

CURRICULUM VITAE

Name: Li, Ching Chun (C.C. Li)

Birth date: October 27, 1912

Birthplace: China, Tientsin

Death date: October 20, 2003

Citizenship: U. S. A.

Business Address: Graduate School of Public Health
Department of Human Genetics
University of Pittsburgh
Pittsburgh, PA 15261
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EDUCATION AND TRAINING

Undergraduate

1932 - 1936	University of Nanking Nanking, China	B. S. 1936	Agronomy
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Graduate

1937 - 1940	Cornell University Ithaca, New York	Ph. D. 1940	Plant Breeding and Genetics
1940 (summer)	University of Chicago Chicago, Illinois	1940	Mathematics
1940 - 1941	Columbia University New York City, New York	Postdoctorate 1941	Mathematical Statistics
1941 (summer)	North Carolina State College Raleigh, North Carolina	Postdoctorate 1941	Experimental Statistics

APPOINTMENTS AND POSITIONS

Academic

1943 - 1946	University of Nanking Nanking, China	Professor of Genetics and Biometry
1946 - 1950	National Peking University Peking, China	Professor and Chairman, Department of Agronomy
1951 - 1954	University of Pittsburgh	Research Fellow
1954 - 1958	Graduate School of Public Health	Assistant Professor
1958 - 1960	Pittsburgh, Pennsylvania	Associate Professor
1960 - 1969		Professor of Biometry
1969 - 1975		Professor and Department Head, Professor of Biometry and Human Genetics
1975 - 1982	University of Pittsburgh Department of Human Genetics Graduate School of Public Health Pittsburgh, Pennsylvania	Professor of Biometry and Human Genetics
1982 - 2003	University of Pittsburgh Department of Human Genetics Graduate School of Public Health Pittsburgh, Pennsylvania	Emeritus Professor of Biostatistics and Human Genetics

Visiting Professorship

1957 (summer)	Cornell University, College of Agriculture. Ithaca, New York.
1961 (summer)	University of Minnesota, School of Public Health. Minneapolis, Minnesota.
1961 (fall)	University of Pavia, Institute of Genetics. Pavia, Italy.
1963 (summer)	University of North Carolina, School of Public Health. Chapel Hill, North Carolina.
1964 (summer &	Chinese Academy of Sciences. Taipei Taiwan.

fall)	National Taiwan University. Taipei, Taiwan.
1968 (fall)	University of California, School of Public Health. Berkeley, California
1971 (fall)	International Congress of Human Genetics. Taiwan-Paris.
1972 (summer)	University of California, School of Public Health. Berkeley, California
1974 (summer)	University of Minnesota, School of Public Health, Epidemiologic Section. Minneapolis, Minnesota
1977 (summer)	University of Minnesota, School of Public Health, Epidemiologic Section. Minneapolis, Minnesota
1979 (summer)	University of Minnesota, School of Public Health, Epidemiologic Section. Minneapolis, Minnesota
1982	University of California at Los Angeles (UCLA)
1983 (spring)	University of Minnesota, School of Public Health, Epidemiologic Section. Minneapolis, Minnesota
1983	Erasmus Universiteit. Rotterdam, The Netherlands

MEMBERSHIPS IN PROFESSIONAL AND SCIENTIFIC SOCIETIES

American Association for the Advancement of Science
 American Eugenics Society
 American Genetic Association
 American Institute of Biological Sciences
 American Public Health Association
 American Society of Human Genetics
 American Society of Naturalists
 American Statistical Association
 Genetics Society of America
 Population Reference Bureau
 Society for the Study of Evolution
 The Biometric Society

HONORS **(elected positions)**

Fellow	American Association for the Advancement of Science
Fellow	American Statistical Association
Fellow (1970)	Population Reference Bureau Pittsburgh Statistician of the Year
(1960)	President, American Society of Human Genetics
Member	Academia Sinica (Chinese Academy)
Member	International Statistical Institute (ISI)
Council Member & Board Member	Associate Editor of various societies and journals

PUBLICATIONS

Original Reports

Li CC: A direct proof of the relation between genotypic mating correlation and gametic uniting correlation in equilibrium populations. *J Hered* 1953; 44:3940.

