

CYNTHIA M. BEALL

CURRICULUM VITAE

BUSINESS ADDRESS: Department of Anthropology
Case Western Reserve University
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EDUCATION:	1970	University of Pennsylvania	B.A., Biology
	1972	The Pennsylvania State University	M.A., Anthropology
	1976	The Pennsylvania State University	Ph.D., Anthropology

FIELDS OF SPECIALIZATION:

Human Biology/Human Adaptability: high altitude adaptation; growth, development and aging; human variability; genetic, environmental, and socio-cultural influences on human biology; evolutionary medicine; Andean Plateau (Bolivia, Peru), Tibetan Plateau (Nepal, Tibet), Simien Plateau (Ethiopia), Mongolia.

ACADEMIC APPOINTMENTS:

2005- Adjunct Staff, Department of Pathobiology, Lerner Research Institute, The Cleveland Clinic Foundation
(secondary appointment)
2004- Research Associate in Physical Anthropology, Cleveland Museum of Natural History
(secondary Appointment)
2003- Professor of Global Health and Diseases, School of Medicine, Case Western Reserve University
(secondary appointment)
1995- Professor of Anatomy, School of Medicine, Case Western Reserve University
(secondary appointment)
1994- S. Idell Pyle Professor of Anthropology, Case Western Reserve University.
1987-94 Professor, Department of Anthropology, Case Western Reserve University.
1982-87 Associate Professor (with tenure), Department of Anthropology, Case Western Reserve University.
1976-82 Assistant Professor, Department of Anthropology, Case Western Reserve University.

HONORS:

2009 Recipient, Franz Boas Distinguished Achievement Award, Human Biology Association
2001 Member, American Philosophical Society
1997 Fellow, American Association for the Advancement of Science
1996 Member, National Academy of Sciences

CURRENT EDITORIAL BOARDS:

American Journal of Human Biology, 2002 -
Journal of High Altitude Medicine and Biology, 1999 -

CURRENT PROFESSIONAL SERVICE:

2010 – 2012 Member, proposal reviewing panel, Wenner-Gren Foundation for Anthropological Research

2010 – Chair-elect, Chair, Retiring Chair, Section H Anthropology, American Association for the Advancement of Science (AAAS)

2005 – Member, Steering Committee, Section H Anthropology, American Association for the Advancement of Science (AAAS)

MEMBERSHIP IN PROFESSIONAL SOCIETIES

American Anthropological Association, General and Biological Anthropology sections

American Association for the Advancement of Science

American Association of Physical Anthropologists

Association for Anthropology and Gerontology

Human Biology Association (formerly Human Biology Council)

International Mountain Medicine Society

Sigma Xi, The Scientific Research Council

Society for the Study of Human Biology (U.K.)

SELECTED RECENT INVITED PAPERS/PRESENTATIONS AT CONFERENCES and NAMED LECTURESHIPS

2010 Plenary Lecture, International Association of Physiological Anthropology, September 15, 2010, Freemantle, Australia.

2010 Landmark Lecture. Human Evolution at High-altitude – an overview. Invited presentation at the 4th European Hypoxia Society Meeting, January 29, 2010.

2009 Candidate Gene Associations with Oxygen Delivery Traits at High Altitude. Invited presentation at 16th International Hypoxia Symposium, March 12, 2009.

2008 Tibetan, Andean and Ethiopian Patterns of Adaptation to High Altitude, UT Southwestern School of Medicine, Center for Human Genetics, McDermott Center for Human Growth and Development, September 16.

2008 Tibetan and Andean Patterns of Adaptation to High Altitude, Class of 1960 lecture at Williams College, March 7.

2008 Long-term studies of Tibetan Nomads and Economic Development (with M. C. Goldstein), AAAS Annual Meeting. Invited paper in session From Global to Local: Impact of Field Research in Biological Anthropology, organized by Karen Strier, February 17.

2008 Contrasting Adaptations to Hypoxia by Andean, Tibetan, and East Africa Populations. Invited plenary talk at Keystone Symposium on Molecular, Cellular, Physiological, and Pathogenic Responses to Hypoxia. January 16.

2007 Adaptive Tissue Blood Flow and Circulating Nitric Oxide Products in Tibetans at High Altitude. Invited plenary talk at Second International Meeting on the role of Nitric Oxide in Physiology, Pathophysiology, and Therapeutics, NIH. September 7.

PAST PROFESSIONAL SERVICE:

2008-09 Co-Organizer, with Peter Robbins, National Evolutionary Synthesis Center, international catalytic meeting on Human evolution and adaptation to High-altitude Hypoxia, March 19-21, 2009, Durham, N Ca

2008-09 Organizer, Plenary Session for Annual Meetings of the Human Biology Association, The Past 10,000 years of human evolution. Chicago, IL, April 2009,

2003 - 2008 Chair, National Academy of Sciences Board on International Scientific Organizations (BISO), member 2001 – 2003. The Board on International Scientific Organizations (BISO) oversees many groups whose effort is to strengthen U.S. participation in international scientific, engineering, and medical organizations.

