

CURRICULUM VITAE

Biographical

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Education and Training

Undergraduate

1970 - 1973	Interaction-Biochemistry and Hebrew Temple University Philadelphia, PA	B.A.
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Graduate

1974 - 1978	Temple University School of Medicine Philadelphia, PA	M.D.
1978 - 1981	Temple University, Dept. of Pathology Philadelphia, PA	Ph.D.

Education and Training (Continued)

Appointments

1/1974 - 6/1974	Graduate Fellowship in Biochemistry Temple University School of Medicine Philadelphia, PA
7/1977 - 6/1978	Student Research Assistant Temple University School of Medicine Department of Pathology Philadelphia, PA
9/1978 - 6/1979	University Fellowship Temple University School of Medicine Department of Pathology Philadelphia, PA
9/1978 - 6/1981	Graduate Research Assistant Temple University School of Medicine NCI Grant #CA23999 and Pathology Program Project Grant #CA12923 Philadelphia, PA

Graduate Medical Training

6/1981 - 6/1982	Hahnemann University Hospital Philadelphia, PA	Medical Internship
7/1982 - 6/1984	Hahnemann University Hospital Philadelphia, PA	Medical Residency
7/1984 - 9/1987	National Cancer Institute Clinical Oncology Program NCI - Navy Medical Oncology Branch Bethesda, MD	Medical Staff Fellow

Appointments and Positions

9/1987 - 9/1994	University of Pittsburgh School of Medicine Pittsburgh, PA	Assistant Professor of Medicine Division of Medical Oncology
9/1987 - 9/1994	Veterans Administration Medical Center University Drive C	Staff Physician Hematology/Oncology
11/1988 - 9/1994	Pittsburgh Cancer Institute Montefiore University Hospital Pittsburgh, PA 15213	Director, Lung Cancer Center
4/1991 - 9/1994	University of Pittsburgh Medical Center Division of Medical Oncology Pittsburgh, PA 15213	Director, Fellowship Program
10/1994-8/1998	Allegheny Cancer Center	Director, Lung Cancer Program
10/1994-2/1997	Allegheny-Singer Research Institute	Senior Research Scientist
2/1997-8/1998	Associate Professor	Department of Human Oncology Allegheny University of the Health Sciences
12/1995-8/1997	Allegheny General Hospital Fellowship Training Program in Medical Oncology	Director
1/1996-8/1998	Allegheny Center for Lung and Thoracic Diseases	Co-Director
1995-1997	AUHS/AGH Tissue Bank	Director
1999- 2006	Professor (Adjunct)	Department of Environmental and Occupational Health Graduate School of Public Health University of Pittsburgh
1999- 2000	Co-CEO	Operations Center- Global (OCG)
1999- 2011	CEO	Israel Alliance for Collaborative Cancer Research

Appointments and Positions (cont.)

1999-2001	Oncologist	Institute of Oncology Sheba Medical Center
2000- 2006	Scientific/Medical Director	Massis Early Detection, Inc.
2000	Chair	Protocol Review Committee Institute of Oncology Sheba Medical Center
2000-2005	Editorial Board	Signal: The Journal of EGFR-Targeted Cancer Therapy
2001- 2018	Senior Oncologist (From 2006- voluntary)	Institute of Oncology Sheba Medical Center
2001-2003	Scientific/Medical Advisor	Selikoff Center
2003- 2006	Head, Lung Cancer Unit	Institute of Oncology Sheba Medical Center
2004- 2006	Director, Clinical Research	Institute of Oncology Sheba Medical Center
2004- Present	Council of Advisors	Gerson-Lehrman Group, Inc.
2005-2006	Consultant	MEDAcorp
2005-Present	GLG Scholars Program	Gerson-Lehrman Group, Inc.
2005-2006	Oncology Consultant, Head of Oncology	Inotek Pharmaceutical Corp.
2006-2009	Clinical Oncology Platform Leader	Teva Pharmaceuticals
2007-2009	Senior Manager	Teva Pharmaceuticals
2008-2009	Co-Director Oncology Sourcing Team	Teva Pharmaceuticals
2009-2011	Head, Oncology Search and Evaluation Global Business Development	Teva Pharmaceuticals

Appointments and Positions (cont.)

