

Curriculum Vitae
January 1, 2009

ROBERT OTIS KELLEY, Ph.D.

CURRENT POSITION

President
University of North Dakota
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PERSONAL:

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Married to Marcia Jean (Bell) Kelley; four children.

Born: April 30, 1944

EDUCATION:

- 1969 Ph. D. University of California; Berkeley, California. (Zoology: Cell and Developmental Biology).
1966 M.A. University of California; Berkeley, California. (Zoology: Cell and Developmental Biology).
1965 B.S. Abilene Christian University; Abilene, Texas. (Biology and Chemistry).

PROFESSIONAL APPOINTMENTS:

2008 – present President, University of North Dakota
 Professor, Department of Anatomy and Cell Biology
 UND School of Medicine and Health Sciences

1999 - 2008	Dean, College of Health Sciences University of Wyoming
1999 – 2008	Professor of Medical Education and Public Health (tenured) University of Wyoming
1997-1999	Associate Vice Chancellor for Research and Executive Associate Dean of the Graduate College University of Illinois at Chicago
1997-1999	Professor of Biological Sciences (tenured), College of Liberal Arts and Sciences, and Professor of Anatomy and Cell Biology, College of Medicine, University of Illinois at Chicago
1981 - 1997	Chairman, Department of Anatomy, University of New Mexico, School of Medicine (Senior Executive Associate Dean, 1995-1997)
1979 - 1997	Professor of Anatomy, University of New Mexico, School of Medicine, and Professor of Biology, The University of New Mexico, College of Arts and Sciences.
1974 - 1979	Associate Professor of Anatomy, University of New Mexico, School of Medicine, and Associate Professor of Biology, The University of New Mexico, College of Arts and Sciences.
1970 - 1974	Assistant Professor of Anatomy, University of New Mexico, School of Medicine.
1969 - 1970	Instructor in Anatomy, University of New Mexico, School of Medicine.
1969 - 1969	Acting Assistant Professor of Zoology, University of California, Berkeley.

INTERNATIONAL APPOINTMENTS:

6/2006 – 12/2006	Distinguished Visiting Professor of Biomedicine, Faculty of Science, Health and Education, University of the Sunshine Coast, Sippy Downs, Queensland, Australia
1996 – present	Visiting Professor, St. George’s School of Medicine, St. George, Grenada.

- *This service has been an ongoing commitment for nearly fifteen years in an effort to upgrade the quality of medical education received by international students in this institution. I teach a short course in the basic biology of human cells and tissues, and provide insights into the United Medical Licensing Examination for international students who have not been exposed to medical school programs that address application of knowledge for licensure.*

- 11/1991 – 12/1991 Consultant to the Prime Minister of Nepal, U.S. State Department, development of a medical school with a Western curriculum in Kathmandu, Nepal.
- 6/1990 - 7/1990 Visiting Professor, Ludwig Institute for Cancer Research, University of Sao Paulo, Sao Paulo, Brazil.
- 12/1984 - 4/1985 Visiting Research Professor, Department of Developmental Biology, National Institute for Basic Biology, Okazaki National Research Institutes, Okazaki, Japan.
- 11/1982 -12/1982 International Exchange Scholar, National Science Foundation, International Division, Africa-Asia Section, University of Poona, India
- 12/1972 - 8/1973 Visiting Research Fellow, The Hubrecht Laboratory for Developmental Biology, Utrecht, The Netherlands.

ADMINISTRATION AND SERVICE EXPERIENCE (SELECTED):

- 2009 - Member, Committee for Energy and the Environment; Association of Public and Land Grant Universities, Washington, D.C.