2005 - 2008 – Executive Board, International Council on Science (ICSU).

ICSU is a non-governmental organization with a global membership that is frequently called upon to speak on behalf of the global scientific community and to act as an advisor in matters ranging from the environment to conduct in science.

2002-2007 - Member, Advisory Committee for the Social, Behavioral and Economic Sciences (SBE) Directorate of the National Science Foundation,

2002-2005 - Councilor, National Academy of Sciences,

2002-2005 - Chair, Section 51 Anthropology, National Academy of Sciences,.

2001-2003 - Chair, U. S. National Committee for the International Union of Biological Sciences, member, 1998-2003.

1995 – Chair, Electorate Nominating Committee, Section on Anthropology, American Association for the Advancement of Science (AAAS), member 1993 – 1995.

1991 – 1995 - President-elect, President, and Past-President. Human Biology Council (now Human Biology Association). The mission of the Human Biology Association is to advance the understanding human biological variation.

1989 – 1991 Executive Committee, Human Biology Council (now Human Biology Association)

1984-1986 Nominations Committee, Human Biology Council (now Human Biology Association)

1989 –1992 Executive Committee, American Association of Physical Anthropology (AAPA)

1983-1986 Executive Committee Member, American Anthropological Association (AAA), Biological Anthropology Unit

1981-1987 Sub-Editor for Bio-Cultural and Physical Aging, Association for Anthropology and Gerontology (AAGE) Newsletter

1983 Corresponding secretary, Association for Anthropology and Gerontology (AAGE)
Sub-Editor for Bio-Cultural and Physical Aging

PAST EDITORIAL BOARDS:

Annual Review of Anthropology: 2004 – 2009

Yearbook of Physical Anthropology, 1983-1997

Journal of Cross-Cultural Gerontology: founding Co-Editor, with M.C. Goldstein and C. Ikels, 1986-1995

Human Biology 1985-1987, 1988-91, 1997-2008

PUBLICATIONS

THESES:

M.A. Respiratory diseases in Migrant Populations living in a Peruvian Coastal Valley, 1972.

Ph.D. The Effects of High Altitude on Growth, Morbidity and Mortality of Peruvian Infants, 1976.

MONOGRAPHS:

1993 Goldstein, M.C. and C.M. Beall. The Changing World of Mongolia's Nomads. University of California Press, Berkeley.

1990 Goldstein, M.C. and C.M. Beall. Nomads of Western Tibet: The Survival of a Way of Life. The Guidebook Company, Ltd., Hong Kong. Co-Published by University of California Press, Berkeley. ISBN 0-520-07210-3 (German edition 1991 Erst Auflage).

1982 Beall C.M. (editor) Cross-Cultural Studies of Biological Aging. Plenum Press, Oxford. Reprinted from special issue of Social Science and Medicine, volume 16(2). ISBN 0 08 028946 0.

PUBLICATIONS IN REFEREED JOURNALS:

2010 Beall CM, Strohl KP, Laskowski D, Hutte R, Erzurum SC . Response to “Lowered exhaled nitric oxide in acute hypobaric than in normobaric hypoxia by T. Hemmingsson and D. Linnarsson. Respir. Physiol. Neurobiol 169: 74-77”. Respir Physiol Neurobiol. 2010 Feb 1. [Epub ahead of print]

2009 Laskowski D, Beall CM, Dweik R, Strohl KP, Hutte R, Erzurum SC. Response to “Measuring exhaled nitric oxide at high altitude. Respir. Physiol Neurobiol 167: 292-298”. Respir Physiol Neurobiol. 2010 Jan 31;170(1):1-2 [Epub 2009 Nov 14.]

2009 Vitzthum VJ, Worthman CM, Beall CM, Thornburg J, Vargas E, Villena M, Soria R, Caceres E, Spielvogel H. Seasonal and circadian variation in salivary testosterone in rural Bolivian men. Am J Hum Biol. 21 (6) : 762-8. Apr 14. [Epub ahead of print]

2007 Erzurum, S.C., Ghosh, S., Janocha, A.J., Xu, W., Bauer, S., Bryan, N.S., Tejero, J., Hemann, C., Hille, R., Stuehr, D.J., Feelisch, M., Beall, C.M Higher blood flow and circulating NO products offset high-altitude hypoxia among Tibetans. Proceedings of the National Academy of Sciences 104, 17593.

2007 Beall, C.M. Detecting natural selection in high-altitude human populations. Respir Physiol Neurobiol. 158: 161-171. [2007 Jun 8; Epub ahead of print]

2007 Beall, C.M. Two routes to functional adaptation: Tibetan and Andean high-altitude natives. Proc Natl Acad Sci U S A. 2007 May 15;104 Suppl 1:8655-60. Epub 2007 May 9.

