

## CURRICULUM VITAE

### NAME

Natalia S. Gavrilova

### CONTACT INFORMATION

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### EDUCATION

1982 Ph.D. Moscow State University, Anthropology and Population Studies.  
2003 M.S. The University of Chicago, Computer Science  
1977 M.S. Moscow State University, Chemistry.

### DISSERTATION TITLE

Biological Characteristics of Human Life Span. Moscow State University, 1982.

### POSITIONS HELD

1997 – current Senior Research Analyst, Center on Economics and Demography of Aging,  
NORC at the University of Chicago  
2005 – current Senior Research Associate, Department of Obstetrics and Gynaecology, The  
University of Chicago  
2005 – current Deputy Director, Chicago Core on Biomeasures in Population-Based Aging  
Research, Center on Economics and Demography of Aging  
2006 – current Faculty member, University of Chicago Center for East European and  
Russian/Eurasian Studies (CEERES)  
1993-1997 Senior Research Scientist, Institute for Systems Analysis, Russian Academy of  
Sciences, Moscow, Russia.  
1987-1993 Principal Research Scientist, Institute for Medical Information, Moscow, Russia.  
1983-1987 Senior Research Scientist, Institute for Medical Information, Moscow, Russia.  
1982-1983 Research Scientist, Biological Department, Moscow State University.  
1981-1982 Research Scientist, Institute of General Genetics, Academy of Sciences, Moscow,  
Russia.

### RESEARCH GRANTS AND PROJECTS:

2009-2013 NIH (R01 AG028620, PI - Leonid Gavrilov), "*Biodemography of Exceptional Longevity in the United States*" (Co-Investigator). \$1,245,525  
2006-2011 NICHD (R01 HD045531, PI - Michel Guillot) "*Mortality in Central Asia.*" (Co-Investigator). \$ 1,412,770.

- 2005-2007 NORC Academic Research Centers (PI- Stacy Lindau) "*Age and Gender Differences in Sexuality: Association with Current Health and Life Course Health Events in a Population-Based Sample*" (Co-Investigator). \$20,000.
- 2005-2006 Rutgers University (PI – Stacy Lindau) "*Age and Gender Differences in Sexuality: Association with Life Course Health Events*" (Co-Investigator). \$15,000.
- 2004-2005 NORC Academic Research Centers "*Familial Predictors of Exceptional Human Longevity*" (Principal Investigator). \$10,000.
- 2004-2005 Society of Actuaries, "*Search for predictors of exceptional human longevity.*" Principal Investigator. \$50,000.
- 2002-2003 Center on Aging pilot grant "*Mortality Crisis in Russia: New Health Threats*" (PI). \$10,000.
- 1999-2002 NASA (NAG9-1147, PI - Bruce Carnes), "*Radiation Risk Analysis: Model Issues and Interspecies Extrapolation*" (Co-Investigator).
- 1998-1999 NIH (R03 AG16138 "*Biodemographic aspects of longevity inheritance in humans*" Principal Investigator. \$50,000 (direct costs).
- 1996-1997 The European Union (INTAS grant #93-1617-ext), "*The Mechanisms of Human Longevity, an Association of Parental Characteristics and Longevity of Their Children - extension*". Co-PI: Representative of the International Research Team, with Guillaume Wunsch (Belgium), Jacques Vallin (France), Michael Murphy (UK) and Leonid Gavrilov (Russia). 18,000 ECU.
- 1995-1996 The European Union (INTAS grant #93-1617), 1995-96, "*The Mechanisms of Human Longevity, an Association of Parental Characteristics and Longevity of Their Children*". Co-PI: Representative of the International Research Team, with Guillaume Wunsch (Belgium), Jacques Vallin (France), Michael Murphy (UK) and Leonid Gavrilov (Russia). 40,000 ECU.
- 1994-1995 International Science Foundation (N7X300), 1995, "*Biomedical Basis of the Sex Differential in Human Lifespan*". Principal Investigator. \$30,000.

### **EDITORIAL BOARD**

Demografie, Advances in Aging Research, Biogerontology (2007-2012).

### **RESEARCH PROPOSAL REVIEWER**

- 2012 NIH Special Emphasis PAR Panel: Biodemography of Aging ZRG1 PSE-H (59)
- 2010 NIH Member Conflict: Epidemiology of Aging Panel ZRG1 PSE-B
- 2010 NIH Challenge Grant Panel ZRG1 PSE-J
- 2009 NIH Special Emphasis Panel ZRG1 PSE-C 90 S
- 2009 NIH Social Science and Population Studies Panel ZRG HOPB 90
- 2007 The Maurice Falk Institute for Economic Research in Israel

2005 NIH Social Science and Population Studies Panel ZRG HOPB 02

### **BOOKS**

Gavrilov L.A., Gavrilova N.S. *The Biology of Life Span: A Quantitative Approach*, NY: Harwood Academic Publisher, 1991, 385p.

Gavrilov, L.A., Gavrilova, N.S. *The Biology of Life Span* [Biologia prodolzhitel'nosti zhizni]. Monograph. 2nd edition. Moscow: Nauka, 1991.

Gavrilov, L.A., Gavrilova, N.S. *The Biology of Life Span*. [Biologia prodolzhitel'nosti zhizni]. Monograph. Moscow: Nauka, 1986.

### **BOOK CHAPTERS**

Gavrilova N.S., Gavrilov L.A. Aging Populations: Russia/Eastern Europe. In: P. Uhlenberg (Editor), *International Handbook of the Demography of Aging*, New York: Springer-Verlag, 2009, pp.113-131.

