cells, J. Cell. Physiol., 210(2):527–537, 2007.

216. Antaya, R.J., Cajaiba, M.M., **Madri, J.,** Lopez, M.A., Ramirez, M.C.M., Martignetti, J.A.,

Reyes-Mugica, M. Juvenile Hyaline Fibromatosis and Infantile Systemic Hyalinosis Overlap Associated With a Novel Mutation in Capillary Morphogenesis Protein-2 Gene, Am. J. Dermatopathol., 29(1):99-103, 2007.

217. Wu, Y., Welte, T., Michaud, M., Jiang, X., **Madri, J.A.,** PECAM-1: A multifaceted regulator of megakaryocytopoiesis, Blood, 110(3):851-859, 2007.

218. Mosig, R.A., Dowling, O., Difeo, A.V., Ramirez, M.C., Parker, C., Abe, E., Driouri, J., Aqeel, A., Wylie, J., **Madri, J.,** Apte, S., Zaidi, M., Doty, S.B., Majeska, R., Schaffler, M., Martignetti, J.A., Loss of MMP-2 disrupts skeletal and craniofacial development, and results in decreased bone mineralization, joint erosion and defects in osteoblast and osteoclast growth, Human Molecular Genetics, 16(9):1113-1123, 2007.

219. Y. Wu, L. Zhan, Y. Ai, M.O. Hannigan, C.K. Huang, **J.A. Madri.** Requirement of MAPKAP kinase-2 mediated lymphocyte specific protein 1 phosphorylation in maintaining fMLP-induced neutrophil activation, Biochem. Biophys. Res. Comm., 358(1):170-175, 2007.

220. Li, Q., Michaud, M., Stewart, W., Schwartz, M, **Madri, J.A.,** Modeling the Neurovascular Niche: Murine strain differences mimic the range of responses to chronic hypoxia in the premature newborn, J. Neurosci., 86(6):1227-1242, 2008.

221. Seguin, C.A., Pilliar, R.M., **Madri, J.A.,** Kandel, R.A., TNFα-stimulated activation of pro-MMP2 in nucleus pulposus cells occurs through Egr-1 mediated transcription of membrane type I matrix metalloproteinase, Spine, 33(4):356-365, 2008.

222. **Madri, J.A.,** Inside Blood Capsule: Need MT1-MMP? Just say NO!, Blood, 110:2790-2791, 2008.

223. Nath, A.K., Brown, R.M., Michaud, M., Honigmann, R., Snyder, M., **Madri, J.A**. Leptin affects endocardial cushion formation by modulating EMT and MMP2 dependent migration via JAK2-PI3K-Akt signaling cascades, J. Cell Biol., 181(2):367-80, 2008.

224. Kalinowski, L., Dobrucki, W.L., Meoli,D.F., Dione, D.P., Sadeghi, M.M., **Madri, J.A.,** Sinusas, A.J., Targeted Imaging of Hypoxia-Induced Integrin Activation in Myocardium Early After Infarction, J. App.l Physiol., 104(5):1504-12, 2008, Mar 20; [Epub ahead of print].

225. Kim, J.I., Cordova, A.C., Hirayama, Y., **Madri, J.A.,** Sumpio, B.E., Differential Effects of Shear Stress and Cyclic Strain on Sp1 Phosphorylation by PKCz Modulates MT1-MMP in Endothelial cells, Endothelium, 15:33-42, 2008.

226. Rauch, M., Michaud, M., Xu, H., **Madri, J.A.,** Lavik, E.B., Coculture of primary neural progenitor and endothelial cells in a macroporous gel promote stable vascular networks in vivo, J. Biomaterials Sci: Polymer Edn., 19(11):1469-1485, 2008.

227. Chyou, S., Ekland, E.E., Carpenter, A.E., Tzeng, T-C., Michaud, M., Browning, J., **Madri, J..A.,** Lu, T.T., Lymph node VEGF modulates homeostatic endothelial cell proliferation and is expressed by stromal cells in a lymphotoxin beta receptor-dependent manner, J. Immunol., 181: 3887–3896, 2008.

228. Wang, P., Dai, J., Bai, F., Kong, K-F., Montgomery, R., **Madri, J.A.,** Fikrig, E., Matrix Metalloproteinase 9 Facilitates West Nile Virus Entry into the Brain, J. Virol 82(18):8978-8985, 2008, July 16, 2008 ; [Epub ahead of print].

229. Rauch, M., Hynes, S.R., Bertram, J., Redmond, A., Robinson, R., Williams, C., Xu, H., **Madri, J.A.,** Lavik, E.B., Engineering angiogenesis following spinal cord injury: a coculture of neural progenitor and endothelial cells in a degradable polymer implant leads to an increase in vessel density and formation of the blood–spinal cord barrier, Eur.J. Neuroscinece, 29:132–145, 2009.

230. Nath, A.K., Krauthammer, M., Li, P., Davidov, E., Butler, L.C., Copel,J., Katajamaa, M., Oresic, M., Buhimschi, I., Buhimschi, C., Snyder, M., **Madri, J.A.,** Identification of a Novel Protein Cluster Dysregulated during Cardiovascular Development as the Basis of a Prenatal Screen for Human Congenital Heart Defects, PLoS ONE, 4(1): e4221, 2009. doi:10.1371/journal.pone.0004221

231. Wu, Y., Tworkoski, K., Michaud, M, **Madri J.A.,** Bone Marrow Monocyte PECAM-1 Deficiency Elicits Increased Osteoclastogenesis Resulting in Trabecular Bone Loss, J. Immunol., 182(5):2672-2679, 2009.

232. Buhimschi, C.S., Bhandari, V., Han, Y., Dulay, A.T., Baumbusch, M.A., **Madri, J.A.,** Buhimschi, I.A., Using proteomics in perinatal and neonatal sepsis: hopes and challenges for the future, Curr. Opin. Infect. Dis, 22:235–243, 2009.

233. Buhimschi, C.S., Baumbusch, M.A., Dulay, A.T., Oliver, E.A., Lee, S., Zhao, G., Bhandari, V., Ehrenkranz, R.A., Weiner, C.P., **Madri, J.A**., Buhimuschi, I.A., Characterization of rage, HMGB1 AND S100β in inflammation induced preterm birth and fetal tissue injury, Amer J Pathol., 175(3):958-75, 2009. Epub 2009 Aug 13.

