

CURRICULUM VITAE OF NOBUYO MAEDA

**Robert H Wagner Distinguished Professor,
Department of Pathology and Laboratory Medicine,
University of North Carolina**

EDUCATION:

Ph.D. (Bio-Organic Chemistry), Tohoku University, Japan, March 1977
M Sc. (Bio-Organic Chemistry), Tohoku University, Japan, March 1974
B.Sc. (Chemistry) Tohoku University, Japan, March 1972
PhD Thesis : Isolation and characterization of neurotoxins from the venoms of sea snakes, and the use of amino acid sequences in taxonomy.

POSITIONS HELD:

Robert H Wagner Distinguished Professor, Department of Pathology and Laboratory Medicine, University of North Carolina at Chapel Hill. 2003-present
Director, Pre-doctoral Training Program for Integrative Vascular Biology. 2002-present
Adjunct Professor, Department of Nutrition, U of North Carolina 2000 - present
Professor at the University of North Carolina at Chapel Hill, Department of Pathology and Laboratory Medicine, April 1996 - present
Assistant Scientist at the University of Wisconsin, Laboratory of Genetics, November 1983 - November 1986.
Associate Professor at the University of North Carolina at Chapel Hill, Department of Pathology, January 1988 - March 1996
Associate Scientist at the University of Wisconsin, Laboratory of Genetics, December 1986 - January 1988.
Research Associate at the University of Wisconsin, Laboratory of Genetics, September 1981 - October 1983, in the laboratory of Professor Oliver Smithies
Research Associate at the University of Wisconsin, Department of Physiological Chemistry, June 1978 - August 1981, in the laboratory of Professor Walter M. Fitch
Researcher at Tohoku University, Department of Chemistry with a fellowship from the Japanese Society for Promotion of Science, March 1977 - May 1978. Advisor Professor Nobuo Tamiya

SCIENTIFIC ORGANIZATIONS AND AWARDS:

American Heart Association (Atherosclerosis Council)
American Society of Human Genetics
Genetics Society of America
Society of Experimental Biology and Medicine
Yoshi-S-Kuno Awards in Science, Tohoku University, 1971
The Japanese Society for Promotion of Science Fellowship, 1977-1978

