

## CURRICULUM VITAE - RAZ YIRMIYA

Updated December, 2016

BIRTH DATE: May 26, 1956  
BIRTHPLACE: Rehovot, Israel  
IDENTITY CARD: 054380514  
MARITAL STATUS: Married to Prof. Nurit Yirmiya + 4 children  
CITIZENSHIP: Israeli  
ARMY SERVICE: Four years (1974-1978), released as a lieutenant  
ADDRESS: 5 Mevo Dakar St., Jerusalem 91905  
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### EDUCATION

1978 - 1981 B. A., Psychology  
University of Haifa, Haifa, Israel  
1981 - 1984 M. Sc., Medical Sciences  
Technion - Israel Institute of Technology, Haifa, Israel  
1984 - 1988 Ph.D., Neuroscience  
UCLA, Los Angeles, CA  
1988 - 1990 Post-doctoral Fellow, Psychoneuroimmunology Program,  
Departments of Anatomy, Psychiatry and Psychology, UCLA

### ACADEMIC APPOINTMENTS AT THE HEBREW UNIVERISTY

1990 - 1993 Lecturer, Department of Psychology  
The Hebrew University of Jerusalem, Israel  
1993 - 1997 Senior Lecturer, Department of Psychology  
The Hebrew University of Jerusalem, Israel  
1997- 2003 Associate Professor, Department of Psychology  
The Hebrew University of Jerusalem, Israel  
2003 - Full Professor, Department of Psychology  
The Hebrew University of Jerusalem, Israel

## OTHER SERVICES AT THE HEBREW UNIVERSITY

- 2013 - Member, The Hebrew University Ethics Committee
- 2013 - Member, Tenure and Promotions Committee, Faculty of Natural and Life Sciences, The Hebrew University
- 2000 - Member, Executive Board, The Hebrew University Authority for Biological and Biomedical Models
- 1999 - Co-director, Interdepartmental B.A. Program in Psychobiology
- 1992 - Co-director, Graduate Program in Psychobiology
- 2010 – 2012 Member, Steering Committee, Faculty of Social Sciences
- 2009 - 2012 Member, Fellowships Committee, Faculty of Social Sciences
- 2009 - 2012 Member, Steering Committee, Department of Psychology
- 2007 - 2010 Member, Nominations Committee, Faculty of Natural and Life Sciences
- 2004 - 2007 Member, Nominations Committee, Faculties of Social Sciences and Humanities
- 2003 - 2005 Chair, Scientific Committee, The Eric Roland Center for Neurodegenerative Diseases, The Hebrew University
- 2001 - 2005 Chair, Faculty of Social Sciences Research and Infrastructure Committee
- 2001 - 2005 Member, Academic committee of the Davis Institute for International Relations
- 2000 - 2010 Member, Scientific Committee, The Eric Roland Center for Neurodegenerative Diseases, The Hebrew University
- 1999 - 2005 Member, Steering Committee, Department of Psychology
- 1999 - 2003 Member, Teaching affairs Committee, Department of Psychology
- 1999 - 2003 Director, Psychobiology Graduate Program, Department of Psychology
- 1997 - 2000 Member, Department of Psychology Graduate Admittance Committee
- 1993 - 2005 Member, Department of Psychology Research Proposal Evaluation Committee
- 1992 - 1998 Member, Hebrew University Committee for Scientific Infrastructure
- 1992 - 1998 Member, Faculty of Social Sciences Committee for Scientific Infrastructure and Research
- 1994 - 1998 Member, Department of Psychology Committee for Scientific Infrastructure
- 1992 - 1995 Member, Steering Committee, Department of Psychology
- 1995 - 1996 Chair, Neuropsychology Program, Department of Psychology
- 1995 - 1996 Member, Teaching Committee, Department of Psychology
- 1992 - 1994 Chair, Department of Psychology Committee for Scientific Infrastructure

OTHER ACADEMIC ACTIVITIESASSOCIATE EDITOR

Brain, Behavior and Immunity, Academic Press 2007-2011

GUEST EDITOR FOR SPECIAL ISSUES

Brain, Behavior and Immunity. Special issue on "Cytokines and Depression", 2002.

Brain, Behavior and Immunity. Special issue on "Microglia, Brain Physiology and Behavior". July, 2016.

BOOK EDITOR

Yirmiya, R. and Taylor, A. N. (Eds.), Alcohol, Immunity and Cancer. CRC Press: Boca Raton, 1993.

Dantzer, R., Wollman, E. E., and Yirmiya, R. (Eds.), Cytokines, Stress and Depression. Kluwer Academic/Plenum Press: New York, 1999.

MEMBER OF THE EDITORIAL BOARD

Brain, Behavior and Immunity (2000-2007; 2011-to date)

ROLE IN SCIENTIFIC ORGANIZATIONS

Member, Program Committee, PsychoNeuroImmunology Research Society	2015 -
Past President, PsychoNeuroImmunology Research Society	2011-2012
President, PsychoNeuroImmunology Research Society (PNIRS)	2010-2011
President-Elect, PsychoNeuroImmunology Research Society	2009-2010
Member of the Board, The Israel Society for Neuroscience	2009-2011
Member of the Board, The Milton Rosenbaum Foundation for Psychiatric Research	2009 -present
Member of the Council, PsychoNeuroImmunology Research Society	2007 - 2009
Member, Scientific Counseling Committee The National Institute for Psychobiology in Israel	2001- present
Member of the Council, PsychoNeuroImmunology Research Society	2001 - 2004
Member of the Scientific Committee for the 2nd International Conference on "Cytokines, Stress and Depression" (Dinard, France)	2001

- Member of the Organizing Committee for the 33rd World Congress  
of the International Society of Psychoneuroendocrinology 2000
- Member of the Organizing Committee for the 30<sup>th</sup> year  
Celebration for the National Institute for Psychobiology in Israel 2000
- Member of the Scientific Committee for the 1st International  
Conference on “Cytokines, Stress and Depression” (Roscoff, France) 1998
- Member of the Scientific Advisory Committee  
PsychoNeuroImmunology Research Society 1998 - 1999
- Member of the Council, PsychoNeuroImmunology Research Society 1997 - 1999

#### SCIENTIFIC ADVISOR FOR GRANTING AND SCIENTIFIC AGENCIES

- United States-Israel Binational Science Foundation (1992 - 1998)  
The Israel Academy of Sciences (1998 – 1999; 2003 – 2005; 2010-2011)  
The National Institute for Psychobiology in Israel (2001 – present)  
Israel Foundation Trustees (2001 – 2003)  
Israel Ministry of Health (2009-2011)  
Science Foundation Ireland (2008 – Present)  
Israel Council for Higher Education (2004 – Present)

#### PROFESSIONAL AFFILIATIONS

- Israel Society for Neuroscience  
Society for Neuroscience, USA  
PsychoNeuroImmunology Research Society  
International Society for Neuroimmunomodulation  
Israel Society for Biological Psychiatry  
Center for Research on Pain, The Hebrew University of Jerusalem  
Neuroscience Program, The Hebrew University-Hadassah school of Medicine

#### EDITORIAL REVIEWER

- Archives of General Psychiatry (JAMA Psychiatry)  
Archives of Internal medicine  
Biological Psychiatry  
Brain, Behavior and Immunity  
Hippocampus  
International Journal of Neuropsychopharmacology  
Journal of Neuroscience  
Molecular Psychiatry  
Neuropsychopharmacology  
New England Journal of Medicine  
Pain  
Psychoneuroendocrinology