Gavrilova N.S., Gavrilov L.A. Genetic Influences in Later Life. In: D. Carr (Editor), *Encyclopedia of the Life Course and Human Development*, Macmillan Reference USA, 2009, vol.3, pp.165-170.

Gavrilov L.A., Gavrilova N.S. Mortality Measurement at Advanced Ages: A Study of the Social Security Administration Death Master File. *Living to 100 and Beyond: Survival at Advanced Ages* [online monograph]. The Society of Actuaries, 2008, 32 pages

Gavrilova N.S., Gavrilov L.A. Physical and Socioeconomic Characteristics at Young Age as Predictors of Survival to 100: A Study of a New Historical Data Resource (U.S. WWI Draft Cards). *Living to 100 and Beyond: Survival at Advanced Ages* [online monograph]. The Society of Actuaries, 2008, 23 pages.

Gavrilov LA, Gavrilova NS. Reliability Theory of Aging and Longevity. In: Masoro E.J. & Austad S.N.. (eds.): *Handbook of the Biology of Aging*, Sixth Edition. Academic Press. San Diego, CA, USA, 2006, 3-42.

Curtsinger JW, Gavrilova NS, Gavrilov LA. Biodemography of Aging and Age-Specific Mortality in *Drosophila melanogaster*. In: Masoro E.J. & Austad S.N.. (eds.): *Handbook of the Biology of Aging*, Sixth Edition. Academic Press. San Diego, CA, USA, 2006, 261-288.

Gavrilov LA, Gavrilova NS. Models of Systems Failure in Aging. In: P Michael Conn (Editor): *Handbook of Models for Human Aging*, Burlington, MA : Elsevier Academic Press, 2006. 45-68. ISBN 0123693918.

Gavrilova, N.S., Gavrilov, L.A. Human longevity and reproduction: An evolutionary perspective. In: Voland, E.; Chasiotis, A. & Schiefenhoewel, W. (eds.). *Grandmotherhood - The Evolutionary Significance of the Second Half of Female Life*. New Brunswick, NJ: Rutgers University Press, 2005, 59-80.

- Gavrilova, N.S., Gavrilov, L.A., Semyonova, V.G., Evdokushkina, G.N., Ivanova, A.E. 2005. Patterns of violent crime in Russia. In: Pridemore, W.A. (ed.). *Ruling Russia: Law, Crime, and Justice in a Changing Society*. Boulder, CO: Rowman & Littlefield Publ., Inc, 117-145.
- Gavrilova, N.S., Gavrilov, L.A. Search for Predictors of Exceptional Human Longevity. In: "*Living to 100 and Beyond*" Monograph. The Society of Actuaries, Schaumburg, Illinois, USA, 2005, pp. 1-49.
- Gavrilov, L.A., Gavrilova, N.S. Early-life factors modulating lifespan. In: Rattan, S.I.S. (Ed.). *Modulating Aging and Longevity*. Kluwer Academic Publishers, Dordrecht, The Netherlands, 2003, 27-50.
- Gavrilova, N.S., Gavrilov, L.A. Evolution of Aging. In: David J. Ekerdt (eds.) *Encyclopedia of Aging*, New York, Macmillan Reference USA, 2002, vol. 2, 458-467.
- Gavrilova, N.S., Gavrilov, L.A. Genetics: Ethnicity. In: David J. Ekerdt et al. (eds.) *Encyclopedia of Aging*, New York, Macmillan Reference USA, 2002, vol.2, 538-539.
- Gavrilov, L.A., Gavrilova, N.S. Genetics. In: David J. Ekerdt et al. (eds.) *Encyclopedia of Aging*, New York, Macmillan Reference USA, 2002, vol. 2, 536-538.
- Gavrilov, L.A., Gavrilova, N.S. Human longevity and parental age at conception. In: J.-M.Robine et al. (eds.) *Sex and Longevity: Sexuality, Gender, Reproduction, Parenthood*, Berlin, Heidelberg: Springer-Verlag, 2000, 7-31.
- Ermakov, S.P., Antonyuk, V.V., Gavrilova, N.S., Evdokushkina, G.N. Factographic Automated Information Reference System (FAISS-"Potential"). In: K. Peter (ed.). *Proceedings of the International Collaborative Effort on Automating Mortality Statistics*, Volume 1. Hyattsville, MD: NCHS, 1999. DHHS Publication No.(PHS) 99-1252. 19-1-19-2.
- Gavrilova N.S., Evdokushkina G.N., Ermakov, S.P., Gavrilov L.A. An analysis of the health and mortality data for the provinces of Russia. In: *International Population Conference*. Beijing, 1997. Liege: IUSSP, 1997, vol.3, 1245-1257.
- Ermakov, S.P., Gavrilova, N.S. Statistical analysis of the survival data. In E.B.Burlakova and L.A.Gavrilov (eds.) *Population Gerontology* [Populatsionnaya Gerontologia]. vol. 6. Moscow: VINITI, 1987, 155-189.
- Gavrilov, L.A., Semyonova, V.G., Gavrilova, N.S. Methods of analysis of the life tables. In: A.G. Vishnevskii (ed.) *Research Methods* [Metody issledovaniya], Moscow: Mysl', 1986, 96-110.
- Gavrilov, L.A., Gavrilova, N.S., and Semyonova, V.G. The life span. A system analysis. In: *Demographic processes and their regularities*, Moscow: Mysl', 1986, 89-109.
- Gavrilov, L.A., Gavrilova, N.S. Aging in cell cultures. In: *Biology of Aging* [Biologia starenia], 1982, 236-246. Leningrad: Nauka.
- Gavrilov, L.A., Semyonova, V.G., Gavrilova, N.S. On the feasibility of mortality forecasting by the methods of biological kinetics. In: *Issues on population reproduction and demographic policy*, Moscow: Institute of Sociological Studies of the USSR Academy of Sciences, 1982, 108-123.