Li CC: On an equation specifying equilibrium populations. *Science* 1953; 117:378-379.

Li CC: Is RH facing a crossroad? A critique of the compensation effect. *Am J Natural* 1953; 87:257-261.

Li CC: Some general properties of recessive inheritance. *Am J Hum Genet* 1953; 5:269-279.

Li CC, Horvitz DG: Some methods of estimating the inbreeding coefficient. *Am J Hum Genet* 1953; 5:107-117.

Glass HB, Li CC: The dynamics of racial intermixture - an analysis based on the American Negro. *Am J Hum Genet* 1953; 5:1-20.

Li CC, Sacks L: The derivation of joint distribution and correlation between relatives by the use of stochastic matrices. *Biometrics* 1954; 10:347-360.

Li CC: The correlation between parents and offspring in a random mating population. *Am J Hum Genet* 1954; 6:383-386.

Li CC: The stability of an equilibrium and the average fitness of a population. *Am J Natural*

- 1955; 89:281-296.
- Li CC:** A diagrammatic representation of the sum of squares and products. *J Am Stat Assoc* 1955; 50:1056-1063.
- Li CC:** The concept of path coefficient and its impact on population genetics. *Biometrics* 1956; 12:190-210.
- Li CC:** The components of sampling variance of ABO gene frequency estimates. *Am J Hum Genet* 1956; 8:133-137.
- Li CC:** Repeated linear regression and variance components of a population with binomial frequencies. *Biometrics* 1957; 13:225-234.
- Li CC:** The genetic variance of autotetraploids with two alleles. *Genetics* 1957; 42:583-592.
- Lewis JH, **Li CC:** Genetic considerations in hemophilia A and B. *Proceedings of X International Congress of Genetics* 1958; 2:168.
- Li CC:** A clinical study of the comparative effect of nitrogen mustard and DON in patients with bronchogenic carcinoma, Hodgkin's Disease, lymphosarcoma, and melanoma. *J Natl Cancer Inst* 1959; 22:433-439.
- Li CC:** Notes on relative fitness of genotypes that form a geometric progression. *Evolution* 1959; 13; 564-567.
- DeGroot MH, **Li CC:** Simplified method estimation the MNS gene frequencies. *Ann Hum Genet* 1960; 24:109-115.
- Li CC:** A diagrammatic representation of the proportions of genotypes and phenotypes in a panmictic population. *Ann Hum Genet* 1960; 24:117-119.
- Li CC:** McGraw-Hill Encyclopedia of Science and Technology. *Biometrics* 1960; 1:223-232.
- Li CC:** McGraw-Hill Encyclopedia of Science and Technology. *Hum Genet* 1960; 2:497-513.
- Li CC:** McGraw-Hill Encyclopedia of Science and Technology. *Population Genet* 1960; 2:506-512.
- Li CC:** The diminishing jaw of civilized people. *Am J Hum Genet* 1961; 13:1-8.
- Li CC:** Reinhold Encyclopedia of Biological Sciences. *Population Genet* 1961; 818-822.
- Li CC:** Genetical methods for epidemiological investigations: A synthesis. *Ann NY Acad Sci*

1961; 91:806-812.

Li CC: Genetics (in Communist China). *The China Quarterly*. London. 1961; 6:144-152.

Smith CAB, **Li CC:** Estimation of linkage using Iwee'die's method. Second International Conference on Human Genetics (Rome), *Proceedings*. 1961; 175-177 (E146-147).

Wald N, Borges WH, **Li CC**, Turner JH, Harnois MC: Leukemia associated with mongolism. *Lancet* 1961; i:1228.

Li CC: Estimating the degree of mating propensity. *Evolution* 1961; 15:543-544.

Li CC: On "reflexive selection." *Science* 1962; 136:1055-1056.

Li CC: Blood groups and disease. *Lancet* 1962; 2:98-99.