Translational Psychiatry  
Trends in Neuroscience

### GRANTS REVIEWER

Israel Academy of Sciences  
United States-Israel Binational Science Foundation  
The German-Israeli Foundation (GIF) for Scientific Research and Development  
Israel Ministry of Health  
The National Institute for Psychobiology in Israel  
Milton Rosenbaum Foundation for Psychiatric Research  
Israel Foundations Trustees  
The Alzheimer's Disease Association  
Science Foundation Ireland

### HONORS

B.A., with special distinction, University of Haifa, 1981  
M. Sc., with distinction, Technion- Israel Inst. of Tech., 1984  
Rothschild Fellowship, 1984-1985  
Fulbright Scholarship, 1984-1989  
Distinguished University Lecturer, The Hebrew University, 1993-1994; 2010-2011  
The Norman Cousins Award, PsychoNeuroImmunology Research Society, 2010

### INVITED ADDRESSES AND KEYNOTE LECTURES

The Hebrew University Department of Psychology Colloquium Series, 1991  
Faculty of Medicine, The Technion-Israel Institute of Technology, 1992  
The Nervous Club, Life Sciences Institute, The Hebrew University of Jerusalem, 1994  
The UCLA Psychoneuroimmunology Lecture Series, 1996  
The Israel Lieblich Memorial Day, The Hebrew University of Jerusalem, 1996  
The Center for Neural Computation, The Hebrew University, 1997  
The Hebrew University Department of Psychology Colloquium Series, 1997  
The Cognitive/Neuropsychology Seminar, The Hebrew University, 1999  
Brain Center, Faculty of Medicine, Beer Sheva University, 2000  
Brainstorm Lecture Series, School of Medicine, The Hebrew University, 2000  
Seminar Series, Adams Super Center for Brain Studies in Tel Aviv University, 2000  
The UCLA Psychoneuroimmunology Lecture Series, 2000  
Neuro-Immune-Endocrine Collaborative Research Center, Phillipps-University Marburg, Germany, 2001  
The Hebrew University Department of Physiology Colloquium Series, 2002  
Dutch Society of Psychiatry, Groningen, Holland, 2002  
The University of Haifa International Conference on the Psychobiology of Emotions, 2002  
The Zlotowski Center for Neurosciences Annual Retreat, Ben-Gurion University, 2003

Seminar Series, Adams Super Center for Brain Studies, Tel Aviv University, 2003

The Technion and the University of Haifa Neuroscience Forum, Seminar Series, 2003.

4<sup>th</sup> Congress of the European Federation of the International Association for the Study of Pain Chapters, Invited Plenary Lecture, Prague, 2003.

The University of Bonn, School of Medicine Seminar Series, Germany 2004

Meeting of the Union of the Swiss Societies for Experimental Biology, Neuroscience and Biological Psychiatry, Invited Plenary Lecture, Zurich, 2005

The University of Colorado Department of Integrative Physiology Colloquium Series, Boulder, CO USA, 2005

The University of Colorado Center for Neuroscience Colloquium Series, Boulder, CO USA, 2006

Meeting of the American Psychosomatic Association, Invited Plenary Address, Denver, CO, 2006

The University of Colorado Department of Psychiatry Colloquium Series, Denver, CO, USA, 2006

McGill University Visiting Scholar Program, 2007

3<sup>rd</sup> Conference on Cytokines and Depression, Bordeaux, France, 2007

Irish Science Foundation Meeting, Trinity College, Dublin, 2008

The Department of Medical Neurobiology Colloquium Series, The Hebrew University, 2010

The Tel Aviv University Medical School Colloquium Series, 2010

The National Institute for Psychobiology, Joint Symposium on Depression, Invited address, Jerusalem, 2011

Israel Society for Neuroimmunology, Invited special address, Jerusalem, 2011

Tel Aviv University Life Sciences Neuroinflammation seminar, 2011

8<sup>th</sup> Congress of the International Society for NeuroImmunoModulation (ISNIM), Invited plenary Address, Dresden, Germany, 2011

Australian Society for Immunology International Conference, Invited Plenary Address, Adelaide, Australia, 2011

25<sup>th</sup> Congress of the European College for NeuroPsychoPharmacology (ECNP), Vienna, 2012

16<sup>th</sup> Annual meeting of the Israel Society for Biological Psychiatry, Hagoshrim, Israel, 2012

The University of Sydney Department of Psychology Colloquium Series, Sydney, Australia, 2013

University of Newcastle, Department of Medical Sciences and Hunter Brain Research Institute Colloquium Series, Newcastle, Australia, 2013

17<sup>th</sup> Annual meeting of the Israel Society for Biological Psychiatry, Hagoshrim, Israel, 2013

The Founding Meeting of the Brain Disease Research Center (BDRC), The Hebrew University of Jerusalem, Israel, 2013

5th Brain and Behavior meeting of the Haifa Forum for Brain and Behavior "Good stress, Bad stress and Very Bad stress". Haifa, Israel, 2014.

21st International "Stress and Behavior" Conference, St. Petersburg, Russia 2014.

22nd Tel-Aviv University Alzheimer's disease conference. Tel Aviv, Israel, 2014

European Behavioral Pharmacology Society (EBPS) Workshop, on "Immune Influences on Brain & Behaviour: from Psychoneuroimmunology to Immunopsychiatry". Keynote address. Brighton, UK, 2014  
 4th Joint Inter-Academy Symposium by the German National Academy of Sciences Leopoldina and the Israel Academy of Sciences and Humanities, Leipzig, Germany, Invited Address, April, 2015  
 PsychoNeuroImmunology Research Society 22nd Annual Scientific Meeting, Plenary Invited Lecture and Symposium organizer (competitive), Seattle, June, 2015  
 ICVS NeuroConferences, "New Horizons in Psychopharmacology - from basic research to clinical application", Invited address, Braga, Portugal, May 2016

## PATENTS

**Patent title:** AChE antisense oligonucleotide as an anti-inflammatory agent

**Inventors:** H. Soreq, A. Dori, I. Wirguin, G. Ifergane, R. Yirmiya.

Pub. No.: US 2009/0005331 A1      Pub. Date: Jan 1, 2009

**Patent title:** Method for assessing trait anxiety by determining cholinergic status

**Inventors:** H. Soreq, E. Sklan, R. Yirmiya, K. Ailon, I. Shapira-Lichter

Pub. No.: US 2007/0037241      Pub. Date: Feb 15, 2009

**Patent title:** Comparing genotypes and/or expression patterns at the acetylcholinesterase, paraoxonase and/or butyrylcholinesterase genes to the genotype and/or expression patterns of the genes in a reference population whose genotype and/or expression pattern of the genes is known

**Inventors:** Hermona Soreq, Ella Sklan, Raz Yirmiya, Keren Ailon, Irit Shapira-Lichter

Pub. No.: US7494783 B2      Pub. Date: Feb 24, 2009

**Patent title:** Antisense oligonucleotides against AChE in the treatment of gastrointestinal inflammation disorders.

**Inventors:** Hermona Soreq, Yirmiya, Raz

Pub. No.: US8722876 B2.      Pub. Date: Nov. 21, 2013

**Patent title:** Treatment of mood disorders and stress related disorders

**Inventors:** Raz Yirmiya, Tirzah Kreisel

Pub. No.: WO 2015025323 A1      Pub. date: Feb 26, 2015

## GRANTS

1989 - 1990    UCLA Psychoneuroimmunology Award Program  
 (P.I., \$15,000)  
 1990 - 1992    The National Institute for Psychobiology in Israel  
 (P. I., \$8,000)  
 1991 - 1992    Israel Ministry of Science and Technology  
 (P. I., \$5,000)