BIBLIOGRAPHY:
in refereed journals

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2. Wang CH, Li F, Hiller S, Kim HS, Maeda N, Smithies O, Takahashi N. A modest decrease in endothelial NOS in mice comparable to that associated with human NOS3 variants exacerbates diabetic nephropathy. *Proc Natl Acad Sci U S A*. 2011 Jan 18. PMID: PMC3033253.
3. Doherty HE, Kim HS, Hiller S, Sulik KK, Maeda N. A mouse strain where basal connective tissue growth factor gene expression can be switched from low to high. *PLoS One*. 2010 Sep 22;5(9):e12909. PMID: PMC2943916
4. Yi X, Nickenleit V, James LR, Maeda N. alpha-Lipoic acid protects diabetic apolipoprotein E-deficient mice from nephropathy. *J Diabetes Complications*. 2010 Aug PMID: PMC3010318
5. Pendse AA, Johnson LA, Tsai YS, Maeda N. Pparg-P465L mutation worsens hyperglycemia in Ins2-Akita female mice via adipose-specific insulin resistance and storage dysfunction. *Diabetes*. 2010 Nov;59(11):2890-7. PMID: PMC2963548
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7. Zhu H, Zhang J, Shih J, Lopez-Bertoni F, Hagaman JR, Maeda N, Friedman MH. Differences in aortic arch geometry, hemodynamics, and plaque patterns between C57BL/6 and 129/SvEv mice. *J Biomech Eng*. 2009 Dec;131(12):121005. PMC3047446.
8. Arbones JM, Johnson LA, Altenburg MK, Kim HS, Maeda N. Impaired adipogenic response to thiazolidinediones in mice expressing human apolipoprotein E4. *FASEB J*. 2010 Oct;24(10):3809-18. PMID: PMC2996914
9. Yi X, Xu L, Kim K, Kim H-S, Maeda N. Genetic reduction of endogenous alpha-lipoic acid synthesis modestly increases atherosclerosis in male but not female apolipoprotein E deficient mice. *Atherosclerosis*. 2010 Aug;211(2):424-30. PMID: PMC2914155
10. Tomita H, Zhilicheva S, Kim S, Maeda N. Aortic Arch Curvature and Atherosclerosis Have Overlapping Quantitative Trait Loci in Crosses Between 129S6/SvEvTac and C57BL/6J Apolipoprotein E-Null Mice. *Circ Res*. 2010 Apr;106(6) :1052-60. PMC2848914
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12. Johnson LA, Maeda N. Macrovascular complications of diabetes in atherosclerosis-prone mice. *Expert Rev. Endocrinol. Metab*. 2010. 5(1), 89-98. PMID in progress
13. Chung S, Timmins JM, Duong M, Degirolamo C, Rong S, Sawyer JK, Singaraja RR, Hayden MR, Maeda N, Rudel LL, Shelness GS, Parks JS. Targeted deletion of hepatocyte ABCA1 leads to VLDL triglyceride over-production and LDL hypercatabolism. *J Biol Chem*. 2010 Apr 16;285(16):12197-209. PMID: PMC2852959.
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- Mice, in *Biology of Menopause*, ed. F. L. Bellino, Springer-Verlag, New York, NY, pp. 238-246. (2000)
3. Hinsdale, M.E., Mezdour, H., Sullivan, P., Toth, L., and Maeda, N. Strategies for altering the mouse genome and their application in the study of atherogenesis, *Atherosclerosis XI*, eds. B. Jacotot, D. Mathe and J.-C. Fruchart, pp. 1029-1034 (1998)
 4. Osada, J., and Maeda, N. Preparation of Knockout Mice, *Methods in Molecular Biology*, Vol. 110: Lipoprotein Protocols, ed. J.M. Ordovas, Humana Press, Inc., Totowa, NJ. (1998).
 5. Maeda, N., Zhang, S.H. and Reddick, R.L. HDL metabolism and atherogenesis in genetically modified mice. in *HDL Metabolism and Atherosclerosis*. ed. G. Assmann. (1995)
 6. Zhang, S.H., Reddick, R.L., Maeda, N. Studies on the pathogenesis of atherosclerosis using apolipoprotein E-deficient mice, in *Drugs Affecting Lipid Metabolism*, A.M. Gotto, Jr. et al. (eds.) 255-261 (1996).
 7. Maeda, N. Mice lacking apolipoprotein A-I and apolipoprotein E made by gene targeting in high density lipoproteins and atherosclerosis III, eds N. Miller and A. Tall. *Excerpta Medica International Congress Series*. pp. 183-190 (1992).
 8. Tamiya, N. and Maeda, N. Neurotoxins of Australian sea snakes, in "Neurotoxins: fundamental and clinical advances," eds. I.W. Chubb and L.B. Geffen, Adelaide University Union Press, Adelaide, South Australia, Australia, pp. 95-101 (1979).
 9. Tamiya, N. and Maeda, N. Chemical taxonomy of snake neurotoxins, In: "Evolution of Protein Molecules," eds. H. Matsubara and T. Yamanaka, Japan Scientific Societies Press, Center for Academic Publications, Japan, Tokyo, pp. 297-310 (1978).
 10. Maeda, N., Tamiya, N., Chen, Y.M. and Lee, C.Y. The isolation, properties, and amino acid sequences of Laticauda semifasciata III, a weak and reversible neurotoxin of a snake, Laticauda semifasciata venom. *Animal, Plant and Microbial Toxins*, Vol. 2 (1976) pp. 1-14.

Invited Review Articles

1. Altenburg M, Homeister J, Doherty H, Maeda N. Genetics of atherosclerosis in murine models. *Curr Drug Targets*. 8(11):1161-71. (2007)
2. Maeda, N., Givens RC and Reddick RL. Cardiovascular disease: mouse models of atherosclerosis. In "the mouse in biomedical research" second edition. eds J.Fox, C. Newcomer, A.Smith, S.Barthold, F.Quimby and M. Davisson. Vol3. p535-563 (2007)
3. Maeda, N. Gene targeting in mice as a strategy for understanding lipid metabolism and atherogenesis. *Current Opinion in Lipidology*. 4:90-94 (1993).
4. Azen, E.A. and Maeda, N. Molecular genetics of human salivary proteins and their polymorphisms. *Adv. Hum. Genetics* 17:141-199 (1988).
5. Maeda, N. and Smithies, O. Evolution of multigene families: human haptoglobin genes. *Annual Review of Genetics*, vol. 20:81-108 (1986).