- 2006 Brown, D. E., Beall, C. M., Strohl, K. P., and Mills, P. S. Exhaled Nitric Oxide Decreases upon Acute Exposure to High-Altitude Hypoxia. *American Journal of Human Biology* 18(2): 196-202
- 2006 Beall, C. M.. Andean, Tibet, and Ethiopian Patterns of Adaptation to High-Altitude Hypoxia. *Journal of Integrative and Comparative Biology* [Advance Access, January 6, 2006] *Integrative and Comparative Biology* 2006 46(1):18-24; doi:10.1093/icb/icj004
- 2005 Geoff Childs, M.C. Goldstein, Ben Jiao, C.M. Beall. Tibetan Fertility Transitions in China and south Asia. *Population and Development Review* (31):2: 337-351.
- 2005 Hoit BD, Dalton ND, Erzurum SC, Laskowski D, Strohl KP, Beall CM. Jul 14; Nitric Oxide and Cardio-Pulmonary Hemodynamics in Tibetan Highlanders. *J. Appl Physiol.* 99:1796-1801. First published July 14, 2005; doi: 10.1152/jappphysiol.00205.2005.
- 2004 Beall, C. M., Song, K., Elston, R. C., Goldstein, M. C. Higher offspring survival among Tibetan women with high oxygen saturation genotypes residing at 4000m. *Proc. Nat. Acad. Sci.* 101(39):14300-4
- 2003 Goldstein, M. C., Jiao, B., Beall, C.M., and Tsering, P. 2003 Development and Change in rural Tibet. *Problems and Adaptations. Asian Survey* 43:5: 758-779.
- 2002 Beall CM, Decker MJ, Brittenham GM, Kushner I, Gebremedhin A and Strohl KP. An Ethiopian pattern of human adaptation to high-altitude hypoxia. *Proc Natl Acad Sci U S A* 99: 17215-17218, 2002.
- 2002 Goldstein, Melvyn C., Jiao Ben (Benjor), Beall, C. M., and Tsering P. Fertility and Family Planning in rural Tibet. *The China Journal* 47: 19-39.
- 2001 Beall, C., Laskowski, D., Strohl, K. P., Soria R., Villena, M., Vargas, E., Alarcon, A. M., Gonzales, C. and Erzurum, S. C. Pulmonary nitric oxide in mountain dwellers. *Nature* 414: 411-412.
- 2001 Beall, C. Adaptations to Altitude: A Current Assessment. *Annual Review of Anthropology* 16: 423-455.
- 2000 Beall, C. Tibetan and Andean patterns of adaptation to high-altitude hypoxia. *Human Biology* 72(1): 201-228.
- 2000 Beall, C. Oxygen saturation increases during childhood and decreases during adulthood among high altitude native Tibetans residing at 3800-4200m *High Altitude Medicine and Biology* 1(1): 25-32.
- 1999 Beall, C. M., Almasly, L. A., Blangero, J., Williams-Blangero, S., Brittenham, G. M., Strohl, K. P., Decker, M. J., argas, E., Villena, M., Soria, R., Alarcon, A. M., and Gonzales, C. Percent of oxygen saturation of arterial hemoglobin among Bolivian Aymara at 3900-400m. *American Journal of Physical Anthropology.* 108(1): 41-52.
- 1998 Beall, C. M., Brittenham, G. M., Strohl, K. P., Blangero, J. Williams-Blangero, S., Goldstein, M. C., Decker, M. J., Vargas, E., Villena, M., Soria, R., Alarcon, A. M., Gonzales, C. Hemoglobin concentration of high-altitude Tibetans and Bolivian Aymara. *American Journal of Physical Anthropology.* 106: 385-400.
- 1997 Beall, C. M., K. P. Strohl, J. Blangero, S. Williams-Blangero, L. A. Almasly, M. J. Decker, C. M. Worthman, M. C. Goldstein, E. Vargas, M. Villena, R. Soria, A. M. Alarcon, C. Gonzales. Ventilation and hypoxic ventilatory response of Tibetan and Aymara high altitude natives. *American Journal of Physical Anthropology* 104: 427-447.