Gavrilova, N.S., Semyonova, V.G., Gavrilov, L.A. A new principle for testing the mathematical theories of aging, mortality and lifespan. In *Gerontology and Geriatrics. Life extension: forecasts, mechanisms, control*, Kiev: Institute of Gerontology, 1979, 30-34.

### **JOURNAL ARTICLES**

Gavrilov L.A., Gavrilova N.S. Biodemography of exceptional longevity: Early-life and mid-life predictors of human longevity. *Biodemography and Social Biology*, 2012, 58(1):14-39.

Gavrilova N.S., Gavrilov L.A. Comments on dietary restriction, Okinawa diet and longevity. *Gerontology*, 2012, 58(3):221-3.

Gavrilova N.S., Gavrilov L.A., Severin, F.F. and Skulachev, V.P. Testing predictions of the programmed and stochastic theories of aging: Comparison of variation in age at death, menopause, and sexual maturation. *Biochemistry (Moscow)*, 2012, 77(7), 754-760.

Gavrilov L.A., Gavrilova N.S. Season of Birth and Exceptional Longevity: Comparative Study of American Centenarians, Their Siblings, and Spouses. *Journal of Aging Research*, 2011, Article ID 104616, 11 pages, doi:10.4061/2011/104616.

Gavrilov L.A., Gavrilova N.S. Mortality measurement at advanced ages: A study of the Social Security Administration Death Master File. *North American Actuarial Journal*, 2011, 15(3): 432-447.

Guillot M, Gavrilova N, Pudrovska T. Understanding the "Russian mortality paradox" in Central Asia: Evidence from Kyrgyzstan. *Demography*, 2011, 48(3): 1081-1104.

Gavrilova N.S., Gavrilov L.A. Ageing and Longevity: Mortality Laws and Mortality Forecasts for Ageing Populations [In Czech: Starnuti a dlouhovekost: Zakony a prognózy umrtnosti pro starnoucí populace]. *Demografie*, 2011, 53(2): 109-128.

Lindau, S.T. and Gavrilova, N. Sex, health, and years of sexually active life gained due to good health: evidence from two US population based cross sectional surveys of ageing. *British Medical Journal* 2010, 340: c810. <http://www.bmj.com/cgi/doi/10.1136/bmj.c850>

Gavrilova N.S., Gavrilov L.A. Search for Mechanisms of Exceptional Human Longevity. *Rejuvenation Research*, 2010, 13(2-3): 262-264.

Gavrilov L.A., Gavrilova N.S. Demographic Consequences of Defeating Aging. *Rejuvenation Research*, 2010, 13(2-3): 329-334.

Gavrilova N., Lindau S.T. Salivary sex hormone measurement in a national, population-based study of older adults. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 2009, 64, Suppl.1, i94-105. doi:10.1093/geronb/gbn028.

Gavrilova N.S., Gavrilov L.A. Can exceptional longevity be predicted? *Contingencies* [Journal of the American Academy of Actuaries], 2008, July/August issue, pp. 82-88.

Gavrilova N.S., Semyonova V.G., Dubrovina E., Evdokushkina G.N., Ivanova A.E., Gavrilov L.A. Russian Mortality Crisis and the Quality of Vital Statistics. *Population Research and Policy Review*, 2008, 27: 551-574.

Gavrilova N.S., Gavrilov L.A. Search for Predictors of Exceptional Human Longevity: Using Computerized Genealogies and Internet Resources for Human Longevity Studies. *North American Actuarial Journal*, 2007, 11(1): 49-67.

Gavrilova N.S., Gavrilov L.A. Authors' Reply in Discussion "Search for Predictors of Exceptional Human Longevity: Using Computerized Genealogies and Internet Resources for Human Longevity Studies." *North American Actuarial Journal*, 2007, 11(4): 135-138.

Lindau, S.T., Gavrilova N., Anderson, D. Sexual morbidity in very long term survivors of vaginal and cervical cancer: A comparison to national norms. *Gynecologic Oncology*, 2007, 106(2), 413-418.

Semyonova V.G., Dubrovina E.V., Gavrilova N.S., Evdokushkina G.N., Gavrilov L.A. Estimates of the real levels of violent death rates in Russia. *Public Health and Disease Prevention*, 2005, 3: 14-23.

Semyonova V.G., Dubrovina E.V., Gavrilova N.S., Evdokushkina G.N., Gavrilov L.A. Potential for trauma mortality in the Russian population of working age. *Public Health and Disease Prevention*, 2005, 2: 11-14.

Gavrilov LA, Gavrilova NS. Why We Fall Apart. Engineering's Reliability Theory Explains Human Aging. *IEEE Spectrum*, 2004, 41(9): 30-35.

Gavrilova NS, Gavrilov LA, Semyonova VG, Evdokushkina GN. Does exceptional human longevity come with high cost of infertility? Testing the evolutionary theories of aging. *Annals of the New York Academy of Sciences*, 2004, 1019: 513-517.

Gavrilov LA, Gavrilova NS. Early-life programming of aging and longevity: The idea of high initial damage load (the HIDL hypothesis). *Annals of the New York Academy of Sciences*, 2004, 1019: 496-501.

Gavrilov LA, Gavrilova NS. The reliability-engineering approach to the problem of biological aging. *Annals of the New York Academy of Sciences*, 2004, 1019: 509-512.