Invited Talks: (last 10 years. * indicates overseas; + indicates international meeting)

116. Hypertension Meeting, Oku-Dogo, Japan, January, 2000
117. 2nd Angiotensin Conference, Sendai, Japan, January, 2000
118. Osaka University Medical School, Osaka, Japan, January, 2000
- *120. XIIth International Symposium on Atherosclerosis, Stockholm, June, 2000
121. University of Shizuoka, Japan, July 14, 2000

122. athan Shock Aging Center Workshop, San Antonio, Texas, September, 2000
123. Cleveland Clinic Foundation, Cleveland, Ohio, September 29, 2000
124. University of Pennsylvania, Philadelphia, PA, October 30, 2000
125. NIH Grantees' Meeting on Cellular and Molecular Interrelationships of Atherosclerosis and Hypertension, November, 2000
- *126. Approaches to Integrative Physiology, London, U.K. December 3-5, 2000,
- *127. Vascular Biology, SmithKline Beecham Co., Harlow, U.K., December 6, 2000
- 128 Texas A&M University, College Station, Texas, December 12, 2000
- 129 University of Kentucky, March, 2001
- 130 University of Texas Health Sciences Center at San Antonio, March 17-19, 2001
- 131 Northwestern University Medical School, Chicago, Illinois, April 23, 2001
132. Walter Fitch Symposium, NC State University, Raleigh, NC, May 18, 2001
133. Gordon Research Conference on Atherosclerosis, July, 2001
- *134 University of Edinburgh's Wellcome Trust Cardiovascular Research Initiative Third Annual Meeting, Edinburgh, June 7, 2001
- *135 Sociidd Argentina de Investigacion Clinica. Buenos Aires, November 2001
- 136 University of Texas Health Sciences Center at San Antonio, March, 2002
- 137 Southeastern Lipid Conference, Atlanta, September, 2002
- 138 Wake Forest University, NC Nephrology & Hypertension Network, Winston-Salem, NC, November 12, 2002
139. American Society of Nephrology, Philadelphia, PA, November 3, 2002
140. American Heart Association 2002 Scientific Sessions, Chicago, IL (two invited talks) November, 2002
- *141. Universiteit Maastricht, Netherlands, December, 2002
- *142. INSERM Vascular Physiology and Experimental Pathology Department, Paris, France, December, 2002
143. University of South Carolina Medical School. February, 2003
- 144 FASEB Summer Research Conference on Molecular Biology of Intestinal Lipid Transport and Metabolism. Snowmass CO, August 2003.
- *+145 XIIIth International Symposium on Atherosclerosis, Kyoto, Japan, October, 2003
- *146 Kihara Institute for Biological Science, Yokohama City University, Yokohama Japan October 2003
- *147 Tokyo University Institute for Systems Biology, Tokyo Japan October 2003.
- *148 Tohoku University, Internal Medicine, Sendai Japan October 2003.
- 149 Oklahoma Medical Research Foundation, February 2004
- +150 Gordon Conference on Oxigen Radicals. Ventura CA, February 2004
- +151 Gordon Conference on Angiotensin. Ventura CA, March, 2004
- *152 Collage of London, London England, April, 2004
- *153 Oxford University, Oxford England, May, 2004
- *154 Japanese Hypertension Congress. Utsunomiya Japan, October 2004
- 155 Southeastern Lipid Conference, Atlanta GA, September 2005
- 156 Wake Forest University, October 2005
- *157 British Society of Immunology, Harrogate, England December 2005
- 158 Duke University Department of Biochemistry, February 2006
- 159 Vasculata, Chapel Hill NC, August 2007
- 160 AHA Scientific Sessions, Orlando FL, November 2007
- *161 Conference on Molecular Medicine, Sao Paulo Brazil, September, 2008