- 1997 Beall, C. M., K. P. Strohl, J. Blangero, S. Williams-Blangero, G. M. Brittenham, and M. C. Goldstein. Quantitative genetic analysis of arterial oxygen saturation in Tibetan Highlanders. *Human Biology* 69(5): 597-604.
- 1997 Beall, C. M., A. Gebremedhin, G. M. Brittenham, and M. Shamebo. Blood pressure variation among Ethiopians on the Simien Plateau. *Annals of Human Biology* 24(4): 333-342.
- 1996 Beall, C.M., J. Henry, C. Worthman, M.C. Goldstein. Basal Metabolic Rate and Dietary Seasonality Among Tibetan Nomads. *American Journal of Human Biology* 8: 361-370.
- 1994 Beall, C.M., J. Blangero, S. Williams-Blangero and M.C. Goldstein. A major gene for %O₂ saturation of arterial hemoglobin in Tibetan highlanders. *American Journal of Physical Anthropology* 95(3): 271-276
- 1993 Williams-Blangero, S., J. Blangero, and C. M. Beall. Genetic Analysis of Physical Chest Dimensions in a High Altitude Tibetan Population from Upper Chumik, Nepal. *American Journal of Human Biology*. 5(6): 719-724.
- 1993 Beall, C.M. and M.C. Goldstein. Dietary seasonality among Tibetan Nomads. *Research and Exploration* 9(4): 477-479.
- 1992 Beall, C.M. and M.C. Goldstein. High prevalence of excess fat and central fat patterning among Mongolian pastoral nomads. *American Journal of Human Biology* 4(6): 747-756.
- 1992 Beall, C.M., K.P. Strohl, B. Gothe, G.M. Brittenham, M. Barragan, E. Vargas. Respiratory and hematological adaptations of young and older Aymara men native to 3600m. *American Journal of Human Biology* 4(1): 17-26.
- 1992 Beall, C.M., C.M. Worthman, J. Stallings, K.P. Strohl, G.M. Brittenham and M. Barragan Salivary testosterone concentration of Aymara men native to 3600m. *Annals of Human Biology* 19(1): 67-78.
- 1992 Beall, C.M., C. Ikels, and M.C. Goldstein. Introducing the "Aging Trends" series. *Journal of Cross-Cultural Gerontology* 7(1): 1-2
- 1991 Goldstein, M.C. and C.M. Beall. China's Birth Control Policy in Tibet. *Asian Survey* 31(3): 285-303.
- 1991 Goldstein, M.C. and C.M. Beall. Nomadic Pastoralism on the Western Tibetan Plateau. *Nomadic Peoples* 28: 105-122.
- 1991 Cincotta, R.P., P.M. Van Soest, J.B. Robertson, C.M. Beall and M.C. Goldstein. Foraging ecology of livestock on the Tibetan changtang: a comparison of three adjacent grazing areas. *Arctic and Alpine Research* 23(2): 149-161.
- 1990 Beall, C.M., G.M. Brittenham, F. Macuaga, M. Barragan.. Variation in hemoglobin concentration among samples of high altitude natives in the Andes and the Himalayas. *American Journal of Human Biology*. 2(6): 639-662.
- 1990 Goldstein, M.C., C.M. Beall, and R.P. Cincotta. Indigenous nomadic pastoralism and ecological conservation on Tibet's "Northern Plateau" *National Geographic Research* 6(2): 139-156.
- 1989 Goldstein, M.C. and C.M. Beall. The Impact of China's Cultural and Economic Reform Policy on Nomadic Pastoralism in Western Tibet. *Asian Survey*. 29(6): 619-641.

- 1987 Beall, C.M., M.C. Goldstein and the Tibetan Academy of Social Sciences. Hemoglobin Concentration of Tibetan Nomads Permanently Resident at 4,850-5,450m. *American Journal of Physical Anthropology*. 73(4): 433-438.
- 1986 Goldstein, M.C. and C.M. Beall. Family change, Caste and the Elderly in a Rural Locale in Nepal. *Journal of Cross-Cultural Gerontology*. 1(3):305-316.
- 1986 Beall, C.M., J.K. Eckert and M.C. Goldstein. Editorial: On Cross-Cultural Gerontology. *Journal of Cross-Cultural Gerontology* 1(1):1-3.
- 1986 Beall, C.M. and M.C. Goldstein. Age differences in sensory and cognitive function in an elderly non-Western population. *Journal of Gerontology* 41(3):387-389.
- 1985 Beall, C.M., M.C. Goldstein, E.S. Feldman. Social Structure and Intracohort Variation in Physical Fitness Among Elderly Males in a Traditional Third World Society. *Journal of American Geriatrics Society* 33(6):406-412. (Abstracted in 1986, *Geriatrics Digest*, 3:14-15)
- 1985 Beall, C.M., M.C. Goldstein, E.S. Feldman. The Physical Fitness of Elderly Nepalese Farmers Residing in Rugged Mountain and Flat Terrain. *Journal of Gerontology* 40(5):529-535.
- 1984 Goldstein, M.C., C.M. Beall and P. Tsarong. On Studying Fertility at High Altitude: A rejoinder to Hoff's reply. *American Anthropologist* 86(2):419-422
- 1984 Beall, C.M. and A.B. Reichsman. Hemoglobin Levels in a Himalayan High Altitude Population. *American Journal of Physical Anthropology* 63(3):301-306.
- 1984 Goldstein, M.C., C.M. Beall and P. Tsarong. Response to Abelson's Comment on Goldstein et al. *American Anthropologist* 86(3):703-705.
- 1984 Goldstein, M.C., C.M. Beall and P. Tsarong. Response to Basu and Gupta's comments on High Altitude Hypoxia, Culture and Human Fecundity/Fertility. *American Anthropologist* 86 (4):996-997.
- 1983 Goldstein, M.C., P. Tsarong, and C.M. Beall. High Altitude Hypoxia, Culture and Human Fecundity/Fertility: a Comparative study. *American Anthropologist* 85(1):28-49
- 1983 Beall, C.M., Age at Menopause and Menarche in a High Altitude Himalayan Population. *Annals of Human Biology* 10(4):365-370.
- 1983 Beall, C.M., K.P. Strohl and G. Brittenham. A Reappraisal of Andean High Altitude Erythrocytosis from a Himalayan Perspective. *Seminars in Respiratory Medicine* 5(2):195-201.
- 1982 Beall, C.M. Introduction to special issue of *Social Science and Medicine* devoted to Biocultural Studies of Aging. *Social Science and Medicine* 16(2):131-134.
- 1982 Beall, C.M. and M.C. Goldstein. Work, aging and dependency in a Sherpa population in Nepal. *Social Science and Medicine* 16(2):141-148.
- 1982 Beall, C.M. and M.C. Goldstein. Biological function, activity and dependency among elderly Sherpa in the Nepal Himalayas. *Social Science and Medicine* 16(2):135-140.