- 1991 - 1993 Israel Cancer Association  
(P. I., \$31,500)
- 1992 - 1994 Israel Foundation Trustees  
(P. I., \$25,000)
- 1993 - 1996 The Volkswagen Foundation  
(P. I., € 570,000, together with H. Ovadia, H. Rosen, and V. Holtt)
- 1994 - 1995 Israel Council for Higher Education  
(P.I., \$4,000)
- 1995 - 1996 Hebrew University - Internal Funds  
(P.I., \$3,350)
- 1995 - 1998 The United States-Israel Binational Science Foundation  
(P. I., \$107,000, together with Dr. Anna N. Taylor, UCLA)
- 1997- 1998 The Milton Rosenbaum Foundation for Psychiatric Research  
(P.I., \$15,000)
- 1998 - 1999 The German-Israeli Foundation  
(P.I., € 170,000, together with Dr. T. Pollmacher, Max Planck Institute, Munich, Germany)
- 1999 - 2000 The Levi De Vally Foundation  
(P.I., \$8,000)
- 1998 - 2001 The United States-Israel Binational Science Foundation  
(P. I., \$136,000, together with Dr. Anna N. Taylor, UCLA)
- 2000 – 2003 Israel Science Foundation  
Behavioral neuroimmunology of Experimental Autoimmune Encephalomyelitis  
(P.I., \$141,000)
- 2003 – 2005 Israel Science Foundation- Bikura Special Program  
Neuropsychostology: the Bi-Directional Interaction Between Neurobehavioral Systems and Bone  
(P.I., \$135,000, together with Profs. I. Bab and E. Shohami, The Hebrew University)
- 2003-2007: Israel Science Foundation.  
The involvement of interleukin-1 in pain sensitivity, analgesic response to opiates and development of opiate tolerance.  
(\$200,000, P.I., together with Y. Shavit).
- 2005-2008: The German-Israeli Foundation  
Central IL-1 signaling and bone remodeling  
(\$150,000, P.I., together with I. Bab and A. Zimmer)
- 2005-2009: Israel Science Foundation  
Depression and bone loss  
(\$240,000, co-I., with I. Bab)
- 2007-2009: The Israel Ministry of Health  
The role of IL-1 in Alzheimer's disease  
(\$50,000, P.I.)
- 2007-2008: Institute for Studies on Aging (ISOA)  
The role of IL-1 in Alzheimer's disease associated memory disturbances  
(\$40,000, P.I.)
- 2007-2011 Israel Science Foundation  
The role of interleukin-1 in stress-induced depression  
(\$240,000, P.I.)



2009-2012	Israel Science Foundation The role of interleukin-1 in Alzheimer's disease (\$300,000, P.I.)
2012-2016	Israel Science Foundation The role of microglia in stress-induced depression (\$310,500, P.I.)
2013-2016	Israel Science Foundation – Bikura Special Program The role of microglia in learning, memory and neurogenesis (\$320,000, P.I.)
2016	Israel Science Foundation – Israel National Center for Personalized Medicine (INCPM) (\$10,000, P.I.)
2016-2021	Israel Science Foundation The microglial biology of depression (\$480,000, P.I.)

### **POST-DOCTORAL FELLOWS**

Dr. Yehuda Pollak (2003-2004)  
Dr. Ofra Ben-Menachem (2009-2011)  
Dr. Neta Rimmerman (2013 – present)

### **GRADUATE STUDENTS** **RECEIVED THEIR DEGREE** **Ph.D. STUDENTS**

Michal Morag	1997
Ronit Avitsur	1998 (with special distinction - “Meule”) Recipient of the Kenedy-Lee prize for exceptional Ph.D. thesis
Avi Reichenberg	2000 (with special distinction - “Meule”) Recipient of the A. Berger prize for exceptional Ph.D. thesis
Ohr Barak	2002
Yehuda Pollak	2003 (with special distinction - “Meule”)
Osnat Cohen	2005 (together with Prof. H. Soreq)
Irit Shapira-Lichter	2007 (together with Prof. H. Soreq)
Inbal Goshen	2008
Ofra Ben-Menachem	2009 (together with Dr. T. Ben-Hur)

Gili Wolf	2010 (together with Prof. Y. Shavit)
Alon Bajayo	2012 (together with Itai Bab)
Tirza Kreisel	2013

#### M.A. STUDENTS

Ronit Avitsur  
Michal Ballas  
Hanna Bar Chen  
Ohr Barak  
Zipi Ben-Arye  
Yair Ben-Menachem  
Polina Bronfman  
Emmanuel Buchbut  
Noam Gordon  
Inbal Goshen  
Dina Kalisher  
Yochi Kalmanzon  
Adit Kavari  
Sys Kochavi  
Tirzah Kriesel  
Yehuda Pollak  
Avi Reichenberg  
Irit Shapira  
Inbar Sharav  
Sigal Tiferet  
Gily Wolf  
Tali Ziv

#### CURRENT POST-DOCTORAL AND GRADUATE STUDENTS

Dr. Neta Rimmerman  
Ronen Reshef (approved proposal)  
Einat Ashkenazi  
Laura Ben-Hamou-Cohen  
Nofar Schottlender  
Hodaya Verdiger

## **PUBLICATION LIST**

### **EDITED BOOKS**

- 1) **Yirmiya R**, Taylor AN (Eds.), Alcohol, Immunity and Cancer. CRC Press: Boca Raton, 1993.
- 2) Dantzer R, Wollman EE, **Yirmiya R** (Eds.), Cytokines, Stress and Depression. Kluwer Academic/Plenum Press: New York, 1999.

### **PAPERS IN PEER-REVIEWED SCIENTIFIC JOURNALS**

(Google Scholar H Index=52, total citations=10736; ISI H Index=45, total citations=7707)

- 3) Rimmerman N, Schottlender N, Reshef R, Dan-Goor N, Yirmiya R. The hippocampal transcriptomic signature of stress resilience in mice with microglial fractalkine receptor (CX3CR1) deficiency. Brain Behavior and Immunity, 2016.
- 4) Rohan Walker F, Yirmiya R. Microglia, physiology and behavior: A brief commentary. Brain Behavior and Immunity, 55: 1-5, 2016.
- 5) Yirmiya R, Rimmerman N, Reshef R. Depression as a Microglial Disease. Trends in Neurosciences, 38(10): 637-58, 2015.
- 6) Reshef R, Kreisel T, Beroukhim Kay D, **Yirmiya R**. Microglia and their CX3CR1 signaling are involved in hippocampal- but not olfactory bulb-related memory and neurogenesis. Brain Behavior and Immunity. 41: 239-50, 2014.
- 7) Kreisel T, Frank MG, Licht T, Reshef R, Ben-Menachem-Zidon O, Baratta MV, Maier SF, **Yirmiya R**. Dynamic microglial alterations underlie stress-induced depressive-like behavior and suppressed neurogenesis. Molecular Psychiatry. 19(6):699-709, 2014.
- 8) Ben Menachem Zidon O, Ben Menahem Y, Ben Hur T, **Yirmiya R**. Intra-hippocampal transplantation of neural precursor cells with transgenic over-expression of IL-1 receptor antagonist rescues memory and neurogenesis impairments in an Alzheimer's disease model. Neuropsychopharmacology, 39(2):401-414, 2014.
- 9) Maes M, Song C, **Yirmiya R**. Targeting IL-1 in depression. Expert Opinion on Therapeutic Targets. 16(11):1097-112, 2012.
- 10) Bajayo A, Bar A, Denes A, Bachar M, Kram V, Attar-Namdar M, Zallone A, Kovács KJ, **Yirmiya R**, Bab I. Skeletal parasympathetic innervation communicates central IL-1 signals regulating bone mass accrual. Proc Natl Acad Sci USA. 109(38):15455-15460, 2012.