2009-2013	Director, Global Branded Products	Teva Pharmaceuticals
2011-2013	Senior Clinical Scientist Global Innovative R&D	Teva Pharmaceuticals
2011-2018	Editorial Board	Journal of Biorepository Science for Applied Medicine
2013- Present Ltd.	CEO	Levitt Oncology Associates,
2014- 2017	Medical Director	Efranat, Ltd.
2014- 2017	Advisory Board	Amorphical
2015- Present	Scientific/Clinical Advisory Board	EnGeneIC, Ltd.
2016- 2017	SVP, Oncology	Immune Pharmaceuticals, Inc.
2016- 2017	Director, Oncology	Luria Scientific Industries, A Division of Salzman Capital Ventures
2016- 2018	Scientific Advisory Board	Medican
2017- Present	Medical Director, Oncology	RedHill Biopharma, Ltd.
2017- 2020	Scientific Advisory Board	Luces-Orot
2019- Present	Co-Founder	Matrix BioTherapies
2020- Present	Board of Directors	EnGeneIC, Ltd.
2020- Present	Scientific Advisory Committee	BioMx, Ltd.
2022-Present	Chief Scientific Officer	RedHill Biopharma, Ltd.

Commercial

Drug Development:

Responsible for the development of cancer indications for INO-1001 (Inotek), a PARP inhibitor that was licensed to Genentech in a deal worth up to \$625M in upfront and milestone payments.

Steering committee oncologist for the development of CT-011 (Curetech/Teva), a MoAb against PD-1, entering Phase III.

Clinical Leader for Talampanel (AMPA glutamate receptor antagonist) development in GBM (Teva)- halted after Phase II.

Initial oncologist for the development of biosimilar G-CSF, long acting G-CSF and rituximab; and other unannounced products.

Oncologist in project with Optimata for identifying and salvaging failed compounds.

Oncologist for TV-1107 (Mersana/Teva) fumagilin derivative, currently in Phase I.

Oncologist for Teva's Life Cycle Management team for Custirsen (OncoGeneX/Teva), an ASO targeting clusterin, currently in Phase III.

Oncologist for TV-1360 (Teva/Rexahn) a nucleoside analogue in preclinical development.

Oncologist for 3 other unannounced preclinical products licensed by Teva.

Responsible for development of a preclinical program to support Commercial in Oncology- discontinued at present.

Responsible for assembling KOL teams to support Oncology product evaluation.

Consultant in oncology for over 30 companies, from start-ups to Big Pharma and VCs

CSO of RedHill Biopharma, responsible for clinical, preclinical and research R&D activities

Business Development:

Led the licensing deal with OncoGeneX for OGX-011 (Custirsen) for \$430M in upfront and milestone payments.

Led the clinical oncology portion of the Due Diligence on Cephalon that resulted in Teva's acquisition of Cephalon for \$6.8B.

Clinical lead in the Clinical DD that led to Teva exercising its option to become a majority owner of Curetech.

Served as oncologist on an executive committee of Teva Global Branded Products that approved 3 unannounced early stage deals.

Reviewed over 500 opportunities, several others of which were approved by the Global Branded Products executive committee but deals were not consummated due to business decisions at the CEO/BoD level.

Provided oncology support to Teva Israel for the licensing of the Galena anti-HER-2 vaccine.

Part of DD team that led to licensing deal of ABC294640 by RedHill Biopharma, Ltd. from Apogee Biotechnology Corp., Inc.

General:

Led development in clinic and laboratory for an early detection test for cancer based on the use of symbiotic enteric bacteria as biosensors for cancer while at Era-Massis, Inc.

Served as consulting oncologist at Teva for all oncology related activities, including, IP, Commercial, Legal, Generics. Was also involved with Regulatory.

Member of Oncology working group of Project Spring- Teva global leadership strategy planning.

Patents:

Gil Tenne, **Mark L Levitt**, Anahit Karapetian: Method For The Early Diagnosis Of Cancer. Era-massis. Mar, 6 2003: US20030044881

Gil Tenne, **Mark L Levitt**, Anahit Karapetian: Method For The Early Diagnosis Of Cancer. Era-massis. Nov, 11 2008: US7449340

Reza Fathi, **Mark Levitt**, Terry Plasse, Danielle Abramson: USE OF WX-UKI AND ITS PRODRUG, WX-671, FOR THE TREATMENT OF INFLAMMATORY DISEASES. RedHill Provisional #62/535,376, Filed: October 19, 2017

Reza Fathi, **Mark Levitt**, Terry Plasse, Danielle Abramson: USE OF WX-UK1 AND ITS PRODRUG, WX-671, FOR THE TREATMENT OF NON-CANCEROUS MEDICAL CONDITIONS. RedHill Provisional # 16/034,815, Filed: July 13, 2018.