Ivanova A.E., Semyonova V.G., Gavrilova N.S., Evdokushkina G.N., Gavrilov L.A. Mortality trends: Role of particular age groups and causes of death in their shaping. *Public Health and Disease Prevention*, 2004, 6: 3-9.

Semyonova V.G., Gavrilova N.S., Evdokushkina G.N., Gavrilov L.A. Data quality of medical statistics as a problem of modern Russian health care. *Public Health and Disease Prevention*, 2004, 2: 11-18.

Ivanova A.E., Semyonova V.G., Gavrilova N.S., Evdokushkina G.N., Dubrovina E.V., Gavrilov L.A. Russian mortality in 1965-2002 -- major problems and opportunities for decrease. *Public Health and Disease Prevention*, 2004, 1: 20-30.

Gavrilova N.S., Gavrilov L.A., Evdokushkina, G.N., Semyonova, V.G. Early-life predictors of human longevity: Analysis of the 19th Century birth cohorts. *Annales de Demographie Historique*, 2003, 2: 177-198.

Gavrilov L.A., Gavrilova N.S. The quest for a general theory of aging and longevity. *Science's SAGE KE (Science of Aging Knowledge Environment)* for 16 July 2003; Vol 2003, No.28, 1-10. <http://sageke.sciencemag.org>

Ivanova A.E., Semyonova V.G., Gavrilova N.S., Evdokushkina G.N., Gavrilov L.A., Devichenskaya M.N. Age patterns of mortality in urban and rural population of Russia in the 1990s. *Disease Prevention and Health Promotion*, 2003, 1: 17-26.

Semenova V.G., Ivanova A.E., Gavrilova N.S., Evdokushkina G.N., Gavrilov L.A. Regional variation of mortality as an indicator of health decline in the Russian population. *Disease Prevention and Health Promotion*, 2003, 4: 9-14.

Gavrilov, L.A., Gavrilova, N.S. Evolutionary theories of aging and longevity. *TheScientificWorldJOURNAL*, 2002, 2: 339-356. Available: <http://www.thescientificworld.com/>

Gavrilov L.A., Gavrilova N.S., Olshansky S.J., Carnes B.A. Genealogical data and biodemography of human longevity. *Social Biology*, 2002, 49(3-4): 160-173.

Gavrilov L.A., Gavrilova N.S. The quest for the theory of human longevity. *The Actuary*, 2002, 36(5): 10-13.

Carnes, B.A., Gavrilova, N. and Grahn D. Pathology effects at radiation doses below those causing increased mortality. *Radiation Research*, 2002, 158: 187-194.

Ivanova A.E., Semyonova V.G., Gavrilova N.S., Evdokushkina G.N., Gavrilov L.A., Demchenko T.A. Mortality in Russia in the 1990s and reserves of its reduction: Trends and forecasting. *Disease Prevention and Health Promotion*, 2002, 3: 9-19.

Semyonova V.G., Ivanova A.E., Gavrilova N.S., Evdokushkina G.N., Gavrilov L.A. Regional mortality variation as an indicator of health deterioration in the Russian population. *Disease Prevention and Health Promotion*, 2002, 4: 9-14.

Semyonova V.G., Ivanova A.E., Gavrilova N.S., Evdokushkina G.N., Gavrilov L.A., Devichenskaya M.N. The medico-demographic situation in urban and rural areas: similarity and differences. *Disease Prevention and Health Promotion*, 2002, 5: 8-14.

Gavrilov L.A., Gavrilova N.S. The reliability theory of aging and longevity. *Journal of Theoretical Biology*, 2001, 213(4): 527-545.

Gavrilova, N.S., Gavrilov, L.A. When does human longevity start?: Demarcation of the boundaries for human longevity. *Journal of Anti-Aging Medicine*, 2001, 4(2): 115-124.

Gavrilov L.A., Gavrilova N.S. Epidemiology of human longevity: The search for appropriate methodology. *Journal of Anti-Aging Medicine*, 2001, 4(1): 13-30.

Gavrilov, L.A., Gavrilova, N.S. Biodemographic study of familial determinants of human longevity. *Population: An English Selection*, 2001, 13(1): 197-222.

Carnes, B.A., Gavrilova, N.S. Risk analysis: Divergent models and convergent interpretations. *Radiation Research*, 2001, 156: 628-630.

Gavrilov, L.A., Gavrilova, N.S. Etude biodemographique des determinants familiaux de la longevite humaine. *Population*, 2001, 56(1-2): 225-252 (in French).

Gavrilova, N.S., Semyonova, V.G., Evdokushkina G.N., Gavrilov, L.A. The response of violent mortality to economic crisis in Russia. *Population Research and Policy Review*, 2000, 19: 397-419.

Gavrilova, N.S., Gavrilov, L.A. Data resources for biodemographic studies on familial clustering of human longevity. *Demographic Research* [Online], 1999, vol.1(4): 1-48.

Gavrilov, L.A., Gavrilova, N.S. Season of birth and human longevity. *Journal of Anti-Aging Medicine*, 1999, 2(4): 365-366.

Gavrilov, L.A., Gavrilova, N.S. Is there a reproductive cost for human longevity? *Journal of Anti-Aging Medicine*, 1999, 2(2): 121-123.

Carnes, B.A., Olshansky, S.J., Gavrilov, L.A., Gavrilova, N.S., Grahn, D. Human longevity: Nature vs. Nurture - fact or fiction. *Perspectives in Biology and Medicine*, 1999, 42(3): 422-441.

Gavrilov, L.A., Gavrilova, N.S. How human longevity and species survival could be compatible with high mutation rates. *Journal of Anti-Aging Medicine*, 1999, 2(2): 153-154.