- 11) Licht T, Goshen I, Avital A, Kreisel T, Zubedat S, Eavri R, Segal M, **Yirmiya R**, Keshet E. Reversible modulations of neuronal plasticity by VEGF. Proc Natl Acad Sci U S A. 108(12):5081-5086, 2011.
- 12) Gabay, E, Wolf G, Shavit Y, **Yirmiya R**, Tal M. Chronic blockade of interleukin-1 (IL-1) prevents and attenuates neuropathic pain behavior and spontaneous ectopic neuronal activity following nerve injury. Eur J Pain, 15(3):242-248, 2011.
- 13) Ben Menachem-Zidon O, Avital A, Ben-Menahem Y, Goshen I, Kreisel T, Shmueli EM, Segal M, Ben Hur T, **Yirmiya R**. Astrocytes support hippocampal-dependent memory and long-term potentiation via interleukin-1 signaling. Brain Behavior and Immunity. 25:1008-16, 2011.
- 14) **Yirmiya R**, Goshen I. Immune modulation of learning, memory, neural plasticity and neurogenesis. Brain Behavior and Immunity, 25(2):181-213, 2011.
- 15) Bab I, **Yirmiya R**. Depression and bone mass. Ann NY Acad Sci., 1192:170-175, 2010.
- 16) Bab I, **Yirmiya R**. Depression, selective serotonin reuptake inhibitors, and osteoporosis. Current Osteoporosis Reports, 8(4):185-191, 2010.
- 17) **Yirmiya R**, Bab I. Major depression is a risk factor for low bone mineral density: A meta-analysis. Biological Psychiatry, 66:423-432, 2009.
- 18) Ounallah-Saad H, Beeri R, Goshen I, **Yirmiya R**, Renbaum P, Levy-Lahad E. Transcriptional regulation of the murine Presenilin-2 gene reveals similarities and differences to its human orthologue. Gene, 446:81-89, 2009.
- 19) Maes M, **Yirmyia R**, Noraberg J, Brene S, Hibbeln J, Perini G, Kubera M, Bob P, Lerer B, Maj M. The inflammatory & neurodegenerative (I&ND) hypothesis of depression: leads for future research and new drug developments in depression. Metabolic Brain Diseases. 24(1):27-53, 2009.
- 20) Goshen I, **Yirmiya R**. Interleukin-1 (IL-1): A central regulator of stress responses. Frontiers in Neuroendocrinology, 30(1):30-45, 2009.
- 21) Goshen I, Avital A, Kreisel T, Licht T, Segal M, **Yirmiya R**. Environmental enrichment restores memory functioning in mice with impaired IL-1 signaling via reinstatement of long term potentiation and spine size enlargement. Journal of Neuroscience, 29:3395-340, 2009.
- 22) Bab I, **Yirmiya R**. Depression, selective serotonin re-uptake inhibitors and the regulation of bone mass. IBMS BoneKEy, 6(1):8-15, 2009.
- 23) Wolf G, Livshits D, Beilin B, **Yirmiya R**, Shavit Y. Interleukin-1 signaling is required for induction and maintenance of postoperative incisional pain:

- genetic and pharmacological studies in mice. Brain, Behavior, and Immunity, 22(7):1072-1077, 2008.
- 24) Tam J, Trembovler V, Di Marzo V, Petrosino S, Leo G, Alexandrovich A, Regev E, Casap N, Shteyer A, Ledent C, Karsak M, Zimmer A, Mechoulam R, **Yirmiya R**, Shohami E, Bab I. The cannabinoid CB1 receptor regulates bone formation by modulating adrenergic signaling. FASEB Journal, 22:285-294, 2008.
  - 25) Shapira-Lichter I, Beilin B, Ofek K, Bessler H, Ballas M, Shavit Y, Seror D, Grinevich G, Posner E, Reichenberg A, Soreq H, **Yirmiya R**. Cytokines and cholinergic signals co-modulate surgery stress-induced changes in mood and memory. Brain, Behavior, and Immunity, 22(3):388-398, 2008.
  - 26) Goshen I, Kreisel T, Ben-Menachem-Zidon O, Weidenfeld J, Ben-Hur T, **Yirmiya R**. Brain interleukin-1 mediates chronic stress-induced depression in mice via adrenocortical activation and hippocampal neurogenesis suppression. Molecular Psychiatry, 13(7):717-728, 2008.
  - 27) Kleibeuker W, Gabay E, Kavelaars A, Zijlstra J, Wolf G, Ziv N, **Yirmiya R**, Shavit Y, Tal M, Heijnen CJ. IL-1 $\beta$  signaling is required for mechanical allodynia induced by nerve injury and for the ensuing reduction in spinal cord neuronal GRK2. Brain, Behavior, and Immunity, 22:200-208, 2008.
  - 28) Dantzer R, Capuron L, Irwin MR, Miller AH, Ollat H, Perry VH, Rousey S, **Yirmiya R**. Identification and treatment of symptoms associated with inflammation in medically ill patients. Psychoneuroendocrinology, 33:18-29, 2008.
  - 29) Christianson JP, Paul ED, Irani M, Thompson BM, Kubala KH, **Yirmiya R**, Watkins LR, Maier SF. The role of prior stressor controllability and the dorsal raphe nucleus in sucrose preference and social exploration. Behavioral Brain Research, 193(1):87-93, 2008.
  - 30) Bilbo SD, **Yirmiya R**, Amat J, Paul ED, Watkins LR, Maier SF. Bacterial infection early in life protects against stressor-induced depressive-like symptoms in adult rats. Psychoneuroendocrinology, 33(3):261-269, 2008.
  - 31) Ben Menachem- Zidon O, Goshen I, Kreisel T, Ben Menahem Y, Reinhartz E, Ben Hur T, **Yirmiya R**. Intrahippocampal transplantation of transgenic neural precursor cells over-expressing interleukin-1 receptor antagonist blocks chronic stress-induced impairment in memory and neurogenesis. Neuropsychopharmacology, 33(9):2251-62, 2008.
  - 32) Wolf G, **Yirmiya R**, Kreisel T, Goshen I, Weidenfeld J, Poole S, Shavit Y. Interleukin-1 signaling modulates stress-induced analgesia. Brain, Behavior, and Immunity, 21(5):652-9, 2007.
  - 33) Ofek K, Krabbe KS, Evron T, Debecco M, Nielsen AR, Brunnsaad H, **Yirmiya R**, Soreq H, Pedersen BK. Cholinergic status modulations in human