234. Li, Q., Liu, J., Michaud, M., Schwartz, M., **Madri, J.A.,** Modeling the Neurovascular Niche: Strain differences in behavioral and cellular responses to perinatal hypoxia, and relationships to neural stem cell survival and self-renewal, Amer. J. Pathology, 175(5):2133-2145, 2009. Epub 2009 Oct 12. (Cover Illustration)

235. Long, J.B., Jay, S.M., Segal, S.S., **Madri J.A.,** VEGF-A and Semaphorin3A: Modulators of vascular sympathetic innervation, Developmental Biology, 334(1):119-32, 2009. Epub 2009 Jul 23.

236. **Madri J.A.,** Modeling the Neurovascular niche: Implications for recovery from CNS injury, J. Physiol & Pharmacol., 60, Suppl 4, 95-104, 2009. http://www.jpp.krakow.pl/journal/archive/1009_s4/pdf/95_1009_s4_article.pdf

237. Harding, M.J., Lepus, C.M., Gibson, T., Paturzo, F., Shepard, B.R., Gerber, S.A., Graham M., Rahner, C., **Madri, J.,** Bothwell, A., Lindenbach, B., Pober, J.S. Human fetal hepatoblasts implanted within a vascularized extrahepatic matrix survive long-term and support hepatitis C virus infection following engraftment in immunodeficient mice. PLOS ONE, 5(4), e9987, 2010. PMID: 20376322. doi:10.1371/journal.pone.0009987.

238. Buhimschi, C.S., **Madri, J.A.,** Sora, N., Zhao, G., Buhimschi, I.A., Myometrial Wound Healing Post-Cesarean Delivery in the MRL/MpJ Mouse Model of Uterine Scarring, Amer. J Pathol., 177(1):197-207, 2010.

239. Lavik, E., **Madri J.A.,** "Angiogenesis, the neurovascular niche and neuronal reintegration after Injury", in “Therapeutic Angiogenesis for Vascular Diseases - Molecular mechanisms and targeted clinical approaches for the treatment of angiogenic disease”, Slevin, M. Editor, Springer,New York, pp. 145-168, 2010.

240. Wu, Y., **Madri J.A.,** Insights into Monocyte-Driven Osteoclastogenesis and Its Link with Hematopoiesis: regulatory roles of PECAM-1 and SHP-1, Critical Reviews in Immunology, 30(5): 423-432, 2010.

241. Li, Q., Michaud, M, Canosa, S, Kuo, A., **Madri, J.A.,** GSK-3β: a signaling pathway node modulating neural stem cell and endothelial cell interactions, Angiogenesis, 14(2): 173-185, 2011. http://www.springerlink.com/content/101769/

242. Abe, R., Yamashita, N., Rochier, A., Abe, R., Nixon A., **Madri J.A.,** Sumpio, B.E., Pulsatile to-fro flow induces greater and sustained expression of tissue factor RNA in HUVEC than unidirectional laminar flow, Am J Physiol Heart Circ Physiol 300: H1345–H1351, 2011.

243. Rochier A, Nixon A, Yamashita N, Abe R, Abe R, **Madri JA,** Sumpio BE., Laminar shear, but not orbital shear, has a synergistic effect with thrombin stimulation on tissue factor expression in human umbilical vein endothelial cells., J Vasc Surg. 54 (2): 480-488, 2011, Feb 28. [Epub ahead of print]

244. Abe, R., Yamashita, N., Rochier, A., Abe, R., Nixon A., **Madri J.A.,** Sumpio, B.E., Varying Effects of Hemodynamic Forces on Tissue Factor RNA Expression in Human Endothelial Cells, Journal of Surgical Research 170, 150–156 (2011).

245. Rochier A, Nixon A, Yamashita N, Abe R, Abe R, **Madri JA,** Sumpio BE., Cyclic strain delays the expression of tissue factor induced by thrombin in human umbilical vein endothelial cells, Int’l J. of Angiology, In Press, 2011.

246. Hibino, N. Yi, T., Duncan, D.R., Rathore, A., Dean, E., Naito, Y., Dardik, A., Kyriakides, T., **Madri, J.,** Pober, J.S., Shinoka, T., Breuer, C.K., A Critical Role of Macrophages on Neovessel Formation and the Development of Stenosis in Tissue Engineered Vascular Grafts, FASEB J, 25(12):4253-63, 2011, Aug 24. [Epub ahead of print].

247. Murugesan, N., Demarest,T.G., **Madri, J.A.,** Pachter, J.S., Brain regional angiogenic potential at the neurovascular unit during normal aging, Neurobiol. Aging, 33(5):1004.e1-1004.e16, 2011.

248. Frey M.A., Michaud, M., VanHuten, J.N., Insogna, K.L**., Madri, J.A.,** Barrett, S.E., Phosphorus-31 MRI of hard and soft solids using quadratic echo line-narrowing, In Proc Natl Acad Sci, USA, 109(14):5190-5195, 2012.

249. Naito, Y., Williams-Fritz, M., **Madri, J.A.,** Shinoka, T., Breuer, C., Characterization of the natural history of extracellular matrix production in tissue engineered vascular grafts during neovessel formation, Cells Tissues Organs. 195(1-2):60-72, 2012 Oct 12. [Epub ahead of print]

250. Williams, C., Rauch, M.F., Michaud, M., Robinson, R., **Madri J.,** Lavik, E., Neural Progenitor Cells Control in vivo Formation of Engineered Functional Vascular Networks, PLOS One, 2012;7(12):e53208. doi: 10.1371/journal.pone.0053208. Epub 2012 Dec 27.

251. Flynn, K., Michaud, M., **J.A. Madri.** CD44 Deficiency Contributes to Enhanced Experimental Autoimmune Encephalomyelitis: A Role in Immune Cells and Vascular Cells 2 of the Blood Brain Barrier, American Journal of Pathology, 182(4):1322-1336, 2013.

252. Flynn, K., Michaud, M., Canosa, S., **J.A. Madri.** CD44 Regulates Vascular Endothelial Barrier Integrity via a PECAM-1 Dependent Mechanism, Angiogenesis, 16:689-705, 2013.

253. Li, Q, Canosa S, Michaud, M., Flynn, K., Krauthammer, M., **J.A. Madri.** Modeling the Neurovascular Niche: Unbiased Transcriptome Analysis of the Murine Subventricular Zone in Response to Hypoxic Insult, PLOS One, PLoS ONE 8(10): e76265, 2013. doi:10.1371/journal.pone.0076265http://dx.plos.org/10.1371/journal.pone.0076265.