- 162 Virginia College of Osteopathic Medicine, October, 2008
- +163 Academia Sinica, Taipei Taiwan, October, 2008
- *164 National Cheng-Kung University, Tainan Taiwan, October, 2008
- +165 Congress on International Olive Oil and Health, Jean Spain, November, 2008
- +166 University of Oslo, Oslo Norway, Nov 24, 2008
- *167 Keystone Sympoia on Complications of Diabetes and Obesity, Vancouver Canada, February, 2009
- 168 Meharry Medical College, April 7, 2009
- 169 Symposium on Advances in Lipid Metabolism ASBMB New Orleans, April, 2009
- 170 Pathology of Genetically Engineered Mouse Models. ASIP New Orleans, April, 2009
- 171 Sarnoff Cardiovascular Res. Fnd. Annual Meeting, Washington, May, 2009
- 172 University of Illinois Chicago, Nov 25, 2009
- +173 Keio University Japan, Feb12, 2009
- +174 Angiotensin Conference, Osaka Japan, Feb 13, 2009
- +175 Tohoku University, Sendai Japan, Feb 15, 2009
- 176 Duke University, Cardiovascular Seminar Series Durham April 7 2010
- +177 1st International Diabetes and Obesity Forum, Athens, Greece, Oct 21, 2010
- 1781 Minisymposium on Lipids, Wake Forest University, April 11, 2011

TEACHING (last 5 years)

I am the Director of the Pre-doctoral training program in integrative vascular biology, which is supported by an NIH training grant T32HL69768. The grant was originally funded in 2002 to support 13 graduate students per year and was renewed in 2007 for 11 students. (The cut in the number of trainees were made because of the financial reasons in HLBI.) The renewal application was submitted January 2011. Trainees meet every other week for group discussions to which I attend to guide.

Research Teaching/Mentorships for postdoctoral fellows and graduate students are summarized below.

Postdoctoral Fellows

Terrence Smith	11/88 - 10/90	Director of Biores. and Prof, University College, Galway, Ireland
Jorge Piedrahita	1/89 - 6/91	Professor, NC State University
Gregg Homanics	3/91 - 5/93	Assoc. Prof., Univ. of Pittsburgh
Hao Li	11/91 - 11/93	Medical Director, Bristol Myers Squibb Co
Kang Zhang	9/92 - 12/93	
Laurie Erickson	5/93 - 3/94	Scientist, Fijisawa-America, Chicago
Patrick Sullivan	7/93 - 1/98	Assoc. Professor, Duke University
Masahiko Watanabe	10/93 - 6/94	Professor, Hokkaido Univ, Dept. Anatomy, Sapporo, Japan
Bill Kuziel	3/94 - 4/96	Scientist, PDL, San Francisco
Yasuaki Aratani	4/94 - 3/95	Assoc. Professor, Kihara Institute for Biological Research, Yokohama City University, Japan
Jesus Osada	4/94 - 10/94	Assoc. Professor, University of Zaragoza, Spain
Klim King	8/98 - 99	Investigator, Academia Sinica, Taipei Taiwan
Myron Hinsdale	11/94 - 9/00	Assist Prof, Oklahoma University
Sunny Zhang	9/94 - 5/96	Private Practice, Iowa
Delores Grant	4/95 - 6/95	Assoc. Prof., NCCU

Hafid Mezdour	4/95 - 1/98	Scientist, Pasteur Institut, Lille, France
Seigo Hatada	4/96 - 3/99	Assist. Prof., Pathology, UNC
Osamu Yasuda	4/96 - 6/99	Assist. Prof, Osaka University, Japan
Yukiko Nakata	10/98-3/02	Assist. Prof, Osaka University, Japan
Jiaohui Wu	9/99-8/01	Research Associate, Duke University
James Furbee	8/01 -4/03	Amersham Biology Co.
Takashi Suzuki	11/03 - 3/06	Postdoc Vanderbilt U
Yau-Sheng Ysai	9//05 - 8/06	Assist. Prof. National Cheng Kung U, Taiwan
Xu Wei Yi	12/02 -6/07	Assist. Prof. Pathology, UNC
Jose Arbones-Mainar	9/05 - 12/10	Investigator, Saragosa ,Spain
Hirofumi Tomita	10/07 - present	
Ykako Uchiyama	9/10 - present	