- 1982 Goldstein, M.C. and C.M. Beall. Indirect Modernization and the Status of the Elderly in Rural Third World Countries. *Journal of Gerontology* 37(6):743-748.
- 1982 Goldstein, M.C. and C.M. Beall. Tibetan Fraternal Polyandry and Sociobiology: A rejoinder to Abernethy and Fernandez. *American Anthropologist* 84(4):898-901.
- 1981 Beall, C.M. Growth in a Population of Tibetan Origin at High Altitude. *Annals of Human Biology* 8(1):31-38.
- 1981 Beall, C.M. and M.C. Goldstein. Tibetan Fraternal Polyandry: A Test of Sociobiological Theory. *American Anthropologist* 83(1):5-12.
- 1981 Goldstein, M.C. and C.M. Beall. Modernization and Aging: views from the rural, pre-industrial hinterland in Nepal. *Human Organization* 40(1):48-55.
- 1981 Beall, C.M. Optimal Birthweights in Peruvian Populations at High and Low Altitudes. *American Journal of Physical Anthropology* 56(3):209-216.
- 1981 Beall, C.M. A Comparison of Chest Morphology in High Altitude Asian and Andean Populations. *Human Biology* 54(1):145-163.
- 1977 Beall, C.M., P.T. Baker, T.S. Baker and J.D. Haas. The Effects of High Altitude on Adolescent Growth in Southern Peruvian Amerindians. *Human Biology* 49(2):109-124.
- OTHER PUBLICATIONS: INVITED CONTRIBUTIONS:
- 2010 (expected) Beall, C. M., Jablonski, N and A. T. Steegmann, Jr. Human Adaptation to Climate: Temperature, Ultraviolet Radiation, and Altitude. In *Human Biology. An Evolutionary and Biocultural Perspective*, 2nd edition, S. Stinson, B. Bogin, R. Huss-Ashmore, and E. O'Rourke (eds.), Wiley-Liss, Inc., New York
- 2008 Beall, C. M. Why Are We Vulnerable to Acute Mountain Sickness? Pp. 259-276 in Trevathan, W., McKenna, J. M. and E. O. Smith (eds.), *Evolutionary Medicine and Health. New Perspectives*, Oxford University Press, New York.
- 2005 Goldstein, M. C., Jiao, B., Beall, C. M. and Tsering, P. Development and Change in Rural Tibet: Problems and Adaptations. Pp 193-213 in Sautman, B. and J. T. Dreyer (eds.), *Contemporary Tibet. Politics, Development, and Society in a Disputed Region*. M. E. Sharpe Pubs., Armonk, NY.
- 2003 Beall, C.M. High-altitude adaptations. *The Lancet* 362(1): S14-S15.
- 2002 Beall, C. M. Biodiversity of Human Populations in Mountain Environments, pp. 199-210 in *Mountain Biodiversity. A Global Assessment*, Ch. Koerner and E. M. Spehn (eds.), The Parthenon Publishing Group, Boca Raton, FL.
- 2002 Goldstein, M. C. and Beall, C.M. Changing pattern of Tibetan nomadic pastoralism., pp. 131-150 in *Human Population Biology of Pastoral Populations*, W. R. Leonard and M. H. Crawford (editors), Cambridge University Press, Cambridge.
- 2001 Little, M. A., Badgley, C., Beall, C., Balick, M. Munstermann, L. E., Weiss, K. M. Bert, Th. M., and Chernoff, B. A Framework for a program in the human dimensions of biodiversity. *Biology International* 42: 3-15.