Certification and Licensure

Specialty Boards

1987	Medical Oncology (ABIM)- USA
1985	American Board of Internal Medicine- USA
2000	Internal Medicine- Israel Medical Association
2001	Oncology- Israel Medical Association (Medical and Radiation)

Medical Licensure

1982	State of Pennsylvania- MD027926E
1985	State of Maryland (Inactive)
1997	Israel- #32043

Memberships in Professional and Scientific Societies

1985	American Association for the Advancement of Science
1988	Eastern Cooperative Oncology Group
1988	Lung Section
1990	Steering Committee: Biological Response Modifiers Section
1990	Steering Committee: Laboratory Studies Section
1992	Steering Committee: Prevention Section
1995	Chair, Tumor Modulation Subcommittee
1990	Laboratory Science Advisory Committee
1995	Principal Investigator- AUHS
1989	American Society of Clinical Oncology
1989	American Association for Cancer Research
1990	International Society for Interferon Research
1990	International Society of Differentiation
1990	Conference on Differentiation Therapy
1990	Western Pennsylvania Oncology Group; Chairman
1991	NIH Alumni Association
1991	Professional Education Committee - ACS
1994	Chair
1996	NSABP, Division of Medical Oncology- Chief
2001	Israeli Society for Clinical Oncology and Radiation Therapy

Honors

1970	Merit Scholarship Finalist
1970-73	Dean's List
1973	College Honors
1973	President's Scholar Award
1991	ACS - Professional Education Award, Allegheny County Chapter
1992	University Honors Convocation
1995	ACS- Citation of Merit
1995	ASCO Travel Award (Bachar Kassem)

Research

1973 - 1974	Single Strand Breaks in DNA Induced by Dimethylnitrosamine and the Influence of Diethyldithiocarbamate in Preventing These.	Dr. Emmanuel Farber Fels Research Inst. Temple University School of Medicine
1975 - 1976	Incorporation of BrdU in Cultured Cells and Their Sensitivity to UV Light at 313 nm. and 254 nm. as Measured by Template Activity Following Irradiation.	Dr. Renato Baserga Dept. of Pathology Temple University School of Medicine
1977 - 1978	Differences in growth Properties Under Various Conditions Between the Wi38 Human Embryonic Lung Fibroblast Culture and its SV40 Transformed Analogue, 2RA	Dr. Renato Baserga Dept. of Pathology Temple University School of Medicine
1978 - 1981	Strain Differences in Epstein-Barr Virus as Well as Mechanisms of Transformation by EBV, also Lymphocytic Leukemia	Dr. Earl Henderson Dept. of Microbiology School of Medicine Ph.D. Thesis
1985 - 1987	Squamous Differentiation in Non-Small Cell Lung Cancer, Cellular Growth Factors	Dr. Adi Gazdar NCI-Navy Med.Oncol. NCI
1987 - 2010	Squamous Differentiation in Non-Small Cell Lung Cancer; Cellular Growth Factors; Differentiation and Metastasis; Apoptosis; Clinical Lung Cancer Research; Chemoprevention	Principal Investigator
2000-2006	Early Detection of Cancer	Principal Investigator
2002-2006	Molecular Basis of Symbiosis and Its Relationship to Cancer	Principal Investigator
2014-Present	Mechanism of Action of Opaganib and Upamostat	Chief Scientific Officer

Teaching Experience

1980 Temple University School of Medicine
Department of Microbiology
Laboratory Section
Virology Course

1980 - 1981 Temple University School of Medicine
Laboratory Section
Pathology Course

1981 College of Allied Health Professions
Lectures on Cardiovascular Pathology

1986 National Naval Medical Center, Bethesda
Oncology Consultation Service

1985 - 1987 Consultant - Resident's Morning Report
National Naval Medical Center, Bethesda

1987 - 1994 Attending Physician
University of Pittsburgh
Department of Medicine

1987 - 1994 Attending Physician
Veterans Administration Medical Center
Pittsburgh, PA

1988 - 1992 Introduction to Clinical Medicine
University of Pittsburgh School of Medicine

1989 - 1993 Internal Medicine Review Course
University of Pittsburgh, Department of Medicine

1994-1998 Attending Physician
Allegheny University Hospitals-
Allegheny General
Pittsburgh, PA

