

## Biographical Sketch (1/2021)

NAME <b>GAD RENNERT</b>	POSITION TITLE <b><u>Professor and Chairman, Dept. Community Medicine and Epidemiology, Carmel Medical Center and The Chil and Berta Weissman Chair in Precision Medicine, B. Rappaport Faculty of Medicine, Technion and Director, Clalit National Cancer Control Center</u></b>		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEARS	FIELD OF STUDY
University of the Negev, Beer Sheba, Israel	M.D.	1978-1985	Medicine
University of North Carolina, Chapel Hill, USA	Ph.D.	1986-1988	Epidemiology/Public Health
<p>My research interests are in molecular/genetic cancer epidemiology, cancer prevention and screening and in molecular or personalized targeted medicine. A particular area of focus of my work has been the interaction between behavioral / environmental risk factors for cancer, and the role of genetic events (mutations, polymorphisms/variants, gene-expression) in the causation of breast, colorectal, lung, gynecological, pancreato-hepato-biliary and other cancers, including the study of unique founder cancer-associated mutations identified in my large Familial Cancer Consultation Service of more than 14,000 high-risk families. My studies involve a deep epidemiological/genetic evaluation of more than 45,000 study participants with a bio-bank of more than 400,000 aliquots of DNA, sera and tumor tissue blocks. Cancer chemoprevention studies are another focus of my scientific work. In addition, I am studying and coordinating, for Clalit, the cancer screening activities on a national level in Israel (from policy to implementation-adherence, quality and outcomes). A current leading activity is a randomized controlled Trial (RCT) aimed at testing the potential benefit of implementing genetics into the routine clinical care in primary care clinics (through identification of risk alleles and pharmacogenetic SNPs).</p> <p><b><u>Employment, Positions, Honors</u></b></p> <p><b>1990-2020</b> Head (former), Dept. of Epidemiology and Disease Prevention (formerly Department of Epidemiology and Medical Research), CHS Headquarters, Tel Aviv,</p> <p><b>1992-</b> Chairman, Department of Community Medicine &amp; Epidemiology, Clalit Health Services, Carmel Medical Center and B. Rappaport Faculty of Medicine, Technion, Haifa, Israel.</p> <p><b>1992-</b> Director, Clalit National Israeli Cancer Control Center</p> <p><b>1992-16</b> Director (former), National Israeli Breast Cancer Screening Program. Israeli Ministry of Health</p> <p><b>1992-</b> Israeli delegate, Commission of European Communities, Cancer Screening Network ECN)</p> <p><b>1993-2020</b> Member (former), National Oncology Council, Israeli Ministry of Health.</p> <p><b>1993-</b> Member, International Breast Cancer Screening Network (IBSN) (NCI coordinated).</p> <p><b>2004-</b> Member, International Colorectal Cancer Screening Network (ICRCSN) (joint USA-CDC, Cancer Research UK, American Cancer Society coordination).</p>			

Director, National Israeli Colorectal Cancer Detection Program. Israeli Ministry of Health

<b>2005-16</b>	Director (former), National Israeli Colorectal Cancer Detection Program. Israeli Ministry of Health
<b>2007-</b>	Member, European Society for Medical Oncology (ESMO) Faculty list, Cancer Prevention
<b>2008-12</b>	Chairman, Committee on 2020 targets in Chronic Disease Control, Israeli Ministry of Health
<b>2009-</b>	Director, Clalit National Personalized Medicine Program and National Molecular Medicine Laboratory (Advisor, since 2020)
<b>2013-</b>	Member, Steering Committee, Global Leaders in Genomic Medicine Forum, DC (NIH- NHGRI, IOM Initiative)
<b>2012-9</b>	Professor of Preventive Medicine, University of Southern California (USC), Los Angeles
<b>2016</b>	Visiting Professor of Clinical Cancer Genetics, Memorial Sloan Kettering Cancer Center, New York
<b>2017</b>	Team Co-Lead: Scientific Strategy and Cohort Enhancements, International HundredK+ Cohorts Consortium (IHCC).
<b>2019</b>	Visiting Professor of Pharmacogenetics, Mayo Clinic, Rochester, MN
<b>2020-</b>	The Chil and Berta Weissman Chair in Precision Medicine, Technion- Israel Institute of Technology