254. Yamamoto K, Protack CD, Tsuneki M, Hall MR, Wong DJ, Lu DY, Assi R, Williams WT, Sadaghianloo N, Bai H, Miyata T, **Madri JA,** Dardik A. The mouse aortocaval fistula recapitulates human arteriovenous fistula maturation. Am J Physiol Heart Circ Physiol. 2013, Dec;305(12):H1718-25. doi: 10.1152/ajpheart.00590.2013. Epub 2013 Oct 4. PMID: 24097429

255. Glinskii, V., Wu, Y., Li, Q., Canosa, S., Buhimschi, I., Buhimschi, C., **Madri, J.A.,** Brain Derived Neurotrophic Factor: A Foray Into Predicting Neonatal Outcomes In Premature Infants, (2013). Yale Medicine Thesis Digital Library. 1793. http://elischolar.library.yale.edu/ymtdl/1793

256. Chunsik Lee, Anguo Liu, Alba Miranda-Ribera, Sang Won Hyun, Erik P. Lillehoj, Alan S. Cross, Antonino Passaniti, **Joseph A. Madri,** and Simeon E. Goldblum, NEU1 Sialidase Regulates the Sialylation State of CD31 and Disrupts CD31-Driven Capillary-Like Tube Formation in Human Lung Microvascular Endothelia, J. Biol. Chem., 2014, 289(13):9121-9135

257. Tsuneki, M., **Madri, J.A.,** CD44 regulation of endothelial cell proliferation and apoptosis via modulation of CD31 and VE-cadherin expression., J Biol Chem. 2014, 289(9):5357-5370. doi: 10.1074/jbc.M113.529313. Epub 2014 Jan 14.PMID: 24425872

258. McCarthy TL, Yun Z, **Madri JA,** Centrella M., Stratified control of IGF-I expression by hypoxia and stress hormones in osteoblasts., Gene. 2014,539:141–151. doi: 10.1016/j.gene.2014.01.011. Epub 2014 Jan 15., PMID: 24440782

259. Michael R. Hall, Kota Yamamoto, Clinton D. Protack, Masayuki Tsuneki, Go Kuwahara, Roland Assi, Kirstyn Brownson, Hualong Bai, **Joseph Madri,** Alan Dardik, Temporal Regulation of Venous Extracellular Matrix Components during Arteriovenous Fistula Maturation, J Vasc Access. 2014 doi: 10.5301/jva.5000290. Epub ahead of print.

260. Tsuneki, M., **Madri, J.A.** Adhesion Molecule-Mediated Hippo Pathway Modulates Hemangioendothelioma Cell Behavior, Mol Cell Biol., 34(24):4485-99, 2014. doi: 10.1128/MCB.00671-14, Epub 2014 Sep 29

261. Yamamoto, K., Protack, C.D., Kuwahara, G., Tsuneki, M., Hashimoto, T., Hall, M.R., Assi, R., Brownson K.E.,m Foster, T.R., Bai, H., Wang, M., **Madri, J.A**., Dardik, A., Disturbed shear stress reduces Klf2 expression in arterial-venous fistulae in vivo,

Physiol. Reports, 2015 Mar;3(3). pii: e12348. doi: 10.14814/phy2.12348. PMID: 25780089.

262. Tsuneki, M., **Madri J.A.,** Saku T., Cell-extracellular interactions in oral tumorigenesis: the roles of podoplanin and CD44 and modulation of the Hippo pathway, Journal of Oral Biosciences, March, 57(2), DOI:10.1016, 2015.

263. Tsuneki, M., Hardee, S., Michaud, M., Morotti, R, Lavik, E, **Madri JA.** A Hydrogel-Endothelial Cell implant Mimics Infantile Hemangioma:, Modulation by Survivin and the Hippo pathway, Laboratory Investigation, Jul;95(7):765-80. doi: 10.1038/labinvest.2015.61. Epub 2015 May 11., PMID: 25961170.

264. LI, Q., Tsuneki, M, Krauthammer, M., Couture, R., Schwartz, M., **Madri, J.A.,** Modulation of Sox10, HIF-1α, Survivin and YAP by minocycline in the treatment of neurodevelopmental handicaps following hypoxic insult, Amer J. Pathol., Sep;185(9):2364-78. 2015. doi: 10.1016/j.ajpath.2015.05.016. Epub 2015 Jul 22. PMID: 26209807

265. Tsuneki, M., **Madri J.A.,** CD44 influences fibroblast behaviors via modulation of cell-cell and cell-matrix interactions, affecting Survivin and Hippo pathways, Journal of Cellular Physiology, 231:731-743, Aug 6. doi: 10.1002/jcp.25123. [Epub ahead of print], August, 2015.

266. Ronald A. Albright, Paul Stabach, Wenxiang Cao, Dillon Kavanagh, Isabelle Mullen, Alexander A. Braddock, Mariel S. Covo, Guangxiao Yang, [Alexion Personnel], Stephanie Thorn, Xiangning Wang, Alejandro Negrete, Albert J. Sinusas, Joseph Shiloach, George Zubal, **Joseph A. Madri**, Enrique M. De La Cruz, and Demetrios T. Braddock, ENPP1-Fc prevents mortality and vascular calcifications in rodent model of generalized arterial calcification of infancy., Nat Commun. 2015 Dec 1;6:10006. doi: 10.1038/ncomms10006., PMID: 26624227.

267. Wu, Y., Hannigan, M., Zhan, L., **Madri, J.A.,** Huang, C-H., NOD mice having a Lyn tyrosine kinase mutation exhibit abnormal neutrophil chemotaxis, Journal of Cellular Physiology, 232(7):1689-1695, 2017, PMID: 27591397.

268. Calle, E.A., Hill, R.C., Leiby, K.L., Le, A.V., Gard, A.L., **Madri, J.A.,** Hansen, K.C., Laura E. Niklason, L.E., Targeted ECM Proteomics to Quantify Structural Proteins in Native and Decellularized Lung Extracellular Matrices, Acta Biomaterialia, 46:91-100, 2016.

269. Qi Li, Michael Michaud, Chan Park, Rachael Couture, Yan Huang, Frank Giordano Michael Schwartz, and **Joseph A. Madri,** The role of endothelial HIF-1α in the response to sublethal hypoxia in C59BL/6 mouse pups, **,** Lab. Invest., 97(4):356-369, 2017. Epub 16 Jan 2017.

270. Sadaghianloo, N., Yamamoto, K., Bai, H., Tsuneki, M., Protack, C.D., Hall, M.R., Declemy, S., Hassen-Khodja, R., **Madri, J,,** Dardik, A., Increased oxidative stress and hypoxia inducible factor-1α expression during arteriovenous fistula maturation, Ann Vasc Surg. 2017 Feb 2. [Epub ahead of print]

271. Hyun, S.W., Liu, A., Liu, Z., Lillehoj, E.P., **Madri, J.A.**, Reynolds, A.B., Goldblum, S.E. As human lung microvascular endothelia achieve confluence, src family kinases are activated, and tyrosine-phosphorylated p120 catenin physically couples NEU1 sialidase to CD31, Cell Signal. 35:1-15, 2017, 2017 Mar. 24, Epub ahead of print.

