

February 2019

**CURRICULUM VITAE
GIDEON KOREN**

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Education:

1969-1977 M.D., Hebrew University, Hadassah Medical School, Jerusalem, Israel

Postdoctoral Training:

Internships and Residencies:

1976-1977 Rotating Internship, Hadassah Medical Center, Jerusalem
1981-1982 Residency Program, Department of Medicine A, Hadassah Medical Center, Jerusalem

Fellowships:

1983-1985 Fellow in Cardiology, Department of Cardiology, Hadassah Medical Center, Jerusalem
1985-1987 Research Fellow in Pediatrics, Harvard Medical School, Boston
1985-1989 Research Fellow, (Molecular Biology), Department of Cellular and Molecular Physiology and the Department of Cardiology, Children's Hospital

Postgraduate Honors and Awards:

1969-1976 Prizes for "excellence in studies", Hebrew University, Hadassah Medical School
1976 Elected class representative for medical student exchange program, Mount Sinai School of Medicine, New York
1978 Faculty Prize for M.D. Thesis: "Semiquantitative determination of liver specific antigens in the urine of rats with toxic hepatic necrosis"
1985-1987 Fogarty International Fellow
1985-1987 Fulbright Scholar
1987-1988 Bugher Fellow
1989 Milton Award
1994-1999 American Heart Association Established Investigator Award
1995 Ad hoc Reviewer - Program Project Review Committee, NHLBI

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| 2006-2011 | Member of the ESTA NIH Study Section |
| 2007- | Member of the Data Safety Monitoring Board of NHLBI-sponsored VEST/PREDICTS |
| 2013 | Heart Rhythm Journal: Best basic research article for the year (one of four) |
| 2017 | Member of Editorial Board - Circulation Arrhythmia |

Military Service:

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| 1977-1978 | I.D.F. - Physician of a Tank Regiment |
| 1979-1980 | I.D.F. - Director of the training course for military physicians |
| 1980-1981 | I.D.F. - R & D |
| 1981-1985 | I.D.F. - Chief Physician of a Tank Brigade |

Professional Licenses and Board Certification:

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| 1977 | Israel License Registration |
| 1983 | Israel Board of Internal Medicine (Part A) |
| 1984 | Israel Board of Cardiology (Part A) |
| 1985 | Israel Board of Cardiology (Part B) |
| 1988- | Massachusetts License 59321 |
| 2003- | Board eligible in Internal Medicine, Special Pathway |
| 2006- | Rhode Island License |

Academic Appointments:

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| 1982-1985 | Instructor in Medicine, Hebrew University Hadassah Medical School, Jerusalem |
| 1985-1987 | Lecturer in Medicine, (Cardiology), Hebrew University Hadassah Medical School, Jerusalem |
| 1987-1988 | Instructor in Medicine, Harvard Medical School, Boston |
| 1988-2001 | Assistant Professor of Medicine, Harvard Medical School, Boston |
| 2001-2005 | Associate Professor of Medicine, Harvard Medical School, Boston |
| 2005- | Professor of Medicine, Brown University Medical School |

Hospital Appointments:

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| 1986-1987 | Staff Physician, Department of Cardiology, Hadassah Medical Center, Jerusalem |
| 1987-2005 | Associate Physician, Brigham and Women's Hospital |
| 2005- | Director of CVRC, Rhode Island Hospital |
| 2009- | Co-Director of CardioPulmonary Training Program |

Other Appointments:

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| 1989-2005 | Director, Bioelectricity laboratory |
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| 1991-1994 | Member of Research Peer Review Committee, American Heart Association, Massachusetts Affiliate |
| 1993-1997 | Member of Research Peer Review Committee, American Heart Association, Dallas, Texas |
| 1996 | Ad hoc Reviewer - Charles Hood Foundation |
| 1998-2001 | Member of Cellular Cardiovascular Physiology & Pharmacology Study Section. AHA, Dallas, Texas. |
| 1999-2011 | AHA scientific session abstract selection committee |
| 2000- | Ad hoc Reviewer – VA Merit Award |
| 2001 | Ad hoc Reviewer for NIH Study Sections (CVA and ESTA) |
| 2004 | Program Committee, Gordon Research Conference |
| 2006 | Dean’s Taxonomy Committee |
| 2006- | BCC Steering Committee |
| 2006-2011 | Member of NIH ESTA Study Section |
| 2007-2010 | Member of the Data Safety Monitoring Board of NHLBI-sponsored VEST/PREDICTS |
| 2008-2009 | Member of Brown Medical School executive committee for personalized medicine |
| 2013- | Ad hoc Reviewer – PPG and R01 for CSR |

Hospital Committees:

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| 2000-2001 | Internal Review Board, BWH/Partners |
| 2005- | Director of CVRC, RIH, Brown University Medical School |
| 2006-2009 | Co-director of the Rhode Island BioBank Initiative |
| 2009-2010 | Member of the executive committee for personalized medicine |
| 2013- | Advisory research committee, Dep. of Medicine, RIH |

Membership in Societies:

American Association for the Advancement of Science
American Heart Association - Council of Basic Science
Biophysical Society
Heart Rhythm Society
Cardiac Electrophysiology Society

Original Publications in Peer-Reviewed Journals:

1. **Koren G.** Semiquantitative determination of liver specific antigens in the urine of rats with toxic hepatic necrosis. *M.D. Thesis, Department of Pathology, Hadassah Medical School, Jerusalem, 1976.*
2. Boss JH, **Koren G**, Rosenmann E. Semiquantitative determination of liver specific antigens in the urine of rats with toxic necrosis. *Acta Hepatogastroenterology* 1979; 26(61): 457-462.

3. Gross DJ, Braverman A, **Koren G**, Rabinowitz SY, Gordon R, Okon E. Functional asplenia in immunoblastic lymphoma. *Arch. Intern. Med.* 1982; 142: 2213-2215, PMID: 6897164
4. Halon DA, **Koren G**, Kriwisky M, Appelbaum A, Gotsman MS. Constrictive pericarditis following coronary artery bypass grafting in a patient with asymptomatic pericardial disease. *Cardiology* 1983; 70: 280-283, PMID: 6607772.
5. Zylber-Katz E, **Koren G**, Granit L, Levy M. Bioavailability of nifedipine, a comparison between two preparations. *Biopharmacol. Drug Dispos.* 1984; 5: 109-115, PMID: 6743779.
6. **Koren G**, Appelbaum D, Hasin Y, Weiss AT, Mosseri M, Lotan H, Rozenman Y, Ben David Y, Freiman I, Gotsman MS. Intravenous infusion of streptokinase in acute myocardial infarction. *Harefuah* 1985; 108: 573-576, PMID: 4065720.
7. **Koren G**, Weiss AT, Hasin Y, Applebaum A, Rozenman Y, Welbe S, Lotan C, Mosseri M, Saoznikov D, Luria H, Gotsman MS. Prevention of myocardial damage by very early treatment with intravenous streptokinase. *New Engl. J. Med.* 1985; 313: 1384-1389, PMID: 4058533.
8. **Koren G**, Hasin Y. Orthostatic induced ventricular tachycardia in a patient with long QT syndrome. *Harefuah* 1985; 109: 230-232, PMID: 4093067.
9. **Koren G**, Okon E, Zlotnick A. Coexistence of Kaposi's Sarcoma and chronic lymphocytic leukemia in the same lymph node. *Acta Haematol.* 1985; 74: 234-235, PMID: 3939068.
10. **Koren G**, Polachek I, Kaplan H. Invasive mucormycosis in a non-immuno-compromised host. *J. Infection* 1986; 12: 165-167, PMID: 3701100.
11. **Koren G**, Zylber-Katz E, Levy M. Pharmacokinetic studies of nifedipine and digoxin co-administration. *Clin. Pharmacol. Ther. Toxicol.* 1986; 24: 39-42, PMID: 3957488.
12. **Koren G**, Weiss AT, Ben David Y, Hasin Y, Luria MH, Gotsman MS. Bradycardia and hypotension following reperfusion with streptokinase (Bezold-Jarisch reflex) - a sign of coronary thrombolysis and myocardial salvage. *Am. Heart J.* 1986; 112: 468-471, PMID: 3751860.
13. Fine GD, Weiss AT, Welber S, Sapoznikov D, Applebaum D, Lotan C, Hasin Y, Ben David Y, **Koren G**, Gotsman MS. Importance of early initiation of intravenous streptokinase for first acute myocardial infarction. *Am. J. Cardiol.* 1986; 58: 411-417, PMID: 3751909.
14. **Koren G**, Luria MH, Weiss AT, Kriwisky M, Mosserrri M, Lotan C, Applebaum D, Welber S, Sopochnikov D, Ben David Y, Hasin Y, Gotsman MS. A high risk syndrome