Li CC: Decrease of population fitness upon inbreeding. *Proc Natl Acad Sci USA* 1963; 49:439-445.

Li CC: Genetic aspects of consanguinity. *Am J Med* 1963; 34:702-714.

Li CC: The way the load ratio works. *Am J Hum Genet* 1963; 15:316-321..

Li CC: Equilibrium under differential selection in the sexes. *Evolution* 1963; 17:493-496.

Li CC, Lewis JH, Didisheim P, Ferguson IH: Genetic considerations in familial hemorrhagic disease. I. The sex-linked recessive disorders, hemophilia and RC deficiency. *Am J Hum Genet* 1963; 15:5341.

Boyd WC, **Li CC:** Rates of selective action on unifactorial and multifactorial traits. *Am J Physic Anthropol* 1963; 21:521-526.

Kaplan B, **Li CC**, Wald N, Borges WH: ABO frequencies in mongols. *Ann Hum Genet* 1964; 27:405-412.

Li CC: Estimate of recessive proportion by first appearance time. *Ann Hum Genet* 1964; 28:177-180.

Li CC: Two additional views of linear regression coefficients. *Am Stat* 1964; 18:27-28.

Li CC: The hemophilia gene in the population. *Proceedings of International Conference on Hemophilia*. University of North Carolina Press, Chapel Hill. 1964.

- Li CC:** Segregation of Ellis-van Creveld syndrome as analyzed by the first appearance method. *Am J Hum Genet* 1965; 17:343-351.
- O'Brien WM, **Li CC**, Taylor FH: Penetrance and the distribution of sib-pair types, exemplified by taste ability and rheumatoid arthritis. *J Chron Dis* 1965; 18:675-680.
- Li CC:** Mutation as a dynamic agent in Mendelism. *Mutation in Populations*. Prague 1966; 13.
- Li CC:** A new method of studying Mendelian segregation in man. *Mutation in Populations*. Prague 1966; 155-166.
- DeGroot MH, **Li CC:** Correlation between similar sets of measurements. *Biometrics* 1966; 22:781-790.
- Li CC:** Castle's early work on selection and equilibrium. *Am J Hum Genet* 1967; 19:70-74.
- Li CC:** Fundamental theorem of natural selection. *Nature* 1967; 214:505-506.
- Li CC:** The maximization of average fitness by natural selection for a sex-linked locus. *Proc Natl Acad Sci USA* 1967; 57:1260-1261.
- Li CC:** Genetic equilibrium under selection. *Biometrics* 1967; 23:397-484.
- Li CC**, Mantel N: A simple method of estimation the segregation ratio under complete ascertainment. *Am J Hum Genet* 1968; 20:61-81.
- Li CC:** Fisher, Wright, and path coefficients. *Biometrics* 1968; 24:471-483.
- Rao BR, Garg M, **Li CC:** Correlation between the sample variances in a singly truncated bivariate normal distribution. *Biometrics* 1968; 55:433-436.
- Li CC:** Increment of average fitness for multiple alleles. *Proc Natl Acad Sci USA* 1969; 62:395-398.
- Li CC:** Population subdivision with respect to multiple alleles. *Ann Hum Genet* 1969; 33:23-29.
- Falk C, **Li CC:** Negative assortative mating: exact solution to a simple model. *Genetics* 1969; 62:215-223.
- Li CC**, Falk C: Random mating between two sets of genotypes. *Biometrische Zeitschrift*, 1969; 11:361-373.
- Li CC:** Table of variance of ABO gene frequency estimates. *Ann Hum Genet* 1970; 34:189-194.