272. Kuwahara, G., Hashimoto, T., Tsuneki, M., Yamamoto, K., Assi, R., Foster, T.R., Hanisch, J., Bai, H., Hu, H., Protack, C.D., Hall, M.R., Schardt, J.S., Jay, S.M., **Madri, J.A.,** Kodama, S., Dardik, A., CD44 Promotes Inflammation and Extracellular Matrix Production During Arteriovenous Fistula Maturation, Arterioscl. Thrombosis & Vasc. Biol., Arterioscler Thromb Vasc Biol. 2017 Jun;37(6):1147-1156, 2017,. doi: 10.1161/ATVBAHA.117.309385. Epub 2017 Apr 27., PMID: 28450292

273. Li, Q., Michaud, M., Shankar, R., Canosa, Schwartz, M., **Madri, J.A**., MMP-2: A modulator of neuronal precursor activity and cognitive and motor behaviors, Developmental Brain Research, 333:74-82, 2017, doi: 10.1016/j.bbr.2017.06.041. Epub 2017 Jun 27. PMID: 28666838.

274. Boisvert, E. M., Means, R. E., Michaud, M. R., **Madri, J.A.,** Katz, S. G., Minocycline mitigates the effect of neonatal hypoxic insult on brain organoids, Cell Death & Disease, Apr 11;10(4):325, 2019. doi: 10.1038/s41419-019-1553-x

275. Kar, S., Lee, J.Y., Esparza, J., Flynn, K., **Madri, J.A.**, CD44 Expression and Sex Modulate the Severity of Murine Experimental Autoimmune Encephalomyelitis, J. Neurophysiol & Neurol Disord (JNND), 5:1-12, 2019.

276. Roque, A., Kimbrough, T., Traner, C., Baehring, J.M., Huttner, A.,Sklar, J. and **Madri, J.A.,** Somatic PRKAR1A mutation in sporadic atrial myxoma with cerebral parenchymal metastases, A case Report, J. Medical Case Reports, 13:389, 2019. https://nam05.safelinks.protection.outlook.com/?url=https%3A%2F%2Fjmedicalcasereports.biomedcentral.com%2Ftrack%2Fpdf%2F10.1186%2Fs13256-019-2317-z&data=02%7C01%7Cjoseph.madri%40yale.edu%7C04341b6837f34e1628b208d7893a3a6d%7Cdd8cbebb21394df8b4114e3e87abeb5c%7C0%7C1%7C637128755877866636&sdata=WWgXp7NzJP4nbSD4%2FwQWpVly6eRzFexVFCbJh24nDs4%3D&reserved=0

277. Boisvert, E.M., Means, R E., Michaud, M., Thomson, J.J., **Madri, J.A.,** Katz, S.G. A Static Self-directed Method for Generating Brain Organoids from Human Embryonic Stem Cells. *J. Vis. Exp.*(J Vis Exp. 2020 Mar 4;(157): 10.3791/60379, 2020. doi:10.3791/60379. PMID: 32202516

278. Dimitrievska, S., Wang, J., Lin, T., Weyers, A., Bai, H., Qin, L., Li, G., Cai, C., Kypson, A., Kristofik, N., Gard, A., Sundaram, S., Yamamoto, K., Wu, W., Zhao, L., Kural, M.H., **Madri, J.**, Kyriakides, T.R., Linhardt, R.J., Niklason, L.E., Glycocalyx-like hydrogel coatings for small diameter vascular graft, Advanced Functional Materials, April 2020, 30, 1908963, 14 pages.

279. Zhang, Z., Gan, Q., Han, J., Tao, Q., Qiu, W.Q., Madri J.A., CD31 as a probable responding and gate-keeping protein of the blood–brain barrier and the risk of Alzheimer's disease, J. Cerebral Blood Flow and Metabolism, in Revision, 2022.

Committee Work

Member - Department Safety Committee, 1980-1983
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Member - Medical Student Pathology Course Committee, 1980-2016
Member - Graduate Student Program Committee, 1983-Present
Member - MD/PhD Student Advisory and Admissions Committee, 1986-2016
Member - Miles Seminar Series Program Committee, 1984-1986
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Director of Graduate Studies, Experimental Pathology, 1986-1987
Member - American Cancer Society Institutional Research Grant Review Committee, 1988-1990
Member - FASEB-AAP Program committee, 1988-1990
Chair - Pathology Search Committee - in Pediatric & Neonatal Pathology, 1989-1990
Co-Chair - Yale University Center of Molecular Medicine Cardiobiology Advisory Group, 1989-1991
Member - Yale University Planning & Priorities Committee, 1990 - 1993
Member - Steering Committee Experimental Pathology Training Grant, 1992 - 2016
Director of Medical Studies: Pathology - 1992- 2007
Member - Yale University Basic Sciences Curriculum Subcommittee - 1992 – 2014
Member - Yale University Education Policy & Curriculum Committee - 1996 - 1998
Councilor - American Society of Investigative Pathology, 7/1/93 to 6/30/96
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Member - Pathology Department Executive Committee, 2/99 to 6/13
Member - Yale University Senior Appointments and Promotions Committee, 1999 – 2002
Chair – Anna Fuller Foundation Fellowship Selection Committee at Yale, 2000 - 2004
Member – ASIP Meritorious Awards selection committee, 2002 - 2007
Member - Yale University School of Medicine Scholar Awards Committee, 2005-2007
Chair -Yale University School of Medicine Scholar Awards Committee, 2007-2008
Member, Yale University School of Epidemiology & Public Health, Standing Appointments & Promotions Committee, 2006 – 2008
Chair – Yale Center for Excellence in Molecular Hematology Research Review Committee 2007-2011
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Presentations at National and International Meetings:

Gordon Conference - Structural Macromolecules. Collagen. Speaker, "Endothelial Cell Collagen Biosynthesis: Structure/Function Relationships." Santa Barbara, CA, 2/80.

Gordon Conference - Structural Macromolecules. Collagen. Speaker, "Monoclonal Antibodies to Type IV Collagen: Molecular Probes." Plymouth, NH, 7/81.

FASEB Symposium Chairman & Speaker. "Immunochemistry of the Extracellular Matrix." New Orleans, LA, 4/82.