- volunteers under acute inflammation. Journal of Molecular Medicine, 85: 1239-1251, 2007.
- 34) Goshen I, Kreisel T, Ounallah-Saad H, Zalstein Y, Ben-Hur T, Levy-Lahad E, **Yirmiya R**. A dual role for interleukin-1 in hippocampal-dependent memory processes. Psychoneuroendocrinology, 32: 1106-1115, 2007.
- 35) Bener D, Wohlman A, Itzik A, **Yirmiya R**, Ben-Hur T, Weidenfeld J. Glucocorticoid Resistance following Herpes Simplex-1 Infection: Role of Hippocampal Glucocorticoid Receptors. Neuroendocrinology, 85(4):207-215, 2007.
- 36) **Yirmiya R**, Goshen I, Bajayo A, Kreisel T, Feldman S, Tam J, Trembovler V, Csernus V, Shohami E, Bab I. Depression induces bone loss through stimulation of the sympathetic nervous system. Proc Natl Acad Sci USA, 103(45):16876-16881, 2006. And see Research Highlights, Nature Medicine, 12 (12): 1362, 2006.
- 37) Goldstein I, Levy T, Galili D, Ovadia H, **Yirmiya R**, Rosen H, Lichtstein D. Involvement of Na(+), K(+)-ATPase and Endogenous Digitalis-Like Compounds in Depressive Disorders. Biological Psychiatry, 60(5):491-499, 2006.
- 38) Wolf G, Gabay E, Tal M, **Yirmiya R**, Shavit Y. Genetic impairment of interleukin-1 signaling attenuates neuropathic pain, autotomy, and spontaneous ectopic neuronal activity, following nerve injury in mice. Pain, 120 (3): 315-324, 2006.
- 39) Shavit Y, Wolf G, Goshen I, Livshits D, **Yirmiya R**. Interleukin-1 antagonizes morphine analgesia and underlies morphine tolerance. Pain, 115(1-2):50-59, 2005.
- 40) Shavit Y, Fisch G, Wolf G, Mayburd E, Meerson Y, **Yirmiya R**, Beilin B. The Effects of Perioperative Pain Management Techniques on Food Consumption and Body Weight Following Laparotomy in Rats. Anesthesia & Analgesia, 101(4):1112-1116, 2005.
- 41) Weidenfeld J, Itzik A, Goshen I, **Yirmiya R**, Ben-Hur T. Role of the central amygdala in modulating the pituitary-adrenocortical and clinical responses in experimental herpes simplex virus-1 encephalitis. Neuroendocrinology, 81:267-272, 2005.
- 42) Pollak Y, Gilboa A, Ben-Menachem O, Ben-Hur T, Soreq H, **Yirmiya R**. Acetylcholinesterase modulates interleukin-1 $\beta$  production in the hippocampus and blood. Annals of Neurology, 57:741-745, 2005.
- 43) Bajayo A, Goshen I, Feldman S, Csernus V, Iverfeldt K, Shohami E, **Yirmiya R**, Bab I. Central IL-1 receptor signaling regulates bone growth and mass. Proc Natl Acad Sci USA, 102:12956-12961, 2005.

- 44) Hurwitz I, Malkesman O, Stern Y, Schroeder M, Lavi-Avnon Y, Shayit M, Shavit Y, Wolf G, **Yirmiya R**, Weller A. Stress and pain responses in rats lacking CCK(1) receptors. Peptides. 27(6):1483-1489, 2005.
- 45) Krabbe KS, Reichenberg A, **Yirmiya R**, Smed A, Pedersen BK, Bruunsgaard H. Low-dose endotoxemia and human neuropsychological functions. Brain Behavior and Immunity, 19:453-460, 2005.
- 46) Ben-Hur T, Itzik A, Barak O, Asher Y, Becker Y, **Yirmiya R**, Weidenfeld J. Immunization with a nonpathogenic HSV-1 strain prevents clinical and neuroendocrine changes of experimental HSV-1 encephalitis. Journal of Neuroimmunology, 152: 5-10, 2004.
- 47) Avital A, Goshen I, Kamseler A, Segal M, Iverfeldt K, Richter-Levin G, **Yirmiya R**. Impaired interleukin-1 (IL-1) signaling is associated with defects in neural plasticity and memory processes. Hippocampus, 13: 826-834, 2003.
- 48) Cohen O, Reichenberg A, Perry C, Ginzberg D, Pollmächer T, Soreq H, **Yirmiya R**. Endotoxin-induced changes in human working and declarative memory is associated with cleavage of plasma “readthrough” acetylcholinesterase. Journal of Molecular Neuroscience, 21: 199-212, 2003.
- 49) Goshen I, **Yirmiya R**, Iverfeldt K, Weidenfeld J. The role of endogenous interleukin-1 in HPA axis activation following stress or adrenalectomy. Endocrinology, 144: 4453-4458, 2003.
- 50) Pollak Y, Ovadia H, Orion E, Weidenfeld J, **Yirmiya R**. The EAE-associated behavioral syndrome: I. Temporal correlation with inflammatory mediators. Journal of Neuroimmunology, 137: 94-99, 2003.
- 51) Pollak Y, Ovadia H, Orion E, **Yirmiya R**. The EAE-associated behavioral syndrome: II. Modulation by anti-inflammatory treatments. Journal of Neuroimmunology, 137: 100-108, 2003.
- 52) Wolf, G, **Yirmiya R**, Goshen I, Iverfeldt K, Holmlund L, Takeda K, Shavit, Y. Impairment of interleukin-1 (IL-1) signaling reduces basal pain sensitivity in mice: Genetic, pharmacological and developmental aspects. Pain, 104: 471-480, 2003.
- 53) Barak O, Goshen I, Ben-Hur T, Weidenfeld J, Taylor AN, **Yirmiya R**. Involvement of brain cytokines in the neurobehavioral disturbances induced by HIV-1 gp120. Brain Research, 933: 98-108, 2002.
- 54) Barak O Weidenfeld J, Ben-Hur T, Taylor AN, **Yirmiya R**. HIV-1 glycoprotein 120 induces neurobehavioral and neuroendocrine changes in rats. Brain, Behavior and Immunity, 16: 720-735, 2002.
- 55) Castanon N, Leonard BE, Neveu PJ, **Yirmiya R**. Effects of antidepressants on cytokine production and actions. Brain, Behavior and Immunity, 16: 569-574, 2002.

- 56) Cohen O, Erb C, Ginzberg D, Pollak Y, Seidman S, **Yirmiya R**, Soreq H. Neuronal overexpression of “readthrough” acetylcholinesterase is associated with antisense-suppressible behavioral impairments. Molecular Psychiatry, 7: 874-885, 2002.
- 57) Dantzer R, Wollman EE, **Yirmiya R**. Cytokines and depression: An update. Brain, Behavior and Immunity, 16: 501-502, 2002.
- 58) Pollak Y, Orion E, Ovadia H, **Yirmiya R**. The EAE-associated behavioral syndrome: An animal model for depression due to multiple sclerosis. Brain, Behavior and Immunity, 16: 533-543, 2002.
- 59) Pollak Y, **Yirmiya R**. Cytokine-induced changes in mood and behavior: Implications for “depression due to a general medical condition“, immunotherapy and antidepressive treatment. International Journal of Neuropsychopharmacology, 5: 389-399, 2002.
- 60) Pollmächer T, Haak M, Schuld A, Reichenberg A, **Yirmiya R**. Low levels of inflammatory cytokines – do they influence human brain functions? Brain, Behavior and Immunity, 16: 525-532, 2002.
- 61) Reichenberg A, Schuld A, Kraus T, Haak M, Pollmächer T, **Yirmiya R**. Endotoxin-induced anorexia in healthy human volunteers is mediated by cytokine secretion. Psychoneuroendocrinology, 27: 945-956, 2002.
- 62) Taylor A, Tio DL, Ngy SH, **Yirmiya R**. Chronic alcohol consumption attenuates febrile responses to lipopolysaccharide and interleukin-1 $\beta$  in male rats. Alcoholism: Clinical and Experimental Research, 26: 44-52, 2002.
- 63) Taylor AN, Tritt SH, Tio D, Romeo HE, **Yirmiya R**. Maternal adrenalectomy abrogates the effect of fetal alcohol exposure on IL-1 $\beta$  -induced febrile response of adult male offspring. Neuroendocrinology, 76: 185-192, 2002.
- 64) **Yirmiya R**, Winocur G, Goshen I. Involvement of interleukin-1 (IL-1) in learning and memory processes. Neurobiology of Learning and Memory, 78: 379-389, 2002.
- 65) Ben-Hur T, Cialic R, Itzik A, **Yirmiya R**, Weidenfeld J. The Acute Effects of Purified and UV-inactivated HSV-1 on the Hypothalamic-Pituitary-Adrenocortical Axis. Neuroendocrinology, 74: 160-166, 2001.
- 66) Hodgson DM, **Yirmiya R**, Taylor AN. Effects of intracerebral interleukin-1 $\beta$  on the immune response to tumor invasion: Involvement of prostaglandins. Journal of Neuroimmunology, 119: 57-63, 2001.
- 67) Reichenberg A, **Yirmiya R**, Schuld A, Kraus T, Haak M, Morag A, Pollmächer T. Cytokine-mediated emotional and cognitive disturbances in humans. Archives of General Psychiatry, 58: 445-452, 2001.