- Li CC:** Unsymmetric equilibria under two-locus symmetric selection model. *J Hered* 1971; 62:47-48
- Waller JH, Rao BR, **Li CC:** Heterogeneity of childless families. *Soc Biol* 1973; 20:133-138.
- Rao BR, Mazumdar S, Waller JH, **Li CC:** Correlation between the numbers of two types of children in a family. *Biometrics* 1973; 29:271-279.
- Mantel N, **Li CC:** Estimation and testing of a measure of non-random mating. *Ann Hum Genet* 1974; 37:445-454.
- Li CC:** Assortative mating in man. *Proc Second Mexican Society of Genetics*. 1974; 48-108.
- Li CC:** De quelques proprietes generales de la genetique quantitative appliquee aux populations humaines. *L'Orthodontie Francaise, Extraits du*. 1975; 46:55-69.
- Li CC:** Path coefficients and derivatives. *Biometrische Zeitschrift* 1975; 17:213-215.
- Li CC,** Mazumdar S, Rao BR: Partial correlation in terms of path coefficients. *Am Statist* 1975; 29:89-90.
- Li CC,** Mazumdar S: Analysis of dichotomized factorial data. *J Chron Dis* 1976; 29:355-370.
- Li CC:** The testing of dominants for heterozygosity. *Ann Hum Genet* 1976; 40:183-190.
- Li CC,** Mazumdar S: Analysis of dichotomized factorial data. *J Chron Dis* 1976; 29:355-370.
- Li CC:** Separation of common environment and dominance effects with classic kinship correlation models. *Soc Biol* 1977; 4:259-266.
- Li CC:** On measuring genetic distance by selection intensity. *Ann Hum Genet* 1978; 41:501-504.
- Li CC:** Progress of the kinship correlation models. In Morton NE Chung CS, eds: *Genetic Epidemiology*. Academic Press, New York, 1978, 55-86.
- Li CC:** The genetical and environmental contributions to kinship correlations. *Proceedings of the Golden Jubilee of Academia Sinica*, Mielke JM, Crawford MH, eds: Taipei Taiwan. 1978; 397-417.
- Li CC:** Half sib analysis for quantitative data. In J.M. Mielke, M.H. Crawford, eds: *Current Developments in Anthropological Genetics*. Plenum Publishing Corp., New York, 1978;

1:373-396.

Mazumdar S, Li CC, Bryce R: Correspondence between a linear restriction and a generalized inverse in linear model analysis. *Am Statist* 1980; 34:103-105.

Li CC, Mazumdar S: A type of orthogonal contrasts for unbalanced data. *Biometrics* 1981; 23:645-651.

Rao BR, Li CC: The geometry of path coefficients and correlations. *Biometrical J* 1982; 24(8):673-378.

Chakravarti A, Li CC: The effect of linkage on paternity calculations. In: *Inclusion Probabilities in Parentage Testing*. Am Assoc Blood Banks, Arlington, VA., 1983; 411-422.

Li CC, Chakravarti A: On the exclusion and paternity probabilities. In: *Inclusion Probabilities in Parentage Testing*. Am Assoc Blood Banks. Arlington, VA. 1983; 609-622.

Chakravarti A, Li CC: The probability of exclusion based on the HLA locus. *Am J Hum Genet* 1983; 35:1048-1052.

Chakravarti A, Li CC, Buetow KH: Estimation of the marker gene frequency and linkage disequilibrium from conditional marker data. *Am J Hum Genet* 1984; 36:177-186.

Chakravarti A, Li CC: Estimating the prior probability of paternity from the results of exclusion tests. *Forensic Sci Internatl* 1984; 24:143-147.

Li CC: Some methodological developments in genetic epidemiology. In DC Rao et al, eds: : *Genetic Epidemiology of Coronary Heart Disease; Past, Present and Future*. Alan R. Liss, New York, 1984; 159-172.

Li CC: Evaluation of direct and joint effects in a causal system. *Proceedings of Second Symposium on Mathematical Statistics and Probability*. Taipei, Taiwan. 1984.

Li CC, Chakravarti A: Basic fallacies in the formulation of the paternity index. *Am J Hum Genet* 1985; 37:809-818.

Li CC, Chakravarti A: Some fallacious thinking about the paternity index: A reply to Dr. Jask Valentin's comments. *Am J Hum Genet* 1986; 38:586-589.

Li CC: Inbreeding and the balance between selection and mutation. In Gershowitz H, Rucknagel DL Tashian RE, eds: *Evolutionary Perspectives and the New Genetics*. Alan R. Liss, New York, 1986; 31-44.