UNIVERSITY OF WYOMING (selected):

- 2006 – present Laramie Economic Development Council, Laramie, Wyoming
- 1999 – 2004 Governor’s Sub-Cabinet for Health, Education and Human Services, State of Wyoming, Cheyenne, Wyoming
- 1999 – present Governor’s Task Force on Substance Abuse and Violent Crime, State of Wyoming, Cheyenne, Wyoming
- 1999 – present Certifying Officer, State of Wyoming, Western Interstate Commission for Higher Education

1999 - present	Dean's Council
1999 - present	Board of Directors, Wyoming Health Resources Network
1999 – present	Director, UW Center for Rural Health Research and Education
1999 – present	Board of Directors, Wyoming Statistical Analysis Center
1999 – present	UW Enrollment Management Council
1999 – present	UW Image and Marketing Committee
1999 – present	UW Athletic Council
1999 – present	UW Athletic Council, Fiscal Integrity Subcommittee

UNIVERSITY OF ILLINOIS (selected):

1997 - 1999	Governor's Biotechnology Advisory Council; State of Illinois Office of Boards and Commissions
1997 - 1999	Illinois-Indiana Sea Grant Joint University Policy Committee
1997 - 1999	Vice Chancellor's Task Force on Human Cloning and Bioethics
1997 - 1999	Promotion and Tenure Review Committee
1997 - 1999	Senate Committee on Research Policy
1997 - 1999	Senate Committee on Educational Policy
1997 - 1999	Graduate College Executive Committee

UNIVERSITY OF NEW MEXICO (selected):

1996 - 1997	Chairman; NCAA Certification Committee, Sub-committee on Governance. Western Athletic Conference.
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- 1991 - 1997 Regent's Scholars Program; Faculty Mentor and Student Selection Committee. Undergraduate Honors Program.
- 1982 - 1997 Senate Committee on Copyrights and Intellectual Property. Research Policy Committee. Office of the Vice President for Business and Finance.
- 1993 - 1994 Search Committee for the Dean of the School of Medicine. Office of the Vice President for Health Sciences.
- 1975 - 1985 University of New Mexico - Los Alamos National Laboratory - Sandia National Laboratory Consortium on Shared Research Resources.

UNM SCHOOL OF MEDICINE (selected):

- 1978 - 1997 Board of Directors and Executive Committee, New Mexico Medical Foundation, University Physician Associates.
- 1991 - 1997 Education Council/Curriculum Committee. Office of the Dean.
- 1981 - 1997 Dean's Council/Committee of Chairmen.
- 1990 - 1991 Chairman; Search Committee for Chair, Department of Orthopedics.
- 1988 - 1989 Chairman; Search Committee for Chair, Department of Biochemistry.
- 1986 - 1997 Research Allocation Committee
- 1986 - 1996 Space Allocation Committee.
- 1983 - 1994 Chairman; Faculty Promotions and Tenure Review Committee.
- 1980 - 1981 Chairman; Search Committee for Director, Cancer Research and Treatment Center.
- 1980 - 1990 Co-Chairman; Sandia National Laboratory/UNM Consortium on the Intersection between Biomedical Sciences, Physical Sciences and Engineering.

NATIONAL INSTITUTES OF HEALTH (selected):

- 1992 - 1996 Chairman, Research Centers in Minority Institutions Study Section, National Center for Research Resources
- 1992 - 1993 Director's Task Force on the NIH Strategic Plan, Office of the Director
- 1989 - 1996 Consultant, National Center for Research Resources Advisory Council
- 1982 - 1986 Member, Human Embryology and Development Study Section, National Institutes of Health, Division of Research Grants, Bethesda, Maryland.

NATIONAL BOARD OF MEDICAL EXAMINERS (selected):

- 1999 – 2003 Executive Board, NBME
- 1998 – 2002 Composite Committee, NMBE, ECFMG and FSMB
- 1994 - 1999 Chairman, Anatomy Test Committee; NBME United States Medical Licensure Examination, STEP I
- 1994 - 1999 USMLE STEP I Committee
- 1998 - 1999 Interdisciplinary Committee

ASSOCIATION OF AMERICAN MEDICAL COLLEGES (selected):

- 1996 – 1999 Chair-elect and Chairman of the Assembly
- 1996 - 1999 Chair-elect and Chairman of the Executive Committee and Council
- 1994 - 1996 Chair-elect and Chair; Council of Academic Societies
- 1997 - 1999 Advisory Panel on the Mission and Organization of Medical Schools
- 1996 - 1999 Shared Responsibility Committee
- 1994 - 1999 Advisory Panel for Biomedical Research

1994 - 1999 Advisory Group for Graduate Research and Training (GREAT Group)

NORTH CENTRAL ASSOCIATION OF COLLEGES AND SCHOOLS

2002-2003 Comprehensive Evaluation Team, Indiana University-Purdue University
Indianapolis, Indiana

PROFESSIONAL ORGANIZATIONS (selected):

1990 - 1996 Co-Chair; National Caucus for Basic Biomedical Science Chairs. George
Washington University (Secretariat); Washington, DC.