- 68) Weidenfeld J, Cialic R, Itzik A, Mizrachi-Kol R, Barak O, **Yirmiya R**, Ben-Hur T. Involvement of brain interleukin-1, prostaglandin E2 and adrenocortical axis in the pathogenesis of herpes simplex virus (HSV-1) encephalitis. Neuroscience, 108: 119-127, 2001.
- 69) Wohlman A, **Yirmiya R**, Gallily R, Weidenfeld J. Effects of Mycoplasma fermentans on brain PGE2: Role of glucocorticoids and their receptors. Neuroimmunomodulation, 9: 141-147, 2001.
- 70) **Yirmiya R**, Pollak Y, Barak O, Avitsur R, Ovadia H, Bette M, Weihe E, Weidenfeld J. Antidepressants modulate the behavioral and physiological responses to endotoxin in rats and mice. Neuropsychopharmacology, 24: 531-544, 2001.
- 71) Haack M, Reichenberg A, Kraus T, Schuld A, **Yirmiya R**, Pollmächer T. Effects of an intravenous cannula on the plasma levels of cytokines and soluble cytokine receptors. Cytokine, 12: 694-698, 2000.
- 72) Pollak Y, Ovadia H, Goshen I, **Yirmiya R**. Behavioral aspects of experimental allergic encephalomyelitis (EAE). Journal of Neuroimmunology, 104: 31-36, 2000.
- 73) Shohami E, Kaufer D, Seidmann S, Melamed-Book N, Cohen O, **Yirmiya R**, Soreq H. Antisense prevention of neuronal damage following head injury. Journal of Molecular Medicine, 78: 228-235, 2000.
- 74) **Yirmiya R**. Depression in medical illness: The role of the immune system. Western Journal of Medicine, 173: 333-336, 2000.
- 75) Avitsur R, **Yirmiya R**. The partner preference paradigm: a method to study sexual motivation and performance of female rats. Brain Research Protocols, 3: 320-325, 1999.
- 76) Avitsur R, **Yirmiya R**. The immunobiology of sexual behavior: Gender differences in the suppression of sexual activity during illness Pharmacology, Biochemistry and Behavior, 64:787-796, 1999.
- 77) Avitsur R, **Yirmiya R**. Cytokines inhibit sexual behavior in female rats. I. Synergistic effects of tumor necrosis factor- $\alpha$  and interleukin-1. Brain, Behavior and Immunity, 13: 14-32, 1999.
- 78) Avitsur R, Weidenfeld J, **Yirmiya R**. Cytokines inhibit sexual behavior in female rats. II. Prostaglandins mediate the suppressive effects of interleukin-1 $\beta$ . Brain, Behavior and Immunity, 13: 33-45, 1999.
- 79) Ben-Eliyahu S, Page GG, **Yirmiya R**, Shakhar G. Evidence that stress and surgical interventions promote tumor development by suppressing natural killer cell activity. International Journal of Cancer, 80: 880-888, 1999.

- 80) Dantzer R, Wollman EE, Vitkovik L, **Yirmiya R**. Cytokines and depression: Fortuitous or causative association. Molecular Psychiatry, 4:328-332, 1999.
- 81) Hodgson DM, **Yirmiya R**, Taylor AN. Intracerebral interleukin-1 $\beta$  impairs response to tumor invasion: Involvement of adrenal catecholamines. Brain Research, 816: 200-208, 1999.
- 82) Morag M, Morag A, Reichenberg A, Lerer B, **Yirmiya R**. Psychological variables as predictors of rubella antibody titers and fatigue - A prospective, double blind study. Journal of Psychiatric Research, 33: 389-395, 1999.
- 83) Taylor AN, Tio DL, **Yirmiya R**. Fetal alcohol exposure attenuates interleukin-1 $\beta$  -induced fever: Neuroimmune mechanisms. Journal of Neuroimmunology, 99: 44-52, 1999.
- 84) **Yirmiya R**, Weidenfeld J, Barak O, Avitsur R, Pollak Y, Gallily R, Wohlman, A, Ovadia H, Ben-Hur T. The role of brain cytokines in mediating the behavioral and neuroendocrine effects of intracerebral *mycoplasma fermentans*. Brain Research, 829: 28-38, 1999.
- 85) Avitsur R, Cohen E, **Yirmiya R**. Effects of interleukin-1 on sexual attractivity in a model of sickness behavior. Physiology and Behavior, 63: 25-30, 1998.
- 86) Hodgson DM, **Yirmiya R**, Taylor, AN. Intracerebral HIV glycoprotein (gp120) enhances tumor metastasis via centrally released interleukin-1. Brain Research, 781: 244-251, 1998.
- 87) Morag M, **Yirmiya R**, Lerer B, Morag A. Influence of socioeconomic status on behavioral, emotional and cognitive effects of rubella vaccination: A prospective, double blind study. Psychoneuroendocrinology, 23: 337-351, 1998.
- 88) Shavit Y, Cohen E, Gagin R, Avitsur R, Pollak Y, Chailin G, Wolf G, **Yirmiya R**. Effects of prenatal morphine exposure on NK cytotoxicity and responsiveness to LPS in rats. Pharmacology, Biochemistry, and Behavior, 59: 835-841, 1998.
- 89) **Yirmiya R**, Chiappelli F, Tio D, Tritt S, Taylor AN. Effects of prenatal alcohol and pair-feeding on lipopolysaccharide induced-secretion of TNF- $\alpha$  and corticosterone. Alcohol, 15: 327-335, 1998.
- 90) **Yirmiya R**, Barak O, Avitsur R, Gallily R, Weidenfeld J. Intracerebral administration of *Mycoplasma fermentans* in rats produces sickness behavior: Involvement of prostaglandins. Brain Research, 749: 71-81, 1997.
- 91) Avitsur R, Pollak Y, **Yirmiya R**. Different receptor mechanisms mediate the effects of endotoxin and interleukin-1 on female sexual behavior. Brain Research, 773: 149-161, 1997.

