

CURRICULUM VITAE

Name: Yoshihiko Yamada

Date: October 2007

Citizenship: United States

Education:

1966 BS, Biology, Osaka University, Faculty of Science
1968 MS, Biology, Osaka University, Faculty of Science
1971 PhD, Biology, Osaka University, Faculty of Science

Brief Chronology of Employment:

1972-1975 Research Associate, University of Pittsburgh, School of Medicine, Dept. of Biochemistry, Pittsburgh, Pennsylvania
1975-1979 Research Assistant Professor, University of Pittsburgh, School of Medicine, Dept. of Biochemistry, Pittsburgh, Pennsylvania
1979-1983 Visiting Scientist, Laboratory of Molecular Biology, National Cancer Institute, NIH, Bethesda, Maryland 20892
1983-1985 Visiting Scientist, Laboratory of Developmental Biology and Anomalies, National Institute of Dental Research, NIH, Bethesda, Maryland 20892
1985-1996 Chief, Molecular Biology Section, Laboratory of Developmental Biology, National Institute of Dental Research, NIH, Bethesda, Maryland 20892
1988-1990 Acting Chief, Laboratory of Developmental Biology and Anomalies, National Institute of Dental Research, NIH, Bethesda, Maryland 20892
1996-2007 Chief, Molecular Biology Section, Craniofacial Developmental Biology and Regeneration Branch, National Institute of Dental and Craniofacial Research, NIH, Bethesda, Maryland 20892
2000-present Senior Biomedical Research Service (SBRS)
2007-present Chief, Molecular Biology Section, Laboratory of Cell and Developmental Biology, National Institute of Dental and Craniofacial Research, NIH, Bethesda, Maryland 20892

Honors, grants, and other special scientific recognition:

1976 Young Investigator Research Grant, University of Pittsburgh
1986 NIH Director's Award
1988-1989 CRADA, Eli Lilly and Company
1991-1993 Research Grant (unconditional gift funds), Seikagaku Corporation
1992 Debio Peptide Award
1996 William J. Gies Award
1985, 1989 Consultant on Program Projects, National Institute of Arthritis, Musculoskeletal and Skin Diseases
1992-present Organizer, International Conference on Extracellular Matrix, International Symposium on Basement Membranes, International Symposium on Glycobiology and Matrix Molecules in Health and Diseases, Internet Symposium

on Regulation of Gene Expression and Morphogenesis by Extracellular Matrix,
NIH-JSPS Symposium
1999-2005 External Advisory Committee, MD Anderson Cancer Center

Societies:

American Society of Biochemistry and Molecular Biology
American Society of Cell Biology
International Society for Matrix Biology
International & American Associations for Dental Research

Patents:

1. "Peptides with laminin activity" by Y. Yamada, J. Graf, Y., Iwamoto, F. Robey, H.K. Kleinman, M. Sasaki, and G.R. Martin, U.S. Patent 5,092,885.
2. "Laminin A chain: deduced amino acid sequence, Expression vectors and active synthetic peptides" by Y. Yamada, H.K. Kleinman, M. Sasaki, and G.R. Martin, U.S. Patent 5,211,657.

Editorial Board:

1993-95 Arthritis and Cartilage, Frontiers in Bioscience
1998-2003 Connective Tissue Research, Japan
1999-present Associate Editor, Matrix Biology
2000-present Journal of Biological Chemistry

Membership and Activity in Professional Societies:

American Society of Biochemistry and Molecular Biology
American Society of Cell Biology
International Society for Matrix Biology
International & American Associations for Dental Research

Invited Lectures and Presentations since 1987:

1. British Connective Tissue Society on Molecular Biology of the Extracellular Matrix. Bristol, England
2. NATO-Advanced Research Workshop on Mesenchymal Epithelial Interactions in Neural Development. Berlin, Germany
3. Gordon Conference on Fibronectin. Santa Barbara, CA
4. Gordon Conference on Structural Macromolecules: Collagen., Plymouth, NH
5. FASEB Summer Research Conference on Biology of Metastases, Saxtons River, VT
6. Conference on the Cell in Contact II: Adhesion Molecules in Development and Regeneration. Neurosciences Institute, New York, NY
7. EMBO Workshop on Extracellular Matrix and Cell Differentiation. Santa Margherita Ligure, Italy
8. Department of Connective Tissue Research, Max Planck Institute, Munich, Germany
9. Smith-Kline-Beckman, Philadelphia, PA
10. Department of Pathology, University of Texas Medical School, San Antonio, TX
11. Imperial Cancer Research Fund Laboratories, London, England
12. Biozentrum, University of Basel, Switzerland

13. Laboratory of Molecular Biology, National Institute of Allergy and Infectious Diseases, MD
14. Laboratory of Molecular Carcinogenesis, National Cancer Institute, MD
15. Laboratory of Molecular Biology, National Cancer Institute, MD
16. Laboratory of Cellular Metabolism, National Heart, Lung and Blood Institute, MD
17. Laboratory of Molecular Genetics, National Institute of Neurological and Communicative Disorders and Stroke, MD
18. Connective Tissue Research Institute, University of Pennsylvania, Philadelphia, PA
19. Conference on Molecular and Genetic Basis of Growth and Development. National Institutes of Health, Bethesda, MD
20. The 2nd Conference of Molecular Biology and Pathology of Matrix, Philadelphia, PA
21. Gordon Conference on Basement Membranes, NH
22. INSERM Conference on Adhesive Reactions and Cellular Functions, Seillac, France
23. Clinical Genetics Conference on Heritable Disorders of Connective Tissue and Skeletal Dysplasias, Baltimore, MD
24. Conference on Research Advances in Prenatal Craniofacial Development, Research Triangle Park, NC
25. Japanese Society of Inflammation, Tokyo, Japan
26. Collagen Corp., Palo Alto, CA
27. Department of Anatomy and Cell Biology, University of Virginia, Charlottesville, VA
28. Gordon Conference on Cell Contact and Adhesion, NH
29. Gordon Conference on Structural Molecules: Collagen, NH
30. Laboratory of Immunology, National Eye Institute, MD
31. Laboratory of Pharmacology, National Institute of Child Health and Development, MD
32. Joint Meetings of The American Society for Cell Biology and The American Society for Biochemistry and Molecular Biology, San Francisco, CA
33. Conference of The New York Academy of Sciences on Collagen, Bethesda, MD
34. National Institute on Aging, Baltimore, MD
35. Cancer Center, Howard University, Washington, D.C.
36. Laboratory of Molecular Biology, National Institute of Neurological Disorders and Strokes. Bethesda, MD
37. Department of Cell Biology and Anatomy, University of Alabama at Birmingham, AL
38. University of Texas Health Center, Tyler, TX
39. Italian Society of Cell Biology, Salsomaggiore, Italy
40. Gordon Research Conference on Basement Membranes, Wolfeboro, NH
41. UCLA Symposium on Synthetic Peptides: Approaches to Biological Problems, Frisco, CO
42. International Symposium on Molecular and Developmental Biology of the Extracellular Matrix, Schloss Ringberg, West Germany
43. The 49th Annual Meeting of Japanese Cancer Association, Sapporo, Japan
44. The 5th International Symposium on Basement Membranes, Oulu, Finland
45. The 3rd International Conference on the Molecular Biology and Pathology of Matrix, Philadelphia, PA
46. Shriners Hospital, Portland, OR
47. Department of Pathology, University of Minnesota, Minneapolis, MN