Graduate Students - Thesis Advisor

Past students

Laurie Erickson, Genetics	, 5/87 - 5/93,	PhD 1993,	Scientist, Fujisawa-America
Thesis: History of Haptoglobin Multigene Family During Primate Evolution			
Delores Grant, Pathology	1/89 - 4/95,	PhD 1995,	Assoc. Prof., NC Central University
Thesis: Expression of the Haptoglobin Gene Complex			
Sunny Zhang, Pathology	8/90 - 4/94,	PhD 1994;	Private Practice in Medicine, Iowa
Thesis: An Animal Model of Atherosclerosis: The Apolipoprotein E-Deficient Mice.			
Lori Toth - Genetics	1/91 - 7/95,	PhD 1995,;	Assist Prof in Pathology. UNC
Thesis: Targeted Modification of the Apolipoprotein B Gene in Mice			
Paula Oliver, Pathology	9/92 - 6/97,	Ph. D. 1997,	Assist. Prof. University of Pennsylvania
Thesis: Targeted Gene Titration of the Natriuretic Peptide Receptor A To Study its Role in Essential Hypertension.			
Jada Lewis, Genetics	9/92 - 7/96,	Ph. D. 1996,	Scientist, Mayo Clinic
Thesis: Targeting at the Murine Beta Globin Locus.			
Lara Kester, Pathology	9/93 - 6/95,	M.S. 1995,	MD. Private Practice
Thesis: The Paradoxical Effects of Lovastatin, an HMGCoA Reductase Inhibitor, on Apo E Deficient Mice.			
Christopher Knouff, Genetics	9/94 - 7/00,	Ph.D. 2000,	Scientist, Glaxo-SmithKline
Thesis: Lipoprotein Clearance in Mice Expressing Human Apolipoprotein E Isoforms.			
Tracey Dawson, Pathology	9/95 - 12/00,	Ph.D. 2000,	Assist. Prof., Commonwealth U of Virginia
Thesis: Chemokine Receptors in Inflammatory Disease: Studies Using Chemokine Receptor Knockout Mice.			
Joshua Knowles, Genetics	9/97 - 6/01,	Ph.D. 2001,	Cardiology Fellow, Stanford U.
Thesis: Genetic Modifiers of Hypertension, Atherosclerosis and Cardiac Hypertrophy.			
Jeffery Hodgins, Pathology	9/99 - 4/02,	Ph.D. 2002,	Assist. Prof in Pathology. U Michigan
Thesis: Molecular Mechanisms of Atheroprotective Effects by 17 β -Estradiol.			
Sudi Malloy, Genetics	9/96 - 9/02		Private Business
Yau Sheng Tsai, Pathology	9/00 - 8/05	Ph.D. 2005,	Assist. Prof. National Cheng Kung U,

Taiwan

Thesis: Peroxisome Proliferator-Activated Receptor γ in the Metabolic Syndrome.

Michael Altenburg, Pathology, 9/01 - 7/07 Ph.D. 2007, Medical School UNC

Thesis: ApoE isoforms and lipid metabolism.

Raymond Givens, Nutrition 9/03 - 6/07 PhD 2007, Cardiology Resident, Johns Hopkins University

Thesis: CYP3A polymorphism in hypertension.

Kuikwon Kim, Genetics 9/05 - 6/07 MS 2007, Res Tec, Vanderbilt University

Thesis: Oxidative stress and atherosclerosis.

Hind Muallem, Pathology. 9/03 - 12/08 PhD 2008, Postdoc UNC

Thesis: Common polymorphisms of LDLR and plasma lipids in ARIC

Avani Pendse, Pathology 6/05 - 11/10 PhD 2010, resident UNC,

Thesis:PPAR γ in common vascular diseases

Heather Doherty, Genetics 1/06 - 11/10 PhD 2010. Postdoctoral Teaching Fellowship, Harvard U.