Symposium, The Extracellular Matrix: Chemistry, Biology, Pathology. Speaker, "Collagen Immunology and Immunochemistry." Washington University, St. Louis, 6/82.

Conference on: The biology of Inflammation, Cell-Cell Interactions and Connective Tissue: Potential New Approaches to Atherosclerosis Research. Speaker, "Endothelial Cell-Matrix Interactions in Hemostasis and Angiogenesis." NIH, Washington, DC, 9/82.

Gordon Conference - Atherosclerosis. Speaker, "Endothelial Cell-Matrix Interactions: The Role of Matrix in Angiogenesis." Meriden, NH, 6/83.

Gordon Conference - Structural Macromolecules - Collagen. Speaker, "Capillary Endothelial Cell Cultures: Phenotypic Modulation by Extracellular Matrix." Plymouth, NH, 7/83.

CIBA Foundation Symposium. Basement Membranes and Cell Movement. Speaker, "The Structure and Organization of Basement Membranes." London, U.K., 1/84.

FASEB Symposium - Matrix Aspects of Wound Healing. Speaker, "The Role of Matrix in Modulating the Angiogenic Response." St. Louis, MO, 4/84.

Biology of the Vascular Endothelial Cell: Third International Symposium. Speaker, "Endothelial Cell Cytoskeletal-Matrix Interactions." Boston, MA, 6/84.

Cellular and Molecular Organization of Epithelia, British Society of Cell Biology. Speaker, "Endothelial cell-Matrix Interactions in Large Vessel and Microvascular Endothelium." Kent, England, 9/84.

Biology, Chemistry and Pathology of Collagen, N.Y. Academy of Sciences Symposium. "Endothelial Cell-Extracellular Matrix Interactions." New York, NY, 10/84.

FASEB Symposium Co-Chairman & Speaker. "Plasma Membrane Interactions with the Cytoskeleton and Exoskeleton." Anaheim, CA, 4/85.

Histochemical Society Annual Meeting, Invited Lecture: "Endothelial Cell-Matrix Interactions: In Vitro Models of Angiogenesis." Washington, DC, 5/85.

Gordon Conference - Atherosclerosis. Speaker, "Endothelial Cell Proteoheparin Sulfate Metabolism: Modulation by Matrix." Meriden, NH, 6/85.

Gordon Conference - Structural Macromolecules. Collagen. Chairman & Speaker - Session on The Pathology of Connective Tissues. Plymouth, NH, 7/85.

NIH Symposium on: Perspectives in Endothelial Cell Biology. Speaker, "Cytoskeletal-Matrix Interactions of the Endothelium." Washington, DC, 12/85.

FASEB Symposium Chairman & Speaker. "Extracellular Matrix-Cytoskeleton-Membranes." St. Louis, MO, 4/86.

George Washington University Sixth Annual International Spring Symposium: Cardiovascular Disease '86: Molecular and Cellular Mechanisms, Prevention, Treatment. Speaker, "The Extracellular Matrix as a Modulator of Neovascularization." Washington, DC, 5/86.

University of Iowa, Pulmonary Disease Division, Boehringer-Ingelheim Lecturer, Iowa City, Iowa, 11/6-7/86.

Gordon Conference - Cell Contact and Adhesion Speaker, "Endothelial Cell-Matrix Interactions: Microvascular Endothelial Cells." Tilton, H.H., 6/87.

Distinguished Lecture Series, The Cellular and Molecular Biology Component of ASEND, University of North Dakota, Lecturer, "Microvascular Endothelial Cells: Modulation by Extracellular Matrix." Grand Forks, N.D., 9/27-29/87

Tissue Culture Association Annual Meeting, Invited Lecture: "Interactions of Soluble (TGF-β) and Solid Phase (Matrix) Factors in Angiogenesis." Las Vegas, NV, 6/12-15/88.

Gordon Research Conference on Vascular Cell Biology, Speaker, "Endothelial Cell Modulation by Solid Phase (Matrix) and Soluble Factors (TGF-□)." Meridian, N.H., 7/31/88 - 8/5/88.

Vth Workshop of The Swiss Association Against High Blood Pressure, "The Vascular Smooth Muscle Cell". Lecture Title: "Interactions of Soluble and Solid Phase Factors in Arterial and Capillary Endothelial Cells". Montreux, Switzerland, 10/2/88 - 10/4/88.

FASEB Symposium Chairman & Speaker. "Adhesive Proteins and Matrix Interactions in Vascular Cells" New Orleans, LA, 3/89.

AASLD Asilomar Conference on Connective Tissue Biology of the Liver. Speaker, "Endothelial cell responses to injury: Modulation by matrix and soluble factors" Asilomar, CA, 4/16 to 4/19/89.

Biology and Chemistry of Transforming Growth Factor Beta, N.Y. Academy of Sciences Symposium. Speaker, "The Effects of TGF-β1 and β2 on Vascular Cells" Bethesda, MD, 5/18 to 5/20/89.

Workshop on the Biology of the Renal Microvasculature, Speaker, "Cell-Basement Membrane Interactions in Control of Growth and Differentiation" National Institutes of Health, Bethesda, MD, 10/23/89 to 10/24/89.

Endothelial Cells in Development and Disease, Speaker, "Regulation of Endothelial Cell Function by Extracellular Matrix", National Institutes of Health, Crystal City, VA, 11/19/89 to 11/21/89.

The Biology of Sarcomas, UCLA symposium, Co-organizer, Session Chairman and speaker "Interactions of tumor cells, host stromal cells and the extracellular matrix", Lake Tahoe, CA, 3/11/90 to 3/16/90.

The Endothelial Cell/Tissue Engineering, Joint UCLA symposia, Joint meeting, Session Chairman and speaker "Endothelial cell phenotypes" Keystone, CO, 4/6/90 to4/12/90.

First Altschul Symposium, Atherosclerosis: Cellular and molecular interactions in the artery wall, Organizing committee member and Speaker, "Soluble factor and matrix modulation of vascular cell phenotype", Saskatoon, Saskatchewan, Canada, 4/29/90 to5/2/90.

American Lung Assoc., American Thoracic Society World Conf. on Lung Health, Invited speaker in Cellular and extracellular regulation of pulmonary vascular growth and development, "Extracellular matrix composition and organization as a modulator of microvascular endothelial cell phenotype, Boston, MA, 5/20/90 - 5/24/90.

Second Gordon Research Conference on Vascular Cell Biology, Session chairman and Speaker on vascular cells and extracellular matrix, "Vascular Cell Phenotypic Modulation by Solid Phase (Matrix) and Soluble Factors." Meridian, N.H., 7/29/90 - 8/3/90.