- 92) Avitsur R, Pollak Y, **Yirmiya R**. Administration of interleukin-1 into the hypothalamic paraventricular nucleus induces febrile and behavioral effects, NeuroImmunoModulation, 4: 258-265, 1997.
- 93) Chiappelli F, Kung MA, Tio DL, Tritt S, **Yirmiya R**, Taylor AN. Fetal alcohol exposure augments the blunting of tumor necrosis factor production *in vitro* resulting from *in vivo* priming with lipopolysaccharide in young adult male but not female rats. Alcoholism: Clinical and Experimental Research, 21: 1542-1546, 1997.
- 94) Wohlman A, Gallily R, **Yirmiya R**, Weidenfeld J. Characterization of the effect of mycoplasma fermentans on the hypothalamo-pituitary-adrenal axis. Neuroendocrinology, 66: 221-228, 1997.
- 95) Weidenfeld J, **Yirmiya R**. Effect of bacterial endotoxin on the glucocorticoid feedback regulation of adrenocortical response to stress. NeuroImmunoModulation, 3: 352-357, 1996 (published in 1997).
- 96) **Yirmiya R**. Behavioral and psychological effects of immune activation: implications for 'depression due to a general medical condition'. Current Opinion in Psychiatry, 10: 470-476, 1997.
- 97) Ben-Eliyahu S, Page GG, **Yirmiya R**, Taylor AN. Acute alcohol intoxication suppresses natural killer cell activity *in vivo* and promotes tumor metastasis. Nature Medicine, 2: 457-460, 1996.
- 98) **Yirmiya R**. Endotoxin produces a depressive-like episode in rats. Brain Research, 711: 163-174, 1996.
- 99) **Yirmiya R**, Tio D, Taylor AN. Effects of Fetal alcohol exposure on fever, sickness behavior, and pituitary adrenal activation induced by interleukin-1 $\beta$  in young adult rats. Brain, Behavior and Immunity, 10: 205-220, 1996.
- 100) Avitsur R, Donchin O, Barak O, Cohen E, **Yirmiya R**. Behavioral effects of interleukin-1 $\beta$ : Modulation by gender, estrus cycle and progesterone. Brain, Behavior and Immunity, 9: 234-241, 1995.
- 101) **Yirmiya R**, Avitsur R, Donchin O, Cohen E. Interleukin-1 inhibits sexual behavior in female but not in male rats. Brain, Behavior and Immunity, 9: 220-233, 1995.
- 102) **Yirmiya R**, Rosen H, Donchin O, Ovadia H. Behavioral effects of lipopolysaccharide in rats: Involvement of endogenous opioids. Brain Research, 648: 80-86, 1994.
- 103) Mogil JS, Marek P, **Yirmiya R**, Balian H, Sadowski B, Taylor AN, Liebeskind JC. Antagonism of the non-opioid component of ethanol-induced analgesia by the NMDA receptor antagonist MK-801. Brain Research, 602: 126-130, 1993.

- 104) Page GG, Ben-Eliyahu S, **Yirmiya R**, Liebeskind JC. Morphine attenuates surgery-induced enhancement of metastatic colonization in rats. Pain, 54: 21-28, 1993.
- 105) **Yirmiya R**, Pilati ML, Chiappelli F, Taylor AN. Fetal alcohol exposure attenuates lipopolysaccharide (LPS)-induced fever in rats. Alcoholism: Clinical and Experimental Research, 17: 906-910, 1993.
- 106) **Yirmiya R**, Ben-Eliyahu S, Gale RP, Shavit Y, Liebeskind JC, Taylor AN. Ethanol increases tumor progression in rats: Possible involvement of natural killer cells. Brain, Behavior and Immunity, 6: 74-86, 1992.
- 107) Ben-Eliyahu S, **Yirmiya R**, Taylor AN, Gale RP, Liebeskind JC. Stress increases metastatic spread of a mammary tumor in rats: Evidence for mediation by the immune system. Brain, Behavior and Immunity, 5: 193-205, 1991.
- 108) Lieblich I, **Yirmiya R**, Liebeskind JC. Intake of and preference for sweet solutions is attenuated in morphine-withdrawn rats. Behavioral Neuroscience, 105: 965-970, 1991.
- 109) Marek P, **Yirmiya R**, Liebeskind JC. Stimulation-produced analgesia in the mouse: Evidence for laterality of opioid mediation. Brain Research, 541: 154-156, 1991.
- 110) Ben-Eliyahu S, **Yirmiya R**, Shavit Y, Liebeskind JC. Stress-induced suppression of natural killer cell cytotoxicity in the rat: A naltrexone-insensitive paradigm. Behavioral Neuroscience, 104: 235-238, 1990.
- 111) Hocherman S, **Yirmiya R**. Neuronal activity in the medial geniculate nucleus and the auditory cortex reflects signal anticipation. Brain, 113: 1707-1720, 1990.
- 112) Marek P, **Yirmiya R**, Liebeskind JC. Genetic influences on brain stimulation-produced analgesia in mice: II. Correlation with brain opiate receptor concentration. Brain Research, 507: 155-157, 1990.
- 113) **Yirmiya R**, Ben-Eliyahu S, Shavit Y, Marek P, Liebeskind JC. Stimulation of the hypothalamic paraventricular nucleus (PVN) produces analgesia not mediated by vasopressin or endogenous opioids. Brain Research, 537: 169-174, 1990.
- 114) Holder MD, **Yirmiya R**. Behavioral assessment of the toxicity of aspartame. Pharmacology Biochemistry and Behavior, 32: 17-26, 1989.
- 115) Holder MD, **Yirmiya R**, Garcia J, Raizer J. Conditioned taste aversions not readily disrupted by external excitation. Behavioral Neuroscience, 103: 605-611, 1989.

- 116) Marek P, **Yirmiya R**, Panocka I, Liebeskind JC. Genetic influence on brain stimulation-produced analgesia in mice: I. Correlation with stress-induced analgesia. Brain Research, 489: 182-184, 1989.
- 117) **Yirmiya R**, Shavit Y, Ben-Eliyahu S, Martin FC, Weiner H, Liebeskind JC. Natural Killer cell activity in vasopressin-deficient rats (Brattleboro strain). Brain Research, 479: 16-22, 1989.
- 118) **Yirmiya R**, Taylor AN. Genetic differences in opiate receptor concentration and sensitivity to ethanol's effects, Pharmacology, Biochemistry and Behavior, 33: 793-796, 1989.
- 119) Marek P, **Yirmiya R**, Liebeskind JC. Strain differences in the magnitude of swimming-induced analgesia correlate with brain opiate receptor concentration. Brain Research, 447: 188-190, 1988.
- 120) **Yirmiya R**, Holder MD, Derdearian A. Salt preference in rats with hereditary hypothalamic diabetes insipidus (Brattleboro strain). Behavioral Neuroscience, 102: 574-579, 1988.
- 121) **Yirmiya R**, Lieblich I, Liebeskind JC. Reduced saccharin preference in CXBK (opioid receptor-deficient) mice. Brain Research, 438: 339-342, 1988.
- 122) **Yirmiya R**, Zhou FC, Holder MD, Deems DA, Garcia J. Partial recovery of gustatory function after neural tissue transplantation to the lesioned gustatory neocortex. Brain Research Bulletin, 20: 619-625, 1988.
- 123) Holder MD, Leon M, **Yirmiya R**, Garcia J. Effect of taste preexposure on taste and odor aversions. Animal Learning and Behavior, 15: 55-63, 1987.
- 124) Lieblich I, **Yirmiya R**. Naltrexone reverses a long-term depressive effect of a toxic LiCl injection on saccharin preference. Physiology and Behavior, 39: 547-550, 1987.
- 125) Shavit Y, Martin FC, **Yirmiya R**, Ben-Eliyahu S, Terman GW, Weiner H, Gale RP, Liebeskind JC. Effects of a single administration of morphine or footshock stress on natural killer cell cytotoxicity. Brain, Behavior and Immunity, 1: 318-328, 1987.
- 126) **Yirmiya R**, Hocherman S. Auditory- and movement-related neural activity interact in the pulvinar of the behaving rhesus monkey. Brain Research, 402: 93-102, 1987.
- 127) **Yirmiya R**, Holder MD. Effects of naloxone and cholecystokinin on food and water intake in vasopressin-deficient rats (Brattleboro strain). Peptides, 8: 763-768, 1987.
- 128) **Yirmiya R**, Holder MD, Garcia, J., Conditioned taste aversion in vasopressin-deficient rats (Brattleboro strain). Physiology and Behavior, 39: 489-493, 1987.