1999- 2018 Physican
Chaim Sheba Medical Center
Institute of Oncology
Tel Hashomer, Israel

Teaching Experience (continued)

1999-2007 Lecturer
Bioethics Course
Bar Ilan University

2013-Present Lecturer
Introduction to Oncology Course
Ben Gurion Univ. School of Medicine

Service

1988-1989, 1992-1994 VA Human Investigations Committee
1988-1994 University of Pittsburgh - American Cancer Society
 Institutional Grant Review Committee
1988-1990 Presbyterian University Hospital Utilization Review Committee
1989-1990 VA Research and Development Committee
1990-1994 VA Medical Records Committee
1991-1993 Montefiore University Hospital Utilization Review Committee
1991-1994 University of Pittsburgh - Biomedical Institutional Review Board
1992-1993 Dean's Applicant Interview Committee-UPMC
1994-1997 Allegheny-Singer Research Institute
 Internal Grant Review Committee
1995-1998 Allegheny University Medical School Research Committee
1995-1996 AGH Institutional Review Board
1996 AU Patholgy Chair Search Committee
1996 Middle States Association Accredation Review-AU
1996 Cancer Genetics Search Committee-
 AU Department of Human Genetics; Chair
1996 Disease Management Committee- AGH
1995-1998 Cancer Committee- AGH
1996-1998 National Medical Knowledge Bank-
 Medical Advisory Board
1996 Clinical Research Task Force- AUHS; Workgroup Chair
1996 Graduate Program Task Force- AUHS; Workgroup Chair
1996-1998 International Affairs Advisory Board - AGH
1996-1997 LCME- AUHS; Workgroup Co-Chair
1996-1998 AU Cardiothoracic Chair Search Committee
1996-1998 AU Institute on Women's Health Chair Search Committee
2001-Present Israel Forum for Smoking Prevention
2004 Task Force- Research Fund Infrastructure, Sheba Medical Center

Research Funding

7/1/89 - 9/30/90	VA RAGS-Squamous Differentiation in Human Lung Cancer Cell Lines \$30,000 Direct Costs	Principal Investigator
9/1/88 - 8/31/90	NeoRx: A Phase II-III Trial of Technetium Labelled Monoclonal Antibodies for Staging Small Cell Lung Cancer \$71,528 Total Direct Costs	Co-Principal Investigator
4/1/91 - 3/31/92	Burroughs Wellcome: Navelbine: A Randomized Trial Comparing Intravenous NAVELBINE with 5-Fluorouracil/Leucovorin for the Treatment of Inoperable, Previously Untreated, Stage IIIB and Stage IV Non-Small Cell Lung Cancer \$39,434 Total Costs	Principal Investigator
1/1/90 - 6/30/95	Bristol Meyers: Neoadjuvant Carboplatin and Ifosfamide Followed by Thoracic Surgery for Stage IIIa Non-Small Cell Carcinoma of the Lung \$56,000 Total Costs	Principal Investigator
7/1/91 - 6/30/95	Eli Lilly: Gemcitabine Phase I Over 30 Minutes in Patients with Non-Small Cell Lung Cancer \$120,000 Total Costs	Principal Investigator
9/1/91 - 8/30/94	Lederle: Mitoxantrone and Carboplatin Treatment of Patients with Unresectable Non-Small Cell Lung Cancer \$15,000 Total Costs	Co-Principal Investigator
10/1/91 - 9/30/94	VA: Merit Review Award Squamous Differentiation in Human Lung Cancer Cell Lines \$182,000 Total Direct Costs	Principal Investigator
7/1/92 - 6/30/94	ACS Fellowship Training Award \$20,000 Total Costs/Year	Principal Investigator
7/1/91 - 6/30/94	NCI NRSA Institutional Training Grant \$287,000	Co-Principal Investigator

Research Funding (cont.)