1992 - 1997 Public Affairs Executive Committee; Federation of Societies for
Experimental Biology, Washington, DC.

1988 - 1995 Executive Committee; American Association of Anatomists.

1988 - 1995 Executive Committee; Association of Anatomy, Cell Biology and
Neurobiology Chairpersons

1988 - 1991 Board of Directors (Biological Sciences)/Executive Committee; Electron
Microscopy Society of America.

EDITORIAL BOARDS:

Editorial Board, Cell and Tissue Research, 1985-2000

Associate Editor, The Anatomical Record, 1971-1998

Referee, Journal of Cell Biology; Journal of Ultrastructure Research; Development;
Developmental Dynamics; Teratology; Developmental Biology; Journal of Histochemistry and
Cytochemistry; Molecular Cell Biology; Microscopy Research and Technique.

GRANTS and CONTRACTS:

2004 - 2009 Principal Investigator, National Institutes of Health (NCRR), Infrastructure

Networks for Biomedical Research Excellence Award; \$13.0 million total direct and indirect costs.

- 2004 – 2007 Co- Principal Investigator (with Montana State University), National Institutes of Health (NCRR), IDEANet “Lariat” Project for biomedical research applications using international broadband networks; \$800,000 total direct and indirect costs
- 2001 – 2004 Principal Investigator, National Institutes of Health (NCRR), Biomedical Research Infrastructure Development Award; \$5.0 million total direct and indirect costs.
- 2001 - 2002 Principal Investigator, Wyoming Health Information Exchange/Wyoming Health Resources Network, Wyoming Workforce Registry, \$50,000.
- 1996 - 1998 Co-Principal Investigator (with Dr. Charles Frost, Sandia National Laboratories), National Institutes of Health (NIAMS-TBA), Pulsed Magnetic Field Devices for Wound Healing, \$100,000.
- 1995 - 1996 Principal Investigator, Rio Grande Medical Technologies, Inc. \$10,000.
- 1991 - 1995 Sandia National Laboratory/Pulsed Power Physics, Inc.; Consortium grant for studies of pulsed electromagnetic field bioeffects. Dr. Charles Frost, co-principal investigator. \$75,000.
- 1982 - 1985 Co-principal Investigator, National Institutes of Health (HD 11327-08). Non-enzymatic Glycosylation in Infants of Diabetic Mothers. \$150,000.
- 1974 - 1985 Principal Investigator, National Institutes of Health (AG 00191). Biology of the Aging Cell Surface. \$450,000.
- 1974 - 1975 Co-Principal Investigator and Chairman of the Committee, Bureau of Health Manpower Development, Construction grant for the Health Sciences Center Library. \$4,300,000.
- 1971 - 1974 Principal Investigator, National Institutes of Health (HD 06177). Biology of the Vertebrate Limb. \$42,135.
- 1973 - 1986 Principal Investigator, Minority Biomedical Research Support Program, National Institutes of Health. Biology of the Aging Cell Surface. \$75,000.

HONORS AND AWARDS:

- 2004 Ladman/Wiley Exemplary Service Award, American Association of Anatomists, Federation of American Societies for Experimental Biology, Washington, DC
- 2003 Distinguished Service Award, National Board of Medical Examiners, Philadelphia
- 1999 – 2000 “Top Professor” Award, Mortar Board, University of Wyoming
- 2000 Distinguished Service Award, Association of American Medical Colleges
- 1993, 1995, 1997 “Apple-for-the-Teacher”, University of New Mexico, School of Medicine
- 1975 - 1976 Kaiser Award for Excellence in Basic Science Instruction, University of California, Irvine.
- 1972 - 1977 Research Career Development Award, National Institute for Child Health and Human Development, National Institutes of Health (HD 700407). \$150,000.