- Li CC:** A method of subdividing genetic data into self-contained subsets. *Ann Hum Genet* 1986; 50:259-270.
- Li CC:** The effect of father's education on child's cognitive ability. *Soc Biol* 1986; 33:316-321.
- Li CC:** A genetical model for emergencies. In memory of Laurence H. Snyder (1901-1986). *Am J Hum Genet* 1987; 41:517-523.
- Li CC:** Lysenkoism in China. *J Hered* 1987; 78:339-340.
- Li CC:** To the memory of the fallen: Nikolai Ivanovich Vavilov (1887-1943). *J Hered* 1987; 78:343.
- Li CC, Chakravarti A, Halloran SL:** Estimation of segregation and ascertainment probabilities by discarding the single probands. *Genet Epidemiol* 1987; 4:185-191.
- Chakravarti A, Badner JA, Li CC:** Tests of linkage and heterogeneity in Mendelian diseases using identity by descent scores. *Genet Epidemiol* 1987; 4:255-266.
- Li CC:** Steinberg's new paternity probability. *Am J Hum Genet* 1988; 42:390-391.
- Li CC:** Pseudo random mating populations: In celebration of the 80th anniversary of the Hardy-Weinberg Law. *Genetics* 1988; 119:731-737.
- Li CC, Chakravarti A:** An expository review of two methods of calculating the paternity probability. *Am J Hum Genet* 1988; 43:197-205.
- Majumder PP, Das SK, Li CC:** A genetical model for vitiligo. *Am J Hum Genet* 1988; 43:119-125.
- Li CC:** Method of path coefficients: A trademark of Sewall Wright. *Hum Biol* 1991; 63:1-17.
- Li CC:** Genetics of subdivided populations and its relationships with certain measures of association. *Genet Epidemiol* 1991; 8:1-11.
- Li CC, Weeks DE, Chakravarti A:** A similarity of DNA fingerprints due to chance and relatedness. *Hum Hered* 1993; 43:45-52.
- Li CC, Chakravarti A:** DNA profile similarity in a subdivided population. *Hum Hered* 1994; 44:100-109.
- Weeks DE, Young A, Li CC:** DNA profile match probabilities in a subdivided population: When can subdivision be ignored? *Proc Natl Acad Sci USA* 1995; 92:12031-12035.

- Li CC:** Population genetics of coincidental DNA matches. *Hum Biol* 1996; 68:167-184.
- Guo SW, Zheng CJ, **Li CC:** "Gene war of the century"? *Science* 1997; 278:1693-1694.
- Guo SW, Zheng CJ, **Li CC:** Dilemma over genetics and population in China. *Nature* 1998; 394:313-314.
- Li CC:** 1998 ASHG Award for Excellence in Education. Remarks on receiving the ASHG award: science and science education. *Am J Hum Genet* 1999; 64:16-17.
- Li CC:** Progressing from eugenics to human genetics. Celebrating the 70th birthday of professor Newton E. Morton. *Hum Hered* 2000; 50:22-33.

Reviews

- Li CC:** Genetics of population structure. *J Hered* 1955; 46:57-58.
- Li CC:** Human heredity. *J Hered* 1955; 46:283-284.
- Li CC:** Genetic variability in populations. *Quart Rev Biol* 1957; 32:167-170.
- Li CC:** An introduction to genetic statistics. *Am J Hum Genet* 1958; 10:72-75.
- Li CC:** The genetic basis of selection. *Am J Hum Genet* 1959; 11:84-86.
- Li CC:** The analysis of variance. *Quart Rev Biol* 1961; 2:154.
- Li CC:** Modern probability theory and its applications. *Quart Rev Biol* 1961; 3:245-246.
- Li CC:** Genetic mechanisms in human disease; Chromosomal aberrations. *J Am Med Assoc* 1962; 181:455.
- Li CC:** Genetical variation in human populations. *JAMA* 1962; 181:567.
- Li CC:** Statistical processes of evolutionary theory. *Am J Hum Genet* 1962; 14:438-439.
- Li CC:** Methodology in human genetics. *Science* 1962; 138:807-808.
- Li CC:** Changing perspectives on the genetic effects of radiation. *JAMA* 1963; 185:675.
- Li CC:** Elementary medical statistics. *JAMA* 1963; 186:1027.