- 2001 Ikels, C. and Beall, C. M. Age, Aging, and Anthropology, In Handbook of Aging and the Social Sciences, R. H. Binstock and L. K. George (eds.), Academic Press, San Diego, pp. 125-13
- 2000 Beall, C. M. Tibetan and Andean Contrasts in Adaptation to High-Altitude Hypoxia. In Oxygen Sensing. Molecule to Man. S. Lahiri, N. R. Prabhakar, R. E. Forster (eds.), Advances in Experimental Medicine and Biology, volume 475, pp. 63-74.
- 1999 Beall, C. M. and A. T. Steegmann, Jr. Human Adaptation to Climate: Temperature, Ultraviolet Radiation, and Altitude. In Human Biology. An Evolutionary and Biocultural Perspective. S. Stinson, B. Bogin, R. Huss-Ashmore, and E. O'Rourke (eds.), Wiley-Liss, Inc., New York, pp. 163-224.
- 1997 Beall, C. M. Are Sherpas Different? In: Everest. Mountain Without Mercy. Broughton Coburn, National Geographic Society, Washington, D. C., p. 126
- 1997 Strohl, K. P. and C. M. Beall Ventilatory Response to Experimental Hypoxia in Adult Male and Female Natives of the Tibetan and Andean Plateaus. In: Hypoxia: Women at Altitude. C. S. Houston and G. Coates (eds.), Queen City Printers, Burlington, VT., pp. 162-165.
- 1997 Goldstein, M. C. and C. M. Beall. Growing Old in Tibet—Tradition, Family and Change. In: Aging: Asian Concepts and Experiences Past and Present. S. Formanek and S. Linhart (eds.) Verlag Der Osterreichischen Akademie Wissenschaften, Wien, pp. 155-176.
- 1994 Beall, C.M. Aging and Adaptation to the Environment. In: Biological Anthropology and Aging: Interdisciplinary, cross-cultural and comparative approaches. R.M. Garruto and D.J. Crews (eds). Oxford University Press, pp. 339-372.
- 1994 Beall, C.M. High altitude human biology. In: N. Allen (ed). Illustrated Library of the Earth: Mountains, Weldon Owen Pubs, Sydney, pp. 62-63.
- 1993 C.M. Beall and M.C. Goldstein. The Changing world of Mongolia's nomads. National Geographic. 183(5):127-138.
- 1993 Beall, C.M. Genetic Bases of oxygen transport at high altitude, traditional and new approaches. In Hipoxia: investigaciones basicas y clinicas. Homenaje a Carlos Monge Cassinell. Leon-Velarde, F. and Arregui, A. (eds.). IFEA, Lima, pp. 111-124.
- 1992 Goldstein, M.C. and C.M. Beall. Nomads on the roof of the world, pp.420-423. In M.C. Howard and J. Dunaif-Hattis, Anthropology Understanding Human Adaptation, Harper Collins Pub.
- 1990 Beall, C.M. and M.C. Goldstein. Hemoglobin Concentration, % oxygen saturation and arterial oxygen content of Tibetan nomads at 4,850 m- 5450m. pp 59-65 in: Hypoxia. The Adaptations, J.R. Sutton, G. Coates and J.E. Remmers (eds). B.C. Decker Inc., Toronto.
- 1989 Goldstein, M.C. and C.M. Beall. The secluded world of Tibet's nomads. National Geographic 175(6): 752-781.
- 1989 Beall, C.M. and C.A. Weitz. The Human Population Biology of Aging. pp.189-202 in: Human Population Biology: a Transdisciplinary Science, M.A. Little and J.D. Haas (editors), Oxford University Press.

1989 Weitz, C.A, L.P. Greksa, R.B. Thomas, and C.M. Beall. An Anthropological Perspective on the Study of Work Capacity. pp 132-151 in: Human Population Biology: a Transdisciplinary Science, M.A. Little and J.D. Haas (editors), Oxford University Press.

1989 Greksa, L.P. and C.M. Beall. Development of Chest size and Lung Function at High Altitude. pp. 222-238 in: Human Population Biology: a Transdisciplinary Science, M.A. Little and J.D. Haas (editors), Oxford University Press.

1987 Beall, C.M. Studies of Longevity. pp. 73-93 in Modern Pioneers: an Interdisciplinary View of the Aged, P. Silverman (editor), Indiana University Press.

1988 Beall, C.M. and M.C. Goldstein. Socio-cultural influences on the working capacity of elderly Nepali men. pp. 215-226 in Capacity for work in the Tropics. K.J. Collins and D.F. Roberts (editors), Cambridge University Press.

1987 Beall, C.M. Nutrition and Variation in Biological Aging. pp.197-221 in Nutrition in Anthropology, F.E. Johnston (editor), Alan R. Liss, Inc. N.Y.

1986 Beall, C.M. and J.K. Eckert. Measuring Functional Status Cross-Culturally. pp. 21-56 in New Methods for Old Age Research, second edition, C. Fry and J. Keith (editors), Bergin and Garvey, Pubs., Inc., MA

1984 Beall, C.M. Theoretical Dimensions of a Focus on Age in Physical Anthropology. pp. 82-95 in Age and Anthropological Theory. D. Kertzer and J. Keith (editors). Cornell University Press.

1984 Beall, C.M. Aging and Growth at High Altitudes in the Himalayas. pp. 365-385 in The People of South Asia J. Lukacs (editor), Plenum Press.

1982 Baker, P.T. and C.M. Beall. The Biology and Health of Andean Migrants: A Case Study in South Coastal Peru. Mountain Research and Development 2(1):81-95, Special issue. Human Population and Biosphere Interactions in the Central Andes, P.T. Baker (editor).