Gavrilova, N.S., Gavrilov, L.A., Evdokushkina G.N., Semyonova, V.G., Gavrilova, A.L., Evdokushkina, N.N., Kushnareva, Yu.E., Kroutko, V.N., Andreyev, A.Yu. Evolution, mutations and human longevity. *Human Biology*, 1998, 70(4): 799-804.

Gavrilov L.A., Gavrilova N.S., Semyonova V.G., Evdokushkina G.N., Kroutko V.N., Gavrilova A.L., Evdokushkina N.N., Lapshin E.V. Evolutionary theory, mutations and human life span. Proc. Russian Acad. Sci. [Doklady Akademii Nauk], 1998, 359(3): 426-427. English translation published in *Doklady Biological Sciences*, 1998, 359(3): 159-160.

Gavrilov L.A., Gavrilova N.S., Semyonova V.G., Evdokushkina G.N., Kroutko V.N., Gavrilova A.L., Evdokushkina N.N., Kushnareva Yu.E. The regularities of inheritance of human life span: contribution of paternal and maternal longevity to the offspring life span. Proc. Russian Acad. Sci. [Doklady Akademii Nauk], 1998, 360(2): 281-283. English translation published in *Doklady Biological Sciences*, 1998, 360: 250-252.

Gavrilov, L.A., Gavrilova, N.S. Parental age at conception and offspring longevity. *Reviews in Clinical Gerontology*, 1997, 7: 5-12.

Gavrilov L.A., Gavrilova, N.S., Kroutko, V.N., Evdokushkina, G.N., Semyonova, V.G., Gavrilova, A.L., Lapshin, E.V., Evdokushkina N.N., Kushnareva, Yu.E. Mutation load and human longevity. *Mutation Research*, 1997, 377(1): 61-62.

Gavrilov L.A., Gavrilova N.S., Semyonova V.G., Evdokushkina G.N., Kroutko V.N., Gavrilova A.L., Evdokushkina N.N., Lapshin E.V. Maternal age and offspring longevity, Proc. Russian Acad. Sci. [Doklady Akademii Nauk], 1997, 354(4): 569-572. English translation published in *Doklady Biological Sciences*, 1997, 354(4): 287-289.

Gavrilov, L.A., Gavrilova, N.S. Human reproduction in later life: a research project. *Health Care in Later Life*, 1997, 2(4): 275-276.

Gavrilov, L.A., Gavrilova, N.S. When Fatherhood Should Stop? Letter. *Science*, 1997, 277(5322): 17-18.

Gavrilov L.A., Gavrilova N.S., Snarskaya N.P., Semyonova V.G., Evdokushkina G.N., Gavrilova A.L., Lapshin E.V., Evdokushkina N.N. Paternal age and the life span of descendants. Proc. Russian Acad. Sci. [Doklady Akademii Nauk], 1995, 341(4): 566-568. English translation published in *Doklady Biological Sciences*, 1995, 341(4): 196-198.

Gavrilov, L.A., Gavrilova, N.S. Sex and longevity. Letter. *Nature*, 1994, 367(6463): 520.  
1993

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Gavrilov, L.A., Gavrilova, N.S. When your time's up. Letter. *British Medical Journal*, 1993, 306(6880): 796-796.

Gavrilov L.A., Gavrilova N.S., Semyonova V.G. Epidemiologic approach to the biology of human life span. *Geographia Medica*, 1985, 15: 40-64.

Gavrilov, L.A., Gavrilova, N.S. Historically stable indices of mortality and their use for medical geography. *Geographia medica*, 1984, 14: 305-306.

Gavrilov, L.A., Gavrilova, N.S., Nosov, V.N. Human life span stopped increasing: Why? *Gerontology*, 1983, 29(3): 176-180.

Gavrilov, L.A., Gavrilova, N.S. Historical perspective on the kinetic of human mortality. Proc. Acad. Sci. USSR [Doklady Akademii Nauk SSSR], 1979, 245(4): 1017-1020. English translation by Plenum Publ Corp: pp. 776-778.

Gavrilov, L.A., Gavrilova, N.S. Determination of species length of life. Proc. Acad. Sci. USSR [Doklady Akademii Nauk SSSR], 1979, 246(2): 465-469. English translation by Plenum Publ Corp: pp. 905-908.

Gavrilov, L.A., Gavrilova, N.S., Yaguzhinsky, L.S. The main regularities of animal aging and death viewed in terms of reliability theory. J. General Biology [Zhurnal Obshchey Biologii], 1978, 39(5): 734-742.

### **BOOK REVIEWS**

Gavrilov LA, Gavrilova NS. The Science of Staying Young [Book Review]. *The Quarterly Review of Biology*, 2008, 83(4): 420-421.

Gavrilov L.A., Gavrilova N.S. Evolution in Health and Disease [Book Review]. *The New England Journal of Medicine*, 2008, 359(17): 1856-1857.

Gavrilov LA, Gavrilova NS. Aging: The Paradox of Life: Why We Age [Book Review]. *The Quarterly Review of Biology*, 2008, 83(3): 325-326.

Gavrilov LA, Gavrilova NS. The Biology of Human Longevity: Inflammation, Nutrition, and Aging in the Evolution of Lifespans [Book Review]. *The Quarterly Review of Biology*, 2008, 83(1): 107-107.

Gavrilov L.A., Gavrilova N.S. The Longevity Revolution: The Benefits and Challenges of Living a Long Life [Book Review]. *The New England Journal of Medicine*, 2008, 358(20): 2187-2188.