GRADUATE AND POSTGRADUATE STUDENTS:

John Nilson, Ph.D., 1975. Professor of Pharmacology, Case Western Reserve University, School of Medicine (co-advisor with Dr. Paul Kerkoff, Department of Biology, UNM).

Julie Nesbitt Huntsman, M.A., 1986. Assistant Professor of Biology, Albuquerque Technical Vocational Institute, Albuquerque, New Mexico.

Paul Zamora, Ph.D., 1978. Senior Vice President for Research, Summa Medical Corporation, Albuquerque, New Mexico. (co-advisor with Dr. Paul Kerkoff, Department of Biology, UNM).

Kathryn G. Vogel, Ph.D.(UCLA), Postgraduate Fellow, 1978-79. Professor of Biology, University of New Mexico, Albuquerque, New Mexico.

Louis F. Marek, Ph.D. (MIT), Postgraduate Fellow, 1979-1982. Carl Zeiss, Inc., New York, New York.

Gary C. Schoenwolf, Ph.D. (U. Illinois), Postgraduate Fellow, 1977-1980. Professor of Anatomy,

University of Utah, School of Medicine. Salt Lake City, Utah.

Ryuji Kodama, Ph.D. (U. Tokyo). Postgraduate Fellow, 1986-1987. Associate Professor and Senior Research Professor, Okazaki National Laboratory, Okazaki, Japan.

Fritz Thurmond, Ph.D. 1996. Department of Anatomy, University of New Mexico, School of Medicine. Albuquerque, New Mexico. (Co-Advisor with Dr. John A. Trotter, Department of Anatomy, UNMSOM).

MEMBERSHIP IN PROFESSIONAL SOCIETIES:

American Society for Cell Biology
Society for Developmental Biology
American Association of Anatomists

PUBLICATIONS:

A. Books, contributed chapters, theses and dissertations:

1. Kelley, R.O. A cytochemical and fine structural study of glycogen in the amphibian embryo. M.A. thesis, University of California, Berkeley, 1966.
2. Kelley, R.O. Fine structure of chordamesoderm-neuroectoderm association in gastrulae of a toad, *Xenopus laevis*. Ph.D. thesis, University of California, Berkeley, 1969.
3. Kelley, R.O., R.A.F. Dekker and J.G. Bluemink. Thiocarbohydrazide-mediated osmium binding: a technique for protecting soft biological specimens in the scanning electron microscope. In: Principles and Techniques of Scanning Electron Microscopy, M.A. Hayat, ed. Vol. IV, Chap. 2, pp. 34-44, Van Nostrand Reinhold Co., 1975.
4. Kelley, R.O. Ligand mediated osmium binding: its application in preparing cultured cells and tissues for scanning electron microscopy. In: Tissue Culture Association Manual, V.J. Evans, V.P. Perry and M.M. Vincent, eds., 1975.
5. Kelley, R.O. and G.C. Palmer. Mediation of mesenchymal cell development during human limb morphogenesis through glycosaminoglycan-adenylate cyclase