10/1/92 - 9/30/94	NCI: SPORE in Lung Cancer \$600,000 Total Costs	Co-Principal Investigator and Project Leader
9/29/91 - 9/28/96	NCI: Early Detection Research Network \$574,488 Total Direct Costs	Co-Investigator
12/93	Unrestricted Educational Grant Lung Cancer Conference Bristol-Myers Oncology Division \$150,000 Total Costs	Principal Investigator
2/95 - 1/96	Eli Lilly: A Phase II Study of Gemcitabine and Cisplatin in Patients with Non-Small Cell Lung Cancer. \$40,000 Total Costs.	Principal Investigator
7/95 - 6/96	Eli Lilly: A Phase 3 Trial of Gemcitabine Plus Cisplatin vs Cisplatin Alone in Patients with Metastatic Non-Small Cell Lung Cancer. \$73,000 Total Costs.	Principal Investigator
9/95-8/98	Rhone-Poulenc Rorer: A Phase III Comparison of Taxotere and Taxol in Patients with Advanced Breast Cancer. \$45,000 Total Costs.	Principal Investigator
9/95-8/96	Rhone-Poulenc Rorer: A Multicenter, Randomized Phase III Study of Docetaxel 100mg or 75mg Versus Vinorelbine or Ifosfamide in Patients with NSCLC Previously Treated with Platinum-Based Chemotherapy. \$81,000 Total Costs.	Principal Investigator
11/95-10/96	Genetics Institute: Phase 3 Double-Masked, Randomized Study of Recombinant Human Interleukin Eleven Vs. Placebo in Adult Cancer Patients with Severe Thrombocytopenia Due to Chemotherapy. \$108,000 Total Costs.	Principal Investigator

Research Funding (cont.)

1/96-12/96	R.W. Johnson: The Effect of r-HuEPO in Patients with Small Cell Lung Cancer: A Randomized, Double-Blind, Placebo-Controlled Study. \$40,000 Total Costs.	Principal Investigator
1/96-12/97	Eli Lilly: A Randomized Phase 2 Trial Comparing High and Low Dose Gemcitabine in a Short, Weekly Infusion Schedule in Non-Small Cell Lung Cancer. \$86,200 Total Costs.	Principal Investigator (National)
2/96-1/99	Ciba-Geigy: Comparison of Two Doses of Letrozole Vs. Megestrol Acetate in Postmenopausal Women with Advanced Breast Cancer. \$ 82,617 Total Costs.	Principal Investigator
1/96- 9/02	NIH: MAA- Phase II Trials for New Chemopreventive Agents. Approved	Principal Investigator
3/96-8/98	ECOG: Main Institution Proposal \$25,750/year Total Costs	Principal Investigator
1/96-12/97	ASRI: Squamous Differentiation and Programmed Cell Death in Non-Small Cell Lung Cancer. \$195,000 Total Costs.	Principal Investigator
10/95-9/00	NIST: Advanced Technology Program (ATP) Development of National Medical Practice Knowledge Banks. \$57,005,913 Total Costs.	Investigator
6/97-6/99	Zeneca: Arimidex in Breast Cancer..... \$67,000 Total Costs	Principal Investigator
6/97-12/99	Alfacell: Onconase vs. Gemzar in Pancreatic Cancer.... \$26,000 Total Costs	Principal Investigator
6/97-12/99	Alfacell: Onconase vs. 5-FU in Pancreatic Cancer.... \$25,000 Total Costs	Principal Investigator
9/97-12/99	SKB: Oral Topotecan in Extensive Stage SCLC \$41,000 Total Costs	Principal Investigator

Research Funding (cont.)

9/97-12/99	Alfacell: Onconase vs. Doxorubicin in Malignant Mesothelioma..... \$26,000 Total Costs	Principal Investigator
1998	Ilex: Neusensimide in NSCLC.... \$64,000 Total Costs	Principal Investigator
5/98-4/99	Bayer: Metalloproteinase Inhibitor in NSCLC... \$36,000 Total Costs	Principal Investigator
5/98-4/99	Bayer: Metalloproteinase Inhibitor in SCLC.... \$18,000 Total Costs	Principal Investigator
-----	Lilly: Neoadjuvant Gemcitabine in NSCLC.... \$117,000 Total Costs (May be increased to \$210,000) + additional \$90,000 for laboratory correlates. Canceled on moving to Israel.	Principal Investigator
-----	RPR: Adjuvant Docetaxel and Carboplatin in Stage IB NSCLC.... \$212,000 Total Costs. Canceled on moving to Israel.	Principal Investigator
4/1/98-3/30/03	NIH: 1 K07 CA73012 Career Development Award in Preventive Oncology (P. Koty- PI) \$406,036 Direct Costs; \$438, 519 Total Costs	Mentor
10/00- 4/01	Astra Zeneca: Iressa in NSCLC.... \$25,000 Total Costs.	Principal Investigator
11/01- 10/03	Glaxo Smith Kline: Topotecan vs. Taxotere in NSCLC... \$25,000 Total Costs.	Principal Investigator
11/01- 10/03	OSI Pharmaceuticals: Tarceva in NSCLC... \$25,000 Total Costs.	Principal Investigator
1/02- 12/03	Ligand Pharmaceuticals: Targretin in NSCLC... \$128,000 Total Costs.	Principal Investigator
3/02- 2/03	Hoffman- LaRoche: Tarceva as First Line in NSCLC.... \$37,5000 Total Costs	Principal Investigator

Research Funding (cont.)