- following early treatment of acute myocardial infarction with intravenous streptokinase. Arch. Intern. Med. 1987; 147: 237-240, PMID: 3813740.
15. Izumo I, Lompre AM, Matsuoka R, **Koren G**, Schwartz K, Nadal-Ginard B, Mahdavi V. Myosin heavy chain mRNA and protein isoform transitions during cardiac hypertrophy. J. Clin. Invest. 1987; 79: 970-977, PMID: 2950137.
 16. **Koren G**, Liman ER, Logothetis DE, Nadal-Ginard B, Hess P. Gating mechanism of a cloned K⁺ channel expressed in frog oocytes and mammalian cells. Neuron 1990; 4: 39-51, PMID: 2310574.
 17. Matsubara H, Liman ER, Hess P, **Koren G**. Pre-translational mechanisms determine the type of potassium channels expressed in the rat skeletal and cardiac muscles. J. Biol. Chem. 1991; 266: 13324-13328, PMID: 1712780.
 18. Liman ER, Hess P, Weaver FW, **Koren G**. Voltage-sensing residues in the S4 region of a mammalian K⁺ channel. Nature 1991; 353: 752-756, PMID: 1944534.
 19. Mori Y, Matsubara H, Folco E, Siegel A, **Koren G**. The transcription of a mammalian potassium channel is regulated by cAMP in a cell-specific manner. J. Biol. Chem. 1993; 268:26482-26493, PMID: 8253777.
 20. Babila T, Moscucci A, Wang H, Weaver FW, **Koren G**. Assembly of mammalian voltage-gated potassium channels: evidence for an important role of the first transmembrane segment. Neuron 1994; 12: 615-626, PMID: 8155323.
 21. Babila T, A, Wang H, Waver FW, **Koren G**. Assembly of mammalian voltage-gated K⁺ channels: evidence of a critical role for the first transmembrane domain. Neuron (Correction) April 1, 1996; 12: 615-626.
 22. Levy AP, Levy NS, Loscalzo J, Calderone A, Takahashi N, Yeo K-T, **Koren G**, Colucci WS, Goldberg MA. Regulation of vascular endothelial growth factor in cardiac myocytes. Circ. Res. 1995; 76: 758-766, PMID: 7728992.
 23. Mori Y, Folco E, **Koren G**. GH3 cell-specific expression of Kv1.5 gene. Regulation by a silencer containing a dinucleotide repetitive element. J. Biol. Chem. 1995; 270: 27788-27796, PMID: 7499248.
 24. Folco E, Mathur R, Mori Y, Buckett P, Koren G. A cellular model for long QT syndrome: trapping of heteromultimeric complexes consisting of truncated Kv1.1 potassium channel polypeptides and native Kv1.4 and Kv1.5 channels in the endoplasmic reticulum. J. Biol. Chem. 1997; 272: 26505-26510, PMID: 9334228.
 25. Folco E, Koren G. Degradation of the inducible cAMP repressor (ICER) by ubiquitin proteasome pathway. Biochem. J. (London) 1997; 328: 37-43, PMID: 9359831.

26. Mitchell G.F, Jeron A, **Koren G**. Measurement of heart rate and QT interval in the conscious mouse. *American Journal of Physiology* 1998; 274: H747-H751, PMID: 9530184.
27. London B, Jeron A, Zhou J, Buckett P, Han X, Mitchell G.F, **Koren G**. Long QT and ventricular arrhythmias in transgenic mice expressing the N-terminus and first transmembrane segment of a voltage-gated potassium channel. *Proc. Natl. Acad. Sci.* 1998; 95: 2926-2931, PMID: 9501192.
28. Zhou J, Jeron A, London B, Han X, **Koren G**. Characterization of a slowly inactivating outward current in adult mouse ventricular myocytes. *Circulation Research* 1998; 83: 806-814, PMID: 9776727.
29. Mathur R, Zhou J, Babila T, **Koren G**. Ile177 and Ser180 in the S1 segment are critically important in Kv1.1 function. *J. Biol. Chem.* 1999; 274: 11487-11493, PMID: 10206953.
30. Valverde P, **Koren G**. Purification and preliminary characterization of a Kv1.5 repressor element binding factor. *Circulation Research* 1999; 84: 937-944, PMID: 10222341.
31. Baker LC, London B, Chio BR, **Koren G**, Salama G. Enhanced dispersion of repolarization and refractoriness in transgenic mice hearts promotes reentrant ventricular tachycardia. *Circulation Research* 2000; 86: 396-407, PMID: 10700444.
32. Jeron A, Mitchell GF, Zhou J, Murata M, London B, Buckett P, Wiviott SD, **Koren G**. Inducible polymorphic ventricular tachycardia in a transgenic mouse model with a long QT phenotype. *American Journal of Physiology* 2000; 278: H1891-H1898, PMID: 10843886.
33. Brunner M, Guo W, Mitchell GF, Buckett P, Nerbonne J, **Koren G**. Characterization of mice with a combined suppression of I_{to} and $I_{K,slow}$. *American Journal of Physiology* 2001; 281: H1201-H1209, PMID: 11514288.
34. Murata M, Buckett P, Zhou J, Brunner M, Folco E, **Koren G**. SAP97 Interacts with Kv1.5 in Heterologous Expression Systems. *American Journal of Physiology* 2001; 281: H2575-H2584, PMID: 11709425.
35. Zhou J, Kodirov S, Murata M, Buckett P, Nerbonne JM, **Koren G**. Regional upregulation of Kv2.1-encoded current, $I_{K,slow2}$ in Kv1DN mice is abolished by crossbreeding with Kv2DN mice. *American Journal of Physiology* 2003; 284: H491-H500, PMID: 12529256.
36. Brunner M, Kodirov S, Mitchell G, Buckett P, Shibata K, Folco E, Baker L, Salama G, Chan D, Zhou J, **Koren G**. In vivo gene therapy of Kv1.5 normalizes action potential

duration and shortens QT interval in mice with Long QT phenotype. *American Journal of Physiology* 2003; 285: H194-H203, PMID: 12793978.