Workshop on "Development of Cell Lines for Hypertension Research" Invited Speaker, "The role of the extracellular matrix and soluble factors in modulating vascular cell behavior", National Institutes of Health, Bethesda, MD, Feb. 19 & 20, 1991

FASEB Symposium Co-Chairman & Speaker. "Cell-Cell Interactions in Vascular Cells" Atlanta, GA, April, 1991.

24th Annual Lofland Conference, Speaker: Speaker, "Positive and Negative Modulators of Endothelial Cell Migration", Seattle, WA, May 22 to 26, 1991.

International Society of Nephrology Sponsored Symposium "Forefronts in Nephrology - Biology of the Glomerular Mesangium", Co-Organizer and Speaker, "Matrix-Driven Growth Factor Receptor Modulation of Vascular Cells", Kloster Banz, F. R. Germany, June 9 to 12, 1991.

MCDB/ISU Symposium on Transforming Growth Factor-□ and Related Proteins in Development, Speaker: "Modulation of Vascular Cell Behavior by Transforming Growth Factors-□", Ames, Iowa, September 20 to 23, 1991.

The Molecular Biology of the Endothelial Cell, UCLA symposia, Joint meeting, Session Chairman and Speaker "Endothelial cell phenotypes" Keystone, CO, 1/13/92 to1/17/92.

American Heart Association Meeting on Vascular Cell Biology, Speaker, "Fibronectin alternate splicing in vascular cells: Functional Significance", SnowBird, Utah, 1/29/92 to 2/1/92.

FASEB-APS Society Symposium Speaker. Cellular and Molecular Biology of the Endothelial Cell, "The inter-relationships between growth factors and extracellular matrix components in angiogenesis and neovascularization", Anaheim, CA , April 5 to 10, 1992.

Third Gordon Research Conference on Vascular Cellular and Molecular Biology, Meeting Co-Chairman and Speaker, The role of PECAM-1 (CD31) in modulating endothelial cell migration", Meridian, N.H., 6/29/92 to 7/3/92.

Upjohn Brook Lodge Workshop Speaker, "A new understanding of the role of matrix metalloproteinases in tumor biology", Invited Participant, Augusta MI, 9/27/92 to 9/29/92.

Biology of the Vascular Endothelial Cell: VII International Symposium on the Biology of Vascular Cells. Speaker, "Endothelial Cell-Matrix Interactions." San Diego, CA, 11/10/92 to 11/14/92.

American Heart Association, 10th National Conference on Thrombosis and Hemostasis, Speaker, "Factors that enhance and inhibit endothelial cell migration", New Orleans, LA, 11/18/92.

Cell Adhesion Mechanisms in Leukocyte Traffic, UCLA symposia, Joint meeting, Session Chairman and Speaker "Microvascular Endothelial cell Differentiation" Keystone, CO, 1/24/93 to1/31/93.

Tissue Regeneration Workshop, Invited Speaker, "Extracellular Matrix Modulation of Endothelial Cell Phenotype During Angiogenesis", Princeton, NJ, Johnson & Johnson, 3/9 & 10/93.

Endothelial Changes in Age-Related Vascular Disease Workshop, National Institute on Aging, Invited Speaker, "Matrix Organization and Endothelial Differentiation", Bethesda, MD, 4/26 & 27/93.

American Heart Association, Conference on Molecular and Cellular Biology of Vascular Cells, Speaker, "The Role of T cell Proteinases in Transmigration", Boston, MA, 10/15/93 to 10/17/93.

Molecular Biology of the Endothelial Cell, UCLA symposia Speaker, "Microvascular Endothelial cell Differentiation" Keystone, CO, 1/16/94 to1/23/94.

FASEB-ASIP Society Symposium Speaker. Tissue Repair and Regeneration, "The role of c-src in endothelial cell signal transduction during migration and angiogenesis", Anaheim, CA , April 24 to 29, 1994.

FASEB-ASIP Society Symposium Co-Chairman & Speaker (with Dr. Marlene Rabinovitch). Extracellular Matrix in the Vessel Wall, "Extracellular Matrix Mediated Signalling in Vascular Cells Following Injury", Anaheim, CA , April 24 to 29, 1994.

Fogarty International Center Conference on TGF-□s: Biological Mechanisms and Clinical Applications, Speaker, "The Modulation of Vascular Cells by TGF-□s", Nat'l. Institutes of Health, Bethesda, MD., May 4-6, 1994.

4th Gordon Research Conference on Vascular Cellular and Molecular Biology, Speaker, "Engagement of □4□1/VCAM-1 Elicits T cell Proteinase Induction during Transmigration", Meridian, N.H., 6/13/94 to 6/19/94.

2nd Franz Volhard Symposium on "Mechanisms of Angiogenesis", Speaker, "Cell-Matrix Interaction in Angiogenesis" Max-Delbruck Center, Berlin, Germany, 5/25/95 to 5/28/95.

Gordon Research Conference on Cell Adhesion, Speaker, "Specific integrin mediated signalling", Andover, N.H., 6/11/95 to 6/15/95.

Gordon Research Conference on Matrix Metalloproteinases, Speaker, "Engagement of □4□1/VCAM-1 Elicits T cell Proteinase Induction during Transmigration", Andover, N.H., 7/16/95 to 7/21/95.

International Symposium: New Frontiers in Infection, Inflammation and Autoimmunity, Speaker, "Integrin-Mediated Proteinase Induction: Its role in T cell Transendothelial Migration", Atezelsberg Castle, Erlangen, Germany, 11/30/95 to 12/3/95.

Wound Healing in Context/Tissue Engineering, UCLA symposia, Joint meeting, Session Chairman and Speaker "Extracellular matrix modulation of Microvascular Endothelial cell TGF receptor expression" Taos, NM, 1/23/96 to1/28/96.

American Association for Cancer Research Special Conference: Proteases and Protease Inhibitors, Speaker "The roles of adhesion molecules and proteinases in lymphocyte transendothelial migration", Panama City, FL, 3/2/96 to 3/5/96.

FASEB-NAVBO/ASIP Society Symposium Co-Chairman & Speaker (with Dr. Tim Hla). Vascular Cell and Molecular Biology, "Extracellular Martix Mediated Signalling in Vascular Cells ", New Orleans, LA , 5/31/96 to 6/4/96.

Sixth World Congress for Microcirculation, Session Co-chairman and Speaker: The Extracellular Matrix as a Modulator of Vascular Growth - "Modulation of Endothelial Cell Phenotype by Matrix", Munich, Germany, 8/25/96 to 8/29/96.