3/02- 2/03	Bayer: Phase II Protocol for BAY 59-8862 in Taxane Resistant NSCLC..... \$25,000 Total Costs	Principal Investigator
10/02- 9/04	Institute for Advanced Therapy: Phase II Trial of Docetaxel, Irinotecan and Cisplatin in NSCLC \$50,000 Total Costs	Principal Investigator
3/03-3/04	Israel Cancer Association: The Molecular Regulation of Squamous Metaplastic Differentiation in Human Bronchial Epithelial Cells NIS 45,000 Total Costs	Principal Investigator
2/04-2/06	Rafa: Phase I Trial of Topotecan in Brain Metastases NIS 696,000 Total Costs	Principal Investigator
4/04-4/05	Schering-Plough: Phase III Trial of Temodal in NSCLC Metastatic to the Brain \$80,000 Total Costs	Principal Investigator
9/04-8/06	Eli Lilly: Phase III Trial of Alimta vs. Gemzar in Advanced NSCLC. \$52,000 Total Costs	Principal Investigator
1/05-12/09	Center for Advanced Research on Lung Cancer FAMRI- Total Costs \$8,000,000 Clinical Care Project Total Costs- \$684,549	Co-Principal Investigator
3/05-8/05	Tarceva EAP Total Costs- NIS 50,000	Principal Investigator
5/05-12/06	Roche: AVAIL- Avastin in Lung Cancer NIS 500,000 Total Costs	Principal Investigator
4/06-12/07	Pfizer: PF-3512676 in NSCLC Budget in Negotiation- Canceled	Principal Investigator

Publications

1. Abanobi SE, Popp JA, Chang SK, Harrington GW, Lotlikar PD, Hadjilov D, **Levitt ML**, Rajalakshmi S and Sarma DSR. Inhibition of Dimethylnitrosamine-Induced Strand Breaks in Liver DNA and Liver Cell Necrosis by Diethyldithiocarbamate. *J Nat Can Inst* 58:263-271, 1977.
2. **Levitt ML**, Shungu D and Henderson E. Colony Morphology, Cell Growth and Viral Radiosensitivity as Parameters for Detecting Strain Differences in Epstein-Barr Virus (EBV). *Int J Cancer* 43:509-515, 1980.
3. **Levitt ML**, Barry W, McCall-Becht B, Helfrich MK and Henderson E. Characteristics of Epstein-Barr Virus Carrying Cell Lines Established from Chronic Lymphocytic Leukemia. *Cancer Res* 43:1195-1203, 1983.
4. Moses RE, Frank BB, **Levitt ML** and Miller R. The syndrome of Type A Chronic Atrophic Gastritis, Pernicious Anemia and Multiple Gastric Carcinoids. *J Clin Gastroenterol* 8:61-65, 1986.
5. Seifter EJ, **Levitt ML** and Kramer BS. An Outlier Theory of Cancer Curability: Tumor Cell Differentiation as a Therapeutic Goal. *Am J of Med* 83:759-760, 1987.
6. Carmichael J, DeGraff WG, Gamson J, Russo D, Gazdar AF, **Levitt ML**, Minna J, Mitchell JB. Radiation Sensitivity of Human Lung Cancer Cell Lines. *Eur J Cancer Clin Oncol* 25:527-534, 1989.
7. Takahashi T, Nau MM, Birrer MJ, Rosenberg RK, Vinocour M, **Levitt ML**, Gazdar AF, Minna JD. p53: A Frequent Target for Genetic Abnormalities in Lung Cancer. *Science* 246:491-494, 1989.
8. **Levitt ML**, Gazdar AF, Oie HK, Schuller H, Minna JD and Thacher S. Cross-Linked Envelope Related Markers for Squamous Differentiation in Human Lung Cancer Cell Lines. *Cancer Res.* 50:120-128, 1990.
9. Nair S, Mayotte J, Lokshin A, and **Levitt ML**. Induction of Squamous Differentiation by Interferon- γ in a Human Non-Small Cell Lung Cancer Cell Line. *J Natl Cancer Inst.* 86:378-383, 1994.
10. Schiller JH, Sabatini L, Bittner G, Pinkerman CL, Mayotte J, **Levitt ML**, and Meisner L. Phenotypic, Molecular, and Genetic Characterization of Transformed Human Bronchial Epithelial Cell Strains. *International Journal of Oncology* 4:461-470, 1994.
11. Schiller JH, Morgan-Ihrig C, and **Levitt ML**. Concomitant Administration of Interleukin-2 plus Tumor Necrosis Factor in Advanced Non-Small Cell Lung Cancer. *American Journal of Clinical Oncology* 18:47-51, 1995.
12. Lokshin A, Mayotte J and **Levitt ML**. Inteferon- γ Induced Squamous Differentiation and Programmed Cell Death in Human Non-Small Cell Lung Cancer Cell Lines. *J Natl Cancer Inst* 87:206-212, 1995.