**PUBLICATIONS (PARTIAL, RELEVANT, OUT OF 340 PUBLICATIONS):**

2021 GOOGLE SCHOLAR METRICS : CITATIONS: 18,900; H-INDEX: 71

1. Rennert G, Gottfried M, Rennert HS, et al. Long term follow-up of EGFR mutated NSCLC cases. *Transl Oncol*. 2020 Nov 10;14(1):100934.
2. Barnes DR, Rookus MA, McGuffog L, et al; Polygenic risk scores and breast and epithelial ovarian cancer risks for carriers of BRCA1 and BRCA2 pathogenic variants. *Genet Med*. 2020 Oct;22(10):1653-1666.
3. Salameh M, Gronich N, Stein N, Kotler A, Rennert G, Auriel E, Saliba W. Stroke and Bleeding Risks in Patients with Atrial Fibrillation Treated with Reduced Apixaban Dose: A Real-Life Study. *Clin Pharmacol Ther*. 2020 Dec;108(6):1265-1273.
4. Rennert G, Rennert HS, Gronich N, Pinchev M, Gruber SB. Use of metformin and risk of breast and colorectal cancer. *Diabetes Res Clin Pract*. 2020 Jul;165:108232.
5. Kapoor PM, Mavaddat N, Choudhury PP, et al. Combined associations of a polygenic risk score and classical risk factors with breast cancer risk. *J Natl Cancer Inst*. 2020 May 2:djaa056.
6. Kachuri L, Johansson M, Rashkin SR, et al. Immune-mediated genetic pathways resulting in pulmonary function impairment increase lung cancer susceptibility. *Nat Commun*. 2020 Jan 7;11(1):27.
7. Hung RJ, Spitz MR, Houlston RS, et al. Lung Cancer Risk in Never-Smokers of European Descent is Associated With Genetic Variation in the 5p15.33 TERT-CLPTM1LI Region. *J Thorac Oncol*. 2019 Aug;14(8):1360-1369.
8. Escala-Garcia M, Guo Q, Dörk T, et al. Genome-wide association study of germline variants and breast cancer-specific mortality. *Br J Cancer*. 2019 Mar;120(6):647-657
9. Mavaddat N, Michailidou K, Dennis J, et al.. Polygenic Risk Scores for Prediction of Breast Cancer and Breast Cancer Subtypes. *Am J Hum Genet*. 2019 Jan 3;104(1):21-34.
10. Huyghe JR, Bien SA, Harrison TA, et al. Discovery of common and rare genetic risk variants for colorectal cancer. *Nat Genet*. 2019 Jan;51(1):76-87.
11. Shulman K, Barnett-Griness O, Friedman V, Greenson JK, Gruber SB, Lejbkovicz F, Rennert G. Outcomes of Chemotherapy for Microsatellite Instable-High Metastatic Colorectal Cancers. *JCO Precis Oncol*. 2018 Jul 16;2:PO.17.00253.
12. Saliba W, Rennert HS, Gronich N, Gruber SB, Rennert G. Association of atrial fibrillation and cancer: Analysis from two large population-based case-control studies. *PLoS One*. 2018 Jan 11;13(1):e0190324.
13. Mikropoulos C, Selkirk CGH, Saya S, et al. Prostate-specific antigen velocity in a prospective prostate cancer screening study of men with genetic predisposition. *Br J Cancer*. 2018 Jan 4. doi: 10.1038/bjc.2017.429.
14. Michailidou K, Lindström S, Dennis J, et al. Association analysis identifies 65 new breast cancer risk loci. *Nature*. 2017 Nov 2;551(7678):92-94. doi: 10.1038/nature24284. Epub 2017 Oct 23.
15. Li Y, Xiao X, Han Y, et al. Genome-wide interaction study of smoking behavior and non-small cell lung cancer risk in Caucasian population. *Carcinogenesis*. 2017 Oct 20. doi: 10.1093/carcin/bgx113.