- interaction at the cell surface. *Embryogenesis in Mammals*, pp. 275-290, Associated Scientific Publishers, London, 1976.
6. Kelley, R.O. Topography of the mesenchymal cell surface and organization of extracellular matrix during limb morphogenesis in man. In: *Limb and Somite Morphogenesis*, D. Ede, J.R. Hinchliffe and M. Balls, eds. Cambridge University Press, pp. 267-280, 1977.
 7. Kelley, R.O. and J.F. Fallon. The developing limb: an analysis of interacting tissue in a model morphogenetic system. In: *Morphogenesis and Pattern Formation: Implications for Normal and Abnormal Development*, L.L. Brinkley, B.M. Carlson and T.G. Connelly, eds. Raven Press, 1980, pp. 49-86.
 8. Kelley, R.O. and J.F. Fallon. A freeze-fracture and morphometric analysis of gap junctions in limb buds: initial studies on a possible mechanism for morphogenetic signalling during development. In: *Limb Development and Regeneration*, A.I. Caplan, J.F. Fallon, P.F. Goetinck, R.O. Kelley and J.A. MacCabe, eds. Alan R. Liss, New York, Vol. I, pp. 119-130, 1983.
 9. R.O. Kelley, P.F. Goetinck and J.A. MacCabe. *Limb Development and Regeneration*, Vol. II., eds. Alan R. Liss, Inc., New York, 1983.
 10. Kelley, R.O., J.F. Fallon and R.E. Kelly, Jr. Vertebrate Limb Morphogenesis: a review of normal development in a model experimental system with applications toward understanding abnormal limb formation. In: *Issues and Reviews in Teratology*, H. Kalter, ed. Plenum Press, Vol. 2, pp. 219-266, 1984.
 11. Kelley, R.O. Ultrastructural Analysis of Vertebrate Limb Development: Initial Studies on a possible mechanism for morphogenetic signalling. In *Developmental Biology: an Afro-Asian Perspective*, S.C. Goel and R. Bellairs, eds. Indian Society for Developmental Biology, Pune, pp. 115-130, 1983.
 12. Kelley, R.O. Epithelial-Mesenchymal Interactions in Development. In: *Quarterly Review of Biology*, R. Sawyer and J.F. Fallon, eds. Vol. 59, p. 177, 1984.
 13. Kelley, R.O. and K.G. Vogel. The aging cell surface: structural and biochemical alterations associated with progressive subcultivation of human diploid fibroblasts. In: *Aging and Cell Structure*, J. Johnson, ed. Vol. 2, pp. 1-36, 1984.
 14. Kelley, R.O. Early development of the vertebrate limb: an introduction to morphogenetic tissue interactions using scanning electron microscopy. *Scanning*

Electron Microscopy, II, pp. 827-836, 1985.

15. Junqueira, L.C., J. Carneiro and R.O. Kelley. Basic Histology, sixth edition. Appleton and Lange, 1989.
16. Kelley, R.O. Ultrastructural evidence of receptor-mediated endocytosis during early mouse limb morphogenesis: a three dimensional analysis using deep etching and scanning electron microscopy in: Cells and Tissues: a three-dimensional approach by modern techniques in Microscopy. ed. Pietro Motta, pp. 287-294. Alan R. Liss, Inc. 1989.
17. Kelley, R.O. Embryology of the Musculoskeletal System in: A Basic Science Primer in Orthopedics, ed. R.W. Worrell and F. Bronner, pp. 35-48. Williams and Wilkins, 1991.
18. Junqueira, L.C., J. Carneiro and R.O. Kelley. Basic Histology, seventh edition. Appleton and Lange, 1992.
19. Wilcox, M. and R.O. Kelley Cells of the Apical Ectodermal Ridge in Quail Limb Buds are coupled to one another but are isolated from subjacent mesoderm, pp. 339-350 Limb Development and Regeneration. J.F. Fallon, P.F. Goetinck, R.O. Kelley and D. Stocum. Wiley Liss, 1993.
20. Fallon, J.F., P.E. Goetinck, R.O. Kelley and D.L. Stocum eds. Limb Development and Regeneration, A and B. Wiley Liss, 1993.
21. Lopez-Colberg, I., R.O. Kelley, M.D. Vaidya and P.L. Mann. The Use of Lectins in the Purification of Cellular Subpopulations. Lectins and Glycobiology, ed. E.-J. Gabius and S. Gabius, pp. 270-286. Springer, 1993.
22. Junqueira, L.C., J. Carneiro and R.O. Kelley. Basic Histology, eighth edition. Appleton and Lange, 1995.
23. Junqueira, L.C., J. Carneiro and R.O. Kelley. Basic Histology, ninth edition, Appleton and Lange, 1998.
24. Kelley, R.O. Scientists, Senators and “Software”: the keys to unlocking our future. Academic Medicine, 1999, 74:101-107.