13. Gupta V, Jani JP, Jacobs S, **Levitt ML**, Fields L, Awasthi S, Xu BH, Sreevardhan M, Awasthi YC, and Singh SV. Activity of Melphalan in Combination with the Glutathione Transferase Inhibitor Sulfasalazine. *Cancer Chemotherapy and Pharmacology* 36:13-19, 1995.
14. Lokshin A and **Levitt ML**. Effect of Suramin on Squamous Differentiation and Apoptosis in Three Human Non-Small Cell Lung Cancer Cell Lines. *J. Cell. Biochem. S24*: 186-197, 1996.
15. Schiller, JH, Neuberg, D, Burns, D, Larson, M, **Levitt, M** and Dutcher, J. An Eastern Cooperative Oncology Group Phase I trial of All-Trans Retinoic Acid and Interferon-alpha: E2Y92. *Investigational New Drugs* 15:319-324 (1998).
16. Bykovskaja, S, Buffo, MJ, Bunker, M, Zhang, H, Majors, A, Herbert, M, Lokshin, A, **Levitt, ML**, Jaja, A, Scalise, D, Kosiban, D, Evans, C, Marks, S and Shogan, J. Interleukin-2 Induces the Development of Dendritic Cells from Cord Blood CD34+ Cells. *J. Leukocyte Biology* 63: 620-630 (1998).
17. Zhang, H, Yousem, SA, Franklin, WA, Elder E, Landreneau RJ, Ferson P, Keenan R, Whiteside T and **Levitt ML**. Differentiation and Programmed Cell Death Related Intermediate Biomarkers for the Development of Non-Small Cell Lung Cancer: A Pilot Study. *Human Pathology* 29: 965-971 (1998).
18. Lei, W, Mayotte, JE and **Levitt, ML**. EGF Dependent and Independent Programmed Cell Death Pathways in NCI-H596 Non-Small Cell Lung Cancer Cells. *BBRC* 245: 939-945 (1998).
19. Zhang H, Koty PP, Mayotte J, and **Levitt ML**. Induction of multiple programmed cell death pathways by IFN- β in human non-small cell lung cancer cell lines. *Experimental Cell Research* 247: 133-141 (1999).
20. Koty PP, Mayotte, J, Zhang H, **Levitt ML**. Antisense bcl-2 alters proliferation, viability and programmed cell death in non-small cell lung cancer cell lines. *Lung Cancer* 23:115-127 (1999).
21. Lei, W, Mayotte, JE and **Levitt, ML**. Enhancement of chemosensitivity and programmed cell death by tyrosine kinase inhibitors correlates with EGFR expression in non-small cell lung cancer cells. *Anticancer Research* 19: 221-228 (1999).
22. Lokshin A, Peng X, Campbell PG, Barsouk A, **Levitt ML**. Mechanisms of growth stimulation by suramin in non-small cell lung cancer cell lines. *Cancer Chemotherapy and Pharmacology* 43:341-347 (1999).
23. Peng X, Zhang Y, Zhang H, Graner S, Williams JE, **Levitt ML** and Lokshin A. Interaction of tissue transglutaminase with nuclear transport protein importin-alpha 3. *FEBS Letter* 446:35-39 (1999).