37. Pang L, **Koren G**, Wang Z, Nattel S. Tissue-specific expressions of two human $Ca_v1.2$ isoforms under the control of distinct 5'-flanking regulatory elements. *FEBS Letters* 2003; 546: 349-354, PMID: 12832067.
38. Kodirov SA, Brunner M, Busconi L, **Koren G**. Long-term restitution of 4-aminopyridine-sensitive currents in Kv1DN ventricular myocytes using adeno-associated virus-mediated delivery of Kv1.5. *FEBS Letters* 2003; 550: 74-78, PMID: 12935889.
39. Folco EJ, Roder K, Mitchell GF, **Koren G**. "Cardiac Memory" a struggle against forgetting (Editorial). *Circ. Research*, 2003; 93: 384-386, PMID: 12958140.
40. Kodirov SA, Brunner M, Nerbonne JM, Buckett P, Mitchell G, **Koren G**. Attenuation of $I_{K,slow1}$ and $I_{K,slow2}$ in Kv1DN mice prolongs the APD and QT intervals but does not prevent spontaneous or inducible arrhythmias. *American Journal of Physiology* 2004; 286: H368-374, PMID: 14684365.
41. Liu G-X, Zhou j, Nattel S, **Koren G**. Single-channel recordings of a rapid delayed rectifier current in adult mouse ventricular myocytes: basic properties and effects of divalent cations. *J Physiology (London)* 2004; 556: 401-413, PMID: 14742731.
42. Folco E, Liu G-X, **Koren G**. Caveolin-3 and SAP97 form a scaffolding protein complex that regulates the voltage-gated potassium channel Kv1.5. *American Journal of Physiology* 2004; 287(2): p. H681-H690, PMID: 15277200.
43. Roder K, **Koren G**. The K^+ channel gene, *Kcnb1*: genomic structure and characterization of its 5'-regulatory region as part of an overlapping gene group. *Biological Chemistry* 2006; 387: 1237-1246, PMID: 16972792.
44. Liu G, Zhou J, **Koren G**. Single-channel properties of $I_{K,slow1}$ and $I_{K,slow2}$ in mouse ventricular myocytes. *Pflugers Arch - Eur J Physiol* 2008; 456:541-547, PMID: 18197415.
45. Zhu M, Gach A, Liu G, Xu X, Lim CC, Zhang J, Mao L, Chuprun K, Koch W, Liao R, **Koren G**, Blaxall B, Mende U. Enhanced calcium cycling and contractile function in transgenic mice expressing constitutively active G α protein Am J Physiol Heart Circ Physiol 2008; 294: H1335-H1347, PMID: 18192223.
46. Brunner M, Peng X, Liu G, Ren X, Ziv O, Choi BR, Mathur R, Hajjiri M, Odening KE, Steinberg E, Folco EJ, Pringa E, Centracchio J, Macharzina RR, Donahay T, Schofield L, Rana N, Kirk M, Mitchell G, Poppas A, Zehender M, **Koren G**. Mechanisms of cardiac arrhythmias and sudden death in transgenic rabbits with long QT syndrome. *J Clin. Invest.* 2008; 118:2246-2259, PMID: 18464931.

47. Jindal HK, Folco E, Liu G, **Koren G**. Posttranslational modification of voltage-dependent potassium channel Kv1.5: COOH-terminal palmitoylation modulates its biological properties. *Am J Physiol Heart Circ Physiol* 2008; 294: H2012-2021, PMID: 18344374.
48. Goldman R, Kingdon C, Wasser J, Clark M, Goldberg R, Papandonatos G, Hawrot E, **Koren G**. Rhode Islanders' attitudes toward the development of a state-wide genetic Biobank. *Personalized Medicine*; July 2008, Vol. 5, No. 4; 339-359.
49. K.E. Odening, O. Hyder, L. Chaves, L. Schofield, M. Brunner, M. Kirk, M. Zehender, X. Peng, **G. Koren**. Pharmacogenomics of Anesthetic Drugs in Transgenic LQT1 and LQT2 Rabbits Reveal Genotype-Specific Differential Effects on Cardiac Repolarization. *Am J Physiol Heart Circ Physiol*, 2008; 295: H2264–H2272, PMID: 18835916.
50. Simon A, Harrington E, Liu G, **Koren G**, Choudhary G. Mechanism of C-type natriuretic peptide-induced endothelial cell hyperpolarization. *Am J Physiol Lung Cell Mol Physiol* 2009; 296 (2): L248-56, PMID: 19036874.
51. Simon A, Liu G-X, **Koren G**, Choudhary G. cANF Causes Endothelial Cell Hyperpolarization by Activation of Chloride Channels. *Peptides* 2009; 30: 2337-2342, PMID: 19682521.
52. Ohad Ziv, Eduardo Morales, Yoon-kyu Song, Xuwen Peng, Katja E. Odening, Alfred E. Buxton, Alain Karma, **Gideon Koren** and Bum-Rak Choi. Origin of Complex Behavior of Spatially Discordant Alternans in Transgenic Rabbit Model of LQT2. *J Physiol* 2009; 587: 4661-80, PMID 19675070.
53. Odening K, Kirk M, Brunner M, Ziv O, Lorvidhaya P, Liu G, Schofield L, Chaves L, Peng X, Zehender M, Choi BR, Koren G. Electrophysiological Studies of Transgenic 1 Long QT Type 1 and Type 2 Rabbits Reveal Genotype-Specific Differences in Ventricular Physiology Refractoriness and His Conduction. *Am J Physiol Heart Circ Physiol*. 2010, Sep; 299 (3): H643-55, PMID 20581090.
54. Ren XQ, Liu GX, Organ-Darling L, Zheng R, Roder K, Jindal H, Centracchio J, McDonald T, **Koren G**, Pore Mutants of HERG and KvLQT1 Downregulate the Reciprocal Currents in Stable Cell Lines, *Am J Physiology (Heart Circ Physiol)*, 2010 Nov; 299 (5): H1525-34, PMID: 20833965.
55. Biermann J, Wu K, Odening K, Asbach S, **Koren G**, Peng X, Zehender M, Bode C, Brunner M. Nicorandil normalizes prolonged repolarisation in the first transgenic rabbit model with Long-QT syndrome 1 both in vitro and in vivo. *Eur J. Pharmacol*, 2011 Jan; 650 (1): 309-316, PMID: 20959120.
56. Bentzen B, Bahrke S, Wu K, Larsen A, Odening K, Franke G, Storm van's Gravesande K, Biermann J, Peng X, **Koren G**, Zehender M, Bode C, Grunnet M, Brunner M. Pharmacological activation of Kv11.1 in transgenic long QT-1 rabbits. *Journal of Cardiovascular Pharmacology*, 2011 Feb; 57 (2): 223-230. PMID: 22307668