Gavrilov L.A., Gavrilova N.S. The Quest for Human Longevity: Science, Business, and Public Policy [Book Review]. *The New England Journal of Medicine*, 2006, 354(19): 2663-2664.

Gavrilov, L.A., Gavrilova, N.S. Validation of exceptional longevity. Book Review. *Population and Development Review*, 2000, 26(2): 40-41.

### **TEACHING EXPERIENCES:**

Courses taught at the Department of Sociology, The University of Chicago (with Dr. L.Gavrilov):  
2000-2001 "Biodemography of Human Mortality and Longevity" (SOCI 219/319)

2008 "Demography of Russia and the Former Soviet Union" (SOCI 20182)

2010 "Demography of Russia and the Former Soviet Union" (SOCI 20182)

2008 – lectures at the UNPFA Educational Seminar "Contemporary Methods of Mortality Analysis," Bishkek, Kyrgyzstan, November 3-7, 2008.

2009 – lectures at the Seminar "Contemporary methods of mortality analysis," Charles University, Prague, Czechia, September 9-14, 2009.

2011 lecture at the UNPFA Educational Seminar "Mortality in Central Asia," Almaty, Kazakhstan.

2012 – lectures at the "Quantitative methods in demography workshop and tutorial," Chania, Greece, June 5-8.

### **TRAINING EXPERIENCES:**

2012 Human Research Curriculum for Social/Behavioral Sciences Investigators and Key Personnel (CITI Completion Certificate issued on 07/31/2012)

2002 NIH online course on Human Participants Protection Education (NIH Completion Certificate issued on 03/13/2002).

2002 "Topics in Bayesian Analysis" at the University of Chicago (Statistics 316)

### **PROFESSIONAL SOCIETIES**

Gerontological Society of America (GSA Fellow)

Population Association of America (PAA)

International Union for the Scientific Study of Population, IUSSP (1995-2006)

Social Science History Association (SSHA, 2001-2003)

European Association for Population Studies (EAPS, 1995-98)

Moscow Society of Naturalists

### **AD-HOC REVIEWER**

AGE (Journal of the American Aging Association)

American Journal of Human Biology

American Journal of Public Health

Annals of Epidemiology

Biogerontology  
 Biology Letters (Royal Society)  
 Comparative Economic Studies  
 Demography  
 Economics & Human Biology  
 European Journal of Population  
 Experimental Gerontology  
 Gender Medicine  
 Genus  
 Gerontology  
 International Journal of Epidemiology  
 Journal of the American Geriatrics Society  
 Journal of Anti-Aging Medicine  
 Journal of Gerontology  
 Journal of Theoretical Biology  
 Mathematical Population Studies  
 Mechanisms of Ageing and Development  
 Population  
 Population and Development Review  
 Population Research and Policy Review  
 Statistics in Medicine  
 Social Biology  
 Social Forces  
 TheScientificWorldJournal  
 Theoretical Population Biology

### **BOOK REVIEWER**

The New England Journal of Medicine  
 Population and Development Review  
 The Quarterly Review of Biology  
 Age and Ageing  
 Ageing and Society

### **OTHER PROFESSIONAL ACTIVITIES**

Consultant for the National Institute on Aging: National Institutes of Health Professional Service Contract #263 SDN74858 "Inventory of data resources on familial aggregation of human longevity that can be used in secondary analysis in biodemography of aging", 35pp. Submitted to NIA on 05/29/98.

Member of the Scientific Advisory Board of the Supercentenarian Research Foundation.

### **AWARDS AND HONORS:**

2010 "Who'sWho in America," Marquis Who'sWho, 2010 Edition  
 2009 Fellow, Gerontological Society of America  
 1997 Gordon Research Conference on the Biology of Aging. Travel award  
 1997 REVES10 International Meeting on Health Expectancy (Tokyo, October 9-12, 1997). Travel award from the Organizing Committee.

- 1996 U.S. Civilian Research and Development Foundation (CRDF), Proposal Development Program Award (grant #PDP48), 1996.
- 1994 International Science Foundation (ISF), 1994. Emergency Grant for Russian Scientists of the Top Category.
- 1993 International Science Foundation (ISF), 1993. Emergency Grant Award.
- 1991 A. N. Belozersky Institute, 1991. Award for the best scientific research at the Institute in 1990-1991.
- 1991 Trinity College, Cambridge University, UK. (Cambridge, December 1991). Travel award.
- 1989 Moscow Society of Naturalists, 1989. Award for the best scientific research in natural science in 1986-1988.