Thesis: Connective tissue growth factor in atherogenesis

Current Students

Lance Johnson, Pathology 5/06 - present ApoE isoforms and diabetic cardiovascular complications

Raymond Fox, Genetics 8/06 - present Mitochondrial mutations and diabetic nephropathy

Graduate Students - Thesis Committee Member

Alicia White; Ph.D. 1995, Genetics Curriculum, Dr. Thea Tlsty (advisor)

Yunsheng Huang – Pharmacy, 1996, Dr. Iris Hall (advisor)

Hui-Feng Lin – Biology, 1997, Dr. Darrell Stafford (advisor)

Paul Gibbs – Dental School, 1998, Dr. Steve Offenbacher (advisor)

Scott Magness – Genetics, 1999, Dr. David Brenner (advisor)

Victoria Lee Cressman – Genetics, 1999, Dr. Bev Koller (advisor)

Allyssa Gullede – Genetics, 2000, Dr. Susan Lord (advisor)

Amy Tolin – Genetics, 2000, Dr. Bev Mitchell (advisor)

Kelly Lee – Pathology, 2001, Dr. Susan Lord (advisor)

Collette Matthews – Nutrition, 2001, Dr. Melinda Beck (advisor)

Eileen McMahon – Cell Biology, 2002, Dr. Glenn Matsushima (advisor)

Alice Yamada – Pathology, 2002, Dr. Rosanne Farber (advisor)

Mike Solle – Genetics, 2002, Dr. Bev Koller (advisor)

Robin Biggs – Biology, 2005, Dr. Vicki Bautch (advisor)

Amy Pace – Genetics, 2003, Dr. Bev Koller (advisor)

Linda Hammond – Nutrition, 2004, Dr. Rosalind Coleman (advisor)

Kelly Krock – Genetics, 2005, Dr. Bev Koller (advisor)

John Hartney – Genetics, 2004, Dr. Bev Koller (advisor)

Sheritha Lee – Pharmacology, 2006, Dr. Leslie Parise (advisor)

Weibin Li - Nutrition 2006 Dr. Melinda Beck (advisor)

Ryan Deckor - Genetics, 2008 Dr. Kathleen Caron (advisor)

Ronquin Ren, Cell Biology 2007 Dr. Cam Patterson (advisor)

Jeremiah Hinson, Pathology, present Dr Chris Mack (advisor)

Lea Beaulieu - Pathology, 2007, Dr. Frank Church (advisor)

Liisa Sundberg - Pathology, 2007, Dr. Joan Taylor (advisor)

Elisabeth Nagel - Nutrition, 2007, Dr. Rosalind Coleman (advisor)
 Jennifer Bushman - Pathology, 2007, Dr. Suzanne Kirby (advisor)
 Xuebin Yang - Pathology, 2008, Dr. Suzanne Kirby (advisor)
 Rau, Jill - Pathology 2008 Dr. Frank Church (advisor)
 Hinson, Jeremiah Pathology, 2008, Dr. Mack (advisor)
 Fellner, Robert Physiology, 2010 Dr. Michael Goy (adviser)
 Ellis, Jessica Nutrition. 2010. Dr. Rosalind Coleman (advisor)
 Wang, Chi Hong Pathology, 2010 Nobuyuki Takahashi (advisor)
 Roderiges, Jessica, Pathology, current, Dr. Monti Willis (advisor)
 Fanny Ya-Wen, - Nutrition, current, Dr. Steven Szeisel (advisor)
 Maggie McCormick – Physiology, current, Dr. Eleni Tzima (advisor)
 Virginia Hogle - Genetics, current, Dr. Mark Majesky (advisor)
 Samantha Stickland - Physiology, current, Dr. Kathleen Caron (advisor)

GRANTS

Active

R01 HL42630	Maeda (PI)	4/1/89 - 3/31/13	25% effort
NIH/NHLBI			
"Apolipoprotein Genes and Atherogenesis in Animals"			
Using gene targeting specific alterations are introduced into genes important in the lipid transport system to study atherogenesis.			
U01 HL087946	Maeda (PI)	8/31/06 - 8/30/11	10% effort
NIH/NHLBI/NIDDK			
"Dyslipidemia, lipoic acid and diabetic vascular complications in humanized Mice"			
We test the effect of introduction of genetic alterations into diabetic mice with the aim of exaggerating the severity of kidney and vascular disease and of investigating the role of lipoic acid.			
R01 HL49277	Smithies (PI)	9/30/92 - 8/31/12	5% effort, Investigator
NIH			
"Animal Models for Studying the Genetics of Hypertension"			
The effects on blood pressure of genetically determined increase and decrease in expression of genes will be investigated.			
U01 DK076131	Smithies (PI)	8/31/06 - 8/30/11	5% effort,
Investigator			
NIH/NHLBI/NIDDK			
"Bradykinin, Nitric Oxide and Mitochondrial DNA Damage in Diabetic Complications"			
This project is to determine the interplay between genetic factors that influence BK action, the production of NO, and diabetes-related increases in mutations in mtDNA in the development of renal complications in diabetic mice.			
T32 HL69768	Maeda (PI)	4/1/02 – 3/31/12	10% effort (Program Director)
NIH			
"Pre-doctoral Training Program in Integrative Vascular Biology"			

This training grant support total 11 per year of graduate students who are working on projects related to vascular biology at UNC.