1982 Escobar, G. and C.M. Beall. Contemporary patterns of Migration in the Central Andes. Mountain Research and Development 2(1):63-80, Special issue: Human Population and Biosphere Interactions in the Central Andes, P.T. Baker (editor).

1982 Beall, C.M. A Historical and Analytical Review of the Study of Human Growth and Development in Extreme Environment in Extreme by American Physical Anthropologists. Pp. 447-465 in A History of American Physical Anthropology 1930-1980. F. Spencer (editor) Academic Press, pp. 447-465.

1981 Beall, C.M. Some Aspects of the Study of Physical Growth at High Altitude in Asia. pp. 49-54 in Environmental and human Population Problems at High Altitude. Editions du Centre National de Recherche Scientifique, Paris.

1980 Eckert, J.K. and C.M. Beall. Approaches to Measuring Functional Capacity Cross-Culturally. Pp. 27-56 in New Methods for Old Age Research. C. Fry and J. Keith (editors). Loyola University Press.

OTHER PUBLICATIONS: UNREFEREED JOURNALS, NEWSLETTERS, BOOK REVIEWS, COMPILATIONS:

2006 Beall, C.M. Book Review of An Ecology of High Altitude Infancy. By Andrea S. Wiley, New York: Cambridge University Press. 2004. 245 pp. American Journal of Physical Anthropology 130: 276-277.

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RESEARCH GRANT AWARDS: (Principal Investigator unless noted otherwise.)

2009 – 2011 National Science Foundation Grant No. BCS-0924726 “Nitric oxide and the microcirculation in the Tibet Autonomous Region”

2005-2007 National Science Foundation Grant No. BCS-0452326 “Ethiopian adaptation to high-altitude hypoxia”

2002-2005 National Science Foundation Grant No. BCS-021547 “Nitric oxide and oxygen delivery among Tibetans”

2000 National Science Foundation Grant No. SES-00074567 “POWRE: Pulmonary Nitric Oxide and adaptation to High Altitude Hypoxia”.

2000 National Science Foundation Grant No. BCS-00084355 “High Risk Exploratory Research: Exhaled Nitric Oxide of Andean and Tibetan High-Altitude Natives”, with Kingman P. Strohl.

- 1998 Wenner-Gren Foundation for Anthropological Research Grant No. 6322 "Mitochondrial DNA analyses of high-altitude Tibetan, Andean, and Simien Plateau samples", with D. Andrew Merriwether (University of Michigan)
- 1997-2000 National Science Foundation Grant No. SBR-9706980, "Fitness and function of oxygen saturation genotypes in Tibet", co-P. I. with Carol M. Worthman (Emory University) and John Blangero (Southwest Foundation for Biomedical Research)
- 1997-2000 The Henry Luce Foundation "Socioeconomic effects of China's Socioeconomic reform policy in the Tibet Autonomous Region, co-P.I. Melvyn C. Goldstein (Case Western Reserve University)
- 1996-97 Research Program Scholar, Committee on Scholarly Communication with China, "Ten Year Longitudinal field study of the pastoral nomads of Phala, TAR"
- 1996-97 National Geographic Society Grant No. 5603-95, "Ten-year follow-up study of Tibetan Pastoral nomads in Tibet", co P. I. Melvyn C. Goldstein
- 1995 National Geographic Society Grant No. 5520-95 "Genetics of Ethiopian highlanders' hematologic adaptation to high altitude hypoxia"
- 1993 National Science Foundation Grant No. DBS 9221724 "Genetics of oxygen transport at high altitude"
- 1993 National Geographic Society Grant No. 4976-93 "Follow up field study of Tibetan Pastoral Nomadism" (Co-Principal Investigator Melvyn C. Goldstein)
- 1991 International Research and Exchange Board, "Field study of Mongolian Pastoral Nomadism".
- 1990 National Geographic Society, "High altitude hypoxia, testosterone levels and hemoglobin concentration of pastoral nomads in the Tibet Autonomous Region of China". (Co-Principal Investigator: Melvyn C. Goldstein).
- 1990 International Research and Exchange Board, "Field study of Mongolian Pastoral Nomadism".
- 1987 National Science Foundation Grant No. BNS-8704213, "Hypoxemia and Pastoral Nomads in the Tibetan Autonomous Region of China." (Co-Principal Investigator: Melvyn C. Goldstein).
- 1986-87 Western Reserve College, Research Incentives Program grant award, "Hemoglobin Concentration and Iron Status in Pucarani, Bolivia."
- 1986-87 American Federation for Aging Research (AFAR) grant award, "Aging and Adaptation to High Altitude Hypoxia in Bolivia".
- 1986-87 National Geographic Society Grant No. 3322-86, "Pastoral Nomads in Western Tibet" (Co-Principal Investigator: Melvyn C. Goldstein).
- 1986-87 National Academy of Sciences, National Program for Advanced Study and Research in China, "Tibetan Pastoral Nomadism: Cultural and Ecological Perspectives".
- 1986 Western Reserve College, Research Incentives Program grant award, "Hypoxemia of Bolivian High Altitude Natives".