Twelfth International Symposium on Cellular Endocrinology "The Extracellular Matrix: Its Synthesis, Function and Degradation", Speaker: "Adhesion molecules and proteinases in T cell transendothelial migration", Lake Placid, New York, 9/12/96 to 9/15/96.

Second International Symposium on the Etiology and Pathobiology of Transplant Vascular Sclerosis, Chair & Speaker, Plenary Session IV: Cell-Matrix Interactions, "Extracellular Matrix Modulation of Vascular Cell Behavior", Bermuda Southampton Princess Resort, Bermuda, 3/5-3/9/97.

Gordon Research Conference on Angiogenesis and Microcirculation, Speaker, "Matrix-driven integrin-mediated PECAM-1 tyrosine dephosphorylation during vasculogenesis and endothelial cell migration" Salve Regina College, Newport, RI, 08/17/97 to 08/22/97.

Thirteenth International Symposium on Cellular Endocrinology "The Development of the Vascular System", Speaker: "PECAM-1 (CD31) tyrosine phosphorylation and signaling in vasculogenesis and angiogenesis" Lake Placid, New York, 9/11/97 to 9/14/97.

Cardiovascular Function Symposium, American Heart Association, Speaker: "The role of PECAM-1 in vasculogenesis and angiogenesis" Lake Tahoe, CA, 2/22/98 to 2/25/98.

Endothelium/Molecular Mechanisms of Leukocyte Trafficking, Joint UCLA symposium, Speaker "Vascular differentiation during post-natal neural development", Lake Tahoe, CA, 3/21/98 to 3/28/98.

NHLBI/ATS Workshop on the Molecular and Genomic Effects of Tissue Oxygen Deprivation in Sleep Apnea. Speaker: "Hypoxia-Induced Brain Angiogenesis", Bethesda, MD, 9/24/98 to 9/25/98.

University of Toronto, Faculty of Medicine, Department of Laboratory Medicine and Pathobiology, Keynote Speaker, Research Day, Toronto, Canada, 2/1/99.

International Society for Heart Research Symposium, Speaker: "PECAM-1 and Angiogenesis", San Diego, CA, 6/9/99 to 6/12/99.

Gordon Research Conference on Angiogenesis and Microcirculation, Poster Presenter, "PECAM-1 is a reservoir for and a modulator of □-catenin" Salve Regina College, Newport, RI, 08/15/99 to 08/20/99.

New York Academy of Medicine conference: Angiogenesis-Research Frontiers, Invited Speaker: "Differential tyrosine and serine phosphorylation of endothelial PECAM-1 modulates association with α, β and γ-catenins and SHP-2: Implications for angiogenesis", New York City, NY, 1/10/00.

FASEB-ASIP Society Symposium Speaker. Symposium: Regulation of Vascular Cell Growth by Extracellular Matrix, Lecture Title: "PECAM-1: A modulator of junctional, adhesive, migratory and proliferative activities", San Diego, CA , 4/14/00 to 4/19/00.

FASEB-ASIP Society Chugai Award Recipient and Invited Chair & Speaker. Chugai Symposium: Lecture Title: " PECAM-1: A multidomain/multifunctional protein with diverse signaling and scaffolding properties - Implications for angiogenesis and inflammation", Orlando, FL , 3/31/01 to 4/4/01.

University of Illinois, Chicago, Medical School, DeTrana Lecture in Pathology, " PECAM-1: A multidomain/multifunctional protein with diverse signaling and scaffolding properties - Implications for angiogenesis and inflammation" April 23, 2001.

Gordon Research Conference on Matrix Metalloproteinases Speaker: "Matrix Metalloproteinases and vascular control: new paradigms", Il Chocco, Tuscany, Italy, 5/13/01 to 5/18/01.

National Multiple Sclerosis Society Round Table Discussion - Invited Panelist “Strides and Stumbles in MS”, Hartford, CT, 6/26/01.

FASEB-ASIP Society Symposium Co-Chair & Speaker. Proteases, Matrix and Proteoglycans: Lecture Title: " Coordinate Control of MT1-MMP and MMP-2 Expression During Angiogenesis: The roles of Egr-1, Sp1 and AP1", New Orleans, LA , 4/21/02 to 4/24/02.

Third Ringberg Conference on Molecular Mechanisms of Leukocyte Traffic, Invited Speaker, “CD31: A modulator of vascular and leukocyte function” Ringberg, Germany, 9/22/02 to 9/25/02, 2002.

American Society For Cell Biology 42nd Annual Meeting, Co-Chair and Speaker, Minisymposium: “Cell Biology of Angiogenesis”, San Francisco, CA, 12/14/02 to 12/18/02.

New Therapeutic Targets in Vascular Biology, Invited speaker: “The inter-related roles of VEGF, PECAM-1 and MMP-2 in cardiac cushion development”, Geneva, Switzerland, 2/6/03 to 2/9/03.

Novo Nordisk Foundation Consortium 5th Annual Conference on “Vascular Biology in Complications of Diabetes” Invited speaker; “Maternal Diabetes: Effects of on embryonic vascular development – a VEGF-A mediated process”. Tammsvik Conf. Ctr., Bro, Sweden, 5/16/03 to 5/18/03.

International Society on Thrombosis and Haemostasis – XIX Congress, Invited speaker: “Cell adhesion and Angiogenesis”, Birmingham, UK, 7/12/03 to 7/18/03.

FASEB-ASIP Society Symposium Co-Chair & Speaker. Molecular and cellular basis of disease: Structure and function of the extracellular matrix in disease: Novel roles and regulation of MMPs and TIMPs in disease. Lecture Title: “Evidence for a cellular protease thermostat in health and disease", Washington, DC , 4/17/04 to 4/22/04 .

XIIIth International Vascular Biology Meeting, Invited Speaker, "PECAM-1 A dynamic multifunctional regulator of junctional integrity", Toronto, Canada, 6/1/04 to 6/5/04.

Kosin University, Pusan, South Korea, Invited Special Lecture, "Growth factors, vascular adhesion molecules and proteases: Interactions during endocardial cushion formation", Pusan, Korea, 10/12/04.

Korean Anatomist Association Annual Meeting, Seoul, Korea, Invited Special Lecture, "Growth factors, vascular adhesion molecules and proteases: Interactions during endocardial cushion formation", Seoul, Korea, 10/14-15/04.

Atherosclerosis, Thrombosis and Vascular Biology Annual meeting, Invited speaker and session Co-chair, "PECAM-1 (CD31), A multifunctional modulator of vascular integrity, response to injury and inflammation", Washington, DC, April 28-30, 2005.