Past

- R01 GM37567 on "History and control of the haptoglobin gene cluster". Principal Investigator from 12/01/86 through 11/30/99. Direct cost for year 13 was \$125,189.
- AHA 9650086N grant in aid on "Redox status and atherogenesis in mice unable to synthesize ascorbic acid," Principal Investigator from 01/01/97 through 12/31/99. Total direct cost \$50,000/year.
- AHA NC-93-GA-48 grant in aid on " Homocystenemia and atherosclerosis". Principal Investigator from 7/01/93 through 6/30/95. Total direct cost \$40,000/year.
- R01 HL62845 on "Genetic Interactions in Atherosclerosis and Hypertension". Principal Investigator from 6/1/99 through 5/31/03 at \$175,000/year.
- U01 HL70523 "Duke-UNC-Stanford AMDCC Unit" Coffman (PI). Principal Investigator of the UNC team, from 9/30/01 through 8/31/06. Direct cost for year 5 was \$190,000 to UNC.
- R01 DK067320 "Phenogenomics of Human PPAR Gamma Mutations" Auwerx (PI) 4/1/05 - 3/31/09. Subcontract \$95,628 to NM.
- R01 HL077145 "Testing Human Quantitative Genomic Variations in Mice" PI from 4/1/05 to 3/31/10
Direct cost for year 5 was \$230, 000.

PROFESSIONAL SERVICE

NATIONAL REVIEW COMMITTEE MEMBERSHIPS

- NIH T32 Review Board July 2005, Nov 2005, Nov 2007 - current
- AHA Review Committee (Regional) April 2004
- HIN Special Study Section Ad Hoc, February 2002
- NIH Mouse Sequencing Prioritize Committee, 1999-2003
- NIH Metabolism Study Section Member, October 1996 – June 2000
- NIH Metabolism Study Section Ad Hoc, October 1995, August 1996
- NIH National Heart Lung Blood Institute Site Visit, January 1995
- AHA Review Committee for Established Investigatorship, November 1994
- NIH Mammalian Genetics Study Section, Ad Hoc member, February 1990
- NIH Mammalian Genetics Study Section, Member, October 1990 - June 1994
- NIH National Cancer Institute Special Study Section, February 1993
- The American Society of Human Genetics, 1993 Nominating Committee, member

EDITORIAL BOARD

- Experimental Biology and Medicine 2005-2010

ADMINISTRATION AND UNC COMMITTEES

- Director, Predoctoral Training Program in Integrative Vascular Biology 2002 - present
- DLAM Advisory Committee, 1992 - present, (Chairman since 2005)
- Advisory Committee for the Curriculum of Genetics and Molecular Biology, 2004 - present
- Distinguished Professorship Committee, 2006
- Research Advisory Committee, 2001 - 2004

Vascular Biology Advisory Committee, 2000 – 2001

Comprehensive Exam Committee for Graduate Program for Pathology, 2000 - 2004

Admissions Committee for Graduate Program for Pathology, 1992 - 1995

Admissions Committee for Genetics Curriculum, 1995 - 1996

SUMMARY OF ACHIEVEMENT

I have maintained a vigorous research program using mouse genetics as a tool to gain insights into human problems where the effects of the common human polymorphic variants are small at the level of individuals but larger at the population levels. I am internationally well established in this field, and the mice we have generated are used widely in atherosclerosis research. I also initiated and developed the pre-doctoral training program (IVB) that spans several schools and colleges at UNC in vascular biology. Making contributions to the training of the next generation of scientists with multidisciplinary approaches remains one of my major challenges. I was named the Robert H Wagner Distinguished Professor in Pathology and Laboratory Medicine in 2003.