48. American Society of Cell Biology Conference on Biology of Plant and Animal Extracellular Matrix, Airlie, VA
49. Gordon Conference on Basement Membranes, Wolfeboro, NH
50. International Symposium on Structure and Function of Extracellular Matrix Proteins, Schloss Ringberg, Germany
51. The fourth International Conference on the Molecular Biology and Pathology of Matrix, Philadelphia, PA
52. Department of Anatomy and Cell Biology, Georgetown University, Washington, DC.
53. European Research Conference on Biology of Cartilage and Bone, Le Bischenberg, France
54. Department of Biochemistry, University of Pennsylvania School of Dental Medicine, Philadelphia, PA
55. MD Anderson Cancer Center, Houston, TX
56. Second International Workshop on Alport Syndrome, New Haven, CT
57. The Sixth International Symposium on Basement Membranes, Mishina, Japan
58. International Symposium on Extracellular Matrix, Okayama, Japan
59. Keystone Symposium on Extracellular Matrix in Development and Diseases, Breckenridge, CO
60. The Fifth International Conference on the Molecular Biology and Pathology of Matrix, Philadelphia, PA
61. The Yutaka Nagai Symposium on Matrix Biology, Tokyo, Japan
62. Symposium on Molecular Mechanisms of Extracellular Matrix Development, Schloss Ringberg, Germany
63. Gordon Conference on Structural Molecules: Collagen, NH
64. Keystone Symposium on Molecular and Cellular Biology, Keystone, CO
65. The 43th Matrix Society Meeting, Nagoya, Japan
66. The 6th International Conference on the Molecular Biology and Pathology of Matrix, Philadelphia, PA
67. Symposium on Molecular Mechanisms of Extracellular Matrix Development, Schloss Ringberg, Germany
68. Ciba Foundation Symposium on Dental Enamel, London, England
69. The International Conference on Glycoconjugate and Matrix Molecules in Health and Disease, Bethesda, MD
70. Gordon Conference on Collagen, New London, NH
71. The International Symposium on Craniofacial Morphogenesis, Bethesda, MD
72. Department of Molecular Genetics, MD Anderson Cancer Center, Houston, TX
73. The 71st Annual Meeting of Japanese Biochemical Society, Nagoya, Japan
74. International Conference on Molecular Interactions of Proteoglycans, Shonan, Japan
75. Opportunities in Cartilage Biology and OA at NIH, Bethesda, MD
76. Workshop on the Genetics of Human Dentition, Bethesda, MD
77. Department of Orthopaedic Surgery, Kyushu University, Fukuoka, Japan
78. Faculty of Pharmacology, Osaka University Graduate School, Osaka, Japan
79. Rush Medical College, Chicago, IL
80. International Workshop of Japan Orthopaedic Surgery, Gifu, Japan
81. International Symposium on Genetics and Molecular Biology of Craniofacial Development, Seoul, Korea

82. Gordon Conference on Proteoglycans, Andover, NH
83. Gordon Conference on Basement Membrane, Plymouth, NH
84. The 13th Conference of the Japanese Paediatric Orthopaedic Association, Fukuoka, Japan
85. The 14th Annual Skeletal Dysplasia of the Japanese Orthopaedic Association, Fukuoka Japan
86. Aichi Medical University Institute for Molecular Science of Medicine, Nagoya, Japan
87. Department of Medicine Columbia University College of Physicians & Surgeons, New York, NY
88. Department of Medicine, Johns Hopkins University School of Medicine, Baltimore, MD
89. The Conference on Multiple Hereditary Exostoses, Tucson, AZ
90. Gordon Conference on Cartilage Biology and Pathology, Ventura, CA
91. Department of Pathology, University of Minnesota School of Medicine, Minneapolis, MN
92. The 3rd International Conference on Pathology of Proteoglycans, Parma, Italy
93. The 17th Annual Meeting of the Japanese Society of Cartilage Metabolism, Tokyo, Japan
94. The 36th Annual Meeting of the Japanese Society for Connective Tissue Research, Fukuoka, Japan
95. The 33rd Annual Midwest Connective Tissue Workshop, Cleveland, OH
96. The Workshop on Development and Disease of Neuromuscular System, Vienna, Austria
97. The Benoit de Crombrughe Symposium, Houston, TX
98. The 44th Annual Meeting of Cell Biology, Washington DC
99. The 6th PanPacific Connective Tissue Societies Symposium, Waikoloa, HI
100. International Symposium on Extracellular Glycomatrix in Health and Disease, Awaji, Japan