57. Odening K, Choi BR, Liu GX, Hartmann K, Ziv O, Chaves L, Schofield L, Centracchio J, Zehender M, Peng X, Brunner M, **Koren G**. Estradiol Promotes Sudden Cardiac Death in Transgenic Long-QT Type Rabbits Progesterone is while Protective. *Heart Rhythm Journal* 2012 May; 9 (5): 823-832. PMID: 22245795.
58. Liu GX, Choi BR, Ziv O, Li W, Lange E, Qu Z, **Koren G**. Differential Conditions for Early After Depolarizations and Triggered Activity in Cardiomyocytes Derived from Transgenic LQT1 and LQT2 rabbits. *Journal of Physiology* 2012 Mar 1;590(Pt 5):1171-80. PMCID: PMC3381823.
59. Cooper, L, Odening, K, Hwang MS, Chaves, L, Schofield L, Taylor C, Gemignani G, Mitchell G, Forder J, Choi BR, **Koren, G**. Electromechanical and Structural Alterations in the Aging Rabbit Heart and Aorta. *Am J Physiol Heart Circ Physiol* 2012, April, 302: H1625-H1635. PMID:22307668.
60. Odening K, Choi BR, **Koren G**. Sex Hormones and Cardiac Arrest in Long QT Syndrome: Does Progesterone Represent a Potential New Antiarrhythmic Therapy? *Heart Rhythm* 2012 Jul;9(7):1150- 2 Epub 2012 Feb 27. PMID: 22381742.
61. Ohad Z, Schofield L, Lau E, Chaves L, Patel D, Jeng P, Peng X, Choi BR, **Koren G**. A novel, minimally invasive, segmental myocardial infarction with a clear healed infarct borderzone in rabbits. *Am J Physiol Heart Circ Physiol* 2012 Jun 1;302(11):H2321-30. PMID:22447944, PMCID:PMC3774205.
62. Jindal H, Merchant E, Balschi J, Zhangand Y, **Koren G**. Proteomic Analyses of Transgenic LQT1 and LQT2 Rabbit Hearts Elucidate an Increase in Expression and Activity of Energy Producing Enzymes *Journal of Proteomics*. *J Proteomics* 2012 Sep 18;75(17):5254-65. PMID: 22796357.
63. Organ-Darling LE, Amanda N. Vernon JR. Giovanniello J, Lu YC, Moshal K, Roder K, Li W, and **Koren G**. Interactions between hERG and KCNQ1 α -subunits are mediated by their C-termini and modulated by cAMP," *Am J Physiol Heart Circ Physiol*. Feb 2013 304(4):H589-99. PMCID: PMC3566482.
64. Cooper LL, Li W, Lu Y, Centracchio J, Terentyeva R, **Koren G**, Terentyev D. Redox modification of ryanodine receptors by mitochondria-derived reactiveoxygen species contributes to aberrant Ca²⁺ handling in ageing rabbit hearts. *Journal of Physiology*, 2013 Dec 1;591(Pt23):5895- 5911. PMID 24042501.
65. Odening KE, **Koren G**. How do sex hormones modify arrhythmogenesis in long QT syndrome? - Sex hormone effects on the arrhythmogenic substrate and on triggered activity. *Heart Rhythm*, 2014 Nov;11(11):2107-15. PMID:24954242.
66. Terentyev D, Rees CM, Li W, Cooper LL, Jindal H, Peng X, Lu Y, Terentyeva R, Odening KE, Daley J, Bist K, Choi BR, Karma A, **Koren G**. "Hyperphosphorylation of RyRs underlies triggered activity in transgenic rabbit model of LQT2 syndrome". *Circ Research*, 2014 Nov 7;115(11):919-28. PMID:25249569.

67. Moshal KS, Zhang Z, Roder K, Kim TY, Cooper L, Patedakis Litvinov B, Lu Y, Reddy V, Terentyev D, Choi B-R, **Koren G**. Progesterone modulates SERCA2a expression and function in rabbit cardiomyocytes . *Am J Physiol Cell Physiol*. 2014 Dec 1;307(11):C1050-7 PMID:25252951, PMCID:PMC4254949.
68. Roder K, Werdich AA, Li W, Liu M, Kim TY, Organ-Darling LE, Moshal KS, Hwang JM, Lu Y, Choi B-R, MacRae CA, **Koren G**. RING finger protein RNF207: A novel regulator of cardiac excitation. *J Biol Chem*. 2014 Dec 5;289(49):33730-40. PMID:25281747, PMCID:PMC4256309.
69. Zupa D, Beck J, Franke G, Perez Feliz S, Hartmann M, **Koren G**, Zehender M, Bode C, Brunner M, Odening KE. Pronounced Effects of HERG-Blockers E-4031 and Erythromycin on APD, Spatial APD Dispersion and Triangulation in Transgenic Long-QT Type 1 Rabbits. *PloS One* 2014 Sept 22;9(9):e107201. PMCID:PMC4170956
70. Beane OS, Fonseca VC, Cooper LL, **Koren G**, Darling EM. Impact of Aging on the Regenerative Properties of Bone Marrow-, Muscle-, and Adipose-Derived Mesenchymal Stem/Stromal Cells. *PLoS ONE* 2014, 9(12): e115963. doi:10.1371/journal.pone.0115963. PMID:25541697, PMCID:PMC4277426.
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72. Lau E, Kossidas, K, Kim T, Kunitomo Y, Ziv O, Zhen S, Taylor C, Schofield L, Yammine J, Liu G, Peng X, Qu Z, **Koren G**, Choi B-R. Spatially discordant alternans and arrhythmias in tachypacing-induced cardiac myopathy in transgenic LQT1 rabbits: The importance of I_{Ks} and Ca²⁺ cycling. *PLOS ONE*. 2015. PMID:26131559, PMCID:PMC4488895.
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75. C.N. Lang, M. Menza, S. Jochem, G. Franke, S. Perez Feliz, M. Brunner, **G. Koren**, M. Zehender, B.A. Jung, D. Foell, C. Bode, K.E. Odening. Electro-mechanical dysfunction in long QT syndrome: role for arrhythmogenic risk prediction and modulation by sex and sex hormones. *Prog Biophys Mol Biol*. 2016 Jan;120(1-3):255-69. PubMed PMID: 26718598.

76. Huang X, Kim TY, **Koren G**, Choi B, Qu Z. Spontaneous initiation of premature ventricular complexes and arrhythmias in type 2 long QT syndrome. *Am J Physiology Heart Circ Physiol.* 2016;311(6):H1470-410.1152 PubMed PMID: 27765749; PMCID: PMC5206347.
77. Kim TY, Terentieva R, Roder K, Li W, Liu M, Greener I, Hamilton S, Polina I, Murphy K, Clements R, Dudley SC, **Koren G**, Choi BR, Terentyev D SK Channel Enhancers Attenuate Ca²⁺-Dependent Arrhythmia in Hypertrophic Hearts by Regulating Mito-ROS-Dependent Oxidation and Activity of Ry. *Cardiovascular Res.* 2017;113(3):343-353. PubMed PMID: 28096168.
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79. Liu W, Kim TY, Huang X, Liu MB, **Koren G**, Choi BR, Qu Z. Mechanisms linking T-wave alternans to spontaneous initiation of ventricular arrhythmias in rabbit models of long QT syndrome. *J Physiol.* 2018 Jan 29. doi: 10.1113/JP275492. [Epub ahead of print] PubMed PMID: 29377142.
80. Weiqing Liu, Tae Yun Kim, Xiaodong Huang, Michael B Liu, **Gideon Koren**, Bum-Rak Choi, Zhilin Qu. Mechanisms linking T-wave alternans to spontaneous initiation of ventricular arrhythmias in rabbit models of long QT syndrome. *Journal of Physiology*, 2018 Apr 15;596(8):1341-1355. PMID: 29377142 PMCID: PMC5899976.
81. Choi BR, Li W, Terentyev D, Kabakov AY, Zhong M, Rees CM, Terentyeva R, Kim TY, Qu Z, Peng X, Karma A, **Koren G**. Transient Outward K⁺ Current (I_{to}) Underlies the Right Ventricular Initiation of Polymorphic Ventricular Tachycardia in a Transgenic Rabbit Model of Long-QT Syndrome Type 1. *Circ Arrhythm Electrophysiol.* 2018 Jun;11(6):e005414. doi: 10.1161/CIRCEP.117.005414. PMID: 29769222.
82. Ziupa D, Menza M, Koppermann S, Moss R, Beck J, Franke G, Perez Feliz S, Brunner M, Mayer S, Bugger H, **Koren G**, Zehender M, Jung BA, Seemann G, Foell D, Bode C, Odening. Electro-mechanical (dys-)function in long QT syndrome type 1. *Int J Cardiol.* 2018 Jul 9, S0167-5273(18)31662-0.
83. Joachim A. Behar, Aviv A. Rosenberg, Ori Shemla1, Kevin R. Murphy, **Gideon Koren**, George E. Billman, Yael Yaniv. A Universal Scaling Relation for Defining Power Spectral Bands in Mammalian Heart rate Variability Analysis. *Frontiers in Physiology*, 2018 Aug 2;9:1001, PMID: 30116198 PMCID: PMC6083004.
84. Mingwang Zhong, Colin M. Rees, Dmitry Terentyev, Bum-Rak Choi, **Gideon Koren**, Alain Karma. NCX-Mediated Subcellular Ca²⁺ Dynamics Underlying Early Afterdepolarizations in LQT2 Cardiomyocytes. *Biophysical Journal* 115, 1–14, September 18, 2018.