- Li CC: Elements of medical statistics. *JAMA* 1964; 188:242-243.
- Li CC: The effects of inbreeding on Japanese children. *JAMA* 1966; 195:974.
- Li CC: Human genetics and public health. *Eugenics Quart* 1966; 13:169-170.
- Li CC: Research in population genetics of primitive groups. *Eugenics Quart* 1966; 13:170-171.
- Li CC: The correlation between relatives on the supposition of Mendelian inheritance. *Quart Rev Biol* 1967; 42:425-426.
- Li CC: A programmed introduction to statistics. *Technometrics* 1968; 10:411.
- Li CC: The groundwork for a genetic study. *Science* 1969; p. 163.
- Li CC: Topics in population genetics. *Am J Hum Genet* 1969; 21:410-411.
- Li CC: "Simplified" population genetics. *J Hered* 1969; 60 :238.
- Li CC: More fuel for the genetic-load stove. *J Hered* 1970; 61:105-106.

Invited Published Papers

- Li CC: Environment changes: The implications for health from the viewpoint of a geneticist. *National Health Forum*. 1964; 79-83.

Books

- Introduction to Population Genetics*. National Peking University Press. 1948.
- Heredity and its Variability* (by Lysenko TD). Chinese translation, New China Book Co. 1949.
- Soviet Genetics and World Science* (by Julian Huxley). Chinese translation, Taipei, Taiwan. 1953
- Population Genetics*. University of Chicago Press. 1955.
- Numbers from Experiments*. Boxwood Press. 1959.
- Human Genetics, Principles and Methods*. McGraw-Hill Book Co. 1961.
- Introduction to Experimental Statistics*. McGraw-Hill Book Co. 1964.
- First Course in Population Genetics*. Boxwood Press. 1975.

Path Analysis, A Primer. Boxwood Press. 1975.

Analysis of Unbalanced Data A Pre-Program Introduction. Cambridge University Press. Cambridge, England. 1982.

Book Chapters

Li CC: Some methods of studying human genetics. 1954.
I. Segregation of recessive offspring
II. The severity of an abnormality
III. Methods for establishing the genetic role
IV. Linkage versus association

Li CC: Genetics, and animal and plant breeding. *Sciences in Communist China AAAS.* 1961; 68:297-321.

Li CC: Mutation, selection, and population fitness. *In Mutation and Plant Breeding. Nat. Acad. Sci Nat. Res.* 1961; Council #891:3047.

Li CC: Human genetic adaptation. *Evolution & Genetics in Honor of Theodosius Dobzhansky.* Appleton-Century-Crofts, New York. 1970; 545-577.

Li CC: The incomplete binomial distribution. In Kojima, ed: *Mathematical Topics in Population Genetics.* Springer-Verlag, Inc., New York. 1970; 337-366.

Li CC: A tale of two thermos bottles: properties of a genetic model for human intelligence. In R Cancro, ed: *Intelligence: Genetic and Environmental Influence.* Grune & Stratton, Inc. New York. 1970; 162-181.

PROFESSIONAL ACTIVITIES

Teaching

Biostatistics 214 - Experimental Statistics

Biostatistics 220 - Path Analysis

Biostatistics 215 - Analysis of Non-orthogonal Data

Human Genetics 220 - Human Population Genetics

Other Lectures

Medical Genetics (with Dr. Mark Steele, Medical School)
PH. 201 *Human Biology*

Doctoral Thesis: Howard Turner
 Marion Harnois
 Catherine T. Falk
 Kenneth L. Garver
 Patricia Potrzebowski
 Seishi W. Oka

University-Member The Interdisciplinary Committee for Psychological Physics

State-Member State Health Research Advisory Committee

Federal-Member Congressional Commission for the Control of
 Huntington's Disease and Its Consequences