24. Shackney, SE, Smith, CA, Pollice, AA, Magovern, JA, Wiechmann, RJ, Silverman, J, **Levitt, M**, Sweeney, L, Landreneau, RJ. Genetic evolutionary staging of early non-small cell lung cancer: the p53->her2/neu->ras sequence. *J. Thorac. Cardiovasc. Surg.* 118:259-267 (1999).
25. Bykovskaia, SN, Buffo, M, Zhang, H, Bunker, M, **Levitt, ML**, Agha, M, Marks, S, Evans, C, Ellis, P, Surin, MR and Shogan, J. The generation of human dendritic and NK cells from hematopoietic Progenitors induced by IL-15. *J. Leukocyte Biol* 66:659-666 (1999).
26. Lokshin A, Zhang H, Lokshin M, Schachner M, Mayotte J and **Levitt ML**. Effects of retinoic acid on proliferation, differentiation and apoptosis in three non-small cell lung cancer cell lines. *Anticancer Res.* 19:5251-5254 (1999).
27. Koty PP, Zhang H, Franklin WA, Yousem SA, Landreneau RJ and **Levitt ML**. In vivo expression of p53 and Bcl-2 and their role in programmed cell death in premalignant and malignant lung lesions. *Lung Cancer* 35:155-163 (2002).
28. Deng J, Zhang H, Kloosterboer F, Liao Y, Klostergaard J, **Levitt ML** and Hung MC. Ceramide does not act as a general second messenger for ultraviolet-induced apoptosis. *Oncogene* 21:44-54 (2002).
29. Lei W, Koty PP and **Levitt ML**. The relationship of EGRF signal transduction modulation by tyrosine kinase inhibitors to chemosensitivity and programmed cell death in lung cancer cell lines. *Methods in Molecular Medicine* 74:127-143 (2003).
30. Zhang W, Koty PP, Lei W and **Levitt ML**. Isolation of cells entering different programmed cell death pathways using a discontinuous Percoll gradient. *Methods in Molecular Medicine* 74:309-326 (2003).
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- 2007 IASLC 12th World Conf on Lung Cancer: Gottfried, Maya, **Levitt, Mark**, Wollner, Mirjiana, Dudnik, Julia, Ramu, Nili, Flex, Dov, Barak, Frida, Biran, Haim, Cijon, Arnaldo, Merimsky, Ofer. Initial safety results from expanded access program (EAP) with erlotinib in non small cell lung cancer (NSCLC) in Israel.
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- 2020 AACR Annual Meeting 2020: Faizal Asumda, Mohammed Hassan, Yohan Kim, Nellie Campbell, Xin Luo, Vered Katz Ben-Yair, Reza Fathi, **Mark L. Levitt**, Fabrice Lucien-Matteoni, Jennifer L. Leiting, Mark J. Truty, Lewis Roberts. Effects of upamostat, and opaganib on cholangiocarcinoma patient derived xenografts.
- 2021 World Microbe Forum Virtual Annual Meeting 2021: Kevin L Winthrop, Alan W. Skolnick, Adnan M. Rafiq, Scott H. Beegle, Julian Suszanski, Guenther Koehne, Ofra Barnett-Griness, Aida, Bibliowicz, Reza Fathi, Patricia Anderson, Gilead Rada, Gina Eagle, Vered Katz Ben-Yair, Harold S. Minkowitz, **Mark L. Levitt**, Michael S. Gordon. ABC-110: Opaganib, an Oral Sphingosine Kinase-2 (SK2) Inhibitor in COVID-19 Pneumonia: a Randomized, Double-blind, Placebo-Controlled Phase 2a Study, in Adult Subjects Hospitalized with SARS-CoV-2 Positive Pneumonia (NCT: 04414618)
- 2022 2nd International Conference on Microbiology & Infectious Diseases (Virtual) 2022: Fernando Neuschwander MD, Stefania Piconi MD, Yasmin Maor MD, Eduardo Sprinz MD, Nimer Assy MD, Oleg Khmelniyskiy MD, Nikita Lomakin MD, Boris Goloshchekin MD, Rachael L. Gerlach PhD, Eppie Campbell, Aida Bibliowicz MSc, Reza Fathi PhD, Patricia Anderson MSc, Gilead Rada MSc, Michal Klein BSc, Clara Fehrmann MSc, Gina Eagle MD, Ofra Barnett-Griness PhD, Vered Katz Ben-Yair MSc, **Mark L. Levitt MD PhD**. ABC-201: Opaganib, a Sphingosine Kinase-2 (SK2) Inhibitor in COVID-19 Pneumonia: A Randomized, Double-blind, Placebo-Controlled Phase 2/3 Study, in Adult Subjects Hospitalized with Severe SARS-CoV-2 Positive Pneumonia.