1983 American Federation for Aging Research (AFAR) grant award, "Lifelong High Physical Activity Level and the Aging Process".

1983 National Geographic Society Grant No. 2641-83, "Lifelong High Physical Activity Levels and Biological Aging in Nepal".

1983 National Science Foundation Grant No. BNS82-19188, "The Effect of Lifelong High Levels of Physical Activity on the Aging Process" (Co-Principal Investigator: M.C. Goldstein).

1982 Case Western Reserve University, Office of Research Administration, Research Initiation Grant, "High Altitude Adaptation among Muslims of the Pakistani Karakorum Mountain Range".

1981 National Science Foundation Grant No. BNS-8014317, "Senescence and Growth at High Altitude".

1980 Case Western Reserve University, Office of Research Administration, Research Initiation Grant, "Physical Activity and Aging in Rugged Mountain Environments".

1980 Case Western Reserve University, Biomedical Research Award, "Physical Activity and Aging in Rugged Mountainous Environments: Differential Aging in Hindu Populations in Helambu, Nepal".

1979 Case Western Reserve University, Biomedical Research Award, "Biocultural Aspects of Aging among Sherpas". (Co-Principal Investigators: M.C. Goldstein, G.M. Brittenham).

1976 Case Western Reserve University, Biomedical Research Award, "Growth of Tamang Children at High Altitude in Nepal".

CONFERENCE GRANT AWARDS:

2008 National Center for Evolutionary Synthesis Catalysis Meeting Award, co-PI, "Human Evolution and adaptation to high-altitude hypoxia"

1993 Wenner-Gren Foundation for Anthropological Research. Grant No. 48-111 to aid conference on "Individual, Intra- and Inter-population variation in DNA" sponsored by Human Biology Council, in collaboration with Michael H. Crawford, University of Kansas.

RESEARCH OUTSIDE THE UNITED STATES:

2009: May – July, follow up study of Tibetan nomads and villagers

2007 & 2008: June-August, study of modernization and elderly Tibetan villagers

2007: December, Bale Mountains, Ethiopia: oxygen delivery of high-altitude Oromo

2005: June – August, Tibet Autonomous Region: follow-up study of Tibetan nomads and villagers.

2005: March – May, Semien Mountains, Ethiopia: oxygen delivery of high-altitude Amharas

2002 June-August, Tibet Autonomous Region: nitric oxide and oxygen delivery of high-altitude Tibetans

2000 June, Bolivia; July-August, Tibet Autonomous Region: exhaled nitric oxide of high-altitude natives

- 1997-98 December-March, Pembo, Tibet Autonomous Region: biological fitness and function of Tibetan villagers
- 1997 May-August, Phala, Tibet Autonomous Region: 10 year follow-up study of Tibetan pastoral nomads
- 1995 December, Amba Ras, North Gondar, Ethiopia: hematological adaptation to high altitude
- 1994 May-August, Ventilla, Provincia Murillo, Bolivia: genetics of oxygen transport.
- 1993 May-November, Lhasa Municipality, Tibet Autonomous Region, Peoples Republic of China: genetics of oxygen transport.
- 1993 July-August, December, Ningor Xiang, Namring Zone, Tibet Autonomous Region, Peoples Republic of China: seasonal variation in basal metabolic rate.
- 1991 May-June, Moct Som, Hovd Aimak, Mongolian Peoples' Republic: ecology of Mongolian pastoral nomadism.
- 1990 September-November, Moct Som, Hovd Aimak, Mongolian Peoples Republic: ecology of Mongolian pastoral nomadism.
- 1990 June-August, Phala Xiang, Namring Zone, Tibet Autonomous Region, Peoples' Republic of China: high altitude hypoxia, testosterone and hemoglobin concentrations.
- 1987-88 June-June, Phala Xiang, Namring Zone, Tibet Autonomous Region, Peoples' Republic of China: ecology and high altitude adaptation, growth, health and nutritional status of Tibetan nomads.
- 1987 April, Pucarani, Bolivia: hematological survey of adults in a rural high altitude zone.
- 1987 January-March, La Paz, Bolivia: aging, sleep and hematological adaptation to high altitude.
- 1986 May-August, Phala Shan, Namring Zone, Tibetan Autonomous Region, Peoples' Republic of China: high altitude adaptation of Tibetan nomads.
- 1983 May-September, Lamjung District, Nepal: physical fitness of elderly Nepalis in rugged and flat terrains.
- 1982 July-August, Kathmandu, Nepal: epidemiology of menopause among Nepalis and Newaris.
- 1981 May-October, Upper Chumik, Nepal: high altitude Tibetan growth and senescence.
- 1980-81 December-January, Palchok, Nepal: differential aging in Nepalese and Sherpas.
- 1979 July-August, Helambu, Nepal: biological aging in Sherpas.
- 1977 May-August, Mugu, Nepal: high altitude Tibetan growth.
- 1973-74 May-May, Puno and Tacna, Peru: altitude effects on fetal growth, infant mortality.
- 1971 May-August, Tambo Valley, Peru: high altitude migrants, health, growth, and development.

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