85. A Castiglione, T Hornyik, G Franke, S Perez-Feliz, Z Bosze, **G Koren**, A Varro, M Zehender, M Brunner, C Bode, I Baczko, K E Odening. P604 Docosahexaenoic acid acts as QT-shortening agent with genotype-t-specific beneficial effects in transgenic LQT1, LQT2, LQT5 and LQT2-5 rabbit models. *European Heart Journal*, Volume 39, Issue suppl_1, 1 August 2018, ehy564.P604.
86. Roder K, Kabakov A, Moshal KS, Murphy KR, Xie A, Dudley S, Turan NN, Lu Y, MacRae CA, **Koren G**. Trafficking of the human ether-a-go-go-related gene (hERG) potassium channel is regulated by the ubiquitin ligase rififylin (RFFL). *J Biol Chem*. accepted for publication Nov 6, 2018.
87. Hamilton S, Polina I, Terentyeva R, Bronk P, Kim TY, Roder K, Clements R, **Koren G**, Choi B, Terentyev D. PKA phosphorylation underlies functional recruitment of sarcolemmal SK2 channels in ventricular myocytes from hypertrophic hearts. *Journal of Physiology*, Accepted for publication, February 2019.
88. Ilona Bodi, Alessandro Castiglione, Jonathan Sorge, Eike Moritz Wülfers, Stefanie Perez Feliz; **Koren Gideon**, HC Manfred Zehender, Heiko Bugger, Gunnar Seemann, Michael Brunner, Christoph Bode, Katja Odening. Postpartum hormones oxytocin and prolactin cause pro-arrhythmic prolongation of cardiac repolarization in long QT syndrome type 2. *EP Europace*, Accepted for publication February 2019.

Other Peer-Reviewed Publications:

1. Nadal-Ginard B, Breitbart RE, Andreadis A, Gallego M, Yu Y-T, Koren G, White G, Bouvagnet P, Mahdavi V. Generation of complex contractile protein phenotypes through promoter selection and alternative pre-mRNA splicing. In: *Advances in Gene Technology: The Molecular Biology of Development*. Voellmy RW, Ahmad F, Black S, Burgers DR, Rotundo R, Scott WA, Whelan WJ (eds). ICSU Short Reports, 1987; 7:62-63.
2. Nadal-Ginard B, Gallego M, Andreadis A, Breitbart RE, Yu Y-T, Koren G, White G, Bouvagnet P, Endo T, Izumo S, Mahdavi V. A very complex sarcomeric contractile phenotype is produced through developmentally regulated promoter selection and alternative pre-mRNA splicing. In: *Molecular Neuroscience: Expression of Neural Genes*. Wong F, Eaton D, Konkkel D, Perez-Polo JR (eds). New York: Alan R. Liss, Inc., 1987, pp 41-50.
3. Nadal-Ginard B, Gallego M, Andreadis A, Breitbart RE, Yu Y-T, Koren G, White GE, Bouvagnet P, Endo T, Mahdavi V. Promoter selection and alternative pre-mRNA splicing are used to generate complex contractile protein phenotypes. In: *Calcium Binding Proteins in Health and Disease*. Means AR, Norman AW, Vanaman TC (eds). 1987.
4. Mahdavi V, Koren G, Michaud S, Pinset C, Izumo S. Identification of the sequences responsible for the tissue-specific and hormone regulation of the cardiac myosin heavy chain genes. In: *Cellular and Molecular Biology of Muscle Development*. Stockdale F,

Kedes L (eds). UCLA Symposia on Molecular and Cellular Biology, New Series. Vol. 93, New York: Alan R. Liss, Inc., 1988, pp 369-379.

5. Koren G. Electrical Remodeling and Arrhythmias in Long QT Syndrome: Lessons from Genetic Models in Mice (Review). *Ann Med (Helsinki)*, 2004;36 Supp 1:22-7.
6. Odening KE, Koren G. How do Sex Hormones Modify Arrhythmogenesis in Long-QT Syndrome? – Sex Hormone Effects on Arrhythmogenic Substrate and Triggered Activity. DOI: <http://dx.doi.org/10.1016/j.hrthm.2014.06.023>
Heart Rhythm, Epub 2014, June 19.
7. Nipavan Chiamvimonvat¹, Ye Chen-Izu Colleen E. Clancy, Isabelle Deschenes, Dobromir Dobrev, Jordi Heijman, Leighton Izu, Zhilin Qu, Crystal M. Ripplinger Jamie I. Vandenberg, James N. Weiss, **Gideon Koren**, Tamas Banyasz, Eleonora Grandi, Michael C. Sanguinetti¹, Donald M. Bers, Jeanne M. Nerbonne Potassium currents in the heart: Functional roles in repolarization, arrhythmia and therapeutics. *The Journal of Physiology*, 2017;595(7):2229-2252.

Inventions, Patents

LQT Rabbit Patent

Seminars and Invited Symposia:

“Long QT and ventricular arrhythmias in transgenic mice expressing the N-terminus and first transmembrane segment of a voltage-gated potassium channel”. Cardiovascular Grand Round. Krannert Institute of cardiology, Indianapolis, August 97.

Brigham/UCSD/Genentech Cardiovascular Symposium. Discussant in session 2: “Genetically engineered mouse models”. Boston, October 4-5, 97.

“Long QT and ventricular arrhythmias in transgenic mice expressing the N-terminus and first transmembrane segment of a voltage-gated potassium channel”. Bristol-Myers-Squibb Research Institute. NJ, October 16, 97.

Visiting Scientist, Department of cardiology, University of Freiburg Medical School. Germany, October 22-25, 97.

Moderator, AHA Session: Control of Gene Expression. AHA meeting, Orlando, Florida, November 97.

“A transgenic mouse model with prolonged QT interval: evidence for the interference with the assembly of voltage-gated potassium channels”, Dep. Of Medicine, MetroHealth Medical center, Case Western Reserve University, Cleveland, June 9, 98

Visiting Scientist, Department of Cardiology, University of Freiburg Medical School. Freiburg, Germany, June 16-18, 98.