### **INVITED PRESENTATIONS (SELECTED, LAST TEN YEARS)**

- Gavrilov L.A., Gavrilova N.S. (2012, September). "New Estimates of Mortality Trajectories at Extreme Old Ages," Duke University Population Research Institute (DuPRI) Seminar Series.
- Gavrilova, N.S., Gavrilov, L.A. (2012, June). "New approaches to study historical evolution of mortality (with implications for forecasting)," Chania, Greece.
- Gavrilova N.S. (2011, October). "Global Population Aging and Human Capital Futures," The "Global Population and the Planetary Future - 2100" workshop, Foundation For the Future office, Bellevue, WA
- Gavrilov, L.A., Gavrilova, N.S. (2011, October). "Centenarians - an experiment of Nature," Series of lectures "Aging is not a destiny. Scientific opportunities of life extension," Moscow's Polytechnical Museum, Russia.
- Gavrilova N.S. (July, 2011). "Population surveys in demography: new developments in Russia and the United States" United Nations Population Fund (UNFPA) International Seminar 'Mortality in Central Asia,' Almaty, Kazakhstan.
- Gavrilov, L.A., Gavrilova, N.S. "Reliability theory of aging and longevity" (June, 2011). The second LEPAS workshop on the Economics of Aging, University of Alicante, Alicante, Spain
- Gavrilova, N.S., Gavrilov, L.A. (June, 2011). "How Much Would Late-Onset Interventions in Aging Affect Demographics?" The American Aging Association's 40th Annual Meeting "Mechanisms of Aging: Emerging Concepts," Pre-Meeting "Late Onset Intervention Against Aging: Tools, Approaches, Impact," Raleigh, NC.
- Gavrilova, N.S. (January, 2011). "Mortality Measurement and Modeling Beyond Age 100," "Living to 100" Society of Actuaries International Symposium, Orlando, Florida
- Gavrilov, L.A., Gavrilova, N.S. (2010, November). "How do Changes in Human Longevity Impact on our Demography?" International Congress "Our Common Future," Hannover-Essen, Germany.
- Gavrilova, N.S., Gavrilov, L.A. (2010, October). "Human Longevity and a New Vision of Aging" 3rd Annual Conference of Canadian Association of Retired Persons (CARP) on Aging & Health, Toronto, Canada

Gavrilova, N.S (2010, October). "Demographic Impact of Life Extension," Immlnst International Conference on Longevity, Brussels, Belgium

Gavrilov, L.A., Gavrilova, N.S. (2010, July). "How Long Will We Live in the 21st Century?" 8th Insurance-Linked Securities Summit, Bermuda

Gavrilov, L.A., Gavrilova, N.S. (2010, July). "Biodemography of Exceptional Longevity" Hannover Life Reassurance Bermuda Limited, Bermuda

Gavrilov, L.A., Gavrilova, N.S. (2010, May). "Comparative analysis of parameters of human ontogenesis and senescence" International Conference "From Homo sapiens to Homo sapiens liberatus" Moscow State University, Moscow, Russia

Gavrilov, L.A., Gavrilova, N.S. (2010, April). "Biodemography of exceptional longevity" University of Pennsylvania, Philadelphia

Gavrilova, N.S. (2010, February). "Comparative analysis of parameters of human development and senescence" International Conference "Bioenergetics: from the past till the present" Moscow State University, Moscow, Russia

Gavrilova, N.S. (2009, September). "Causes of death and methods of their analysis." Charles University in Prague, Czechia.

Gavrilova, N.S. (2009, September). "Search for mechanisms of exceptional human longevity" Forth Conference "Strategies for Engineered Negligible Senescence (SENS)," Queens' College, Cambridge, England

Gavrilova, N.S. (2008, November). "Population surveys, biomarkers and healthy life expectancy" UNPFA seminar "Contemporary Methods of Mortality Analysis," Bishkek, Kyrgyzstan

Gavrilova, N.S. (2008, January). "Physical and Socio-Economic Characteristics at Young Age as Predictors of Survival to 100. A study of a new historical data resource (the US WWI draft cards)" International Symposium "Living to 100 and Beyond: Survival at Advanced Ages" sponsored by Society of Actuaries, Orlando, FL

Gavrilova, N.S. (2007, November). "Predictors of Exceptional Human Longevity" Institute of Gerontology, Faculty of Medicine & Health Science, University Putra Malaysia (UPM), Malaysia

Gavrilova, N.S. (2007, November). "Use of biomarkers in population surveys" International Workshop on Human Longevity, Universiti Kebangsaan Malaysia (UKM), Malaysia

Gavrilova, N.S. (2007, August). "Hibernation, Aging and Longevity" International Conference on Aging & Longevity Studies "From Homo sapiens to Homo sapiens discatenatus," Moscow State University, Moscow, Russia

Gavrilov, L.A., Gavrilova, N.S. (2007, May). "Determinants of Exceptional Longevity" Dalhousie University, Halifax, Canada

Gavrilov, L.A., Gavrilova, N.S. (2007, April). "Biodemography of Human Longevity: New Methodological Approaches" Harvard School of Public Health, Harvard University

Gavrilov, L.A., Gavrilova, N.S. (2007, March). "Biodemography of Human Longevity: New Findings and Ideas" Center for Demography of Health and Aging (CDHA), University of Wisconsin-Madison

Gavrilova, N.S. (2006, August). "Testing Biological Theories of Aging with Demographic and Genealogical Data" Buck Institute for Age Research, Novato, CA

Gavrilov, L.A., Gavrilova, N.S. (2006, February). "Reliability-Theory Approach to Epidemiological Studies of Aging, Mortality and Longevity" Columbia University, Mailman School of Public Health

Gavrilov, L.A., Gavrilova, N.S. (2006, January). "Mortality Tables and Laws: Biodemographic Analysis and Reliability Theory Approach" International Conference "Longevity and Mortality Risks: Research Contributions" Paris, France

Gavrilova, N.S. (2005, October). "Testing Biological Ideas on Evolution, Aging and Longevity with Demographic and Genealogical Data" The University of California, Santa Cruz

Gavrilova, N.S. (2005, May). "Testing Biological Ideas on Evolution, Aging and Longevity with Demographic and Genealogical Data" The University of Chicago Department of Ecology and Evolution. The Ecology and Evolution Natural History Seminar

Gavrilova, N.S., Gavrilov, L.A. (2005, January). "Search for Predictors of Exceptional Human Longevity: Using Computerized Genealogies and Internet Resources for Human Longevity Studies" International Symposium "Living to 100 and Beyond: Survival at Advanced Ages" sponsored by the Society of Actuaries, Orlando, FL