16. Milne RL, Kuchenbaecker KB, Michailidou K, et al. Identification of ten variants associated with risk of estrogen-receptor-negative breast cancer. *Nat Genet.* 2017 Dec;49(12):1767-1778. doi: 10.1038/ng.3785.
17. Wang T, Moon JY, Wu Y, et al. Pleiotropy of genetic variants on obesity and smoking phenotypes. *PLoS One.* 2017 Sep 28;12(9):e0185660.
18. Carreras-Torres R, Johansson M, Haycock PC, et al. Obesity, metabolic factors and risk of different histological types of lung cancer: A Mendelian randomization study. *PLoS One.* 2017 Jun 8;12(6):e0177875.
19. Rennert G. Handling Individuals with High Cancer Risk: One Size Doesn't Fit All. *Isr Med Assoc J.* 2016 Sep;18(9):567-568.
20. Gronich N, Lavi I, Barnett-Griness O, Saliba W, Abernethy DR, Rennert G. Tyrosine kinase-targeting drugs-associated heart failure. *Br J Cancer.* 2017 May 9;116(10):1366-1373.
21. Phelan CM, Kuchenbaecker KB, Tyrer JP, et al. Identification of 12 new susceptibility loci for different histotypes of epithelial ovarian cancer. *Nat Genet.* 2017 May;49(5):680-691.
22. Maoz A, Rennert G, Gruber SB. T-Cell Transfer Therapy Targeting Mutant KRAS. *N Engl J Med.* 2017 Feb 16;376(7):e11.
23. Preis M, Hirsch J, Kotler A, Zoabi A, Stein N, Rennert G, Saliba W. Factor XI deficiency is associated with decreased risk for cardiovascular and venous thromboembolism events. *Blood.* 2016 Dec 30. pii: blood-2016-09-742262.
24. Fehringer G, Brenner DR, Zhang ZF, et al. Alcohol and lung cancer risk among never smokers: A pooled analysis from the international lung cancer consortium and the SYNERGY study. *Int J Cancer.* 2017 May 1;140(9):1976-1984
25. Rennert G. Reproductive factors, hormones and colorectal cancer-still unresolved. *Br J Cancer.* 2016 Nov 29. doi: 10.1038/bjc.2016.388.
26. Vijai J, Topka S, Villano D, et al. A Recurrent ERCC3 Truncating Mutation Confers Moderate Risk for Breast Cancer. *Cancer Discov.* 2016 Nov;6(11):1267-1275.
27. Hamdi Y, Soucy P, Kuchenbaecker KB, et al. Association of breast cancer risk in BRCA1 and BRCA2 mutation carriers with genetic variants showing differential allelic expression: identification of a modifier of breast cancer risk at locus 11q22.3. *Breast Cancer Res Treat.* 2016 Oct 28.
28. Rennert G, Pinchev M, Gronich N, et al. Oral bisphosphonates and improved survival of breast cancer. *Clin Cancer Res.* 2016 Sep 28. pii:clincanres.0547.2016.
29. Hagoel L, Neter E, Stein N, Rennert G. Harnessing the Question-Behavior Effect to Enhance Colorectal Cancer Screening in an mHealth Experiment. *Am J Public Health.* 2016 Nov;106(11):1998-2004.
30. Lawrenson K, Kar S, McCue K, et al. Functional mechanisms underlying pleiotropic risk alleles at the 19p13.1 breast-ovarian cancer susceptibility locus. *Nat Commun.* 2016 Sep 7;7:12675.
31. Vigorito E, Kuchenbaecker KB, Beesley J, et al. Fine-Scale Mapping at 9p22.2 Identifies Candidate Causal Variants That Modify Ovarian Cancer Risk in BRCA1 and BRCA2 Mutation Carriers. *PLoS One.* 2016 Jul 27;11(7):e0158801.
32. Schmit SL, Rennert HS, Rennert G, Gruber SB. Coffee Consumption and the Risk of Colorectal Cancer. *Cancer Epidemiol Biomarkers Prev.* 2016 Apr;25(4):634-9.
33. Rozek LS, Schmit SL, Greenson JK, et al. Tumor-Infiltrating Lymphocytes, Crohn's-Like Lymphoid Reaction, and Survival From Colorectal Cancer. *J Natl Cancer Inst.* 2016 May 12;108(8). pii: djw027.
34. Couch FJ, Kuchenbaecker KB, Michailidou K, et al. Identification of four novel susceptibility loci for oestrogen receptor negative breast cancer. *Nat Commun.* 2016 Apr 27;7:11375.
35. Dunning AM, Michailidou K, Kuchenbaecker KB, et al. Breast cancer risk variants at 6q25 display different phenotype associations and regulate ESR1, RMND1 and CCDC170. *Nat Genet.* 2016 Feb 29.
36. Huang R, Wei Y, Hung RJ, et al. Associated Links Among Smoking, Chronic Obstructive Pulmonary Disease, and Small Cell Lung Cancer: A Pooled Analysis in the International Lung Cancer Consortium. *EBioMedicine.* 2015 Sep 24;2(11):1677-1685.
37. Markowitz SD, Nock NL, Schmit SL, et al. A Germline Variant on Chromosome 4q31.1 Associates with Susceptibility to Developing Colon Cancer Metastasis. *PLoS One.* 2016 Jan 11;11(1):e0146435.
38. Schumacher FR, Schmit SL, Jiao S, et al. Genome-wide association study of colorectal cancer identifies six new susceptibility loci. *Nat Commun.* 2015 Jul 7;6:7138.