“Molecular manipulation in assessing the arrhythmogenic impact of a prolonged repolarization process”. From molecules to men - molecular basis of congenital cardiovascular disorders. Gargallen, Austria, June 18-21, 98.

"Cardiac Kv channels: assembly, trafficking and regulation of expression". Dep. Of Medicine, Vanderbilt University, Nashville, October 6, 98.

"Cardiac Kv channels: assembly, trafficking and regulation of expression". Dep. Of Pharmacology, University of Chicago, October 8, 98.

“Transcriptional regulation of cardiac voltage-gated potassium channels”. Dep. Of Medicine and Vollum Institute, Oregon Health Science University, Portland Oregon, October 18, 1998.

“How to manipulate ion channel expression”. Council on Basic Science. AHA meeting. November 11, 98.

“Models of sudden death in mice”. NASPE Symposia entitled: “Prolonging survival in congestive heart failure-Basic aspects”. Toronto, May 99.

International Congress on Chronobiology- Chair of Cardiovascular Chronobiology Symposium. Washington DC, September 99.

“Circadian variation in heart rate and QT-interval in conscious mice”. International Symposium of Chronobiology. Washington DC, September 99.

Visiting Scientist, Department of Cardiology, University of Freiburg Medical School. Freiburg, Germany. October 12-17, 99.

“Ion channels assembly and transport”. AHA Symposia entitled: “Insights into ion channels function”. Atlanta, November 99.

Moderator, AHA Session: “Featured Research: Ion channels in normal and genetically altered mice”. Atlanta, November 99.

"Cardiac Kv channels: assembly, trafficking and regulation of expression". Dep. Of Biomedical Engineering, Cardiac Bioelectricity Center, Case Western Reserve University, March 17, 2000.

"Cardiac Kv channels: assembly, trafficking and regulation of expression". Dep. Of Medicine, University of Regensburg, Regensburg, Germany, June 29, 2000.

Visiting Scientist, Department of Cardiology, University of Freiburg Medical School. Freiburg, Germany. July 1, 2000.

"Cardiac Kv channels: assembly, trafficking and regulation of expression". Dep. Of Medicine, University of Lyon, Lyon, France, July 3, 2000.

State-of-the-Art talk: Potassium Channels: Assembly, trafficking and expression, AHA Meeting New Orleans, November 15, 2000.

“Gene therapy for long QT models in mice”. NASPE, Boston, MA, May 3, 2001.

“Transcriptional regulation of potassium channel genes”. NASPE, Boston, MA, May 3, 2001.

“Potassium Channels: Transcription, trafficking and assembly of functional channels”. Cardiac Grand Round. Dep. of Cardiology, MGH, Boston, May 9, 2001.

"Cardiac Kv channels". Pfizer, Groton CT May 11, 2001.

Potassium Channels in the mouse heart”. Symposium on transgenic mice models. Gene therapy for long QT syndrome: lessons from transgenic mice models” Paris, France June 1, 2001

Visiting Professor, Case Western University Metro Health Medical center. “Gene therapy for long QT syndrome: lessons from transgenic mice models”. Cleveland, September 3, 2001.

American Heart Association - Sunday Morning Symposium. New molecular motifs in arrhythmogenesis. “Depolarization abnormalities in model systems”. November 2001, CA.

Cardiovascular Grand Round, “Gene therapy for long QT syndrome: lessons from transgenic mice models”. BWH, Boston MA, February 7, 2002.

Research Seminar, “Gene therapy for long QT syndrome: lessons from transgenic mice models”. Genzyme, Framingham MA, April 1, 2002.

Cardiovascular Grand Round, “Gene therapy for long QT syndrome: lessons from transgenic mice models”. Cardiovascular Division, Mount Sinai Hospital, Miami, FL, April 17, 2002.

Visiting Professor, Montreal Heart Institute, University of Montreal, Montreal May 23, 2002

“Gene therapy for long QT syndrome: lessons from transgenic mice models”. Cardiostim, Nice, France, June 22, 2002

“Gene therapy for long QT syndrome: lessons from transgenic mice models”. INSERM Biarritz, France, October 2002

“Regulation of Kv1.5 expression by SAP97” AHA Chicago, November 2002

"Trafficking of Potassium Channels to Caveolae: Caveolin-3, Kv1.5 and SAP97 form a Tripartite Protein Complex that Regulates Channel Function". Madrid Spain, June 2003.

“Gene therapy for long QT syndrome: lessons from transgenic mice models”. Gordon Conference on Arrhythmias. NH, USA, August 2003.

“Molecular Mechanism of Ion Channel regulation” Paavo Nurmi Foundation, Helsinki Finland

August 2003.

“Gene therapy for long QT syndrome: lessons from transgenic mice models”. Cardiology Grand Round, NYU Medical Center, NYC, March 2004.

"Trafficking of Potassium Channels to Caveolae: Caveolin-3, Kv1.5 and SAP97 form a Tripartite Protein Complex that Regulates Channel Function". Dep. Of Medicine, MetroHealth Medical center, Case Western Reserve University, Cleveland, March, 2004.

"Trafficking of Potassium Channels to Caveolae: Caveolin-3, Kv1.5 and SAP97 form a Tripartite Protein Complex that Regulates Channel Function". Dep. of Cell Biology, UMDNJ, Newark, April, 2004.

“Transcriptional Channelopathy”. AHA, New Orleans, Nov 2004.

“Animal models of LQTS”. Gordon Conference on Cardiac Arrhythmias CA, Feb 2005.

“Rabbit models for LQTS”, 1st BCC symposium, Providence, Jan 2006.

“PDZ domain containing proteins”, HRS, Boston, June 2006

Visiting Professor, Philips Cooperation, Eindhoven, Holland, June, 2006

“Post-genomic approaches to cardiac arrhythmias”, Tel Aviv, Israel October 2006

“Drug induced long QT syndrome”, Tel Aviv, Israel, October 2006

“Post-genomic approaches to cardiac arrhythmias”, W&I Hospital, Providence, March 2007

“Animal Models of long QT syndrome”, Nantes, France June, 2007

“Mechanisms of Cardiac Arrhythmias and Sudden Death in Transgenic Rabbits with Long QT Syndrome” UCLA, May, 2008

The Female Heart”. HRS meeting, San Francisco, June, 2008

"Mechanisms of Cardiac Arrhythmias and Sudden Death in Transgenic Rabbits with Long QT Syndrome" Columbia University, October, 2008.

“Of Mice, Rabbits and Men: Mechanisms of Arrhythmia in Transgenic rabbits with Long QT Phenotype” Mass General Hospital, Harvard Medical School, November 2008

“Transgenic Rabbit Models of LQT: Implications for Human Arrhythmias” Heart Rhythm Society, May 2009

“Of Mice, Rabbits and Men: Mechanisms of Arrhythmia in Transgenic Rabbits with Long QT Phenotype” Novartis, NJ, June 2009

“Of Mice, Rabbits and Men: Mechanisms of Arrhythmia in Transgenic Rabbits with Long QT Phenotype” Beth Israel Deaconess Medical Center, Harvard Medical School, November 2009

“Mechanisms of Arrhythmia in Transgenic Rabbits” Department of Physiology, Oxford University, England January 2010

“Mechanisms of Arrhythmia in Transgenic Rabbits” Heart Rhythm Society, Denver, May 2010

“Mechanisms of Arrhythmia in Transgenic Rabbits” Heart Rhythm Society, Albert Einstein, Bronx, June, 2010

“Mechanisms of Arrhythmia in Transgenic Rabbits” Heart Rhythm Society, U. of Illinois, Chicago, September 2010