**CHAPTERS IN EDITED BOOKS, PAPERS IN CONFERENCE  
PROCEEDINGS AND INVITED REVIEWS:**

- 1) Fleshner M, Greenwood BN, **Yirmiya R.** Neuronal-Glial Mechanisms of Exercise-Evoked Stress Robustness. Curr Top Behav Neurosci. 18: 1-12, 2014.
- 2) Bab, I., and **Yirmiya, R.** Neuropsychiatric Disorders and the Skeleton. In: Primer on the Metabolic Bone Diseases and Disorders of Mineral Metabolism, Eighth Edition. Edited by Clifford J. Rosen. John Wiley & Sons, Inc. 2013, pp. 1002-1011.
- 3) Goshen, I. and **Yirmiya, R.** Brain interleukin-1 (IL-1) mediates stress-induced alterations in HPA activation, memory functioning and neural plasticity In: Soreq, H., Kaufer, D. and Friedman, A. Stress: from molecules to behaviour. A comprehensive analysis of the neurobiology of stress responses. Wiley Publishing, 2009.
- 4) **Yirmiya, R.** The inflammatory nature of depression. Frontiers in Neuroscience. 3: 262, 2009.
- 5) Shavit, Y., Wolf, G., Johnston, I.N., Westbrook, F.R., Watkins, L.R., and **Yirmiya, R.** Proinflammatory cytokines modulate neuropathic pain, opioid analgesia, and opioid tolerance. In: DeLeo J., Sorkin L., and Watkins L. (Eds.), Immune and Glial Regulation of Pain. IASP Press, Seattle, 2007, pp. 361-382.
- 6) Goshen, I. and **Yirmiya, R.** The role of proinflammatory cytokines in memory processes and neural plasticity. In: Ader, R. (Ed.) Psychoneuroimmunology, 4th Editions. pp. 337-377, Elsevier Inc.: Amsterdam, 2007.
- 7) Taylor, A.N., Chiappelli, F., Tritt, S.H., **Yirmiya, R.**, Romeo, H.E. Fetal alcohol syndrome, fetal, alcohol exposure and neuro-endocrine-immune interactions. Clin. Neurosci. Res. 6(1-2): 42-51, 2006.
- 8) Taylor, A.N., Tritt, D.H., **Yirmiya, R.** and Chiappelli F. Maternal alcohol consumption and neuroendocrine-immune interactions in the offspring. In: D.M. Hodgson & C. Coe, (Eds): Perinatal Programming: Early Life Determinants of Adult Health & Disease, Taylor & Francis Medical Books: London, UK, 2005.
- 9) Soreq, H., **Yirmiya, R.**, Cohen, O., and Glick, D., Acetylcholinesterase as a window onto stress responses. In: T. Steckler, N. Kalin, and J.M.H.M. Reul (Eds.), Handbook on Stress, Immunology and Behaviour. pp. 585-607, Elsevier Science: Amsterdam, 2005.

- 10) Taylor, A., Chiappelli, F., and **Yirmiya, R.**, Fetal alcohol exposure and immunity. In: Ader, R., Cohen, N., and Felten, D. (Eds.), Psychoneuroimmunology, 3rd Edition. Vol. 2, pp. 777-779. Academic Press: New York, 2000.
- 11) **Yirmiya, R.**, Pollak, Y., Morag, M., Reichenberg, A., Barak, O., Avitsur, R., Shavit, Y., Ovadia, H., Weidenfeld, J., Morag, A., Newman, and Pollmächer, T., Illness, Cytokines and Depression. Annals of the New York Academy of Sciences, 917: 478-487, 2000.
- 12) **Yirmiya, R.**, Weidenfeld, J., Pollak, Y., Morag, M., Morag, A., Avitsur, R., Barak, O., Reichenberg, A., Cohen, E., Shavit, Y., and Ovadia, H., Cytokines, 'depression due to a general medical condition' and antidepressants drugs. In: Dantzer, R., Wollman, E. E., and Yirmiya, R. (Eds.), Cytokines, Stress and Depression (Advances in Experimental Medicine and Biology, vol. 461), Kluwer Academic/Plenum Press, New York, 1999, pp. 283-316.
- 13) Dantzer, R., Wollman, E. E., Vitkovik, L., and **Yirmiya, R.**, Cytokines, stress and depression: Conclusions and perspectives. In : Dantzer, R., Wollman, E. E., and Yirmiya, R. (eds.), Cytokines, Stress and Depression (Advances in Experimental Medicine and Biology, vol. 461), Kluwer Academic/Plenum Press, New York, 1999, pp. 317-329.
- 14) **Yirmiya, R.**, Ben-Eliyahu, S., and Taylor, A. N., Alcohol and Cancer: Biochemical and Immunobiological Mechanisms, In: Alcohol, Immunity and Cancer, edited by R. Yirmiya and A. N. Taylor, CRC Press Inc., 1993, pp. 143-156.
- 15) **Yirmiya, R.**, Ben-Eliyahu, S., Page, G. G., Donchin, O., Cohen, E., Shavit, Y., Liebeskind, J. C., and Taylor, A. N., Ethanol-induced facilitation of tumor metastases: Effects of immune modulation and interaction with stress. Advances in the Biosciences, 86: 421-425, 1993.
- 16) Taylor, A. N., Ben-Eliyahu, S., **Yirmiya, R.**, Chang, M. P., Norman, D. C., and Chiappelli, F., Actions of alcohol on immunity and neoplasia in fetal alcohol exposed and adult rats. Alcohol and Alcoholism, 2 (Supp.): 69-74, 1993.
- 17) Chiappelli, F., Wong, C., **Yirmiya, R.**, Norman, D., Chang, M.-P., and Taylor, A. N., Fetal alcohol exposure and neuroimmune surveillance, In: Alcohol, Immunity and Cancer, edited by R. Yirmiya and A. N. Taylor, CRC Press Inc., 1993, pp. 257-286.
- 18) Ben-Eliyahu, S., **Yirmiya, R.**, Page, G. G., Chiappelli, F., Liebeskind, J. C., and Taylor, A. N., Ethanol, natural killer cells, and tumor progression in rats. Advances in the Biosciences, 86: 377-386, 1993.

- 19) **Yirmiya, R.**, Shavit, Y., Ben-Eliyahu, S., Gale, R. P., Liebeskind, J. C., Taylor, A. N., and Weiner, H., Modulation of immunity and neoplasia by neuropeptides released by stressors, In: Stress, Neuropeptides, and Systemic Disease, edited by P. G. Kaufmann, J. A. McCubbin and C. B. Nemeroff, Academic Press, 1991, pp. 261-286.
- 20) **Yirmiya, R.**, Interaktionen zwischen immunfunktionen und zentralem nervensystem (Interactions of immune and central nervous system processes). Onkologie, 14 (Suppl.): 16-18, 1991.
- 21) Shavit, Y., **Yirmiya, R.**, and Beilin, B., Stress neuropeptides, immunity and neoplasia, In: The Neuroendocrine Immune Network, edited by Z. Freier, CRC Press, Boca Raton, Florida, 1990, pp. 163-175.
- 22) **Yirmiya R.**, Levin E., Chapman, C. D., and Garcia, J., Morphological and behavioral effects of perinatal exposure to aspartame (Nutrasweet<sup>®</sup>) on rat pups. Bulletin of the Psychonomic Society, 27: 153-156, 1989.
- 23) Morgan, M. M., **Yirmiya, R.**, Marek, P., and Liebeskind, J. C., Natural mechanisms of pain inhibition. In: Drug Treatment of Cancer Pain in a Drug-oriented Society. Advances in Pain Research and Therapy, Vol. 11, edited by C. S. Hill and W. S. Fields, Raven Press, New York, 1989, pp. 311-318.
- 24) **Yirmiya, R.**, Lieblich, I., Liebeskind, J. C., and Garcia, J., Lithium chloride produces illness-induced analgesia. Bulletin of the Psychonomic Society, 26: 261-262, 1988.
- 25) **Yirmiya, R.**, Lieblich, I., Garcia, J., and Liebeskind, J. C., Analgesic properties of lithium. Proceedings of the Western Pharmacology Society, 30: 303-306, 1987.