39. Manolio TA, Abramowicz M, Al-Mulla F, et al. Global implementation of genomic medicine: We are not alone. **Science Transl Med**. 2015 Jun 3;7(290):290ps13.
40. Rennert G, Kremer R, Rennert HS, et al. Lower lung cancer rates in Jewish smokers in Israel and the USA. **Int J Cancer**. 2015 Nov 1;137(9):2155-62.
41. Kuchenbaecker KB, Ramus SJ, Tyrer J, et al. Identification of six new susceptibility loci for invasive epithelial ovarian cancer. **Nat Genet**. 2015 Feb;47(2):164-71.
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43. Sevilya Z, Leitner-Dagan Y, Pinchev M, et al. Low integrated DNA repair score and lung cancer risk. **Cancer Prev Res**. 2014;4:398-406.
44. Gronich N, Rennert G. Beyond aspirin-cancer prevention with statins, metformin and bisphosphonates. **Nat Rev Clin Oncol**. 2013;10(11):625-42.
45. Couch FJ, Wang X, McGuffog L, et al. Genome-wide association study in BRCA1 mutation carriers identifies novel loci associated with breast and ovarian cancer risk. **PLoS Genet**. 2013;9(3):e1003212.
46. Gaudet MM, Kuchenbaecker KB, Vijai J, et al. Identification of a BRCA2-specific modifier locus at 6p24 related to breast cancer risk. **PLoS Genet**. 2013;9(3):e1003173.
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48. Rennert G. Bisphosphonates: beyond prevention of bone metastases. **J Natl Cancer Inst**. 2011;103(23):1728-9.
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51. Rennert G, Lejbkowitz F, Cohen I, et al. MutYH mutation carriers have increased breast cancer risk. **Cancer**. 2012;118(8):1989-93.
52. Rennert G, Pinchev M, Rennert HS, Gruber SB. Use of bisphosphonates and reduced risk of colorectal cancer. **J Clin Oncol**. 2011;29(9):1146-50.
53. Truong T, Hung RJ, Amos CI, et al. Replication of lung cancer susceptibility loci at chromosomes 15q25, 5p15, and 6p21: a pooled analysis from the International Lung Cancer Consortium. **J Natl Cancer Inst**. 2010 Jul 7;102(13):959-71.
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57. Rennert G, Pinchev M, Rennert HS. Use of bisphosphonates and risk of postmenopausal breast cancer. **J Clin Oncol**. 2010;28(22):3577-81.
58. Rennert G, Rennert HS, Pinchev M, Gruber SB. A case-control study of levothyroxine and the risk of colorectal cancer. **J Natl Cancer Inst**. 2010;102(8):568-72.
59. Rennert G, Rennert HS, Pinchev M, et al. Use of hormone replacement therapy and the risk of colorectal cancer. **J Clin Oncol**. 2009;27(27):4542-7.
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