“Gender, Age and Long QT Arrhythmias: Insights from Genetic Models” Gordon Conference: Mechanisms of cardiac Arrhythmias” Galveston, February 2011

“Of Mice, Rabbits and Men: Mechanisms of Arrhythmia in Transgenic Rabbits with Long QT Phenotype” University Hospital, Case Western University, April 2011

“Transgenic Rabbit Models of LQT: Implications for Human Arrhythmias” ISHR, Philadelphia, May 2011

“Repolarization Abnormalities Lessons from Rabbit Models” Heart Rhythm Society, San Francisco, May 2011

“Repolarization Abnormalities: Lessons from Rabbit Models” AHA Orlando, November 2011

“Of Mice, Rabbits and Men: Mechanisms of Arrhythmia in Transgenic Rabbits with Long QT Phenotype” Washington University, April 2012

“Of Mice, Rabbits and Men: Mechanisms of Arrhythmia in Transgenic Rabbits with Long QT Phenotype” Tel Aviv University, Israel, June 2012

Heart Rhythm Society Conference, New pathways of arrhythmias, Denver, May 2013

Mechanism of arrhythmias in LQT rabbits Cardiovascular Institute, University of Michigan, November 2013

Of Long QT rabbits and Humans, a multi-scale approach to sudden cardiac death, Mount Sinai School of Medicine, November 2013.

Heart Rhythm Society Meeting, Mechanisms of arrhythmias in LQT rabbits (given by Bum-Rak due to cervical radiculopathy) May 2014

Heart Rhythm Society Meeting, Trafficking of HEG (given by Karim Roder) May 2014

Heart Rhythm Society Meeting, Calcium regulation in LQT rabbits May 2015

Of Long QT rabbits and Humans, a multi-scale approach to sudden cardiac death, Beth Israel Deaconess Medical Center, HMS, September 2015.

Of Long QT rabbits and Humans, a multi-scale approach to sudden cardiac death, UCLA, Los Angeles December 2015.

Of Long QT rabbits and Humans, a multi-scale approach to sudden cardiac death, UC Davis, February 2016

Rabbits models for arrhythmias, HMS, San Francisco, May 2016

Large animal models for arrhythmias, AHA, New Orleans November 2016

AHA presentation (Arrhythmia Summit): Senescence and Arrhythmia: Lessons from aging. Anaheim, CA November, 2017

Grants:

| | |
|-----------|---|
| 1989 | Milton Award (Harvard University) |
| 1989-1992 | AHA- Massachusetts Affiliate, Grant-in-Aid |
| 1990-1993 | AHA- Dallas, Grant-in-Aid |
| 1991-1995 | NIH - RO1, Gideon Koren PI, Heart and Muscle K ⁺ channels: Assembly and regulation |
| 1994-1999 | AHA - Established Investigator Award |
| 1996-2000 | NIH-RO1, Gideon Koren PI, Heart and Muscle K ⁺ channels: Assembly and Regulation |
| 1996-1999 | AHA - Grant-in-Aid (declined) |
| 1999-2000 | Joint Project with the University of Freiburg, Germany. |
| 2000-2004 | NIH RO1, Gideon Koren PI, Heart and muscles K ⁺ channels: Assembly and regulation |
| 2000-2004 | NIH RO1, Gideon Koren PI, Trafficking and subcellular distribution of cardiac potassium channels |
| 2006-2009 | Predix, Gideon Koren Co-PI. |
| 2004-2010 | NIH RO1, Gideon Koren PI, Trafficking and subcellular distribution of cardiac potassium channels |
| 2005-2010 | NIH R01, Gideon Koren P.I, Heart and Muscle K ⁺ Channels: Assembly and Regulation |
| 2008-2010 | Rhode Island Cardiovascular Health Study (RICHeS) (Internal funds; PI). |
| 2009-2014 | The Role of Dynamic Changes in Repolarization and Calcium Transients in Long QQ related Arrhythmias (Co-PI) |
| 2009-2014 | T32 CardioPulmonary Training Grant (for 8 postdocs) (PI) |
| 2009-2014 | NIH R01, Sex Hormones and Cardiac Arrhythmia in Transgenic LQT2 Rabbits (PI) |

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| 2009-2014 | The role of dynamic changes in repolarization and calcium transients in Long QT related arrhythmias. (Co-PI) |
| 2010-2014 | NIH R01, Gideon Koren P.I, Heart and Muscle K ⁺ Channels: Assembly and Regulation. |
| 2013-2014 | Advancing Experimental Models top Study Intercellular Communication (Brown University) (Co-PI) |
| 2012-2016 | Gilead Science – Study of a patented molecule |
| 2013-2017 | NIH R01, Regulation of Gq Signaling in Cardiac Fibroblast and its Role in Cardiac Remodeling (Co-PI) |
| 2013-2018 | NIH R01 Multi Scale Approach to Cardiac Arrhythmias: From the Molecule to the Organ (System Biology Grant) (PI) |
| 2014-2019 | Regulation of Calcium Homeostasis by MyomiRs in Heart Failure (Co-PI) |
| 2015-2016 | NIH R21, Arrhythmia in the Infarcted Aging Heart: Role of Fibroblast Senescence (PI of a Multi PI Grant) |
| 2017-2021 | NIH R01, Cardiac ubiquitin ligases: regulation and role in modulating cardiac excitation |
| 2018-2022 | NIH R01, Scaring and Arrhythmias in the aged heart: role of senescent fibroblasts. |

University Teaching:

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| 1984-1985 | Organized Seminars for the Department of Cardiology, Hadassah Medical School, Jerusalem. |
| 2008- | Introduction to Molecular Cardiology (CVRC Seminars) |
| 2009- | Organized the CVRC Seminar Series |

Hospital Teaching:

| | |
|-------|---|
| 1986- | Surgical Consult Service. 1 fellow 20hrs/week 4 weeks/year. |
| 1987- | Surgical Consult Service. 1 fellow 20hrs/week 4 weeks/year. |
| 1988- | Surgical Consult Service. 1 fellow 20hrs/week 4 weeks/year. |
| 1989- | Surgical Consult Service. 1 fellow 20hrs/week 4 weeks/year. |
| 1990- | Surgical Consult Service. 1 fellow 20hrs/week 4 weeks/year. |
| 1991- | Cardiovascular services (Attending Physician) 1 resident, 2 interns and 2 students (HMS 3 and 4) 30 hrs/week 4 wks/year. Surgical Consult Service. 1 fellow 20hrs/week 4 weeks/year. |
| 1992- | Cardiovascular services (Attending Physician) 1 resident, 2 interns and 2 students (HMS 3 and 4) 30 hrs/week 4 wks/year. Surgical Consult Service. 1 fellow 20hrs/week 4 weeks/year. |
| 1993- | Cardiovascular services (Attending Physician) 1 resident, 2 interns and 2 students (HMS 3 and 4) 30 hrs/week 4 wks/year. Surgical Consult Service. 1 fellow 20hrs/week 4 weeks/year. Consult Service. 1 fellow 1 student (HMS 3 and 4) 20 hrs/week, 4 wks/year. |