Gavrilov, L.A., Gavrilova, N.S. (2004, May). "Using survival data as a predictive factor for survival or other outcomes" Workshop on Uses of Survival Data in Research on Factors Affecting Aging, National Institutes of Health, Bethesda

Gavrilova, N.S. (2004, March). "Genetics of Human Longevity: New Ideas and Findings" Inaugural International Conference on Longevity, Sydney, Australia

Gavrilova, N.S. (2004, February). "Patterns of violent crime in Russia" The Davis Center for Russian and Eurasian Studies at the Harvard University

Gavrilov, L.A., Gavrilova, N.S. (2003, October). "Limits on Human Lifespan and Molecular Effects on Ageing" International Seminar "Projecting Future Mortality" Sponsored by Continuous Mortality Investigation Bureau and the Government Actuary's Department, Edinburgh, UK

Gavrilov, L.A., Gavrilova, N.S. (2003, September). "Epidemiology of Human Longevity" Department of Social Medicine, University of Bristol, UK

Gavrilov, L.A., Gavrilova, N.S. (2003, September). "Does Exceptional Human Longevity Come With High Cost of Infertility? Testing the Evolutionary Theories of Aging." 10th Congress of the International Association of Biomedical Gerontology, Queens' College, Cambridge, UK

Gavrilov, L.A., Gavrilova, N.S. (2002, November). "Reliability theory of aging and longevity," Meeting "The Dynamic and Energetic Basis of Health and Aging," National Institutes of Health, Bethesda

Gavrilov, L.A., Gavrilova, N.S. (2002, September). International meeting "Grandmothers: The psychological, social, and reproductive significance of the second half of life." Hanse Institute of Advanced Science, Delmenhorst, Germany

### **PRESENTATIONS AT PROFESSIONAL MEETINGS (LAST FIVE YEARS)**

Gavrilov L.A., Gavrilova N.S. "Determinants of exceptional human longevity: new ideas and findings," Presented at the International Conference "Determinants of Unusual and Differential Longevity," Vienna, Austria, November, 2012.

Gavrilova N.S, Gavrilov L.A. " Biodemography of Old-Age Mortality in Humans and Rodents" Paper presented at the Annual meeting of the Gerontological Society of America, San Diego, CA, November 2012.

Gavrilov L.A., Gavrilova N.S. " Familial Factors in Longevity: Exploring Complex Environmental and Genetic Effects" Paper presented at the Annual meeting of the Gerontological Society of America, San Diego, CA, November 2012.

Gavrilova N.S, Gavrilov L.A. "Mortality Measurements and Mortality Trajectories at Advanced Ages," International conference "New measures of mortality - what do they mean?" Estonian Institute for Population Studies, Tallinn University, Tallinn, Estonia, September, 2012.

Gavrilova, N.S., Gavrilov, L.A. "Month of Birth and Exceptional Longevity: A Within-Family Analysis." Paper presented at the Annual Meeting of the Population Association of America, San Francisco, CA, May, 2012.

Gavrilova N.S, Gavrilov L.A. "New Estimates of Mortality Trajectories at Extreme Old Ages" Paper presented at the Annual meeting of the Gerontological Society of America, Boston, MA, November 2011.

Gavrilov L.A., Gavrilova N.S. "Sex differences in familial transmission of human longevity." Meeting of the International Network on Health Expectancy (REVES), Paris, France, May, 2011.

Gavrilova, N.S., Gavrilov L.A. "Old-Age Mortality Measurement and Modeling." Presented at the Annual Meeting of the Population Association of America, Washington, DC, March-April, 2011.

Gavrilova, N.S., Ivanova, A.E., Semyonova, V.G., Gavrilov L.A. "Ethnic Differentials of Mortality in Russia and the Role of Socio-Economic Conditions." Paper presented at the Annual Meeting of the Population Association of America, Dallas, TX, April, 2010.

Guillot, M., Gavrilova, N.S. "Divergent paths for adult mortality in Russia and Central Asia: evidence from Kyrgyzstan." Paper presented at the Annual Meeting of the European Association of Population Studies, Vienna, Austria, September, 2010.

Gavrilov L.A., Gavrilova N.S. "Can We Measure Biological Age?" Paper presented at the Annual meeting of the Gerontological Society of America, Atlanta, GA, November 2009.

Gavrilov L.A., Gavrilova N.S. "Body Size in Midlife and Exceptional Longevity: A Study of the US WWI Draft Registration Cards." Presented at the XIXth IAGG World Congress of Gerontology and Geriatrics, Paris, France, 5-9 July, 2009

Gavrilov L.A., Gavrilova N.S. "Physical characteristics at midlife and survival to age 100: A study of American men." Paper presented at the Meeting of the International Network on Health Expectancy (REVES), Copenhagen, Denmark, 27-29 May, 2009.

Lindau S.T., Gavrilova N.S. "Are Sex Hormones Biomarkers of Sexual Function in Later Life?" Paper presented at the Annual Meeting of the Population Association of America, Detroit, April-May, 2009.

Gavrilova, N.S., Gavrilov L.A. Midlife Predictors of Exceptional Longevity: A Study of the U.S. WWI Draft Registration Cards. Presented at the Annual Meeting of the Population Association of America, Detroit, April-May, 2009.

Gavrilov L.A., Gavrilova N.S. New Findings on Human Longevity Predictors. Paper presented at the Annual meeting of the Gerontological Society of America, National Harbor, MD, November 2008.

Lindau, S.T., Gavrilova, N.S. Population gender differences in the effects of obesity on later life sexuality and sexually active life expectancy. Paper presented at the Annual meeting of the Gerontological Society of America, National Harbor, MD, November 2008.