Marvin Sears Symposium on Angiogenesis In The Eye, Invited speaker: "Adaptive Mechanisms in the Post-natal Developing Brain:Endothelial-Glial, Endothelial-Neuronal And Endothelial-Neural Stem Cell Interactions", Yale University, New Haven, CT, 5/20/05.

Gordon Research Conference on Matrix Metalloproteinases Speaker: "VEGF-A mediated endocardial cushion formation: modulation by MMPs", Big Sky Resort, Montana, 8/28/05 to 9/2/05.

Cancer Center Grand Rounds - Hematology/Oncology, Case Western Reserve medical School, "PECAM-1 (CD31), A multifunctional modulator of vascular integrity, response to injury, Inflammation and Hematopoiesis" April 6, 2006, Cleveland, OH.

Hospital for Special Surgery, Rheumatology Research Conference, "PECAM-1 (CD31), A multifunctional modulator of vascular integrity, response to injury, Inflammation and Hematopoiesis", May 12, 2006, NYC, NY.

NIH/NINDS Workshop on Angiogenesis in the Nervous System, 12/11 to 12/13/06, Bethesda, MD.

NIH/NINDS Trans–Institute Angiogenesis Research Program (TARP) 2007 Workshop: Inflammation and Perivascular Environment, 11/18 to 11/20/07, Bethesda, MD.

International Congress for Histochemistry and Cytochemistry (ICHC) ’Imaging of Cell Dynamics’ Plenary Speaker: “Endothelial-neural progenitor cell interactions in the neurovascular niche”, Symposium Chair “Imaging of endothelial cell function and angiogenesis in normal and pathological tissue”, 8/23/08 to 8/27/08, Gdansk, Poland.

St. John’s University Distinguished Alumni Lecture Series, “Endothelial-Neural Progenitor cell interactions: variability of response to CNS injury in the premature newborn”, 4/13/11, Jamaica, NY.

Oncology Grand Rounds, Thomas Jefferson University, Philadelphia, PA, "Endothelial - Neural Progenitor cell interactions: variability of response to CNS injury", May 2, 2012.

Yale University of London Neurovascular Symposium, New Haven, CT, USA, "Vascular-neural stem cell signaling in the neurovascular niche: Implications for development and recovery from CNS injury", May 10-12, 2012.

Pathology Grand Rounds, UCSD, San Diego, CA, "Endothelial -Neural Progenitor cell interactions: variability of response to CNS injury", May 14, 2012.

Medical Grand Rounds, Yale University School of Medicine, "Horses and Zebras", Jan. 10, 2013.

Pathology Grand Rounds, Yale University School of Medicine, "Modeling the Neurovascular Niche: Unbiased Transcriptome Analysis of the Murine Subventricular Zone in Response to Hypoxic Insult", April 11, 2013.

Indiana University Medical Sciences lecture, Bloomington, IN, "Modeling the Neurovascular Niche: Unbiased Transcriptome Analysis of the Murine Subventricular Zone in Response to Hypoxic Insult", Sept. 29, 2014.

Pathology Grand Rounds, University of Pittsburgh, "Modeling t8-9he Neurovascular Niche: Unbiased Transcriptome Analysis of the Murine Subventricular Zone in Response to Hypoxic Insult" April 15, 2015.

Cancer Center Grand Rounds, Smilow Cancer Hospital of Yale New Haven Hospital and Yale University School of Medicine, New Haven, "The Innate Immune System and Immunotherapy: What's Old and Forgotten is New Again - Neutrophils and Cancer –A work in progress", Nov. 29, 2016.

Indiana University MSTP Program, Indianapolis, IN, "Career paths and futures for the combined degree graduate: a personal opinion", Oct. 8 & 9, 2019.

St. Johns University, Jamaica, NY, Commencement Speaker, "Approaches to Change: The roles of Undergraduate and Graduate Education - Personal Reflections-" at the St. John's College of Liberal Arts and Sciences Graduate Level Commencement Exercises on Tuesday, May 20, 2021.

Yale University, Swanson Lecture, " From South Ozone Park, NY to New Haven CT: A journey from Curiosity to Career", May 11, 2022.

University/Institute Lectures:

Albany Medical School, Albany, NY
Beth Israel-Deaconess Medical Center, Harvard University, Boston, MA
Boston University, Boston, MA
Brigham & Womens' Hospital, Harvard University, Boston, MA
Case Western Reserve University, Cleveland, OH
Children's Hospital, Harvard University, Boston, MA
Cleveland Clinic Research Foundation
Cornell University, NYC, NY

Dartmouth University, Hanover, NH
Duke University, Durham, NC
Hahnemann Medical School, Phil., PA
Indiana University, Bloomington, IN
Indiana University, Indianapolis, IN
Johns Hopkins University, Baltimore, MD
Kosin University, Pusan, South Korea
Los Alamos National laboratory, Los Alamos, NM
Massachusetts General Hospital, Harvard University, Boston, MA
Max Delbruck Ctr., Max Plank Institute, Berlin, Germany
Medical College of NY, Westchester, NY
Memorial Sloan Kettering Cancer Center, NYC, NY
Mt. Sinai School of Medicine, NYC, NY
National Institutes of Health, Bethesda, MD
New York University Medical School, NYC, NY
Rutgers University, New Brunswick, NJ
Scripps Research Foundation, La Jolla, CA
Schepens Eye Institute, Harvard University, Boston, MA
St. John's University, Jamaica, NY
State University of NY, Stonybrook, LI, NY
The Burnham Institute, La Jolla CA
Thomas Jefferson medical University, Phil., PA
Tufts University, Boston, MA
University of Alabama, Birmingham, AL
University of Birmingham, Birmingham, England
University of California-San Diego
University of California-San Francisco
University of Chicago, Chicago, IL
University of Connecticut, Farmington, CT
University of Erlangen, Erlangen, Germany
University of Geneva, Geneva, Switzerland
University of Illinois at Chicago, Chicago, IL
University of Iowa, Cedar Rapids, IO
University of Massachusetts, Worcester, MA
University of Minnesota, Minneapolis, MN
University of North Carolina, Chapel Hill, NC
University of North Dakota, Grand Forks, ND
University of Oklahoma, Oklahoma City, OK
University of Oregon, Portland, OR
University of Pennsylvania, Phil., PA
University of Pittsburgh, Pittsburgh, PA
University of Rochester, Rochester, NY
National University of Seoul, Seoul, South Korea
University of Toronto, Toronto, Canada
University of Vermont, Burlington, VT
University of Washington, Seattle, WA
Vanderbilt University, Nashville, TN
Washington University, St. Louis, MO
Wesleyan University, Middletown, CT