| | |
|-------------|---|
| 1994- | Cardiovascular services (Attending Physician) 1 resident, 2 interns and 2 students (HMS 3 and 4) 30 hrs/week 4 wks/year. Surgical Consult Service. 1 fellow 20hrs/week 4 weeks/year. Consult Service. 1 fellow 1 student (HMS 3 and 4) 20 hrs/week, 4 wks/year. |
| 1995- | Cardiovascular services (Attending Physician) 1 resident, 2 interns and 2 students (HMS 3 and 4) 30 hrs/week 4 wks/year. Surgical Consult Service. 1 fellow 20hrs/week 4 weeks/year. Consult Service. 1 fellow 1 student (HMS 3 and 4) 20 hrs/week, 4 wks/year. |
| 1996- | Cardiovascular services (Attending Physician) 1 resident, 2 interns and 2 students (HMS 3 and 4) 30 hrs/week 4 wks/year. Surgical Consult Service. 1 fellow 20hrs/week 4 weeks/year. Consult Service. 1 fellow 1 student (HMS 3 and 4) 20 hrs/week, 4 wks/year. |
| 1997- | Cardiovascular services (Attending Physician) 1 resident, 2 interns and 2 students (HMS 3 and 4) 30 hrs/week 4 wks/year. Surgical Consult Service. 1 fellow 20hrs/week 4 weeks/year. |
| 1998- | Cardiovascular services (Attending Physician) 1 resident, 2 interns and 2 students (HMS 3 and 4) 30 hrs/week 4 wks/year. Surgical Consult Service. 1 fellow 20hrs/week 4 weeks/year. |
| 2006 - 2007 | Brown undergraduate entrepreneurship courses |
| 2008 | Graduate Student course in Physiology |
| 2008 | Supervised eight Brown undergraduate students in biology course |
| 2008 - 2009 | CVRC: Introduction to “Molecular Cardiology” |
| 2008 - 2013 | Supervised a graduate student for a PhD Thesis |
| 2014 - | Supervising a graduate student for a PhD Thesis |

Mentoring

Postdoctoral Fellows:

- A Moscucci 1989-1990
(Brigham and Women’s Hospital/Harvard Medical School)
- Hirokai Matsubara 1989-1991
(Brigham and Women’s Hospital/Harvard Medical School)
- Frances Weaver 1990-1992
(Brigham and Women’s Hospital/Harvard Medical School)
- Yasukiyo Mori 1991-1994
(Brigham and Women’s Hospital/Harvard Medical School)
- Tamar Babila 1992-1995
(Brigham and Women’s Hospital/Harvard Medical School)

- Eduardo Folco 1992-1996 & 2000-2005
(Brigham and Women's Hospital/Harvard Medical School)
- AP Levy 1994-1995
(Brigham and Women's Hospital/Harvard Medical School)
- Andreas Jeron 1996-1997
(Brigham and Women's Hospital/Harvard Medical School)
- Rajesh Mathur 1996-1998
(Brigham and Women's Hospital/Harvard Medical School)
- Paloma Valverde 1996-1999
(Brigham and Women's Hospital/Harvard Medical School)
- Jun Zhou 1996-1999
(Brigham and Women's Hospital/Harvard Medical School)
- Mitsunobu Murata 1996-1999
(Brigham and Women's Hospital/Harvard Medical School)
- Anthony Ayzer 1999-2000
(Brigham and Women's Hospital/Harvard Medical School)
- Danny Chan 1999-2000
(Brigham and Women's Hospital/Harvard Medical School)
- Steven Wiviott 1999-2000
(Brigham and Women's Hospital/Harvard Medical School)
- Michael Brunner 1999-2001
(Brigham and Women's Hospital/Harvard Medical School)
- Katsushi Shibata 2000-2002
(Brigham and Women's Hospital/Harvard Medical School)
- Liliana Busconi 2001-2002
(Brigham and Women's Hospital/Harvard Medical School)
- S Kodirov 2002-2004
(Brigham and Women's Hospital/Harvard Medical School)
- Aikaterini Pringa 2002-2006
(Brigham and Women's Hospital/Harvard Medical School &
Rhode Island Hospital/Brown University)

- XiaoQin Ren 2002-2006
(Rhode Island Hospital/Brown University)
- GongXin Liu 2003-2004
(Brigham and Women's Hospital/Harvard Medical School)
- Karim Roder 2003-2004
(Brigham and Women's Hospital/Harvard Medical School)
- Mohammad Hajjiri 2006-2008
(Rhode Island Hospital/Brown University)
- Katja Odening 2006-2010
(Rhode Island Hospital/Brown University)
- Naveed Rana 2006-2007
(Rhode Island Hospital/Brown University)
- Ziv, Ohad 2007-2010
(Rhode Island Hospital/Brown University)
- Zhe Zheng 2009-2011
(Rhode Island Hospital/Brown University)
- Louise Organ-Darling 2009-2012
(Rhode Island Hospital/Brown University)
- Jennifer Rochira 2010-2013
(Rhode Island Hospital/ Brown University)
- Konstantinos Kossidas 2011-2013
(Rhode Island Hospital/Brown University)
- Weiyan Li 2011-2014
(Rhode Island Hospital/Brown University)
- Karni Moshal 2011-2016
(Rhode Island Hospital/Brown University)
- Karuppiah Arunachalam 2016-2018
(Rhode Island Hospital/Brown University)

Graduate Students:

- Emily Liman 1987-1992

(Brigham and Women's Hospital/Harvard Medical School)

- Leroy Cooper 2008-2013
(Rhode Island Hospital/Brown University)
- Kevin Murphy 2012-2018
(Rhode Island Hospital/Brown University)
- Brett Baggett 2017-present
(Rhode Island Hospital/Brown University)
- Elif ŞENGÜN 2019-Present

Undergraduate Students:

- Jose Marc Techner 2008
(Rhode Island Hospital/Brown University)
- Kathryn Hartmann 2008-2010
(Rhode Island Hospital/Brown University)
- Emily Lau 2008-2009
(Rhode Island Hospital/Brown University)
- Ileana Garcia 2009
(Rhode Island Hospital/Brown University)
- Andre Anderson 2009-2010
(Rhode Island Hospital/Brown University)
- Elise Merchant 2009-2010
(Rhode Island Hospital/Brown University)
- Divyang Patel 2009-2010
(Rhode Island Hospital/Brown University)
- Amanda Vernon 2010
(Rhode Island Hospital/Brown University)
- Jacqueline Giovanniello 2010
(Rhode Island Hospital/Brown University)
- Lauren Libraind 2010-2011

(Rhode Island Hospital/Brown University)

- Stephen Quach 2010-2011
(Rhode Island Hospital/Brown University)
- Yukiko Kunitomo 2010-2013
(Rhode Island Hospital/Brown University)
- Ezinne Ihenachor 2011-2012
(Rhode Island Hospital/Brown University)
- Vishal Reddy 2011-2012
(Rhode Island Hospital/Brown University)
- Zackary Pfeiffer 2012-2013
(Rhode Island Hospital/Brown University)
- William Mangham 2013
(Rhode Island Hospital/Brown University)
- Cecile Harmange 2016
(Rhode Island Hospital/Brown University)
- Eric Mi 2018-Present
(Rhode Island Hospital/Brown University)

Mentees Extra Mural Extramural Funding:

AHA Summer Fellowship 2007
AHA Summer Fellowship 2009
Northwestern Cardiovascular Young Investigator 2009
AHA 2008 – 2010
AHA 2008 – 2010
RI Foundation 2014
American Heart Association – Founders Affiliate 2014
UNCF-Merck Science Initiative 2015

Sunny Intwala
Emily Lau
Katja E. Odening
Katja E. Odening
Ohad Ziv
Weiyang Li
Leroy Cooper
Leroy Cooper