B. Manuscripts in reviewed journals:

1. Kelley, R.O. An electron microscopic study of chordamesoderm- neuroectoderm association in gastrulae of a toad, *Xenopus laevis*. *J. Exp. Zool.* 172: 153-180, 1969.
2. Kelley, R.O. An electron microscopic study of mesenchyme during development of interdigital spaces in man. *Anat. Rec.* 168: 43-54, 1970.
3. Kelley, R.O. Fine structure of apical, digital and interdigital cells during limb morphogenesis in man. *Anat. Rec.* 168: 43-54, 1970.
4. Kelley, R.O., G.S. Nakai and M.E. Gubanig. A biochemical and ultrastructural study of RNA in yolk platelets of *Xenopus* gastrulae. *J. Embryol. Exp. Morph.* 26: 181-193, 1971.
5. Kelley, R.O. Ultrastructural comparisons of paired cisternae in leukemic and mesenchymal cells during mitosis. *Anat. Rec.* 171: 559-567, 1971.
6. Nakai, George S., M.E. Gubanig, R.O. Kelley and R.B. Loftfield. Cytoplasmic DNA in 90Sr-induced rat chloroleukemia. *Europ. J. Clin. Biol. Res.* 16: 560-563, 1971.
7. Kelley, R.O. Absence of paired cisternae during mitosis in presence of actinomycin D and puromycin. *J. Ultrastruct. Res.* 40: 325-332, 1972.
8. Napolitano, L.M., L. Saland, J. Lopez, P.V. Sterzing and R.O. Kelley. Localization of cholesterol in peripheral nerve: use of ³H-digitonin for electron microscopic autoradiography. *Anat. Rec.* 174: 157-164, 1972.
9. Kisch, A.L., R.O. Kelley, B. Eberle. Differential enhancement of R-type virus particles in polyoma-transformed BHK-21 cells by dimethyl sulfoxide. *J. Nat. Cancer Inst.* 49: 911-914, 1972.
10. Kelley, R.O. Fine structure of the apical rim-mesenchyme complex during limb morphogenesis in man. *J. Embryol. Exp. Morph.* 29: 117-131, 1973.
11. Kelley, R.O. An ultrastructural and cytochemical study of developing small intestine in man. *J. Embryol. Exp. Morph.* 29: 411-430, 1973.
12. Kelley, R.O., T.I. Baker, H.A. Crissman and C.S. Henderson. Ultrastructure and growth of human limb mesenchyme (HLM-15) in vitro. *Anat. Rec.* 175: 657-672, 1973.
13. Kisch, A.L., R.O. Kelley, H.A. Crissman and L. Paxton. Dimethyl sulfoxide-induced reversion of several features of polyoma transformed baby

- hamster kidney cells (BHK-21): Alterations in growth and morphology. *J. Cell Biol.* 57: 38-53, 1973.
14. Kelley, R.O., R.A.F. Dekker and J.G. Bluemink. Ligand-mediated osmium binding: its application in coating biological specimens for scanning electron microscopy. *J. Ultrastruct. Res.* 45: 254-258, 1973.
 15. Kelley, R.O. and J.G. Bluemink. An ultrastructural analysis of cell and matrix differentiation during early limb development in *Xenopus laevis*. *Devel. Biol.* 37: 1-17, 1974.
 16. Kelley, R.O. Ultrastructural features of chondrogenesis in the human hand plate: a cytochemical and autoradiographic study. *J. Embryo. Exp. Morph.* 33: 387-401, 1975.
 17. Kelley, R.O. Ultrastructural identification of extracellular matrix and cell surface components with ruthenium red and Concanavalin A during limb morphogenesis in man. *J. Embryol. Exp. Morph.* 34: 1-18, 1975.
 18. Kelley, R.O. and R.B. Lauer. On the nature of the external surface of cultured human embryo fibroblasts: an ultrastructural and cytochemical analysis utilizing stain and lectin probes. *Differentiation* 3: 91-98, 1975.
 19. Kelley, R.O. and R.B. Lauer. Surface topography and ultrastructure of aggregates of human limb mesenchymal cells (HLM-15) in vitro. *In Vitro* 12: 155-164, 1976.
 20. Kelley, R.O. and J.F. Fallon. An ultrastructural analysis of the apical ectodermal ridge during vertebrate limb morphogenesis. I. The human upper limb with special reference to differentiation of cell junctions and extracellular laminae. *Devel. Biol.* 51: 241-256, 1976.
 21. Kelley, R.O. Development of the aging cell surface: a freeze-fracture analysis of gap junctions between human embryo fibroblasts aging in culture. *Mech. Ageing Devel.* 5: 339-345, 1976.
 22. Kelley, R.O., G.C. Palmer, H.A. Crissman and J.H. Nilson. Interaction of glycosaminoglycan and adenylate cyclase at the surface of cultured human embryo fibroblasts. *J. Cell Sci.* 28: 237-250, 1977
 23. Vogel, K.G. and R.O. Kelley. Cell surface glycosaminoglycans: identification and organization in cultured human embryo fibroblasts. *J. Cellular Physiol.* 92: 469-480, 1977.