Membership and Activity in Professional Societies:

American Society of Biochemistry and Molecular Biology
American Society of Cell Biology
International Society for Matrix Biology
International & American Associations for Dental Research

Bibliography:

1. Yamada Y, Iwai Y, Nozu K. 1966. Complex formation between T2-DNA and T2-RNA of *Escherichia coli* irradiated with ultraviolet light. *Ann Rev Biol Works, Fac Sci Osaka Univ.* 14: 1-15.
2. Nozu K, Yamada Y, Honjo I. 1967. Complex formation between T2-DNA and T2-RNA of *Escherichia coli* irradiated with ultraviolet light. *The Proc Radiation Biol and Cancer.* 112-135.
3. Yamada Y, Nozu K. 1968. Base complementarity between rapidly labeled RNA in *Escherichia coli* B infected with ultraviolet-irradiated T2 phages and T2-DNA. *Biochim Biophys Acta.* 169(1): 67-79.
4. Nozu K, Yamada Y. 1971. Pyrimidine dimers and uridine hydrate on UV-irradiated MS2-RNA. *Radiation Biology (Japan).* 9: 39-43.
5. Yamada Y, Shigeta A, Nozu K. 1973. Ultraviolet effects on biological function of RNA phage MS2. *Biochim Biophys Acta.* 299(1): 121-135.
6. Yamada Y, Whitaker PA, Nakada D. 1974. Functional instability of T7 early mRNA. *Nature.* 248(446): 335-338.
7. Hesselbach BA, Yamada Y, Nakada D. 1974. Isolation of an inhibitor protein of *E. coli* RNA polymerase from T7 phage infected cell. *Nature.* 252(5478): 71-74.
8. Yamada Y, Whitaker PA, Nakada D. 1974. Early to late switch in bacteriophage T7 development: functional decay of T7 early messenger RNA. *J Mol Biol.* 89(2): 293-303.
9. Whitaker PA, Yamada Y, Nakada D. 1975. F-Factor-mediated restriction of bacteriophage T7: synthesis of RNA and protein in T7-infected *Escherichia coli* F- and F+ cells. *J Virol.* 16(6): 1380-1390.
10. Yamada Y, Whitaker PA, Nakada D. 1975. Chemical stability of bacteriophage T7 early mRNA. *J Virol.* 16(6): 1683-1687.
11. Yamada Y, Nakada D. 1975. F-Factor-mediated restriction of bacteriophage T7: protein synthesis in cell-free systems from T7-infected *Escherichia coli* F- and F+ cells. *J Virol.* 16(6): 1483-1491.
12. Yamada Y, Nakada D. 1976. Early to late switch in bacteriophage T7 development: no translational discrimination between T7 early messenger RNA and late messenger RNA. *J Mol Biol.* 100(1): 35-45.
13. Yamada Y, Nakada D. 1976. Translation of T7 RNA in vitro without cleavage by RNase III. *J Virol.* 18(3): 1155-1159.
14. Yamada Y, Silnutzer J, Nakada D. 1978. Mutant of *Escherichia coli* which blocks T7 bacteriophage assembly: accumulation of short T7 DNA. *J Mol Biol.* 121(1): 95-111.
15. Yamada Y, Calame KL, Grindley JN, Nakada D. 1979. Location of an ampicillin resistance transposon, Tn1701, in a group of small, nontransferring plasmids. *J Bacteriol.* 137(2): 990-999.
16. Calame KL, Yamada Y, Shanblatt SH, Nakada D. 1979. Location of promoter sites on plasmid NTP1 which contains the ampicillin resistance transposon Tn1701. *J Mol Biol.*

127(4): 397-409.

17. Yamada Y, Silnutzer J, Nakada D. 1979. Accumulation of bacteriophage T7 head-related particles in an *Escherichia coli* mutant. *J Virol.* 31(1): 209-219.
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- a tandemly repeated protein structure. *Proc Natl Acad Sci U S A.* 83(11): 3761-3765.
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