24. Kelley, R.O. and E. Skipper. Development of the aging cell surface: variation in the distribution of intramembrane particles with progressive age of human diploid fibroblasts. *J. Ultrastruct. Res.* 59: 113-118, 1977.
25. Fallon, J.F. and R.O. Kelley. Ultrastructural analysis of the apical ectodermal ridge during vertebrate limb morphogenesis. II. Gap junctions as distinctive ridge structures common to birds and mammals. *J. Embryol. Exp. Morph.* 41: 223-232, 1977.
26. Kelley, R.O. and J.F. Fallon. Identification and distribution of gap junctions in the mesoderm of the developing chick limb bud: a freeze-fracture analysis. *J. Embryol. Exp. Morph.* 46: 99-110, 1978.
27. Kelley, R.O., R. Azad and K.G. Vogel. Development of the aging cell surface: variation in concanavalin A-mediated intercellular binding and distribution of binding sites with progressive subcultivation of human embryo fibroblasts. *Mech. Aging Devel.* 8: 203-217, 1978.
28. Kelley, R.O., K.G. Vogel, H.A. Crissman, C.J. Lujan and B.E. Skipper. Development of the aging cell surface: reduction of gap junction-mediated metabolic cooperation with progressive subcultivation of human embryo fibroblasts (IMR-90). *Exp. Cell Res.* 119: 127-143, 1979.
29. Trotter, J.A. and R.O. Kelley. A novel technique for high resolution analysis of the cytoskeleton. *Anat. Rec.* 195: 76-84, 1979.
30. Kelley, R.O., J. Trotter, L.F. Marek, B.D. Perdue and C.B. Taylor. Variation in cytoskeletal assembly during spreading of progressively subcultivated human embryo fibroblasts (IMR-90). *Mech. of Aging Devel.* 13: 127-141, 1980.
31. Kelley, R.O. and B.D. Perdue. Development of the aging cell surface: structural patterns of gap junction assembly between metabolic mutants and progressively subcultivated human diploid fibroblasts (IMR-90). *Exp. Gerontology* 15: 404-421, 1980.
32. Schoenwolf, G.C. and R.O. Kelley. Characterization of intercellular junctions in the caudal portion of the developing neural tube of the chick embryo. *Am. J. Anat.* 158: 29-42, 1980.
33. Vogel, K.G., R.O. Kelley and C. Stewart. Loss of organized fibronectin matrix

- from the surface of aging diploid fibroblasts (IMR-90). *Mech. Ageing and Devel.* 16: 295-302, 1981.
34. Marek, L.F., R.O. Kelley and B.D. Perdue. Organization of the cytoskeleton in square fibroblasts. *Cell Motility* 2: 115-130, 1982.
 35. Kelley, R.O., B.D. Perdue and R.A. Uruchurtu-Valdivia. Isolation by flow sorting of cytokinetic and morphological heterogeneity in late passage cultures of human diploid fibroblasts (IMR-90). *Anat. Rec.* 206: 329-339, 1983.
 36. Marek, L.F. and R.O. Kelley. A simple technique for the visualization of whole mount cytoskeletons with transmission electron microscopy. *Anat. Rec.* 207: 365-371, 1983.
 37. Miyoshi, Y., K.A. Kilpatrick, R.O. Kelley, R.P. Searles and R.C. Williams, Jr. Antibodies to lymphocyte membrane preparations in systemic lupus erythematosus. *J. Rheumatology* 12: 1097-1104, 1985.
 38. Kelley, R.O., P.L. Mann, B.D. Perdue, and L.F. Marek. Reduction of filamin in late passage human diploid fibroblasts. *Mech. Aging Devel.* 30: 79-98, 1985.
 39. Mann, P.L., I. Lopez and R.O. Kelley. Cell surface oligosaccharide modulation during differentiation. I: Modulation of lectin binding. *Mech. Aging Devel.* 38: 207-218, 1987.
 40. Mann, P.L., C.M. Swartz and R.O. Kelley. Cell surface oligosaccharide modulation during differentiation. II: Membrane mobility of oligosaccharide lectin conjugates. *Mech. Aging Devel.* 38: 219-230, 1987.
 41. Garcia-Penarrubia, P., F.T. Koster, R.O. Kelley, T.D. MacDowell and A.D. Bankhurst. Antibacterial activity of human natural killer cells *J. Exp. Medicine* 169: 99-113, 1989.
 42. Garcia-Penarrubia, P., M.P. Lennon, F.T. Koster, R.O. Kelley, A.P. Bankhurst. Selective proliferation of natural killer cells among monocyte-depleted peripheral blood mononuclear cells by stimulation with staphylococcal enterotoxin B (SEB). *Infection & Immunity* 57: 2057-2065, 1989.
 43. Kodama, R., G. Eguchi and R.O. Kelley. Ultrastructural and immunocytochemical analysis of the circumferential microfilament bundle in avian retinal pigmented epithelial cells in vitro. *Cell and Tissue Research* 263:

29-40, 1991.

44. Rosenberg, G., M. Kornfeld, E. Estrada, R.O. Kelley, L.A. Liotta and W.G. Stetler-Stevenson. TIMP-2 reduces proteolytic opening of blood-brain barrier by Type IV collagenase. *Brain Research* 576: 203-207, 1992.
45. Kelley, Robert O. Ultrastructural evidence of receptor-mediated endocytosis during early mouse limb morphogenesis: a three dimensional analysis using deep etching and scanning electron microscopy. *Acta Microscopica* 1: 103-108, 1992.
46. Rosenberg, G., E. Estrada, R.O. Kelley, and M. Kornfeld. Bacterial collagenase disrupts extracellular matrix and opens blood-brain barrier in rats. *Neuroscience letters* 160: 117-119, 1993.
47. Kelley, R.O. Ultrastructure of the Circumferential microfilament bundle and its role in maintaining cell shape in cultured retinal pigmented epithelial cells. *Acta Microscopica* 2: 69-76, 1993.
48. Mandel, H. G. , R. O. Kelley, R. B. Marchase, et al. Downsizing of Basic Science Departments in U. S. Medical Schools: Perceptions of Their Chairs. *Academic Medicine* 72: 894-900, 1997
49. Kelley, R.O. Cell Communication during Vertebrate Limb Morphogenesis., *Micro. Repro. Devel.* 2:319-322. 1998.
50. Dong, F., X. Zhang, B. Culver, H. G. Chew, Jr., R. O. Kelley, J. Ren. Dietary Iron Deficiency Induces Ventricular Dilation, Mitochondrial Ultrastructural Aberrations and Cytochrome C Release: Involvement of NO Synthase and Protein Tyrosine Nitration. *Clinical Science.* 109: 277-286, 2005

C. Papers presented at professional meetings (abstracts):

1. Kelley, R.O. Molecular transfer between explanted cells of *Xenopus* gastrulae. *J. Cell Biol.* 43: 65a, 1969.
2. Kelley, R.O. Extracellular material between interacting cells during neural induction in a toad, *Xenopus laevis*. *J. Ultrastruct. Res.* 30: 251, 1970.
3. Kelley, R.O. Cell migration and necrosis during development of human interdigital spaces. *Anat. Rec.* 166: 329, 1970.

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